

PERFORMANCE PARTS & EQUIPMENT

RACING HOT ROD STREET OFF-ROAD



SPECIALTY ITEMS FOR THE SHOP, TRAILER & TRACK



























ALL942000-943086

Available At Performance Parts Dealers Worldwide 269-463-8000 www.allstarperformance.com





For over 30 years, we've been committed to offering quality products at a fair price, and we're grateful to everyone who plays a part in making sure your order arrives just the way you expect. Whether you're local or halfway across the globe, we appreciate choosing to use our product — Thank You!

CONTENTS

New Products	2–5	Hubs, Bearings, & Seals	131-132
Air Cleaners & Accessories	6-8	Rear Ends & Axles	133-143
Body	9-17	Safety/Driver Equipment	144-155
Brake	18-25	Sprint Car Components	156-165
Bumpers & Noses	26-30	Steering	166-174
Chassis	31-46	Suspension	175-204
Chemicals	47-49	Tools & Pit Equipment	205-239
Cooling	50-59	Transmission Components	240-244
Electrical, Gauges, & Ignition	60-75	Wheel & Tire Accessories	245-252
Engine	76-89	Apparel & Display Material	253-255
Fasteners	90-105	Numerical Index	256-273
Fittings & Hoses	106-121	Product Index	274-281
Fuel System Components	122-130	Terms & Conditions	284



Air Cleaner Foam Element

ALL26218

Foam element provides an additional layer of air filter protection by fitting over 14" x 4" air cleaner assemblies.





Chevrolet Cavalier Cage Kit

ALL22094

Page 31



Plastic Rocker Panels

ALL23166 White **ALL23167** Black

Page 12



Page 34



Spoiler Extension Kits

ALL22962 1" ALL22963 2"

Page 17



Upper Seat Mount Bar

ALL98134

Page 34



Front Mount Brake Caliper Bracket Hybrid Rotor

ALL42122 LH ALL42123 RH

Page 20



ALL98135

Page 34



Brake Fans

ALL42170-42177

Page 22



Seat Mount Spacer Kit

ALL98140

Page 34



Cleaning Cloths

ALL12018......LH **ALL12019**......Smooth

Page 48



Wedge Style OLM Front Bumper

ALL22330 Page 27

Blue Colored Upper Lube Fuel Additive

ALL78099

Page 49





Fuel Fragrances New Scents

ALL78140......Baby Powder ALL78141 Trophy Girl

Page 49

High Pressure Radiator Cap 38-42psi

ALL30138

Page 53



Crown Vic Serpentine Belt (A/C Delete)

ALL86140

Page56



Quarter Master Style Heavy Duty Starter

ALL80533

Page 68



Mechanical **Water Pressure Gauge**

ALL80094

Page 70



Street/Strip Distributors with Built-In Rev Limiter

ALL81223Chevrolet V8*

ALL81241Ford V8 221-302

(Non-EFI)

ALL81243Ford V8 351W

ALL81245Ford 351C, 400C/M,

429-460

ALL81253Ford V8 332-428 FE

ALL81258Pontiac V8 326-455

Page 72



Plastigage Kit **ALL96474**

Page 76



Black Valve Cover Breathers

ALL362221-1/2" Non-Shielded ALL362231-1/2" Shielded

ALL362241-3/8" Non-Shielded

ALL362251-3/8" Shielded

Page 83



2" Raised Engine Mounts

ALL38062 ... Front SB Chevy ALL38066 ... Rear SB Chevy

Page 88



Composite Quick Turn Fastener Tools

ALL19398 3/16" Hex **ALL19399** Slot

Page 95



Lightweight Composite AN Hose Separators

ALL18370 -6

ALL18371.....-8

ALL18372 -10

ALL18373 -12

ALL18374 -16

Page 105



Restrictor Plate In-Use Tab

ALL26191

Page 126



ALLSTAR PERFORMANCE

Full-Face Helmets ALL942000-943086

Page 147



Composite Helmet Hooks

ALL10351..... 1-5/8" **ALL10352**..... 1-3/4" **Page 148**



Helmet Speaker Kits

ALL940712-940718

Page 147



Composite Steering Wheel Hooks

ALL10354..... 1-5/8" **ALL10355**..... 1-3/4"

Page 151



Helmet Shields

ALL940601 Clear **ALL940603** Dark Smoke **ALL940604** Amber

ALL940605 Silver Chrome

Page 147



Fire Extinguishers

ALL10503..... 12.69 oz **ALL10504**..... 23.8 oz

Page 152



Shifter Boot with Aluminum Frame

ALL982011

Page 152



Helmet Bag

ALL940820

Page 148



5-Point Harnesses

ALL951121

ALL951131

ALL951151

ALL951171 ALL951181

Page 153



Helmet Holder

ALL12230

Page 148



Crown Vic Tie Rod Ends

ALL55925

ALL55926

ALL55927

ALL55928 Page 171



ALLSTAR PERFORMANCE

Universal Coil-Over Components

ALL64188 ALL64189 ALL64190

Page 188



14" Wide Tire Cover

ALL44258

Page 235



Bert/Brinn Transmission Rebuild Bracket

ALL10176

Page 216



Bolt-On Toe Plates

ALL10118

Page 236



Aluminum Vise Jaw Set

ALL11096

Page 217



5/8" Rod End Socket

ALL64256

Page 236



5" Tire Gauge Holder

ALL12261

Page 224



New Flexplate Applications

Page 242



Oil Bottle Tray

ALL12266

Page 224



Billet Steel Flexplates

ALL26880 ALL26882

Page 242



Wall Brackets

ALL12195 ...1-1/2" Wide ALL12196 ...3" Wide

Page 225



Flexplate Bolt Kits

Page 243



Engine Lift Plate Tool Tray

ALL14308

Page 213



Charcoal **Graphic T-Shirt**

ALL99908

Page 253





Lightweight 14" Aluminum Air Cleaner Kits

Kits include a high flowing dropped base with matching lid and a sure seal spacer with an integrated O-ring for a positive seal on carburetors with a 5-1/8" neck.

Kits without Element

These kits are sold without filters.



Description	Plain Finish	Black Finish
Kit with 1/2" Sure Seal Spacer	ALL25900	ALL25901
Kit with 1" Sure Seal Spacer	ALL25902	ALL25903
Kit with 1-1/2" Sure Seal Spacer	ALL25904	ALL25905
Kit with 2" Sure Seal Spacer	ALL25906	ALL25907

Kits with Paper Element

Kits include a paper element filter

Description	Plain Finish	Black Finish
Kit with 3" Paper Element	ALL25910	ALL25911
Kit with 3-1/2" Paper Element	ALL25912	ALL25913
Kit with 4" Paper Element	ALL25914	ALL25915
Kit with 5" Paper Element	ALL25916	ALL25917

Kits with Washable Element

washable element filter



Description	Plain Finish	Black Finish
Kit with 3" Washable Element	ALL25920	ALL25921
Kit with 4" Washable Element	ALL25922	ALL25923
Kit with 5" Washable Element	ALL25924	ALL25925
Kit with 6" Washable Element	ALL25926	ALL25927

Individual Components

ALL25940 14" Top Plain ALL25941 14" Bottom Plain ALL25942 14" Top Black ALL25943 14" Bottom Black

ALL25944 1/2" Sure Seal Spacer (places air cleaner base 1-1/8" below carb neck sealing flange)

ALL25945 1" Sure Seal Spacer (places air cleaner base 5/8" below carb neck sealing flange)

ALL25946 1-1/2" Sure Seal Spacer (places air cleaner base 1/8" below carb neck sealing flange)

ALL25947 2" Sure Seal Spacer (places air cleaner base 3/8" above carb neck sealing flange)



14" Aluminum Air Cleaner Kits

Low-profile, spun aluminum air cleaner kits have a plain or black finished lid, a base for carburetors with 5-1/8" necks and O-ring spacers for a positive seal. Elements sold separately.

ALL26094 Plain Kit with 1/2" Spacer ALL26097 Black Kit with 1/2" Spacer

ALL26095 Plain Offset Base Kit with 1/2" Spacer

ALL26098 Plain Kit with 1" Spacer ALL26099 Black Kit with 1" Spacer

Individual Components

ALL26090 Plain Top ALL26088 Black Top ALL26092 Standard Base

ALL26091 Offset Base ALL26085 1/2" Spacer (places base 1-3/8" below carb

neck sealing flange) ALL26086 1" Spacer (places base 7/8" below carb neck sealing flange)

ALL26087 1-1/2" Spacer (places base 3/8" below carb neck sealing flange)

ALL25947 2" Spacer (places base 1/8" above carb neck sealing flange)

ALL26084 Spacer O-ring

Offset Air Cleaner Base

ALL26091

14" base is offset 1" and commonly used for extra distributor clearance.

Offset base has a 1-1/2" drop and will fit carburetors with a 5-1/8" neck including Q-Jets, Holley 2bbl. and Edelbrock carburetors without choke. Base will not work with Holley 4bbl. carburetors. Offset air cleaner stud ALL26057 is required.

2BBL. Air Cleaner Base

ALL26081

Aluminum air cleaner base has 14" overall diameter. 5/8" drop, plain finish. 3" diameter carburetor flange.

Air Filter Sealing Foam

ALL26106

Soft neoprene foam material used for adding an extra seal between the air filter and the lid and base of an air cleaner assembly. Material features a self-adhesive glue on one side to keep seal in place. Material measures 1" wide x 1/4" thick and is 12 ft long.

Air Cleaner Gasket

ALL87207

OE style composite gasket fits carburetors with 5-1/8" neck. Gasket seals air cleaner base to carburetor neck helping prevent dirt and moisture from entering carburetors.





14" Flat Base Air Cleaner Kits

Lightweight spun aluminum air cleaner kits have a flat base to increase air flow. Kits include a lid, base and a 1/2" spacer with a built-in O-ring for a positive seal. Popular in crate engine classes when every horsepower counts! Elements sold separately.



ALL25950......Plain Air Cleaner Kit ALL25951.....Black Air Cleaner Kit

Individual Components

ALL25954 Plain Top ALL25955 Plain Base ALL25956 Black Top ALL25957 Black Base

ALL25944 1/2" Spacer with O-Ring

Air Pans

Lightweight aluminum air pans fit between the carburetor and cowl area to keep engine heat away from and direct cool air to the carburetor. Cooler intake air means extra horsepower. Carb mounting flange is uncut.



ALL26100 Stepped Plenum ALL26101 Flat Plenum

Universal Plastic Air Pan

ALL26104

Durable plastic pan fits over the base of 14" air cleaners and acts as a cold air box sealing off the air cleaner assembly from the engine heat.



Universal fit pan is designed for vehicles with air cleaner openings in the hood and will require additional trimming and sealing for a proper fit. Pan measures 18" x 4" and includes a silicone air cleaner base seal.

Air Cleaner Nuts

Machined aluminum holddown nut features an O-ring sealed base to help prevent



water and dirt from entering the top of most air cleaner lids and a knurled surface for easy removal and installation without tools.

Short Nut - 5/8" Tall **ALL26045** ... 1/4"-20 Thread **ALL26046** ... 1/4"-20 Thread

Tall Nut - 1-1/4" Tall **ALL26047** ... 5/16"-18 Thread **ALL26048** ... 5/16"-18 Thread

Air Cleaner Stud Kit

Kit includes all components needed to attach an air cleaner assembly onto a carburetor including a 6" long 5/16"-18 threaded stud, an adjustable threaded stop and an air cleaner nut with a O-ring seal. The adjustable threaded stop allows the air cleaner lid to be secured against the stop without crushing the air filter.

Note: Designed for use on carburetors with 5/16"-18 air cleaner stud mounting bosses.

ALL26014......Kit with Aluminum Stud ALL26015......Kit with Chrome Moly Stud

Air Cleaner Studs

Air cleaner studs feature 5/16"-18 threads with a machined hex base for tightening into carburetor to eliminate a separate jam nut.

ALL26054......Aluminum Stud 6" ALL26055......Chrome Moly Stud 6" ALL26077......Chrome Moly Stud 8"

Note: Designed for use on carburetors with 5/16"-18 air cleaner stud mounting bosses.

Air Cleaner Studs

Straight stud is 6" long with 1/4"-20 threads and includes a wing nut and an adapter for carburetors with 5/16"-18 threads.



ALL26056......Straight Stud with Adapter ALL26058.......Adapter, 1/4" -20 to 5/16"-18

Offset Air Cleaner Studs

Offset studs work with offset air cleaner bases and some 2bbl carburetors that require offset studs. Studs include mounting hardware and have a 1-3/8" offset.

ALL26057 1/4"-20 (6" O.A.L.) **ALL26053** 5/16"-18 (5-3/4" O.A.L.) **ALL26058** Adapter, 1/4" to 5/16"

ALL26053



Paper Air Filter Elements

High-performance paper air filter elements increase air flow.

ALL26020 14" x 3" ALL26021 14" x 3-1/2" ALL26022 14" x 4" ALL26023 14" x 5" ALL26028 16" x 3" ALL26029 16" x 3-1/2"

ALL26030 16" x 4"



ALL26022

Washable Air Filter Elements

Washable air filter elements offer better engine protection and increase air flow for more power and torque. Elements are pre-oiled and available in four heights.





ALL26002

Air Cleaner Top Element

ALL26010

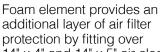
Unique 14" diameter element replaces traditional metal lid to increase air flow for more horsepower and torque. Washable element may be cleaned and



used over and over. Top element is pre-oiled and ready for installation.

Air Cleaner Foam Element

ALL26218



14" x 4" and 14" x 5" air cleaner assemblies



Bryan Barber

Air Cleaner Filters

Mesh filters fit over an air cleaner assembly adding another layer of protection against dirt, dust and debris. Filters fit Allstar paper and washable 14" air cleaners. and will not fit oversized units like R2C.





Filters without Top Cover

ALL26220 14" x 3" **ALL26221** 14" × 4" ALL26222 14" x 5"

Filters with Top Cover ALL26224 14" x 4" ALL26225 14" x 5"

Air Cleaner Cover

ALL26230

Water-repellent cover fits 14" diameter air cleaner assemblies from 3" to 6" tall. Perfect for washing or storage and includes a draw string.



Carb Hats

Carburetor hats are ideal to cover open carbs and prevent debris from falling into the engine while working in garage or pit area with air cleaner removed. 2-1/2" tall carb hats are designed to fit most carbs or throttle bodies with a 5-1/8" diameter neck.









ALL26040 Plastic

ALL26042 Plastic with Screen

ALL26043 Aluminum

ALL26044 Aluminum, with Sealing O-Ring

Note: Hats will not clear choke linkage or shaft on Holley style carbs but will clear choke horn with choke linkage and shaft removed.

Dominator Carb Hat

ALL26041

Plastic carb hat is 2-3/8" tall and fits over the 7-1/4" air cleaner opening of Holley Dominator carburetors to



prevent water or debris from entering the engine. Solid cover may be drilled when an air cleaner stud is used.



Aluminum Sheets



Aluminum sheets are .040" thick and available in popular colors. Sheets with single-sided colors have a white painted backside and all sheets have a removable protective film on one side to resist scratches.

Sheet product available for Pickup or Truck Freight. MOQ and pallet fees apply for truck orders. Call for details

4' x 10' (120")

ALL22200 Plain†

ALL22201 Chrome on Chrome (Bright Clear)§

ALL22202 White

ALL22203 Xtreme Red

ALL22204 Red

ALL22209 Red on Red

ALL22206 Gloss Black

ALL22207 Black on Black, Gloss

ALL22208 Flat Black

ALL22219 Black on Black, Flat

ALL22210 Shell Gray (Medium)

ALL22211 Xtreme Green

ALL22212 Pepsi Blue (Light)

ALL22213 Chevron Blue (Medium)

ALL22205 Chevron Blue on Chevron Blue (Medium)

ALL22214 Heron Blue (Dark)

ALL22215 Orange

ALL22244 Vibrant Orange

ALL22216 Yellow

ALL22218 Yellow on Yellow **ALL22217** Xtreme Purple

ALL22245 Silver Metallic

4' x 10'-6" (126")

ALL22480 White on White

ALL22482 Black on Black, Gloss

ALL22488 Black on Black, Flat

ALL22484 Red on Red

ALL22486 Chevron Blue on Chevron Blue (Medium)

†Plain finish on both sides

§Bright clear on both sides (side with protective film has chrome appearance)

Aluminum Panels

Panels work well when fabricating spoiler sides, interior panels or on uneven pit areas as a floor jack plate. 24" x 48".

ALL22236 0.063" Thick **ALL22237** 0.090" Thick **ALL22238** 0.125" Thick



Painted Sheet Steel

ALL22243

White painted 24-gauge (.024") steel is lightweight and perfect for building interiors in racing

classes that require steel panels or when filling holes in firewalls or floor pans. 4' x 10' sheet is painted on both sides and one side has a removable protective film to help prevent scratches during handling.

Plain Sheet Steel

Sheet steel is cold rolled with a plain finish and has many uses including constructing

or repairing body panels and filling holes in firewalls or floor pans. Sheets are 4' x 8'.

ALL22234 18 Gauge (.048")

ALL22233 20 Gauge (.036")

ALL22242 24 Gauge (.024")

Diamond Plate Aluminum

ALL22240

4' x 8' sheets are .063" thick and provide an attractive, shiny, non-slip finish for trailer floors, steps, etc.



Sheet product available for Pickup or Truck Freight. MOQ and pallet fees apply for truck orders. Call for details

Graphic Trim Tool

ALL23101

Unique tool allows you to

easily trim your graphics around wheel openings and other body panel edges. Adjustable width allows you to choose how far you want your material from the edge and the adjustable head gives you a wide range of options in tight or open areas.

Deburring Tool

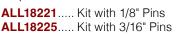
ALL11036

A fast and easy way to remove burrs from the edges of machined or cut metals. Five-

piece kit includes handle, telescopic blade holder and three unique blades. Handle has built-in storage for blades. Blade holder adjusts from 1" to 5".

Cleco Pin Fastener Kits

Cleco pins are reusable and easily make a temporary connection between pieces of sheet metal during fitting. Pins will work with thicknesses up to 1/4". Kits include pliers and 10 pins.







Sheet Plastic



HDPE sheet plastic is 4' x 8' and available in many of the same colors as our rolled plastic.

ALL22246 0.070", White ALL22248 0.070", Black ALL22460 0.100", White ALL22461 0.100", Black ALL22462 0.100", Red

ALL22464 0.100", Chevron Blue (Med.)

ALL22465 0.100", Orange **ALL22466** 0.100", Yellow

3/16" Sheet Plastic

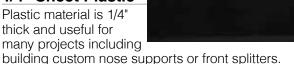
3/16" thick HDPE sheet plastic is sold in 4' x 8' sheets and commonly used to build door and



quarter panels along with many other uses.

ALL22470 White **ALL22471** Black

1/4" Sheet Plastic

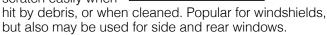


ALL22231 15" x 48" ALL22232 30" x 48"

Polycarbonate Sheeting

Scratch Proof -

Material does not scratch easily when



Standard – Less expensive, commonly used for side and rear windows. Can also be used for windshields, but scratches easily.

ALL22220 36" x 72", 0.118" Scratch Proof, 2-Sides **ALL22223** 40" x 72", 0.118" Scratch Proof, 2-Sides **ALL22222** 72" x 96", 0.118" Scratch Proof, 2-Sides* **ALL22228** 40" x 72", 0.093" Standard **ALL22224** 40" x 72", 0.118" Standard **ALL22226** 72" x 96", 0.118" Standard*

*Must ship via Truck Freight

Rolled Plastic

HDPE rolled plastic is 24" wide by .070" thick commonly used for spoilers, skirts, body patchwork, etc.



Color	10' Roll	25' Roll	50' Roll
Black	ALL22400	ALL22401	ALL22402
White	ALL22405	ALL22406	ALL22407
Red	ALL22410	ALL22411	ALL22412
Orange	ALL22420	ALL22421	ALL22422
Yellow	ALL22425	ALL22426	ALL22427
Purple	ALL22430	ALL22431	ALL22432
Chevron Blue (Med.)	ALL22440	ALL22441	ALL22442

Stainless Wire Screen

Use screen to protect radiators, oil coolers or other items. Size referenced is the approximate opening of the screen.



5/64" (.025" Wire Diameter) ALL22260 12" × 36"

ALL22260 12 x 36 ALL22262 36" x 36"

			-	53
				Z
/64"		2555		ŝ
	自得用銀錘	2500		
				窈

1/8" (.035" Wire Diameter) ALL22265 12" × 36"

ALL22267 36" × 36" **ALL22268** 36" × 48"

1/8"

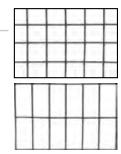
3/16" (.047" Wire Diameter)

ALL22270 12" x 36" **ALL22272** 36" x 36" **ALL22273** 36" x 48" 3/16'

Steel Wire Screen

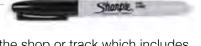
Electrically welded steel screen is used for a variety of applications when additional protection is needed. Screen is 2' x 2', constructed of .080" diameter wire and galvanized for corrosion resistance.

ALL22276 1" x 1" **ALL22277** 1" x 2"



Sharpie Markers

Fine-point permanent markers work great



for many uses around the shop or track which includes layout and fabricating, marking tire sizes, gear set ratios, jet sizes, etc. Sold each.

ALL12072..... Black **ALL12073**..... Silver

120°

120°

90° End View

Fnd View

End View



Late Model Body Brace Kits



Pre-drilled aluminum kits simplify installation of body panels. Both kits include the following braces: two 30" long 120° lower quarter, two 26" long 90° upper quarter and two 10" long 90° front fender. ALL23105 kit also includes three 66" long 90° door braces, where the

ALL23107 kit includes two 66" long 90° and one 66" long 120° door braces. Use flat stock, spring steel, or slotted

strapping to complete assembly (sold separately).

ALL23105 Body Brace Kit ALL23107 Body Brace Kit

Modified Body Brace Kit



Pre-drilled aluminum kit simplifies installation of body panels. Two 66" long 90° door



braces, two 30" long 120° lower quarter and two 26" long 90° upper quarter pieces are included. Use flat stock, spring steel, or slotted strapping to complete assembly (sold separately).

Body Support Panel

ALL23068

Lightweight aluminum panel features punch/flare holes and 90° flanges to easily connect body braces. 4.5" tall x 30" long with 1" flanges. Sold each.

Reinforced Aluminum Angle, 120°

Aluminum angle provides a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels and doors. The reinforced design adds additional strength over standard 120° angle with an extra bend which also allows easier access to body brace bolts. Angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1-1/2" wide and has predrilled 1/4" holes on 1" centers.

Aluminum Angle, 120°

Aluminum angle provides a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels. 120° angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1" wide and has predrilled 1/4" holes on 1" centers.

Aluminum Angle, 90°

Aluminum angle provides a mounting point for strapping or body braces, typically used on the upper section of rear quarter panels and door panels. 90° angle allows supports or braces to fasten directly to the chassis. Angle is 1/8" thick x 1" wide and has predrilled 1/4" holes on 1" centers.

Slotted Aluminum Angle, 90°

Slotted angle aluminum brace connects and strengthens body panels. Brace is 1/8" thick x 1" wide x 72" long with 3/8" x 5/8" slots. Ideal for use along tops of spoilers.

ALL23134 26" Long **ALL23134-5** 26" Long, 5-Pack





Flexible Body Brace Kit



Flexible brace attaches to body or nose panels allowing them to bend then return to original shape, minimizing panel damage. Kit includes all components to build or assemble a flexible body brace up to 33" long with 1/4" ends that crimp to flexible rod with a standard impact crimper (ALL76135) or by using a hammer and punch.

ALL23080 Body Brace Kit ALL23080-4 Body Brace Kit 4-Pack

Flexible Body Brace



may be cut to fit shorter applications. Commonly used to support lower quarter panel or nose sides. Aluminum brackets are adjustable to accommodate a variety of straight and angle applications.

ALL23075Body Brace ALL23075-4.....Body Brace 4-Pack

Spoiler/Body Brace

Brace works well for securing panels or noses in position and features a tension bolt to adjust brace and hold to a desired length. Brace is painted black and has pre-drilled 3/16" mounting holes on each end.

Short Body

Brace has a 8" main body with a minimum mounting length of 21" and will extend to 26" long. Note: Adjustable section can be shortened to create a brace with a minimum mounting dimension of 10".

ALL23021..... Aluminum ALL23021-10...... Aluminum 10-Pack ALL23019...... Steel ALL23019-10......Steel 10-Pack

Long Body

Brace has a 14" main body with a minimum mounting length of 16" and will extend to 27" long.

ALL23020.....Steel ALL23020-10......Steel 10-Pack

Spring Steel

Use to make braces when hanging body and fender pieces. Hardened and tempered coil is 1"W x .062" thick.

ALL23110 40' Coil ALL23110-150 150' Coil

Shrink Sleeve for Spring Steel

Shrink sleeve works great when doubling up 1" wide spring steel.

ALL23112..... 25' Long Roll ALL23113..... 100' Long Roll

Hammer Type Spring Steel Punch

ALL23116

Hammer type punch places a 1/4" diameter hole 1/2" from the end of 1" x .062" thick spring steel material. Punch features a built-in stop which positions the material for accurate hole placement. Punch needs to be placed on a hard surface (i.e. concrete floor, steel anvil, etc.) and struck lightly with a 3 to 4 lb. hammer.



Plastic Body Strap

Connect and support body panels to the chassis of race cars. Durable plastic strap is easily drilled and cut to length, making it an excellent choice for body strapping. Strap is 48"L x 1"W.

ALL23088 Body Strap, Single ALL23088-4..... Body Strap, 4-Pack

Slotted Body Strap

Connect and support body panels on the chassis of most race cars. 3/16" thick x 46"L x 1"W aluminum

strap has 1/4" slots every inch. Use with ALL23105 body brace kit for complete body installation.

ALL23120Body Strap ALL23120-5......Body Strap, 5-Pack

Plastic Rocker Panels



Molded plastic rocker panel has a radiused bottom edge for support and air flow. Universal panel measures 5" tall x 88" long, can be cut to fit and installed with rivets or body bolts.

ALL23166......White ALL23167.....Black

ALL54304



Hood Scoops



Scoops are molded from durable high-impact plastic with carbon fiber look and have a molded-in flange for easy mounting. Designed for use with 14" air cleaners. scoops protect air cleaners that protrude through the hood from dirt and debris. All scoops surround approximately half of the air cleaner assembly.

Part No.	Description	Height	Center of A/C to Front of Scoop
ALL23230	Short Tapered Front	2-1/2"	12"
ALL23232	Short Tapered Front	3-1/2"	13"
ALL23246	Long Tapered Front	3-1/2"	17"
ALL23248	Long Tapered Front	5-1/2"	18"
ALL23249	Long Tapered Front*	5-1/2"	18"
ALL23233	Open Front	3-1/2"	12-1/2"
ALL23235	Flat Front	3-1/2"	15-1/2"
ALL23237	Flat Front	5-1/2"	18"

^{*}Mounting flange has a slight curvature for rolled hoods

Aero Scoops

Aerodynamically designed fiberglass scoops are strong yet lightweight with a durable,



black high-gloss, seamless gelcoat finish and a 2" wide mounting flange. Open back scoops have an angled 6" tall rear opening to fit most windshields.

Part No.	Description	Overall Height	Overall Length	Width w/o Flange
ALL23280	Open Back	13-1/2"	50"	14-1/2"
ALL23282	Open Back	13"	50"	14-1/2"
ALL23284	Closed Back	12"	38"	14-1/2"

Dragster Scoops

Strong yet lightweight, fiberglass scoops have a durable, black high-gloss, seamless gelcoat finish. Complete installation on 4500 series carburetors requires a scoop tray mounting



kit, which mounts between carb and intake manifold to secure ALL23288 scoop tray. Scoops are typically secured to tray with guick turn fasteners and hardware (sold separately).

	Overall		
Part No.	Overall Height	Length	Width
ALL23270	16"	33"	14"
ALL23272	15-1/2"	25-1/2"	14"
ALL23274	20-1/2"	29-1/2"	14"

Dragster Scoop Trays

ALL23268 Scoop tray is the lower portion of the scoop or plenum that directs air into the carburetor when used with dragster style scoops. Tray measures 21-5/8"L x 13-1/2"W and requires a separate scoop tray mount which supports the tray above the carburetor providing a secure mounting point for scoop.

Flat Mount

ALL23266 Aluminum Tray for 4150 Series Carb ALL23267 Aluminum Tray for 4500 Series Carb Raised - 3" Tall

ALL23268 Aluminum Tray for 4150 Series Carb ALL23269 Aluminum Tray for 4500 Series Carb ALL23288 Fiberglass Tray for 4500 Series Carb

Scoop Tray Mounts

Scoop tray mounts offer an all in one solution to mount a scoop tray, throttle, and nitrous solenoids. Mounts provide a clean look, eliminating the need to use multiple brackets. mounts and gaskets. CNC machined from 6061 aluminum, black anodized.

ALL54302 4150 (1.755" Bore) **ALL54304** 4500 (2.375" Bore)

Dial-In Boards

Dial-in boards are a great alternative to messy shoe polish when displaying your ET dial-in. Highly vis-



ible 3" tall white numerals help to ensure correct times are entered at the tower. Each numeral has seven pivoting sections that are easily changed to guickly adjust dial-in time.

ALL23291	3 Digit, 9"x4", w/ Mount Holes	
ALL23292	4 Digit, 9"x4", w/ Mount Holes	
ALL23293	4 Digit, 10"x4", w/ Suction Cups And Hook	k/
	Loop	

Dial-In Board Mount

the best viewing angle.

ALL23297 Two-piece billet aluminum mount fits dialin boards with 8.75" x 3" mounting hole patterns. Top portion of bracket swivels to position board at



ALI 18514

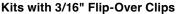
Steel Hood Pin Kits with 1/2" Pins

Kits include two each: 4" long x 1/2" dia. chrome steel pins, chrome steel scuff plates, clips, and four steel jam nuts.

ALL18512 Kit with 3/16" Flip-Over Clips ALL18514 Kit with 5/32" Hairpin Clips ALL18513 Kit with 1/4" Flip-Over Clips



Kits include two each: 4" x 1/2" dia. aluminum pins, aluminum scuff plates, flip over style, 1/4" dia. steel clips, and four steel jam nuts. Clip flips over pin and over-center action locks clip in place.



ALL18496..... Silver **ALL18497**..... Black

Kits with 1/4" Flip-Over Clips

ALL18500.... Silver ALL18504.... Black ALL18501.... Red ALL18502.... Blue ALL18503..... Gold

Aluminum Hood Pin Kits with 3/8" Pins

Kits include two each: 3-1/2" x 3/8" dia. aluminum pins, aluminum scuff plates, 3/16" dia. steel flip over clips and four steel jam nuts. Clip flips over pin and over-center action locks clip in place.

ALL18480.... Silver **ALL18484....** Black **ALL18481....** Red **ALL18482....** Blue

Lightweight Aluminum Hood Pin Kits

Kits include two each: 2-3/4" long gun-drilled aluminum pins, lightweight aluminum scuff plates, 3/16" steel flipover clips and four steel jam nuts. Clip flips over pin and over-center action locks clip in place.



Color	Kit with 3/8" Pins	Kit with 1/2" Pins
Silver (Plain)	ALL18472	ALL18476
Black Anodized	ALL18473	ALL18477

Aluminum Hood Pins

Pins only for replacing damaged pins or for fabricating custom mounts. Pack of 2.



	3/8" Pins		
	w/3/16" Holes	1/2" Pins w/3/16"	1/2" Pins w/1/4"
Color	x 3-1/2"	Hole x 4"	Hole x 4"
Silver	ALL18487	ALL18498	ALL18500
Black	ALL18491	ALL18499	ALL18511
Red	ALL18488	_	ALL18508
Blue	ALL18489	_	ALL18509

Hood Pin Supports

Supports thread onto hood pins (before installation) and are a good alternative to sections of rubber hose commonly used to support hoods and deck lids. Once supports are in place, a set screw prevents movement. Supports work with Allstar aluminum hood pins. Pack of 2.

ALL18478..... 3/8"-24 **ALL18479**..... 1/2"-20

Hood Pin Extensions

Aluminum extensions fit into existing chassis mounts. 1/2"-20 male to 1/2"-20 female, with 13/16" thread depth. Sold each.

ALL18524..... 1-3/4" Tall **ALL18525**..... 2-3/4" Tall

Hood Pin Adapters

Aluminum adapters convert existing chassis mounts over to hood pin mounts. Sold each.

ALL18526..... 1/2" Hood Pin Mount to 3/8" Hood Pin, 1/2"-20 Male to 3/8"-24 Female

ALL18527..... Converts 1/2" Coarse Mount to 1/2" Hood Pin, 1/2"-13 Male to 1/2"-20 Female

Universal Hood Pin Mount

ALL60067

Universal bracket with 1/4" mounting holes can be bolted on or welded in place. Bracket accepts 1/2" hood pins to secure hood and deck lids along with many other uses. Constructed of .100" steel, bracket has a built-in reinforcing gusset for added strength.

Hood Pin Mounts

Mounts ease hood pin installation. Choose from threaded boss or tab style.





ALL60005 ALL18520

Part No.	Description	Qty. Per Package
ALL18521	3/8"-24 Hood Pin Boss	2
ALL18520	1/2"-20 Hood Pin Boss	2
ALL60005	1/8" Mounting Tab with 1/2" Hole	4
ALL60006	3/16" Mounting Tab with 1/2" Hole	4



Plastic Scuff Plates

Sturdy plastic scuff plates have a raised center for quick, easy removal of hood pin



clips. Plates have a 1/2" center hole

and four recessed rivet holes for simplified installation.

Color	4-Pack	25-Pack
Black	ALL18430	ALL18430-25
White	ALL18431	ALL18431-25
Red	ALL18432	ALL18432-25
Blue	ALL18433	ALL18433-25
Orange	ALL18434	ALL18434-25
Silver	ALL18435	ALL18435-25
Pink	ALL18436	ALL18436-25
Purple	ALL18437	ALL18437-25
Fluorescent Yellow	ALL18438	ALL18438-25
Fluorescent Orange	ALL18439	ALL18439-25

Scuff Plates

Scuff plates are used to protect painted finishes from repeated hood pin clip use. Plates are drilled for mounting screws or 1/8" diameter rivets. Pack of 4.

Description	1/2" Hole	3/8" Hole
Chrome Steel	ALL18517	_
Aluminum	ALL18518	ALL18519
L/W Aluminum	ALL18471	ALL18470





ALL18471

Hood Pin Clips

The same quick removal pins and clips included with Allstar's hood pin kits. Hair pin clip has a rotated loop for easy grasp and the flip-over clips have a loop with an over center locking feature to keep pin in place. Pack of 2.





ALL18506

3/16" Flip-Over Clip with Lanyard

Our most popular size flip-over clip commonly used with hood pins is now available with an added steel lanyard which fastens to body panel for easy installation, and to prevent lost clips. Sold each.



Steel Lanyards

Steel lanyards feature 1/16" diameter cable with 3/4" loops on each end for light duty applications such as hood pins or retention of similar type fasteners to prevent loss. Sold each.

ALL18461 6" Long ALL18463..... 10" Long

Nylon Lanyards ALL18468

Nylon lanyards feature a molded end with a 3/16" hole on one end and a snap together open loop on the other end to quickly and easily secure a variety of components. Once snapped together, loop is permanently locked. 10" long, pack of 4.

Hinge Kits

Use steel hinge kits on hoods and deck lids for quick, one person inspection of engine compartment or trunk area. Universal kits include two complete hinges.

ALL18522..... 2-1/4" Long, 5/8" Tall, 1/4" Hole ALL18523..... 3" Long, 1-1/4" Tall, 1/4" Hole

Hood Prop ALL23260

Aluminum hood prop is a must for supporting lightweight aluminum and fiberglass hinged hoods or trunk lids commonly found on asphalt template body cars. Prop mounting hole distance is 17-1/4" when open. Sold each.

Car Covers

Covers are constructed of a waterproof material and designed for a precise fit. The template body cover has zippers to access the interior and at the wheel well openings. The Dirt Late Model cover has zippers to

access the engine





and driver compartment. Full size covers have reflective silver finish to reflect heat, a soft cotton inner liner, built-in grommets and elastic banding. Not designed for outdoor storage.

ALL23300 Template Body LM and Metric Street Stock

ALL23301 Template Body Greenhouse Cover

ALL23302 Dirt Late Model*

ALL23306 Modified (IMCA/UMP Type)

ALL23304 Back Half Cover ALL23305 Mini Stock

*Cover is designed for cars with 8" spoiler and sides.



Dirt Roofs

Popular fiberglass roofs found on many Dirt Late Models and Modifieds. 46"L x 47"W.

ALL23180 White **ALL23181** Black



Extended Dirt Roofs

Fiberalass roofs for Dirt Late Model and Modifieds are extended for maximum allowed coverage. 1/2" rolled side rails provide added strength. 54"L x 51"W.

ALL23170 White **ALL23171** Black



ALL23215

Universal plastic cap has a simulated carbon fiber look and is wide enough to fit extended and 2-piece dirt roofs. Cap fastens to the leading edge of most roofs to reinforce and protect the leading edge from stone chips. Cap is 50" wide overall.

Rear Roof Support

ALL23122

Drilled and slotted aluminum support strengthens Dirt Late Model and Modified rear roof area. Support is 42"L x 7/8"W x 1/8" thick and has 1/4" x 1/2" slots on 1" centers.

Accessory Clamps

Aluminum two-piece clamps are ideal for mounting small parts and accessories or creating an adjustable clamp-on mount for



supporting body or roof panels. Clamps are 1/2" wide and include two 1/4" button head fasteners.

		With 1/4"-20 Mount and a
Size	With 1/4"-20 Mount	1/4" Through Hole
1"	ALL10455	ALL10485
1-1/4"	ALL10456	ALL10486
1-3/8"	ALL10457	ALL10487
1-1/2"	ALL10458	ALL10488
1-5/8"	ALL10460	ALL10489
1-3/4"	ALL10459	ALL10490

Fiberglass Dash Panels

One-piece, sturdy fiberglass dash panel has four outer pods to accept 2-5/8" gauges and a center area which is perfect for tachometers up to 5" diameter. Wrap around style panel has upper and lower mounting flanges and measures 29"W x 7" T.

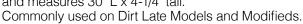


ALL23242 White **ALL23243** Black

*Gauge Kits available to work with dash panels found on page 70.

Windshield ALL23240

Tinted scratch-proof material provides added protection to driver from wind and debris. Shield has rounded edges for a clean, smooth appearance and measures 30" L x 4-1/4" tall.



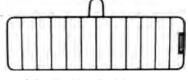
Windshield Support ALL23245

Aluminum support mounts behind polycarbonate style windshield to help prevent flexing and improve aerodynamics.

Support is 32"L x 1"W and includes 1/4" pre-drilled holes for a center support.

Rock Screens

Steel screen mounts to chassis providing driver added protection from rocks and debris. Black

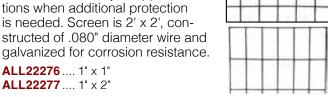


powder coated screen is 7-1/2" tall with 2" wide slots. Approximately 1.60 lbs.

ALL30165 25" Long ALL30166 23-3/4" Long

Steel Wire Screen

Electrically welded steel screen is used for a variety of applications when additional protection is needed. Screen is 2' x 2', constructed of .080" diameter wire and galvanized for corrosion resistance.





Dirt Late Model Spoiler

ALL22999

Black powder-coated aluminum spoiler consists of two unequal length laser cut

sections, one 16" wide and the other 56" wide. Unequal length design blades provide more down force on the right rear of the car and allow more spoiler area in case of right side damage. Assembled spoilers measure 72" wide x 8" tall with a 1" reinforcing lip. Three vertical supports have 2" of adjustment. Mounting hinges included.

Modified Spoiler Kits

Aluminum spoiler kit includes all components to build a two-piece spoiler up to 67" wide. Kit includes one 49" blade and one 18" blade with separate ends for building a sustant width appiler. Plades feature a reinfercing line.

custom width spoiler. Blades feature a reinforcing lip located on the trailing edge and a black powder-coated finish. Complete spoiler kit includes two rear blades, four spoiler support brackets, two outer side panels, a center support and mounting hinges for each blade.

ALL22961 3" Tall Spoiler Kit

ALL22960 3" Tall Spoiler without Sides or Center Support

Modified Spoilers

Aluminum spoiler is a two-piece design totaling 67" in width including one 49" blade and one 18" blade. Features include rear blades with preformed ends, a reinforcing lip located on the trailing edge and a black powder-coated finish. Complete spoiler includes

two rear blades, two outer side panels, a center support and mounting hinges for each blade.

ALL22992 3" Tall Spoiler Kit

ALL22973 3" Tall Spoiler without Sides or Center Support

Spoiler Supports

Aluminum support has strong 1/4" steel rod ends with hardware. Center tube has left- and right-hand threaded ends for quick adjustments. 1/4"-20 mounting hardware included. Sold each.



ALL23022 7-1/2" to 8-3/4" **ALL23023** 9-1/2" to 10-3/4"

Spoiler Extension Kits

NEW

Extensions attach to your existing 3" spoiler to meet height rule when racing in different sanctioning series. Kits include two black powder coated extensions in 18" and 49" widths. Mounting hardware not included.

ALL22962 1" Extension **ALL22963** 2" Extension

Spoiler Brackets

Aluminum spoiler brackets rivet directly to the rear spoiler and bolt to the side supports. Curved slot allows quick spoiler adjustment. Brackets are sold flat and require a 90° bend for LH or RH use. Pack of 2.

ALL23251 4" Tall Bracket for 5" Spoiler **ALL23250** 6-1/2" Tall Bracket for 8" Spoiler

Rear T-Bar Breakaway

Aluminum breakaway mounts to the right rear t-bar found on most Late Models and Modifieds. 1/8" thick with an overall length of 20" wide but it can easily be cut down to 14".

ALL23255 Plain **ALL23256** Black

Aluminum Hinges

Low profile hinge is 2" wide when open and has 7/8" of flat surface on each side of the center pin. Available in 36" and 72" lengths. Commonly used when building spoilers and access doors.

Length/Color	Each	5-Pack
36" Long, Plain	ALL23125	ALL23125-5
72" Long, Plain	ALL23127	ALL23127-5
36" Long, Black	ALL23126	ALL23126-5
72" Long, Black	ALL23128	ALL23128-5

Access Panel Kits

Aluminum panels can be mounted to provide easy access to dry sump pump tanks, fuel cells or other under panel items. Kits include frame, access door, hinge, quick turn fastener and quick turn fastener spring.

Sizes refer to door opening dimensions, add 2" for installed dimensions.

Size	Clear	Black
6" x 6"	ALL18530	ALL18540
8" x 8"	ALL18531	ALL18541
6" x 14"	ALL18532	ALL18542
10" x 14"	ALL18533	ALL18543
14" x 14"	ALL18534	ALL18544



ALL18532



Metric Brake Rotors

New stock replacement brake rotor includes new bearing races and studs for intermediate sized Metric chassis cars including Monte Carlo, Grand Prix, and Regal. Rotors measure 10.5" O.D. x 1.03" thick. Bearings and seal not included.



ALL42088

Note: Both rotors will work with Allstar metric spindles ALL56318 or ALL56319.

1979-81*

ALL42086 Rotor With 5/8"-11 Wheel Studs, 5 on 5" B.C.

*Outer bearing race has a 1.97" O.D.



ALL72160 Spindle Nut Kit ALL72164 Front Hub Dust Cap

ALL72305 Master Bearing and Seal Kit

ALL72128..... Hub Seal ALL72275 Inner Bearing ALL72277 Outer Bearing



1982-88[†]

ALL42087 Rotor With M12-1.50 Studs, 5 on 4-3/4" B.C. **ALL42088** Rotor With 5/8"-11 Wheel Studs, 5 on 5" B.C.

†Outer bearing race has a 1.78" O.D.

Related Components For 1982-88 Style Ro

ALL72160 Spindle Nut Kit
ALL72164 Front Hub Dust Cap

ALL72306 Master Bearing and Seal Kit

ALL72128..... Hub Seal ALL72275 Inner Bearing ALL72278 Outer Bearing



ALL72306

ALL72160

TECH TIP

The term "Metric Chassis" commonly refers to the intermediate line of GM cars built from 1978 through 1988 including the Chevrolet Monte Carlo and Malibu, Oldsmobile Cutlass, Buick Regal, and the Pontiac Grand Prix. These chassis are very similar but they also have some differences. One of the major differences applies to the front steering spindles and brake rotors. There were three different brake rotors used and two different spindles. 1978 year vehicles used a spindle/rotor combination that was a one-year production. 1979-88 vehicles used the same spindle but utilized two different brake rotors. These rotors appear very similar but the 1979-81 use a brake rotor with a larger outer bearing and race than the 1982-88 model years. These rotors may be interchanged but will require the matching outer bearing for proper installation.

Hybrid Brake Rotor

ALL42094

The hybrid rotor combines the versatility of the Granada style hub with a reduced diameter and width. Rotor is a popular choice when used with Mustang II spindles, metric style brake calipers and hybrid caliper brackets. Rotor measures 10-1/8" O.D. x .812" thick, includes 5/8"-11 wheel studs on a 5x5" B.C., weighs 14 lbs. and includes new bearing races.

Related Components

ALL72161..... Spindle Nut Kit
ALL72164 Front Hub Dust Cap
ALL72309 Master Bearing and Seal Kit

ALL72126..... Hub Seal ALL72270 Inner Bearing ALL72274..... Outer Bearing



Granada Brake Rotor

Rotor is often used when converting stock Mustang II brake assemblies to 11" O.D. x .875" brake rotors and larger calipers. Rotors include new bearing races and install

directly to Mustang II spindles with stock bearings and seals (not included).

ALL42090 Rotor w/ 1/2"-20 Wheel Studs, 5 on 4-1/2" B.C. **ALL42091** Rotor w/ 1/2"-20 Wheel Studs, 5 on 4-3/4" B.C. **ALL42089** Rotor w/ 5/8"-11 Wheel Studs, 5 on 5" B.C.

Related Components

ALL72161..... Spindle Nut Kit ALL72165 Front Hub Dust Cap

ALL72308 Master Bearing and Seal Kit ALL72126..... Hub Seal

ALL72270 Inner Bearing
ALL72274..... Outer Bearing



65

ALI 72308

ALL72161

GM Rear Brake Rotor

ALL42095

Hat style brake rotor with 5 on 4-3/4" pattern can be used with ALL42180 and ALL42181 7.5" metric caliper brackets and stock type axles. 11-5/8" vented rotor is .790" thick and has a 2.800" I.D. center indexing hole to work with most metric style axle flanges with a maximum O.D. of 6".

Late Model and Modified Brake Rotor

ALL42011

Lightweight solid rotor for Late Models and Modifieds. Use anywhere reduction of un-sprung weight is desirable. Rotor is scalloped to provide maximum weight loss without compromising braking performance or rotor durability. Rotor is steel 8-bolt with a 7" bolt circle, 11.75" diameter and .250" thickness.



ALL42083

ALL42079

ALI 42080

ALI 50250



32 Vane Non-Directional Brake Rotor

ALL42010

Popular 8-bolt brake rotor is commonly used on the rear of modifieds and stock cars and features a 32 non-directional vane design which allows this rotor to be used on either side of the vehicle. Rotor measures 11.75" x .810" wide and weighs just 8 lbs.



40 Vane Directional Rotors

Heavy-duty 40 vane brake rotors provide added strength and cooling over standard 36 vane rotors. 11.75" x 1.25" 8 bolt rotors weigh just 11 pounds and have ball milled slots to keep rotor clean.

ALL42004 LH 1.25" x 11.75" 8-Bolt **ALL42005** RH 1.25" x 11.75" 8-Bolt



ALI 42004

36 Vane Directional Rotors

Rotors have 36 directional cooling vanes and are 1-1/4" thick x 11-3/4" diameter. Directional cooling vanes allow brakes to run much cooler than conventional rotor designs. Rotors fit solid mounting brake hats or hubs, and weighs 11.5 lbs





ALL42000

Rotor Bolt Kit

Grade 5, 1" bolts fasten disc brake rotors to rotor hat or hub. Includes ten

bolts, washers, and self-locking nuts.



ALL42036

ALL42026 5/16"-18 Kit **ALL42036** ... 5/16"-24 Kit

Stamped Steel Rotor Hat

ALL42120

Brake hat fits 8-bolt rotors with 7" bolt circle mount. Made of stamped steel with a 3" offset and drilled for 4-1/2",

4-3/4", and 5" bolt circles. Hat has 3.060" diameter centering hole and fits axle flanges with up to 5.75" diameter. Drilled for 1/2" wheel studs. IMCA Legal.

Cast Aluminum Rotor Hats

Cast aluminum hats are available in two offsets, fit 8-bolt rotors with 7" bolt circle mount, have a 3.060" diameter centering hole and fit axle flanges with up to 6.050" diameter. Drilled for 1/2" studs.



ALI 42129

A

ALL42129 2-1/2" Offset **ALL42128** 3" Offset

Brake Calipers

New, not re-manufactured stock style calipers are perfect replacements on most GM vehicles and will fit up to 1" wide rotor. Metric inlet thread is M10-1.50. Big GM inlet thread is 7/16"-20.

ALL42081 RH 1973-77 Big GM D52 Series **ALL42082** LH 1973-77 Big GM D52 Series **ALL42083** RH 1978-87 Metric GM D154 Series

ALL42084 LH 1978-87 Metric GM D154 Series

Note: We reference RH (right-hand) or LH (left-hand) based on the caliper being mounted behind the rotor, however, all calipers may be mounted on the front or backside of the rotor.

GM Caliper Bolts

Replacement caliper bolts fit GM D52 and D154 series calipers and allow for easy installation and removal. Bolts feature a built-in sleeve to allow for extra caliper travel. Pack of 2.

ALL42079 Socket Head, 3/8" Allen **ALL42080** Hex Head, 5/8" Wrench

Caliper Bolt Lock Washers

ALL16133-25

Correct lock washer to be used with GM style caliper bolts. Washer also acts as a spacer in applications when there is reduced thread engagement in some fabricated brackets. Sold in a pack of 25.

Brake Line Deflectors

Deflectors mount on caliper or spindle on an open wheel car to protect brake lines and fittings from da

protect brake lines and fittings from damage. Sold each.

ALL50250 LH Deflector ALL50251 RH Deflector

GM Caliper Spacers

Aluminum spacers for use with stock or stock design aftermarket calipers and thin rotors. Spacers keep the piston safely in the bore of the caliper. Choose from large GM style or midsized GM Metric caliper. Spacers are sold each and may need additional clearance depending on caliper used.

ALL42039 GM Metric, D154 series, 0.100" Thick **ALL42040** GM Metric, D154 series, 0.190" Thick **ALL42041** Big GM, D52 Series, 0.190" Thick

Caliper Spacers

Aluminum spacer is designed to work with non-bridge bolt pads such as Wilwood Superlite, Hawk HB101 series and Performance Friction 7751. Sold eac



*

ALL42042

ALL42042 0.119" Thick **ALL42043** 0.190" Thick

ALLST PERFORMANCE

ALL42111

ALL42118

Mustang II Caliper Brackets

Install 11" Granada style rotor and GM Metric D154 series caliper on stock height or lowered Mustang II spindles with this bolt-on caliper bracket. Lightweight steel bracket weighs just over one pound and is sold individually. Commonly used on modifieds and stock cars.

ALL42110 | H ALL42111 RH

Hybrid Mustang II **Caliper Brackets**

Install 10-1/8" hybrid style rotor (ALL42094) and GM Metric D154 series caliper on stock height or lowered Mustang II spindles with this bolt-on caliper bracket. Lightweight steel bracket weighs just over one pound and is sold individually. Commonly used on modifieds and stock cars.

ALL42118..... LH ALL42119..... RH

Front Mount Hybrid Mustang II Caliper Brackets

Designed to mount GM Metric D154 caliper on the front side of a Mustang II spindle when using a Hybrid style 10-1/8" brake rotor.

ALL42122 LH ALL42123 RH

GM 7.5" Rear Caliper Brackets

Steel bolt-on bracket is used when converting drum brake equipped 7.5" GM style rear end to disc brakes. 1/4" thick bracket replaces the drum brake backing plate to provide secure mounting for GM Metric

D154 series caliper. Use with ALL42095 brake rotor.

ALL42180 LH Bracket ALL42181 RH Bracket

Ford 9" Axle Spacer Plates

Spacer plate takes the place of drum brake backing plate and properly preloads the tapered style axle bearing. Spacers fit large bearing Ford 9" housing ends. Sold each.

ALL72318..... Late Torino Style **ALL72319**..... Early Style



ALL72318

ALL42180

Rear Caliper Brackets

Made from 1/4" thick steel, bracket fits 3" diameter axle tube and will work with most 11.75" diameter rotors.



Clamp-On Brackets

ALL42101 Big GM, D52 Series

ALL42103 GM Metric, D154 Series, Wide Clamp ALL42185 GM Metric, D154 Series, Narrow Clamp ALL42186 GM Metric, D154 Series, Narrow Clamp with Reinforcing Gussets

ALL42105 Wilwood Dynalite, 5-1/4" Spacing ALL42109 Wilwood Superlite, 3-1/2" Spacing

Weld-On Brackets

ALL42100 Big GM D52 Series ALL42102 GM Metric D154 Series

ALL42104 Wilwood Dynalite, 5-1/4" Spacing ALL42108 Wilwood Superlite, 3-1/2" Spacing

GM Metric Caliper Bracket

ALL42133

3-piece modular bracket has the caliper bracket bolted separately for easy installation to a 3" axle tube without removing the rear hub assembly. Specially designed to

mount a GM Metric D154 series caliper with 5-1/2" bolt spacing to axle tube when using a 11-3/4" diameter brake rotor. Additional locking bolts install into axle tube to help prevent bracket from rotating.

Replacement Component

ALL99433 Bolt-On Caliper Bracket

Wilwood Superlite Caliper Bracket

ALL42134

Lightweight aluminum caliper bracket bolts together for easy installation to a 3" O.D. axle tube without removing the rear hub assembly. Specially designed to mount a Wilwood Superlite caliper with 3-1/2" bolt spacing to axle tube when using a 11-3/4" diameter brake rotor. Additional locking bolts install into axle tube to help prevent bracket from rotating.

Wilwood Superlite Caliper **Bracket for Bolt-On Snouts**

ALL42137

Bracket is designed for use with 8-bolt axle tubes and bolt-on snouts where there is no room for a bracket to clamp on the tube. This bracket mates between the tube and the snout and has multiple holes for preference of caliper location.





Mustang II Front Disc Brake Kits

Improve the stopping power and safety of cars equipped with Mustang II spindles. Kits include large 11" brake rotors, caliper mounting brackets, calipers, brake pads



and installation hardware. Brake hose kits ALL42025 or ALL42032 will help complete the installation.

ALL42024 ... Disc Brake Kit Rotors with 1/2"-20 Wheel Studs 5 On 4.50" B.C.

ALL42029 Disc Brake Kit Rotors with 1/2"-20 Wheel Studs 5 On 4.75" B.C.

ALL42030 Disc Brake Kit Rotors with 5/8"-11 Studs 5 On 5" B.C. (Brake Pads Not Included)

Rear Disc Brake Kit

ALL42019

Update and greatly improve braking power by converting standard drum brake rear ends to disc brakes. Universal rotor hat fits 5 on 4-1/2", 5 on 4-3/4" and 5 on 5" bolt



patterns. Caliper mounting brackets weld onto 3" axle tubes. Rotor hats will not work with some aftermarket axles. Axles with flanges larger than 5-3/4" must use cast aluminum rotor hats, ALL42128 or ALL42129. Kit includes rotors (.810" x 11.75"), universal rotor hats, rotor bolt kits, caliper mounting bolts and caliper mounting brackets for GM Metric D154 series calipers (ALL42083 and ALL42084).

Kit Does Not Have Provisions for Parking Brake

Brake Bleeder Bottles

Contain the mess of bleeding brakes by capturing fluid in this 16-oz. bottle with a 15" long hose which attaches to most bleeder screws. The removable cap has a built-in fitting to secure the hose during storage to help prevent spills. Choose from a steel lanyard retainer that suspends the bottle from

a chassis or suspension



component, or a magnet retainer to secure the bottle to a steel object such as a brake drum or rotor during bleeding. ALL11017 has a magnet retainer and a built-in one way check valve for one person brake bleeding.

ALL11019 Bottle with Lanyard **ALL11018** Bottle with Magnet

ALL11017 Bottle with Magnet and Check Valve

ALL99435 Replacement Hose

Castrol SRF Brake Fluid

ALL78115

Castrol SRF brake fluid has a wet boiling point of 518°F (270°C) which exceeds DOT 3 and 4 standards. Do not mix Castrol SRF and other brake fluids, as this will reduce the benefits of Castrol SRF. Sold in 33.8-oz bottle



AP Radi-CAL R3 Brake Fluid

ALL78116

Developed for extreme, high temperature racing conditions with a typical dry boiling point of 617°F and a wet boiling point of 383°F. Conforms to DOT 4 specifications. Sold in 16.9-oz. bottle.



AP Radi-CAL R2 Brake Fluid

ALL78108

Designed for extreme, high temperature racing conditions with a dry boiling point of 594°F and a wet boiling point of 383°F. Conforms to DOT 4 specifications. Sold in 16.9-oz. bottle.



Motul 600 Brake Fluid

ALL78117

100% synthetic brake fluid has an extremely high boiling point helping to prevent vapor lock and brake fade during hard use. Motul 600 exceeds DOT 3 and DOT 4 specifications. Dry boiling point 594°F, wet boiling point 421°F. Sold in 16.9-oz. bottle.



Motul 660 Brake Fluid

ALL78118

100% synthetic brake fluid is specifically designed to resist extreme temperature generated by racing carbon and ceramic brakes. Motul 660 exceeds DOT 3, DOT 4, and DOT 5.1 specifications. Dry boiling point 617°F, wet boiling point 401°F. Sold in 16.9-oz. bottle.



Brake Duct Hose

Flexible, non-kink hose directs air from front ducts to spindle ducts. Available in 10 ft. lengths and three temperature ranges.

275°: 3" single-ply thermoplastic rubber wall with a spring steel wire support.



300°: 3" or 4" double-ply neoprene coated woven fiberglass hose with spring steel inner and fiberglass external supports. Smooth inner wall for unrestricted flow.

ALL42151 3"X10" ALL42154 4"X10"

550°: 3" or 4" double-ply silicon coated fiberglass hose with spring steel inner and fiberglass external support. Smooth inner wall for unrestricted flow.

ALL42152 3"X10" ALL42155 4"X10"

Spindle Ducts









ALL42113 ALL42112

ALL42117 ALL42116

Aluminum 3" ducts fit most fabricated spindles. Available in dual or single inlet.

ALL42112 LH, Dual Inlet ALL42113 RH, Dual Inlet ALL42116..... LH, Single Inlet ALL42117..... RH, Single Inlet

In-Line Duct Blowers







Many uses include cooling brake systems or assisting helmet cooling efforts. CFM ratings at 13.6 volts with a 3.5 amp draw.

ALL13010 3" Compact, 5" Long, 140 CFM ALL13008..... 3" Heavy-Duty, 8" Long, 170 CFM ALL13009..... 4" Heavy-Duty, 6" Long, 240 CFM

Plastic Brake Ducts

Ducts direct outside air to brakes, oil coolers and the driver. 3" O.D. with centered, offset or dual outlets.



ALL42140 Centered, 5-1/2" x 8" ALL42141 Offset, 5" x 9-3/4" **ALL42142** Double Hole, 5" x 9-3/4" ALL42143 Single Hole, Clear, 6" x 10-3/4" ALL42144 Double Hole, Clear, 9" x 11"



Brake Duct Hose Flange

ALL42160

Flange rivets to nosepiece. 3" brake duct hose can then be hose clamped to flange.



Brake Fans

Directional fan blade fits between wheel and hub to increase air flow and promote cooling to brake assemblies.

Steel

ALL42170 ... 5x5, LH **ALL42171** ... 5x5, RH ALL42172 ... Wide 5, LH **ALL42173** ... Wide 5, RH Aluminum

ALL42174 5x5, LH **ALL42175** 5x5, RH ALL42176 Wide 5, LH ALL42177 ... Wide 5, RH



Pedal Extensions

Kits move floor mounted pedals closer to the driver and eliminate the need for extra long seat brackets used to move the driver forward. Now just leave the seat in the desired location and move the pedals closer to the driver.

ALL41050 2" Kit - Complete ALL41051 4" Kit - Complete



ALL41050

Floor Pedal Plate

ALL54050

Weld-in pedal plate is 23" x 5" x



1/8" and speeds up race car construction by providing the proper spacing for mounting pedal/master cylinder assemblies.



Hanging Brake Pedal Mount

ALL54060

Welds to chassis to mount Wilwood and Tilton style hanging pedals. Notched to clear balance bar.

1

Hanging Brake Pedal Assembly

ALL41014

Universal brake pedal assembly includes everything to install a new hanging brake pedal and is ideal when relocating older style floor mounted brake pedal with under floor master cylinder to a more convenient firewall location. Firewall mounted bracket is pre-drilled to accept Allstar power brake boosters or most manual brake master cylinders and includes a dash support bracket. Multiple pedal mounting holes allow arm to be positioned 5-7/8" to 11-7/8" from firewall mounting plate in 1-1/2" increments for desired pedal placement. Included 3/8"-24 clevis and threaded pushrod may be cut and re-threaded as needed depending on final pedal location.

90° Hanging Brake Pedal Assembly

ALL41013

Universal pedal mount positions the booster and master cylinder under the dash 90° to the firewall for a clean underhood appearance and is ideal for vehicles that simply do not have room in the engine compartment for a booster or master cylinder. Bracket has provisions to accept Allstar power brake boosters or to mount a master cylinder directly to the bracket for manual brake applications. Welding required to mount pedal tab to pedal.

Universal Floor Mounted Brake Pedal Assembly ALL41015

Pedal assembly is commonly used when converting under-floor standard single reservoir master cylinder to a power, dual reservoir master cylinder brake system. Pedal assembly will accept Allstar 7" and 8" power brake boosters. Pedal arms feature bushings to resist wear and provide years of use. Pedal assembly does not have provisions for a clutch pedal.

*Universal pedal assembly will work on 1928-32 Fords with modifications

Corvette Style Master Cylinders

Dual reservoir master cylinders have 1" bores and outlet ports on both sides for easy plumbing and installation. Popular master cylinders are used with disc/disc and disc/drum manual or power brake applications. Slotted mounting holes on 3-1/4" centers work well with Allstar brake boosters.



ALL41060 Cast Iron with 3/8" Ports ALL41061..... Aluminum with 3/8" Ports ALL41062 Cast Iron with 1/2" and 9/16" Ports

Big Bore Master Cylinder

ALL41064

Master cylinder with large 1-1/4" bore works well on vehicles that require increased volume for proper braking or as an option when experiencing excessive pedal travel with standard 1" bore Corvette style master cylinders. Cast iron master cylinder features a deep hole piston for use with manual or power brakes. Front brake port accepts 3/16" steel brake line with 3/8"-24 inverted flare nut. Rear brake port accepts 1/4" steel brake line with 1/2"-20 flare nut (using included adapter) or 9/16"-18 flare nut

Master Cylinder Adapter Fittings

ALL41012

by removing adapter.

Fittings adapt master cylinders or combination valves with 1/2"-20 and 9/16"-18 ports to accept 3/16" inverted flare brake line with standard 3/8"-24 fittings. Kit includes one of each fitting.

Pedal Rod Extensions

Steel extensions have 3/8"-24 threads and are often used to connect the brake pedal to the master cylinder or booster using a female rod end or a clevis.

ALL41027 4-3/4" Long Overall with 3" of Male Thread ALL41028 8" Long overall with 1" of Male Thread

Brake Pedal Clevis ALL41026

Clevis fastens to the brake pedal arm to accept a threaded rod extension or power brake booster pushrod. Clevis is threaded for a 3/8"-24 rod and has a 3/8" pin.

Power Brake Boosters

Universal vacuum brake booster adds assisted power to the braking system using engine vacuum. Booster features four firewall mounting studs in a 3-3/8" square bolt pattern and a 3-3/8" center-to-center master cylinder bolt pattern all with 3/8" mounting studs. Brake pedal push rod has 3/8"-24 threads and accepts most popular threaded brake pedal clevise and pedal rod extensions.

ALL41005 7", Single Diaphragm (3-3/4" Deep)
ALL41006 8", Dual Diaphragm (5-1/2" Deep)
ALL41007 8", Dual Diaphragm with 1955-64 Chevy Impala

Brackets



Plunger Style Brake Light Switch

ALL76253

Popular two terminal brake light switch found in vehicles from the 1950's to today. Ideal for most applications, switch is spring loaded to the on position and turns off when contacted by the brake pedal assembly. Switch has 1/2" threads with jam nuts for easy mounting in a bracket, and two .250" blade type terminals.

Lever Style Brake Light Switch

ALL76250

Brake switch is commonly used with under-floor mounted brake pedal assemblies when switch can contact the brake pedal arm. The switch is spring-loaded to the on position, turning off when brake pedal is released and contacts the switch lever. Mounting bracket features two #10-32 tapped mounting holes, 5/8" on centers. Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switch is rated at 4.5 amps and features two male bullet terminals.

Pressure-Activated **Brake Light Switches**





ALL76252

Switch is plumbed into the brake system and is activated by closing

the electrical connection with rising brake pressure (60-120 PSI). Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switches are rated at 4.5 amps and have 1/8"-27 dry seal mounting threads.

ALL76251 Male Bullet Terminals **ALL76252** 6-32 Screw Terminals

Residual Check Valves

Residual check valves hold a small amount of pressure in the brake system to keep the brake system functioning properly while helping



to maintain a firm pedal. Maintaining system pressure prevents fluid from returning to the master cylinder when the master cylinder is positioned lower than or close to the same height as the calipers or wheel cylinders. Proper system pressure also keeps piston and wheel cylinder seals expanded, creating a positive seal and brake pads seated against the rotor. Valves include two 3/16" inverted flare fittings.

ALL41048 2 lb. for Disc Brakes (Blue) ALL41049 10 lb. for Drum Brakes (Red)

Check Out Our Fittings and Hoses Section!

For more brake related fittings and hoses.

Distribution Block with Proportioning Valve and Brake Light Switch ALL48037

Distribution block connects brake lines from the master cylinder to front and rear brakes with the added benefit of a rear proportioning valve and built-in pressure activated brake light switch. The proportioning valve may be adjusted to limit rear brake pressure to help prevent rear brake lock-up. Block ports have 3/8"-24 threads that accept 3/16" inverted flare style fittings. Block includes fittings, pigtail wiring harness and boot.

Related Component

ALL48038 Mounting Bracket for ALL48037

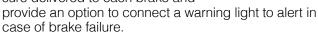
Proportioning Valve

ALL48025

Adjust front-to-rear brake bias with the twist of a knob. Provides up to 57% reduction. Fitting ports are 1/8"NPT. Valve includes two fittings to adapt to 3/16" brake line. 1"L, 1-3/4"W and 3-5/16" tall.

Combination Valves

Multi-purpose valves are used in the brake system to properly distribute fluid to the front and rear brakes. meter the amount of fluid and pressure delivered to each brake and



ALL41040 Disc/Drum ALL41042 Disc/Disc

Related Component

ALL41044 Connector for Warning Light



ALL41044

Tool

ALL41043

Tool temporarily replaces the warning light switch in ALL41040 and ALL41042 combination valves to keep the spool valve centered when bleeding the brake system. When bleeding the brake system, the spool valve may be forced to the front or rear and prevent proper system bleeding.



Combination Valve Mounting Brackets

Brackets provide a secure mount for combination valves allowing them to be mounted to the frame



or directly under the master cylinder providing access to lines and fittings.

ALL41045 Horizontal Mount Bracket ALL41046 Vertical Mount Bracket



Electric Line Lock Kit

Electrically controlled valve engages with a switch, and holds pressure to the front brakes on drag race vehicles. Commonly used to prevent ALI 48012

vehicles from rolling once they have staged or during burn outs in the water box. Detailed installation instructions included.

ALL48012 Electric Line Lock Master Kit **ALL48013** Electric Line Lock Kit with Fittings

ALL48014 Electrical Hardware Kit

Brake Bias Adjuster with Reference Pointer

Know exactly where brake adjustments are set, no more auessing the correct setting. ALL42073 When the adjusting knob is turned, the pointer moves along the reference scale. Adjuster body can be pivoted for easy viewing and multiple applications. Record where the pointer is located and use as baseline adjuster. Housing, internals, brackets, ALL42078 and knob with detent are all made of aluminum and includes a five foot adjuster cable with 3/8" - 24 threads that can be cut to any length for a custom fit and has 3/8"-24 threads for most standard pedal assemblies.

ALL42074 Adjuster with Knob Silver ALL42073 Adjuster with Knob Black

ALL42078 Adjuster with Crank Handle Silver **ALL42077** Adjuster with Crank Handle Black

Brake Bias Adjusters

Adjust brake bias from the driver seat to compensate for changing track conditions. Adjusters mount to balance bars with 3/8"-24 threads.





ALL42070 Crank-Style Adjuster 27-1/2" OAL ALL42071 Crank-Style Adjuster 34-1/2" OAL ALL42072 Knob Style Adjuster with 5' Cable ALL99116..... Replacement Cable Assembly

Electric Right Front Brake Shut-Off ALL48017

Disable right front brake with the flip of a switch. Commonly found on Dirt Modified and Late Models, electric shut-off helps turn the car on entry when track conditions are heavy/wet. Kit electronically disables the right front brake yet allows brake pressure to bleed off from the right front brake caliper, unlike manual shut-off valves. Detailed installation instructions are included.

Brake Shut-Off Valve

ALL48010

Valve is commonly used to turn off the RF brake in circle track cars. Rated up to 2,000 psi, valve may be mounted in a panel with a 9/16" hole and has 1/8" NPT threaded ports often used with ALL50120 fitting for 3/16" inverted flare brake line connections. Dimesnsions are 1/2" W x 1-3/4" L x 1-9/16" H.

RF Brake Shut-Off Valve Decal

ALL48011

Decal has a 5/8" hole and is designed for use with the ALL48010 valve.

Brake Bias Gauge Panels

Gauges show actual front and rear line pressure for making brake bias changes before or during the race. Pre-assembled

units have 0-1500 PSI liquid-filled gauges with 1/8"NPT male fittings and bleeder valves to evacuate air from the gauges. 2-3/4" x 4-1/2" predrilled panels are offered in horizontal or vertical versions.



ALL80170 Vertical ALL80172 Horizontal

Swivel Head Brake Pressure Gauge

ALL11020

Gauge temporarily replaces the bleeder screw in aftermarket brake calipers with 1/4"-28 thread bleeder screws to measure brake pressure.

Swivel head positions the 2-3/4" diameter gauge for easy viewing. Convenient remote bleeder can be used to evacuate air in the system for accurate readings.

Related Component

ALL11022 Adapter converts ALL11020 and other gauges with 1/4"-28 thread to change to M10-1.50 thread for use with popular GM metric calipers.



Brake Pressure Gauge Kit

ALL11026

Brake pressure gauge kit includes two gauges, allowing one gauge to be used in the front and one in the rear brake system. Compare front to rear pressures to help diagnose problems or to preset your brake bias. Gauges easily replace 1/4"-28 brake bleeders.



Dirt Late Model 1-Piece Front Bumpers

Our Dirt Late Model replacement bumpers are jig welded to meet OE manufacturer specifications, but these are not OE manufactured bumpers. Constructed of 1-1/2" x .065" wall mild steel tubing. ALI 22377

ALL22380 Rocket 2005-2016* ALL22382 Rocket 2005-2015 ALL22379 Rocket 2022 ALL22381 Mastersbilt ALL22377 Longhorn

*Bumper has built-in rake for nose clearance. †Will also fit 2005-2017 standard Rockets

Dirt Late Model 2-Piece Front Bumpers

Our 2-piece Dirt Late Model replacement bumpers are jig welded to meet OE manufacturer specifications. but these are not OE

manufactured bumpers. Constructed of 1-1/2" x .065" wall mild steel tubing.

ALL22394... Mastersbilt ALL22393...Mastersbilt, Gen X ALL22395... Rocket 2005-2015**

*Bumper has built-in rake for nose clearance. ‡Bumper has 2" added to left side.

Dirt Late Model Chrome Moly Bumpers

Our Chrome Moly Dirt Late Model replacement bumpers are jig welded to meet OE manufacturer speci-



ALL22394

fications, but these are not OE manufactured bumpers. Lightweight 1-1/2" x .049" wall chrome moly front bumpers offer added strength and about a 25-30% (5-6 lbs.) weight savings compared to similar mild steel bumpers.

ALL22343 Rocket 2022*† ALL22344 Longhorn *Bumper has built-in rake for nose clearance.

†Will also fit 2005-2017 standard Rockets

Dirt Late Model Rear Bumpers

Our Dirt Late Model replacement rear bumpers are jig welded to meet OE

manufacturer specifications but these are not OE manufactured bumpers. Constructed of 1-1/4" x .065" wall mild steel tubing.

ALL22384 Mastersbilt, Gen X, 1-1/2" x .065" Main Tube

ALL22388 Rocket, 36" CTC ALL22389 Rocket, 34" CTC ALL22385 Rocket 2022 ALL22386 Longhorn

Modified Universal Front Bumper

ALL22375

Bumper has 5" x 5" plate style mounts which measure 44" from outside to outside and can be modified to fit most chassis.



Modified 2-Piece Extended Length Front Bumper

ALL22333

Extended length bumper features a 1-1/2" main tube with a 1-1/4" upper hoop that can be easily removed and rein-

stalled when fabricating a nose. Universal fit bumper extends out 21" from frame mounting brackets that are on 39" center, and weighs approximately 15 lbs.

Modified Rear Bumper Kits

Universal rear bumper kits have fully welded frames and include separate 1-1/4" O.D. mounting tubes, bumper supports, and end caps that require welding for a custom fit to a variety of chassis widths.

ALL22336 Wide Rear Bumper Kit with straight main tube is built from 1-1/4" O.D. x .065" wall mild steel tubing and measures 54" wide x 11-1/2" tall with a 34" wide fuel cell guard.

ALL22337

ALL22336

ALL22337 Narrow Rear Bumper Kit with bent main tube is built from 1-1/2" O.D. x .065" wall mild steel tubing and measures 43" wide x 12-1/2" tall with a 39" wide fuel cell guard.

Sprint Stacked Front Bumper

ALL22300

Stacked front bumper for improved front end protection is precision bent from 1" O.D. steel tubing, 6" tall x 8" long overall x 19-1/4" wide on center. Weighs less than 4 lbs.





Aluminum ABC Template Front Bumper

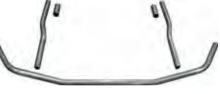
ALL22350

Lightweight front bumper is 56" wide and weighs less than 2-1/2" pounds! Constructed of 1-1/2" x .083" wall aluminum tubing and pre-bent to match the contours of the template noses.

ABC Template Front Bumper Kit

ALL22372

Designed to fit the shape of the ABC style nosepieces, this unwelded bumper kit is universal.



can be built to any width and includes mounting sleeves that can be welded to the chassis. Bumper is constructed of 1-1/2" x .083" wall tubing and has an overall width of 58". Kit must be welded.

ABC Template Front Bumper

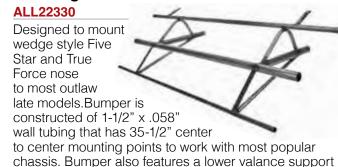
ALL22376

Designed to fit ABC style nosepieces, this fully welded front bumper is designed to fit most chassis with 35-1/2" center-to-center mounts. Bumper is constructed of 1-1/2" x .065" wall tubing and has an overall width of 48". Threaded inserts provide mounting points for a hood pin bar.

Asphalt Outlaw Front Bumper 1/4// for Wedge Nose

and upper hood pin mounts with supports.





1981 Camaro Front Bumper Kit

ALL22320

Universal bumper allows installation of most aftermarket 1981 Camaro nosepieces on any width chassis. Bumper is 1-3/4" x .095" wall mild steel tubing and includes 2" x 2" frame mounting slugs. Kit must be welded.

Mustang Front Bumper Kit

ALL22371



Universal bumper allows installation of aftermarket 1993 Mustang style nosepieces on any width chassis. Bumper is 1-3/4" x .095" wall mild steel tubing and includes 2" x 2" frame mounting slugs. Kit must be welded.

Universal Mini Stock Front Bumper

Universal bumper ALL22329 allows installation on a variety of mini stock applications. Bumper

includes 1-3/4" x .095" wall mild steel tubing main bar, two adjustable length 1-1/2" x .083" corner pieces and two 6"x 6" frame mount plates. Bumper can be assembled with a minimum width of 56" and a maximum width of 72" overall.

ALL22328 Unwelded Kit ALL22329 Welded Kit (corners unwelded)

Crown Vic Front Bumper Kit

ALL22352

Bumper kit Kit Shown Assemb includes pre-cut and notched 1-3/4" x .095" wall tubing to build a bumper that bolts in

place of the original factory impact bumper. Bumper features an updated design to work with aftermarket Five Star Crown Vic Interceptor nose. Welding required for assembly.



MD3 Monte Carlo SS Nosepieces

Tough, plastic 1983-88 style nosepieces are perfect for Factory Stock and Sportsman circle track cars.

ALL23030 White

ALL23030 White **ALL23031** Black **ALL23032** Red

ALL23033 Yellow ALL23034 Orange ALL23035 Chevron Blue

Monte Carlo SS Nosepieces

Tough, plastic 1983-88 style nosepieces are perfect for Factory Stock and Sportsman circle track cars.

ALL23010 White **ALL23011** Black



Monte Carlo SS Front Bumper Kits



Universal bumper kit is adjustable to accommodate Monte Carlo nosepieces to any chassis. Kits are constructed of 1-3/4" x .095" wall tubing and require welding.

ALL22370 Standard Monte Carlo SS Kit ALL22369 MD3 Monte Carlo SS Kit

ALL22366 Standard Monte Carlo SS Kit, 2-Piece* **ALL22367** Upper Support Kit for ALL22366 (1-1/4" x .083")

*Kit includes a 2-piece main tube for more convenient handling and lower shipping costs.

Monte Carlo SS Bolt-On Front Bumper

ALL22365

Bolt-on style bumper fits most tubular and stock stubs.
Bumper accepts standard Monte Carlo SS nosepieces.
Frame mounting brackets measure 30" center-to-center and fit over 2" x 3" rectangle tubing.

Monte Carlo SS Headlight Decal Kits

Decal kits add a realistic look to most aftermarket nosepieces to replicate the popular 1983-88 Monte Carlo SS. Decals fit standard and MD3 style nosepieces.



ALL23014 Nose Decal Kit with Stock Grille
ALL23038 Nose Decal Kit with Mesh Grille



Jeff Town



Monte Carlo SS Rear Bumper Covers



Tough, plastic 1983-88 style rear bumper covers are perfect for Factory Stock and Sportsman circle track cars.

ALL23015 White ALL23016 Black ALL23040 Red ALL23042 Orange ALL23043 Chevron Blue

Monte Carlo SS Tail Light Decal Kit

ALL23017

Decal kit adds a realistic look to most aftermarket rear bumper covers to replicate the popular 1983-88 Monte Carlo SS.



Monte Carlo SS Rear Bumper Kit



Kit includes pre-bent and notched 1-3/4" x .095" wall tubing to assemble a strong rear bumper that can be mounted to any width chassis and support the Allstar Performance and other aftermarket 1983-88 Monte Carlo SS rear bumper covers. Kit must be welded.

Universal Rear Bumper Kit

ALL22373

Designed to fit any chassis. Corner pieces are slid inside rear section



and then welded or bolted to required width. Includes 1-3/4" x .095" wall rear tube, two adjustable length 1-1/2" x .083" corner pieces, two lengths of tubing (connects bumper to any width chassis) and two sleeves which weld directly to the chassis.

Camaro SS Short Track Nosepieces

Designed specifically for short track use, in Stock Car, Sportsman and similar classes.



Noses

feature minimal recessed pockets, flat lower valiance, corrected width and easier to mount fabricated fenders and hood.

ALL23045 White
ALL23046 Black
ALL23047 Red
ALL23048 Chevron Blue

Camaro SS Decal Kit

ALL23044



Decal kit adds a realistic look to most aftermarket nosepieces to replicate the popular Camaro SS short track nosepiece.

Camaro SS Nose Support

ALL23058

Plastic nose support is specifically designed to fit the underside curve

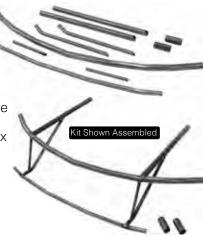


of the Camaro SS nosepiece. Support fastens to the underside of the nosepiece to stiffen nose and allowing it to be bolted directly to the bumper. Support fits LH or RH sides and is sold each.

Camaro SS Bumper Kit

ALL22322

Universal bumper kit is adjustable to accommodate Camaro SS nosepiece to any chassis. Kit is constructed of 1-1/2" x .083" wall tubing and requires welding.





Sheet Plastic

Plastic material is 1/4" thick and useful for many projects including building



custom nose supports or front splitters.

ALL22231 15" x 48" **ALL22232** 30" x 48"

Lower Nose Support for MD3 Evolution

ALL23064

Plastic nose support is specifically designed to fit the underside curve of the MD3 Evolution



style Dirt Late Model nose piece. Support fastens to the underside of the nose piece and bolts directly to the bumper of most Dirt Late Models. Support is just under 3/8" thick and measures 39" L x 7" W. Support fits LH or RH sides, weighs 3.3 lbs and is sold each.

Flexible Body Brace



Flexible brace made from plastic extends up to 31" and may be cut to fit shorter applications. Commonly used to support lower quarter panel or nose sides. Aluminum brackets are adjustable to accommodate a variety of straight and angle applications.

ALL23075Body Brace
ALL23075-4....Body Brace 4-Pack

Spoiler/Body Brace

Brace works well for securing panels or noses in position and features a tension bolt to adjust brace and hold to a desired length. Brace is painted black and has predrilled 3/16" mounting holes on each end.

Short Body

Brace has a 8" main body with a minimum mounting length of 21" and will extend to 26" long. Note: Adjustable section can be shortened to create a brace with a minimum mounting dimension of 10".

ALL23021.....Aluminum
ALL23021-10......Aluminum 10-Pack

ALL23019.....Steel

ALL23019-10......Steel 10-Pack

Long Body

Brace has a 14" main body with a minimum mounting length of 16" and will extend to 27" long.

ALL23020......Steel **ALL23020-10**......Steel 10-Pack

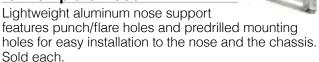
Modified Nose Support

ALL23073

Spring steel support fits under the nose panel for structural support and eases mounting of nose valances.



Nose Support for Template Nose

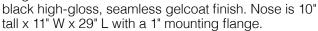


ALL23066 LH Support ALL23067 RH Support

Dragster Nose

ALL23278

Aerodynamic fiberglass nose is strong yet lightweight, with a durable,





Universal hooks are designed to be mounted behind the bumper cover providing a quick access point for towing a vehicle to the pit area or back onto the track. Bracket has two 5/16" mounting holes to secure bracket to the frame or inner bumper.

ALL22311 Solid Mount ALL22312 Swivel Mount



Bumper Hookup Kit

ALL22315

Cable kit mounts through the nose and around the bumper for easy wrecker hook-ups. Kit should be mandatory at every race track. Kit includes 3 ft. of coated cable and two clamps.



ALI 22097



8-Point Roll Bar Kits

Kits increase safety and the structural integrity of the vehicle. Main hoops are custom bent to fit each application precisely. Hoop and bars constructed of .134" mild steel, 1-3/4" diameter tubing. Welding required. Floor plates sold separately for unibody cars.



ALL22600 Camaro/Firebird 1967-69 **ALL22601** Camaro/Firebird 1970-81 **ALL22602** Camaro/Firebird 1982-92 **ALL22603** Camaro/Firebird 1993-02

ALL22604 Camaro 2010-15

ALL22608.... G-Body (Monte Carlo, Cutlass, Regal, Grand Prix) 1978-88

ALL22610 Mustang/Capri 1979-93

10-Point Roll Cage Kits

Kits increase safety and the structural integrity of the vehicle. Main hoops are custom bent to fit each application precisely. Hoop and bars constructed of .134" mild steel, 1-5/8" diameter tubing. Welding required. Floor plates sold separately for unibody cars.



ALL22620 Camaro/Firebird 1967-69 **ALL22621** Camaro/Firebird 1970-81 **ALL22622** Camaro/Firebird 1982-92 **ALL22623** Camaro/Firebird 1993-02

ALL22628 G-Body (Monte Carlo, Cutlass, Regal, Grand Prix) 1978-88

ALL22630 Mustang/Capri 1979-93

Floor Plates ALL22640

Bolt or weld these steel plates to the floor pan as required by most sanctioning bodies when installing roll bars into unibody cars. Increase the structural integrity and provide a solid mounting point for the roll bar. 6" x 6" plates are 1/8" (.125") thick and may also be used for a variety of other uses including fabricating brackets or mounts. Pack of 6.

Strut Bars ALL22642

Strut bars increase the rigidity and strength of a chassis eliminating flexing and increasing reaction times. Bars can be installed to upgrade existing ten point cage kits or when building a new chassis. Pro boot to fit a provide the strength of the stre

a new chassis. Pre-bent to fit a variety of applications, bars are 65" long overall with a 14" leg and constructed from 1-5/8" x .134" wall mild steel tubing.

Mini Stock Roll Cage Kits

Cage kits are designed with safety in mind for mini enduro and four cylinder classes and feature pre-cut and formed tubing specifically for two or four door vehicles listed. Kits are constructed of .095" wall x 1-3/4" mild steel tubing and include a m

constructed of .095" wall x 1-3/4" mild steel tubing and include a main hoop, halo, windshield posts, front and rear dash bars, curved door bars for the left side, and a Z-bar for the right side. Kits also include the components to build a sturdy foundation for installing the main cage, similar to the ALL22650 Welding required.

ALL22094 Chevrolet Cavalier NEW

ALL22096 Honda Civic ALL22097 Dodge Neon ALL22098 Ford Focus

Roll Cage Kit for Ford Escort

ALL22104

Kit Shown Assembled

Designed with safety in mind for mini enduro and four cylinder classes. Universal design is built for two or four door 1991-2002

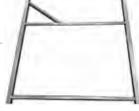


Ford Escort bodies. Kit is constructed of .095" wall 1-3/4" mild steel tubing and includes a main hoop, halo, windshield posts, front and rear dash bars, curved door bars for the left side, and a Z-bar for the right side. Also included are two lengths of 1-3/4" tubing to weld to the factory pinch welds and two lengths of 1-1/2" tubing to connect the two sides, creating a solid foundation for the cage and seat mount.

Mini Stock Roll Cage Installation Kit

ALL22650

Universal installation kit for mini stock or front wheel drive cars provides a solid base or foundation to mount a roll cage. Kit includes two 60" long 2" x 2"



square outside rails, two 54" long 1-3/4" round support tubes for securely mounting the cage and an additional foot area support.



Deluxe Roll Cage Kits

Kits include all pieces to assemble a Deluxe Roll Cage. Main hoop is fitted and tack welded together allowing for changes or custom seat mounts. Curved windshield posts fit closer to windshield pillar to increase driver visibility. Halo is curved and gusseted into the main hoop for maximum width.



driver clearance and support. Mild 1-3/4" x .109" wall steel tubing is notched and has uniform bends. Other features include four curved and one straight driver's side door bars, "Z" type right side door bars, additional lower cross bar added to main hoop for added side support and assist in seat mounting, and a center halo support.

ALL22100 '78-88 GM G-Body '70-81 Camaro/Firebird ALL22102 '70-77 Monte Carlo, Chevelle, Malibu, Etc.

ALL22105 '77-90 Caprice/Impala **ALL22106** '79-93 Mini Stock Mustang

Offset Deluxe Roll Cage Kit

Ideal for use with template style or ABC bodies. Perimeter frame mount roll cage has the same features as other Allstar deluxe kits but includes an offset main hoop and a narrow halo



for cars with an offset body or narrow roof.

ALL22109 Offset Kit 54" Wide Frame ALL22099 Offset Kit 57" Wide Frame

Standard Roll Cage Kits

Kits include all pieces to assemble a standard cage. Mild steel tubing is 1-3/4" x .109" wall, is notched and has uniform bends. Four driver's side curved door bars, "Z" type right side door bar and gussets are included.



ALL22101 '78-88 GM G-Body '70-81 Camaro/Firebird **ALL22103** '70-77 Monte Carlo, Chevelle, Malibu, Etc.

ALL22107 Mini Stock Universal

Roll Cage Kit for Crown Vic

ALL22095

Kit includes all pieces to assemble a roll cage for 1992-2012 Ford Crown Victoria models that is specially designed with safety in mind. Kit is constructed of 1-3/4"

x .109" wall mild steel tubing which is pre-notched and has uniform bends for easy assembly. Features include a main hoop with diagonal reinforcing bars that are tack welded together allowing for changes or custom seat mounts, halo center support, halo support gussets, A-pillar support bars, dash bar support bars, passenger side horizontal and diagonal door bars and four driver's side curved and one straight door bars. Note: Additional curved bars and spacers may be purchased separately for added safety if rules permit.

Kit Shown Assembled

Replacement Components

ALL22114..... Door Bar ALL22116..... Door Bar Spacer

Universal Support Bars

Support bars add extra strength where needed by creating a triangular joint or gusset. Bars are constructed of .109" mild steel 1-3/4" tubing that is pre-notched for proper fitment between right-angle joints of 1-3/4" tubing, often added to the foot box area or when adding main hoop supports to the frame if permitted. Sold in pairs.

ALL22680 6" **ALL22682** 12" **ALL22684** 24"

A-Pillar Support Bars

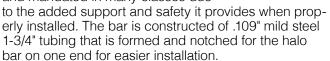
ALL22678

Bars add extra support to the windshield post of our Standard and Deluxe roll cage kits by creating a triangular joint in this area. Support bars are constructed of .109" mild steel 1-3/4" tubing that is pre-notched for proper fitment between the windshield post and the top door bar.

Windshield Support Bar

ALL22675

The windshield support bar is installed centered between the dash bar and halo bar to provide extra support to the halo bar and provide additional frontal protection to the windshield area. This style of bar is often referred to as an "Earnhardt Bar" and mandated in many classes due







Universal Front Hoop

ALL22108

Front support kit adds strength to the front section of race car by reducing excessive flex. Pre-cut and notched pieces of 1-3/4" x .095" wall mild steel tubing fasten to the existing roll cage and extend to the front of the chassis to strengthen vulnerable steering and radiator areas. Lower radiator mounting brackets are included. Kit requires the addition of two front arch supports (ALL22119)



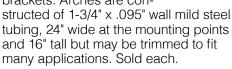


sold separately to complete installation. Some modifications may be required for installation.

Front Arch Support

ALL22119

Arch supports are required when installing Allstar front support kits. They add strength to suspension mounting area and create mounting points for shock brackets. Arches are con-







Narrow Front Arch Support

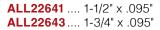
ALL22645

Arch supports replace the front arches found on many asphalt late models and modifieds or when fabricating a new chassis. Narrow triangular design arches are constructed of 1-3/4" x .095" wall, D.O.M. steel tubing, are 30" wide at the mounting points and 17" tall, but may be trimmed to fit many applications. Sold as a pair*.

*LH support features a small kick out for added header clearance.

Universal Strut Bars

Strut bars increase the rigidity and strength of a chassis to help eliminate flex and increase safety. Bars are constructed from .095" wall mild steel tubing to fit a variety of applications measuring 65" long overall with a 14" leg. Sold in pairs.





Universal Front Hoops

Universal front hoops come in 3 widths to fit a variety of mini stock chassis. Mild steel tubing is 1-1/2" x .083".



Part No.	Overall Width	Overall Length
ALL22652	40-1/2"	28"
ALL22653	46-1/2"	25"
ALL22654	51-1/4"	28"

Universal Rear Support

ALL22112

Rear support adds strength to the rear section of race car by reducing excessive flex. Kit includes pre-cut and notched pieces of 1-3/4" x .095" wall mild steel tubing which fasten to the existing roll cage and extend to the rear of the chassis. Some modifications may be required for installation.



Frame Repair Plate for Metric Chassis

ALL60085

1/8" steel rear frame plate fits 1978-88 GM metric cars. Plate is cut to fit stock frames and measures 4-1/4" x 27 "

Door Bar Components for Rocket Dirt Late Models

ALL22390/22391
three-point door bar
mounts are constructed of 1" steel tubing and
bolt to the frame. Each
mount has a pre-welded
sleeve sized to accept
posts of the ALL22392
steel door bar.



Right Hand Jack Post Kit

ALL22111

Bolt-on kit fits offset chassis requiring a jack post to raise vehicle. Includes an assembled bar loop with lift post and precut mounting bars to be welded in place. The mounting bars then bolt to chassis tabs (not included) for removal and installation.





Universal Seat Mount Kit

ALL22110

1-1/2" diameter x .095" wall mild steel tubing attaches to roll cage, to safely and effectively mount a seat. Use with Allstar roll cage kits. Kit is sold unassembled and requires welding.



Crown Vic Seat Mount Kit

ALL22126

Kit includes pre-bent and notched tubes to build the lower portion of a seat mount kit for our Crown Vic and Deluxe roll cage kits or other kits that use the LH straight lower door and cross bar located on the main hoop. Mount kit is constructed of 1-1/4"



x .120" wall tubing and includes gusset style lower seat mounting tabs and seatbelt mounting tabs.

Upper Seat Mount Bar Will



ALL98134

Pre-formed bar is built from 1-1/4" x .083 mild steel tubing to create an upper seat mount support when the seat needs to be spaced away from the main hoop. Designed to be welded to the horizontal crossbar of the main hoop providing a mounting point for upper seat tabs. Overall dimensions are 20" wide x 12" long, legs may be shortened as needed for proper fit.

Upper Seat Mount Bracket



ALL98132

Aluminum seat bracket secures the upper portion of the seat to the main hoop providing even support across the entire seat. The rear portion of the bracket is 16" wide x 4-3/4" long in the center tapering out to 5-3/4" with a 12° v-shaped mount formed to fit a 20-25° layback style seat.

Bolt-In Lower Seat Mount Brackets

ALL98130

Seat brackets are constructed of 3/16" aluminum and designed to fasten an aluminum racing seat to a reinforced stock style floor pan. Additional floor reinforcements recommended as required per sanctioning body rules.

Upper Seat Mount Spacer Kit Will



ALL98140

Spacers are placed between rear of seat and cage brackets to cradle and support the seat back. Kit includes up to 2" of spacer adjustment, including two 1/4", three 1/2" and a single 12° v-shaped tapered spacer to fit the seat back. Spacer mounting holes are 3-1/4" to 6-3/4" on center and accept 3/8" mounting hardware.

Seat Mount Brackets

Made from 1/8" thick mild steel. Upper bracket is angled to fit against the back of most aluminum racing seats. Two-piece design allows front-to-back and side-to-side adjustment. Upper mount brackets may be bolted or welded. Lower mount welds to 1-1/2" or 1-3/4" tubing.



ALL60032 Upper, 2-Piece ALL60033 Lower

Seat Belt Bar for Shoulder Harness



ALL98135

Pre-formed bar is built from 1-1/4" x .083 mild steel tubing to create a mounting point for the shoulder harness belts that is separate from the upper seat mount. Designed to be welded to the horizontal crossbar of the main hoop to provide a mounting point for wrap-around style seat belts or mounting tabs for bolt-in style seat belts. Overall dimensions are 20" wide x 8" long, legs may be shortened as needed for proper fit.

Double-Shear Seat Belt Tab

ALL60031

Bracket welds to chassis for solid seat belt mount to the chassis, yet still able to pivot. Double-shear design provides twice the strength of a single tab style mount. Steel bracket accepts 1/2" hardware.

Weld Bung for Seat Belts

ALL98125

Bung welds into tubing up to 1-3/8" to convert wraparound style seat belts to bolt-in ratchet style belts. Shoulder allows belt to pivot as needed and accepts 3/8" seat belt mounting hardware.



Curved Door Bar

ALL22114

Curved door bar is constructed of 1-3/4"

O.D. x .109" wall mild steel tubing and is the same door bar included in Allstar's Standard and Deluxe roll cage kits. Bar is notched to fit between two vertical posts spaced 43" on center and adds approximately 6" to the width of the cage.

Door Bar Spacers

Spacers fit between two door bars for added support and to equally space door bars apart. Constructed of 1-3/4" O.D. x .109" wall mild steel tubing.

ALL22115..... 4" Spacer, spaces door bars 3" apart. ALL22116..... 5" Spacer, spaces door bars 4" apart.

Swing-Out Door Bar Kit

ALL22670

Kit includes hardware and mounting brackets



needed when installing a swing out style door bar on roll bar equipped car. Kit includes mild steel brackets, spacers, quick release T-handle pin, and mounting hardware.

Door Plate

Plates are designed to be welded between the

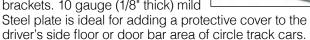


driver's side door bars. Plates may also be used to box "C"-type frame rails to add support and strength at critical roll cage mounting points. Plate is 1/8" thick.

ALL22118..... 4" x 48" **ALL22122** 5" x 48"

Steel Plate

Steel plate is useful for many building projects or fabricating brackets. 10 gauge (1/8" thick) mild



ALL54070 18" x 26" **ALL54071** 24" x 24" **ALL54072** 24" x 36"

Door Bar Clamp

ALL14198

Clamp fastens around a 1-1/2" door bar, allowing a steel door plate to be mounted to the outside of the door bar area. Clamp eliminates the need to weld mounting tabs or door plate directly to a finished chassis. Sold each and includes 1/2" mounting hardware.





Steering Column Brackets

Stamped-steel brackets weld to dash bars to create a mounting point for steering shaft when using a 3/4" oversized rod end. Brackets are 3-1/8" wide and. 4" and longer brackets are prenotched for 1-1/2" dash bars but are easily modified to fit other size bars.

ALL52120 2-1/2" Long **ALL52122** 4" Long **ALL52124** 8" Long **ALL52126** 10" Long

Steering Shaft Rod End Mounting Tab

ALL52133

Gusseted weld-on tab provides an excellent mounting point for the 3/4" oversized rod end (ALL52132) when building custom steering shaft assemblies. Tab is designed to cradle into round chassis tubing with built-in gussets adding strength and reducing flex.



Related Component

ALL52132 Oversized 3/4" Rod End Kit

Steering Quickener Bracket

ALL60028

Mounts all popular steering quickeners including AFCO, Coleman, Howe, and others. Bracket has two holes, spaced 1-3/4" apart, and may be welded to 1-1/2" or 1-3/4" diameter tubing.

Floor Pedal Plate

ALL54050



Weld-in pedal plate is 23" \times 5" \times 1/8" and speeds up race car construction by providing the proper spacing for mounting pedal/master cylinder assemblies.

Hanging Brake Pedal Mount

ALL54060

Welds to chassis to mount Wilwood and Tilton style hanging pedals. Notched to clear balance bar.



NEW LENGTHS FOR REDUCED SHIPPING COSTS COMPARED TO 8FT. LENGTHS WITH OVERSIZE FEES



Mild Steel Tubing

Sold only in pre-cut lengths. Always check wall thickness tolerance before cutting or welding, especially if the car is to be certified. Tubing wall thickness will vary.

Round Mild Steel Tubing



Description	4' Length	7.5' Length	12' Length	19' or 20' Length
3/8" x .065"	ALL22117-4	ALL22117-7	ALL22117-12	_
1/2" x .065"	ALL22120-4	ALL22120-7	ALL22120-12	ALL22120-20
3/4" x .065"	ALL22124-4	ALL22124-7	ALL22124-12	ALL22124-20
1" x .065"	ALL22128-4	ALL22128-7	ALL22128-12	ALL22128-20
1" x .083"	ALL22129-4	ALL22129-7	ALL22129-12	ALL22129-20
1-1/4" x .083"	ALL22132-4	ALL22132-7	ALL22132-12	ALL22132-20
1-1/4" x .120"	ALL22134-4	ALL22134-7	_	ALL22134-20
1-1/2" x .065"	ALL22136-4	ALL22136-7	ALL22136-12	ALL22136-20
1-1/2" x .083"	ALL22130-4	ALL22130-7	ALL22130-12	ALL22130-20
1-1/2" x .095"	ALL22138-4	ALL22138-7	ALL22138-12	ALL22138-20
1-1/2" x .120"	ALL22137-4	ALL22137-7	ALL22137-12	ALL22137-20
1-5/8" x .120"	ALL22139-4	ALL22139-7	ALL22139-12	-
1-5/8" x .134"	_	ALL22141-7	ALL22141-12	_
1-3/4" x .065"	ALL22144-4	ALL22144-7	ALL22144-12	ALL22144-20
1-3/4" x .095"	ALL22146-4	ALL22146-7	ALL22146-12	ALL22146-20
1-3/4" x .109"	ALL22149-4	ALL22149-7	ALL22149-12	ALL22149-20
1-3/4" x .134"	_	ALL22148-7	ALL22148-12	-

Round D.O.M. Mild Steel Tubing



Description	4' Length	7.5' Length	12' Length	17' or 20' Length
1" x .120"*	ALL22127-4	ALL22127-7	ALL22127-12	ALL22127-(17 or 20)†
1-1/2" x .083"*	ALL22133-4	ALL22133-7	ALL22133-12	ALL22133-(17 or 20)†
1-1/2" x .095"*	ALL22135-4	ALL22135-7	ALL22135-12	ALL22135-17 [†]
1-5/8" x .120"*	ALL22140-4	ALL22140-7	ALL22140-12	ALL22140-17 [†]
1-3/4" x .095"*	ALL22145-4	ALL22145-7	ALL22145-12	ALL22145-17 [†]
1-3/4" x .120"*	ALL22147-4	ALL22147-7	ALL22147-12	ALL22147-17 [†]

^{*}Tubing is drawn over mandrel (D.O.M.) and has tighter wall thickness tolerance.

Square Mild Steel Tubing



Description	4' Length	7.5' Length	12' Length	19' or 20' Length
1/2" x .065"	ALL22160-4	ALL22160-7	ALL22160-12	ALL22160-20
3/4" x .049"	ALL22163-4	ALL22163-7	ALL22163-12	_
3/4" x .065"	ALL22164-4	ALL22164-7	ALL22164-12	ALL22164-19
1" x .083"	ALL22169-4	ALL22169-7	ALL22169-12	ALL22169-20
1-1/2" x .083"	ALL22175-4	ALL22175-7	ALL22175-12	ALL22175-20
2" x .083"	ALL22182-4	ALL22182-7	ALL22182-12	ALL22182-20

Rectangular Mild Steel (1018)



Description	4' Length	7.5' Length	12' Length	20' Length
1" x 2" x .120"	ALL22183-4	ALL22183-7	ALL22183-12	ALL22183-20
2" x 3" x .083"	ALL22184-4	ALL22184-7	ALL22184-12	ALL22184-20

12 FT. AND LONGER LENGTHS FOR LOCAL PICKUP ONLY!

[†]Length is determined by mill run. Call for availability.



Round Chrome Moly Steel Tubing (4130N)

Sold only in pre-cut lengths. Always check wall thickness tolerance before cutting or welding, especially if the car is to be certified. Tubing wall thickness will vary.



Description	4' Length	7.5' Length	12' Length	17', 19' or 20' Length
1/4" x .035"	ALL22000-4	ALL22000-7	ALL22000-12	_
3/8" x .058"	ALL22005-4	ALL22005-7	_	_
1/2" x .049"	ALL22010-4	ALL22010-7	_	_
1/2" x .058"	ALL22012-4	ALL22012-7	_	_
5/8" x .049"	ALL22015-4	ALL22015-7	_	-
5/8" x .058"	ALL22017-4	ALL22017-7	_	_
3/4" x .049"	ALL22020-4	ALL22020-7	ALL22020-12	_
3/4" x .058"	ALL22022-4	ALL22022-7	ALL22022-12	ALL22022-20†
3/4" x .095"	ALL22024-4	ALL22024-7	_	_
3/4" x .120"	ALL22026-4	ALL22026-7	_	_
7/8" x .058"	ALL22030-4	ALL22030-7	ALL22030-12	_
7/8" x .095"	ALL22032-4	ALL22032-7	_	_
1" x .049"	ALL22040-4	ALL22040-7	_	_
1" x .058"	ALL22042-4	ALL22042-7	ALL22042-12	_
1" x .065"	ALL22044-4	ALL22044-7	ALL22044-12	ALL22044-17 [†]
1" x .083"	ALL22045-4	ALL22045-7	_	_
1" x .095"	ALL22046-4	ALL22046-7	_	ALL22046-20†
1-1/8" x .058"	ALL22050-4	ALL22050-7	ALL22050-12	_
1-1/8" x .083"	ALL22054-4	ALL22054-7	ALL22054-12	_
1-1/4" x .058"	ALL22060-4	ALL22060-7	ALL22060-12	ALL22060-20†
1-1/4" x .065"	ALL22062-4	ALL22062-7	ALL22062-12	ALL22062-20†
1-1/4" x .083"	ALL22061-4	ALL22061-7	ALL22061-12	ALL22061-19†
1-1/4" x .095"	ALL22063-4	ALL22063-7	ALL22063-12	ALL22063-20 [†]
1-1/4" x .120"	ALL22064-4	ALL22064-7	_	_
1-3/8" x .058"	ALL22070-4	ALL22070-7	_	_
1-3/8" x .095"	ALL22072-4	ALL22072-7	_	_
1-1/2" x .049"	ALL22079-4	ALL22079-7	_	_
1-1/2" x .058"	ALL22080-4	ALL22080-7	_	_
1-1/2" x .065"	ALL22082-4	ALL22082-7	ALL22082-12	_
1-1/2" x .083"	ALL22084-4	ALL22084-7	ALL22084-12	ALL22084-17†
1-1/2" x .095"	ALL22086-4	ALL22086-7	ALL22086-12	_
1-5/8" x .083"	ALL22090-4	ALL22090-7	ALL22090-12	ALL22090-17†
1-3/4" x .083"	ALL22093-4	ALL22093-7	ALL22093-12	ALL22093-20

†Length is determined by mill run. Please call for availability.

Threaded Tubing Ends

Chrome moly 4130 steel tubing ends are ideal for building custom length suspension tubes. Available in RH and LH threads.





Thread Size	Tubing Size	Tube End Insert O.D.	RH Part No.	LH Part No.
10-32	3/8" x .058"	.259"	ALL22500	_
5/16"-24	1/2" x .058"	.384"	ALL22504	_
3/8"-24	5/8" x. 058"	.509"	ALL22508	ALL22509
3/8"-24	3/4" x .058"	.634"	ALL22512	ALL22513
1/2"-20	7/8" x .058"	.759"	ALL22518	ALL22519
1/2"-20	1" x .058"	.884"	ALL22522	ALL22523
1/2"-20	1" x .065"	.870"	ALL22526	ALL22527
1/2"-20	1-1/8" x .058"	1.00"	ALL22530	ALL22531
5/8"-18	1" x .058"	.884"	ALL22534	ALL22535
5/8"-18	1" x .095"	.810"	ALL22538	ALL22539
5/8"-18	1-1/4" x .095"	1.060"	ALL22542	ALL22543‡
5/8"-18	1-1/4" x .120"	1.010"	ALL22546	ALL22547‡
3/4"-16	1-1/4" x .065"	1.120"	ALL22548	ALL22549‡
3/4"-16	1-1/4" x .095"	1.060"	ALL22550	ALL22551‡
3/4"-16	1-1/4" x .120"	1.010"	ALL22554	ALL22555‡
3/4"-16	1-3/8" x .095"	1.185"	ALL22558	ALL22559‡

‡Tube end has built-in hex for adjusting.

12 FT. AND LONGER LENGTHS FOR LOCAL PICKUP ONLY!



120° End View

Reinforced Aluminum Angle, 120°

Aluminum angle provides a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels and doors. The reinforced design adds additional strength over standard 120° angle with an extra bend which also allows easier access to body brace bolts. Angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1-1/2" wide and has predrilled 1/4" holes on 1" centers.

ALL23140	26" Long
ALL23140-5	26" Long, 5-Pack
ALL23141	30" Long
ALL23141-5	30" Long, 5-Pack
ALL23142	66" Long
ALL23142-5	66" Long, 5-Pack

Aluminum Angle, 120°

Aluminum angle provides a mounting point for strapping or body braces, typically used on the lower section of rear quarter panels. 120° angle allows supports or braces to angle upward toward the chassis. Angle is 1/8" thick x 1" wide and has pre-drilled 1/4" holes on 1" centers.

pro armoa i, i riolog dir i dontoro.	
ALL23130 26" Long	
ALL23130-5 . 26" Long, 5-Pack	
ALL23131 30" Long	120°
ALL23131-5 . 30" Long, 5-Pack	End View
ALL23132 66" Long	
ALL23132-5 . 66" Long, 5-Pack	

Aluminum Angle, 90°

Aluminum angle provides a mounting point for strapping or body braces, typically used on the upper section of rear quarter panels and door panels. 90° angle allows supports or braces to fasten directly to the chassis. Angle is 1/8" thick x 1" wide and has pre-drilled 1/4" holes on 1" centers.

ALL23134	26"	Long	
ALL23134-5			5-Pack
ALL23135	30"	Long	
ALL23135-5	30"	Long,	5-Pack
ALL23138	66"	Long	
ALL23138-5	66"	Lona.	5-Pack

Slotted Aluminum Angle, 90°

ALL23124

Slotted angle aluminum brace connects and strengthens body panels. Brace is 1/8" thick x 1"W x 72"L with 3/8" x 5/8" slots. Ideal for use along tops of spoilers.

90° End View

90° End View

12 FT. AND LONGER LENGTHS FOR LOCAL PICKUP ONLY!

Aluminum Flat Stock

6063-T5 aluminum flat stock is ideal for fabricating mounting brackets, etc.

Description	4' Length	7.5' Length	12' Length	16' Length
Flat Stock 1" Wide				
1/8" Thick	ALL22250-4	ALL22250-7	ALL22250-12	ALL22250-16
3/16" Thick	ALL22251-4	ALL22251-7	ALL22251-12	ALL22251-16

Aluminum Angled Stock

1" x 1" 6063-T5 aluminum stock is ideal for fabricating mounting brackets, etc.

Description	4' Length	7.5' Length	16' Length
1" x 1" x 1/16" Thick	ALL22253-4	ALL22253-7	ALL22253-16
1" x 1" x 1/8" Thick	ALL22254-4	ALL22254-7	ALL22254-16
1" x 1" x 3/16" Thick	ALL22255-4	ALL22255-7	ALL22255-16

Aluminum Square and Rectangular Tubing

Tubing is 6063-T5 grade alloy with .125" wall thickness. Ideal for fabricating rub rails or building shop, trailer or pit equipment like ladders, pit carts and tire racks.

Description	4' Length	7.5' Length	12' Length	20' Length
Square				
3/4" x 3/4"	ALL22256-4	ALL22256-7	ALL22256-12	ALL22256-20
1" x 1"	ALL22257-4	ALL22257-7	ALL22257-12	ALL22257-20
Rectangular				
1" x 2"	ALL22258-4	ALL22258-7	ALL22258-12	_

Aluminum Round Tubing

Round 1-1/2" x .083" tubing is 6061-T6 grade alloy which is ideal for building bumpers.

ALL22085-44' Length
ALL22085-7 7.5' Length
ALL22085-12 12' Length

Steel Flat Stock

Steel flat stock is ideal for building projects around the shop or creating supports when needed. Standard grade steel has excellent welding characteristics and is easily cut and shaped.

Description	4' Length	7.5' Length	12' Length
1" x 1/8"	ALL22150-4	ALL22150-7	ALL22150-12
1" x 3/16"	ALL22151-4	ALL22151-7	ALL22151-12
1-1/2" x 1/8"	ALL22152-4	ALL22152-7	ALL22152-12
2" x 1/8"	ALL22154-4	ALL22154-7	ALL22154-12
2" x 3/16"	ALL22155-4	ALL22155-7	ALL22155-12

Steel Angled Stock

Steel angled stock is ideal for building projects around the shop or creating supports when needed. Standard grade steel has excellent welding characteristics and is easily

Description	4" Length	7.5' Length	12' Length
1" x 1" x 1/8"	ALL22156-4	ALL22156-7	ALL22156-12
1-1/2" x 1-1/2" x 1/8"	ALL22157-4	ALL22157-7	ALL22157-12
2" x 2" x 1/8"	ALL22158-4	ALL22158-7	ALL22158-12



Flat Tabs

Mild steel flat tabs have a straight edge and can be welded to round tubing, square tubing or flat plate.

		Quantity		Overall	Center Of	Hole
Part No.	Description	Per Pack	Thickness	Height	Hole Height	Diameter
ALL60004	1/8" Tab, 5/8" Hole	4	1/8"	2-5/16"	1-11/16"	5/8"
ALL60005	1/8" Tab, 1/2" Hole	4	1/8"	1-7/8"	1-5/16"	1/2"
ALL60006	3/16" Tab, 1/2" Hole	4	3/16"	1-7/8"	1-5/16"	1/2"
ALL60007	1/4" Tab, 3/8" Hole	4	1/4"	2"	1-3/8"	3/8"
ALL60008	1/4" Tab, 1/2" Hole	4	1/4"	2"	1-3/8"	1/2"
ALL60009	1/8" Tab, 1/4" Hole	4	1/8"	1-5/8"	1-1/4"	1/4"
ALL60012	1/8" Tab, 1/4" Hole	4	1/8"	1-7/16"	7/8"	1/4"
ALL60088	1/8" Tab, 1/4" Slotted Hole	4	1/8"	1-7/16"	7/8"	1/4" x 1/2"
ALL60013	1/8" Tab, 3/8" Hole	4	1/8"	1-7/16"	7/8"	3/8"
ALL60018	3/16" Seat Tab	4	3/16"	1-1/2"	7/8"	1/2"
ALL60019	1/4" Seat Tab	4	1/4"	1-1/2"	7/8"	1/2"
ALL60020	Window Frame Tab	10	1/16"	1"	3/4"	3/16"
ALL60021	Window Frame Tab	10	1/16"	3/4"	1/2"	3/16"
ALL60022	Bumper Tab	4	1/8"	1-1/4"	15/16"	1/4"
ALL60076	Chassis Tab	4	1/8"	1-3/4"	1-3/16"	3/8"
ALL60030	Mounting Tab	4	.100"	1-1/4"	3/4"	5/8"
ALL60090	Mounting Tab	4	.100"	1-1/4"	3/4"	3/8"
ALL60091	Mounting Tab	4	.100"	1-1/4"	3/4"	7/16"
ALL60092	Mounting Tab	4	.100"	1-1/4"	3/4"	9/16"



Radius Tabs

Mild steel radius tabs have a contoured edge to fit various sizes of round tubing.

		Quantity		Overall	Center Of	Hole
Part No.	Description	Per Pack	Thickness	Height	Hole Height	Dia.
ALL60000	3/16" Tab, No Hole	4	3/16"	2-3/8"	-	-
ALL60001	3/16" Tab, 3/8" Hole	4	3/16"	2-3/8"	1-3/4"	3/8"
ALL60002	3/16" Tab, 1/2" Hole	4	3/16"	2-3/8"	1-3/4"	1/2"
ALL60003	1/8" Tab, 1/4" Hole	4	1/8"	2"	15/16"	1/4"
ALL60010	1/8" Tab, 1/4" Hole	4	1/8"	1-1/8"	9/16"	1/4"
ALL60011	1/8" Tab, 3/8" Hole	4	1/8"	1-1/8"	9/16"	3/8"



Gusset Tabs

Mild steel tabs have built-in gussets for added support. Choose tabs that mount parallel or perpendicular to tubing. Pack of 4.

Part No.	Description	Thickness	Overall Height	Center Of Hole Height	Hole Dia.
ALL60014	Round Tube, 1/4" Hole	1/8"	1-1/2"	1"	1/4"
ALL60015	Round Tube, Slotted	1/8"	1-1/2"	7/8"	1/4" x 3/4"
ALL60016	Round Tube, 3/8" Hole	1/8"	1-3/4"	1-1/4"	3/8"
ALL60017	Round Tube, 1/2" Hole	1/8"	1-3/4"	1-1/4"	1/2"
ALL60041	Round Tube, 1/4" Hole	1/8"	1-3/4"	1-1/4"	1/4"
ALL60086	Round Tube, 1/4" Hole	.085"	1-7/16"	1-15/16"	1/4"
ALL60087	Round Tube, 1/4" Hole	1/8"	1-7/16"	1-15/16"	1/4"
ALL60024	Flat Mount, 3/8" Hole	.085"	1-9/16"	7/8"	3/8"
ALL60027	Flat Mount, 1/4" Hole	.085"	1-9/16"	7/8"	1/4"



ALL60014





ALL60011

ALL60015

ALL60002

ALL60016 ALL60017

0



ALL 60096

ALL60024 ALL60027

ALL60041

ALL60086 ALL60087

Universal Hood Pin Mount ALL60067

Universal bracket with 1/4" mounting holes can be bolted on or welded in place. Bracket accepts 1/2" hood pins to secure hood and deck lids along with many other uses. Constructed of .100" steel, bracket has a built-in reinforcing gusset for added strength.

Universal Chassis Bracket ALL60068

Universal gusseted bracket is 3/16" thick and welds on for many uses including engine and body mounts. Bracket is 2-1/4" wide x 3-1/4" long and has a 1/2" hole located 1" from the end of the bracket.

Universal Mounting Bracket ALL60072 Universal formed bracket is 1/8"

Universal formed bracket is 1/8" thick and welds on for many uses, including a body mount when modifying or fabricating chassis or as a rear engine mount bracket when used with rear engine mounts. Bracket is 2-1/4"W x 6-1/2"L and may be drilled for a variety of uses.

Brake Line Adapter Mounting Tabs

Secure brake line adapters or bulkhead fittings, or use as a mounting tab for a variety of uses.

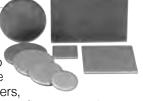
ALL60029....Bolt-On with 5/8" Hole, 2-Pack ALL60030....Weld-On with 5/8" Hole, 4-Pack ALL60092....Weld-On with 9/16" Hole, 4-Pack ALL60091....Weld-On with 7/16" Hole, 4-Pack ALL60090....Weld-On with 3/8" Hole, 4-Pack





Tubing End Caps

Steel end caps weld to the end or inside of tubing to provide a clean look, prevent sharp exposed edges, and seal tubes to keep out dirt and debris. Caps are commonly used on ends of bumpers,



to fill existing holes in frames and as a flat gusset when butt joining sections of square or rectangular tubing. Pack of 10.

Part No.	Description	Thickness				
Round End Caps						
ALL22280	7/8" O.D.	.125"				
ALL22285	1" O.D.	.125"				
ALL22281	1-1/4" O.D.	.125"				
ALL22286	1-3/8" O.D.	.125"				
ALL22282	1-1/2" O.D.	.125"				
ALL22283	1-5/8" O.D.	.125"				
ALL22287	1-11/16" O.D.	.125"				
ALL22284	1-3/4" O.D.	.125"				
Square End Caps						
ALL22290	1" x 1"	.085"				
ALL22291	1-1/2" x 1-1/2"	.085"				
ALL22292	2" x 2"	.085"				
Rectangle End Cap						
ALL22294	2" x 3"	.085"				

Gussets

Gussets add support and strength to tubing joints

when building roll cages or chassis mounts. Solid, one-, or three-hole gussets are 1-7/8" tall x 1/8" thick.

Description	10-Pack	100-Pack
Solid	ALL22192	ALL22192-100
With One Hole	ALL22194	ALL22194-100
With Three Holes	ALL22196	ALL22196-100

Wrap-Around Gussets

Gussets fit 1.50" to 1.75" tubing and can be used to join tubing from 70° to 110°. Wrap-around gussets are 1/16" thick and provide more support and rigidity than a standard flat gusset.



ALL22199 10-Pack **ALL22199-50** 50-Pack

Rub Rail Flange

ALL60023

Flanges are 3/16" thick and commonly used when building bolt-on style rub rails. Center hole accepts 1-1/4" tubing and has two 3/8" mounting holes spaced 2-1/4" apart. Pack of 4.

Charging Post Bracket

ALL60064

Securely mount Allstar charging posts on vehicles where battery is not easily accessible. Predrilled holes allow quick mounting to frame or body. Double-D hole design positions posts close together, but provides enough room for charging or jumper cable clamps. Charging posts sold separately.

Weld-On Nuts

Weld these steel nuts into a predrilled hole to provide a strong and easy method of bolting brackets or accessories to chassis. Nuts are often used when the back side of a fastener is not accessible and they



allow quicker installation and/or removal of chassis components.

1/4"-20 Nut for 3/8" Hole

ALL18546............ (5/16" UHL), 4-Pack **ALL18546-25**..... (5/16" UHL), 25-Pack

3/8"-16 Nut for 3/4" Hole

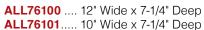
ALL18549...... Short (3/8" UHL), 4-Pack **ALL18549-25....** Short (3/8" UHL), 25-Pack **ALL18550......** Long (7/8" UHL), 4-Pack **ALL18550-25....** Long (7/8" UHL), 25-Pack

1/2"-13 Nut for 3/4" Hole

ALL18551.......... Short (3/8" UHL), 4-Pack **ALL18551-25**..... Short (3/8" UHL), 25-Pack **ALL18552**...... Long (7/8" UHL), 4-Pack **ALL18552-25**..... Long (7/8" UHL), 25-Pack

Battery Boxes

Universal, lightweight steel battery boxes may be welded or bolted to the frame. Boxes are available in two sizes and include holddown hardware.



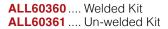
Battery Disconnect Switch Mounting Bracket

ALL60365

The weld-on bracket provides a secure mounting location for battery disconnect switches. The bracket is pre-notched for welding to 1-1/2" round tubing and features a 5/8" mounting hole for most battery disconnect switches or our switch with panel.

Remote Starter Button Shroud Kits

Kit mounts a remote starter button directly to chassis tubing. Kit includes a shroud to help protect against accidental activation, tab, and starter button.







Coil Spring Spacer

ALL56116

Spacer for 5" racing spring welds into spring pocket, enabling chassis adjustments on street stock and other race cars that are not allowed to use weight jack bolts or threaded adjusters. 3" tall s

jack bolts or threaded adjusters. 3" tall spacer may be cut to desired height before installation. Use coil shim spacers to make chassis adjustments.

Related Components

ALL56120 3/16" Shim **ALL56121** 1/8" Shim

Adjustable Coil Spring Spacers

Adjustable spacers for 5" racing springs weld into spring pockets, enabling chassis adjustments on street stock and other race cars that are not allowed to use weight jack bolts.

ALL56118..... Steel Adjuster

ALL56119..... Steel Sleeve with Alum. Adj. Nut





ALL56119

Weight Jack Bolt Collars

Steel collar typically welds onto frame or chassis for installation of a threaded jack bolt. Collar includes grease fitting.

ALL56098 1-1/8"-12 **ALL56099** 1"-8



ALL56098

Weight Jack Bolt Sleeves

Weld-in mild steel sleeve provides a mounting point for jack bolts or adjustable shock mounts. Sleeves are 2" long and have a 1-3/8" O.D. for welding onto chassis tubing.

ALL56073 1-1/8"-12 **ALL56109** 1"-8



ALL56073

Coarse Thread Nut with Sleeve

ALL56111

Steel coarse thread nut with sleeve has 1"-8 coarse threads.

Weight Jack Plate

ALL56112

Heavy-duty steel plate has a threaded boss welded to the center to accept jack bolts with 1"-8 coarse threads. O.D. is 5".



Chassis Tie Down Brackets

ALL60075

Steel brackets weld to chassis and provide a secure mounting location to hook a tie-down strap or winch cable. Pack of 2.



Slotted Upper Control Arm Bracket Kit ALL60077

Kits contain (2) slotted brackets, (2) centered bushings, (2) reducer spacers for 5/8" rod end and a 1/2" bolt and nyloc nut. Offset aluminum bushings (sold separately) allow for plenty of adjustment options.



Insert Bushings

ALL60080	. Centered Bushings (Pair)
ALL60081	. 1/8" Offset Bushings (Pair)
ALL60082	. 1/4" Offset Bushings (Pair)
ALL60083	. 3/8" Offset Bushings (Pair)
ALL60084	. 1/2" Offset Bushings (Pair)

Upper Control Arm Brackets

ALL60025

Stamped, 3/16" thick mild steel brackets weld to chassis to provide a mounting point for upper control arm. Brackets are sold in pairs and

have two 5/8" mounting holes, spaced 7/8" apart for adjustment. May be trimmed to desired height.

Upper Control Arm Bracket

ALL60190

Bracket is flame cut from 1/2" thick steel, with 6" bolt spacing. Welds to frame and accepts upper A-arm.



Front Strut Mounting Bracket

ALL60215

Designed for use with any stud mount coil-over

strut, mounting brackets attach to the front strut bars. Brackets are also flat for universal applications and may be bent to fit multiple configurations of tubes and angles on varying chassis options.



Dave Sensiba



Weld-On Shock Brackets

Weld-on shock brackets mount standard and coil-over shocks with 1/2" I.D. inner bushing or 1/2" rod end to chassis as well as many other uses. 1/8" thick mild steel brackets include 1/2" bolt, spacer and locknut.

Notched Tube Mount

Bracket is notched for 1-1/2" - 1-3/4" round tubing to create a gusset style mount that welds on three sides. Notched design positions the bracket perpendicular to the tubing at a 90° angle for straight mount and approximately a 75° angle for angled mounts.

Straight Mount



Angle Mount



ALL60100 Left-Hand Single ALL60101 Right-Hand Single

Round Tube Mount

Bracket welds parallel onto tubing. Typically mounted above or below tubing and includes 1/2" shock mounting hardware. Mounting positions are on 1" centers.

ALL60107 Single ALL60114..... Two Position ALL60115..... Three Position



ALI 60106

Flat Mount

Bracket mounts to a flat surface or square tubing.

ALL60106 Single

Replacement Components

ALL99100 Bolt, locknut, and bushing

ALL99101 Bushing only

Clamp-On Shock Brackets

Clamp-on shock brackets mount standard and coil-over shocks with 1/2" I.D. inner bushings to round tubing without welding. Easily add additional mount or pivot





mount when experimenting or trying different set-ups. Standard brackets position the shock approximately 1" below the chassis tubing. Drop mount brackets position the shock approximately 2-1/2" below the chassis tubing. Brackets include mounting hardware with nyloc locking nuts.

Clamp-On

ALL60220 1.3/4" ALL60221 1.1/2" ALL60222 1.1.4" Drop Mount Clamp-On ALL60225 1.1/2"

Upper Coil-Over Shock Mount Kit

ALL60230

Weld-in kit provides a mounting point for rear coil-over shock mounts on tube, boxed or stock frames with up to 48" between frame rails. Great for drag racing and street applications, kit includes a 48" long, .120" wall x



1-1/2" mild steel tube, reinforced mounting tabs, 2" x 3" end plates and 1/2" hardware.

1/2" Rod End Mount

ALL60073

3/16" thick steel mount with 1/2" holes accepts rod ends up to 5/8" wide. Mount is 1-5/8" tall overall.



Track Bar Locator Brackets

Track bar locator brackets are an ideal bolton mounting point for rod ends commonly found on Panhard bars, track bars or rear

found on Panhard bars, track bars or rear ALL60079 axle housing track locators. Steel brackets are fabricated from 3/16" material and accept 1/2" rod ends.

ALL60079 5/8" Hole, 1" Spacing **ALL60089** 3/4" Hole, 1-3/16" Spacing

Wheelie Bar Wheel Bracket Kit

ALL60500

Wheelie bar wheel brackets are a great start to building a custom set of wheelie bars featuring double shear strut mounting tabs with two 3/8" holes. Kit accepts wheelie bar wheels up to 1.625" w x 4" diameter with a 3/8" I.D. axle. Welding is required.







Lower Spring Cups

Steel spring cup has a 7" wide curved base that welds to the top of a 3" diameter rear end axle tube creating a flat mounting surface for a 5" O.D. racing springs.

Commonly used to replace
OE style "pigtail" lower spring mount. Sold each.

ALL56124 Standard Cup ALL56123 Lightweight Cup



Panhard Bar/Third Link Brackets

Brackets have a built-in arch for adjustment of the Panhard bar or third link angle without changing the length of the arm. Brackets are 1/8" thick. Sold as a pair.

ALL60162 6-Hole Brackets with 1/2"
Holes

ALL60163 6-Hole Brackets with 5/8" Holes

ALL60165 6-Hole Brackets with 3/4" Holes ALL60167 5-Hole Brackets with 3/4" Holes



ALL60162 ALL60167 ALL60163

Ford 9" Truss Support

ALL68330

Weld-on support adds strength to rear axle housing and reduces unwanted flex during extreme torque. Constructed of 12 gauge (.108") steel. 36" L x 2" W. Additional trimming required to properly fit housing.

Leaf Spring Pad

ALL56126

Steel pad welds to 3" diameter rear end axle tube when mounting rear end to most leaf springs. Pad is 2-1/2" W by 5-3/4" L and has a 5/8" center pilot hole. Sold each.

Leaf Spring Slider Box

ALL60034

Replace rear leaf spring shackles with Allstar's leaf spring slider box. Bolt-in slider box with roller bearing design eliminates leaf spring binding, freeing up car. Fits 2-1/2" wide Chrysler type leaf springs.

Replacement Components ALL99055 Bushings, 2-Pack

Leaf Spring Slider Box

ALL60035

Replace rear leaf spring shackles with Allstar's leaf spring slider box. Bolt-in slider box with roller bearing design eliminates leaf spring binding, freeing up car. Fits 2-1/2" wide Chrysler type leaf springs.



Jerrad Krick

Ford 9" Upper Link Brackets

Ford 9" housing brackets provide a mounting point for upper link. Weld-on brackets fit standard steel Ford housings.

rackets with 3/4" Holes

ALL60160

ALL60166

ALL60160 1" Diameter Holes, Sold in Pairs **ALL60166** 3/4" Diameter Holes, Set of 2

Ford 9" Upper Link Brackets

ALL60157

Brackets are designed to weld to most Ford 9" style center sections. Steel brackets are 3/16" thick and provide multiple mounting locations for 90/10 shock, upper link, third link or pull bar. Sold as a set.

Upper Link Chassis Brackets

Weld-on brackets have curved 3/4" slots to maintain pinion angle as the 3rd link is raised or lowered. Both

brackets are notched for 1-3/4" round tubing and are 3/16" thick.

ALL60065

ALL60065 Short **ALL60066** Long

90/10 Shock Brackets

ALL60026

Brackets weld to the chassis to mount a shock between the chassis and the differential to control "unloading" during deceleration of hard braking. 1/8" thick steel brackets fit 1-1/2" diameter tubing and have four 1/2" holes, spaced 1" apart. One pair.





Trailing Arm Brackets

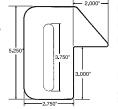
Steel brackets can be used as front mount for leaf spring or trailing arm. Assorted styles are available. Sold each.

ALL60043

5/8" slot, 3/16" thick, 3-3/4" long.

ALL60044

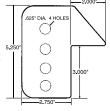
3/4" slot, 3/16" thick, 3-3/4" long.





ALL60045

5/8" holes, 1/8" thick.





ALL60046

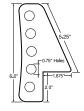
5/8" holes, 3/16" thick,





ALL60048

3/4" holes, 1/8" thick.





Trailing Arm Bracket

ALL60042

Weld-on bracket has a curved 3/4" slot so rear end remains square as the trailing arm is raised or lowered. Notched for 2" x 3" square tubing. 1/4" thick.



Slider Boxes

Slider boxes weld to the chassis and provide an adjustable mount for trailing arms, Panhard bars and upper links. Boxes are constructed of .120" wall material and are 1-1/2" wide x 2-1/2" deep x 6" tall with a 4" slot that provides 3" of adjustment.



See Page 202 for Slider Box Accessories.

Metric Upper Trailing Arm Mounts

ALL60059

Mounts weld to the top of Ford 9" housing creating a mounting point for GM Metric chassis upper trailing arms. Bushings not included.





GM Metric Chassis Trailing Arm Bracket Kits

Bracket kits include rear upper and lower trailing arm mounts that accept O.E. style bushings (included) and 1/2" hardware. Upper mount must be cut into two pieces (LH/RH) and trimmed to desired height depending upon where housing is located in the chassis.



ALL60052 Kit with Single Hole Lower (Stock Location) **ALL99282** Lower Brackets Only, (Stock Hole Location)

ALL60053 Kit with Single Hole Lower, (1"Lowered) ALL99283 Lower Brackets Only, (1" Lowered)

ALL60054 Kit with Multi-Hole Lower (Stock to 4" Lowered) **ALL99284** Lower Brackets Only, (Multi-Hole)

Universal Trailing Arm Brackets

Brackets have three 1/2" mounting holes spaced 1-1/4" apart and may be welded to 3" axle tubes to provide three trailing arm mount locations. ALL60058 is made of 3/16" steel and welds to the top of the rear end housing, providing a point of attachment for upper trailing arms.







ALL60050

ALL60050 Lower Bracket

ALL60051 Shock Bracket for Lower

ALL60058 Upper Bracket



Transmission Mount Bracket

ALL38072

May be welded to chassis to support manual or automatic transmissions. Steel bracket is 1/8" thick with 1" x 7/16" slots for mounting bolts.

Unwelded Driveshaft Loop

ALL69004

Made from 3/16" flat steel, loop is 9-1/2" tall and 5-1/2" wide with a 16" wide mounting strap that can be cut and welded for each installation.



180° Driveshaft Loop

ALL69002

Pre-bent 1" diameter \times .083" wall mild steel tubing is designed for chassis style cars to help retain the driveshaft in the event of a U-joint failure. Loop is 10" tall overall and has a 5" I.D.

Fuel Cell Mounting Bracket

ALL60063

Steel bracket is radiused to fit 1-1/2" tubing and has (8) 3/8" holes on 1/2" centers. Bracket is .085" thick and 1-1/2" wide x 4-3/4" tall.

Fuel Cell Mounting Brackets

Steel brackets are .125" thick, 1-3/4" wide and available in three lengths. All have 3/8" holes.

ALL60060 2" Long **ALL60061** 3" Long **ALL60062** 4-3/4" Long



Fuel Cell Guard

ALL22374



Guard adds protection to the fuel cell and acts as a lifting point for rear of vehicle. Universal kit is constructed of 1-3/4" x .095" wall, mild steel tubing. Parts are pre-cut and



notched, ready to be welded together. Height is 8-3/4" and mounting width is 42".

Round Tank and Bottle Mount Brackets

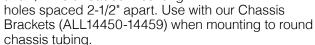
Hinged aluminum bracket is uniquely designed to simplify tank installation and removal. Offered in a wide variety of sizes to fit many applications including NOS and fire bottles. Bracket base measures 1/2" wide x 3-1/4" long and feature a flat bottom with two 1/4"-20 threaded mounting holes spaced 2-1/2" apart. Use with our Chassis Brackets (ALL14450-14459) when mounting to round chassis tubing.

Size	Polished	Black
2.00"	ALL14408	ALL14409
4.00"	ALL14414	ALL14415
4.25"	ALL14418	ALL14419
4.375"	ALL14422	ALL14423
5.25"	ALL14430	ALL14431
6.90"	ALL14436	ALL14437



Neck Mount Brackets

Two-piece aluminum bottle mounting brackets are designed for 1.525" diameter necks. Bracket base measures 1/2" wide x 3-1/4" long and feature a flat bottom with two 1/4"-20 threaded mounting



ALL14474 Polished Bracket
ALL14475 Black Bracket

Chassis Brackets

Aluminum 2-piece brackets are designed to clamp around chassis tubing and features two straight through mounting holes with 1/4"-20 hardware spaced 2-1/2" apart. Bracket base measures 1/2" wide x 3-1/4" long. Use with our Round Tank Brackets

(ALL14408-ALL14437) and Neck Mount Brackets (ALL14474-ALL14475) or may be used to mount other items with a threaded mount.

Size	Polished	Black
1.00"	ALL14450	ALL14451
1.25"	ALL14452	ALL14453
1.50"	ALL14454	ALL14455
1.625"	ALL14456	ALL14457
1.725"	ALL14458	ALL14459



Universal Brackets

Universal 1/4" thick aluminum brackets may be drilled and tapped to custom mount just about anything.



ALL10445..... Reducer Bushing 1-3/4" to 1-5/8"

ALL10452



Accessory Clamps

Aluminum two-piece clamps are ideal for mounting small parts and accessories or creating



an adjustable clamp-on mount for supporting body or roof panels. Clamps are 1/2" wide and include two 1/4" button head fasteners.

		With 1/4"-20 Mount and a
Size	With 1/4"-20 Mount	1/4" Through Hole
1"	ALL10455	ALL10485
1-1/4"	ALL10456	ALL10486
1-3/8"	ALL10457	ALL10487
1-1/2"	ALL10458	ALL10488
1-5/8"	ALL10460	ALL10489
1-3/4"	ALL10459	ALL10490

Half Clamp Brackets

Unique brackets are a must when clamping completely around tubing isn't possible. Bracket clamps just over halfway around tubing and tightens to create a secure mount for many accessories.

3" bracket can clamp to rear end axle tubes to neatly secure braided lines. Brackets have 3/8" mounting holes.

ALL10464	1-1/4"
ALL10466	1-1/2"
ALL10468	1-3/4"
ALL10470	3"

Tube Clamps

2-piece tube clamp bolts to round tubing and provides a removable welding point for many uses. Clamps are constructed of 1/8" mild steel that is 2" wide. Includes two 3/8" grade 8 bolts with nyloc nuts.



ALL10464

ALL14480..... 1" ALL14481 1-1/4" ALL14483..... 1-1/2" ALL14485..... 1-3/4" ALL14486..... 2"

Battery Box Ballast

ALL14208

Ballast weighs 25 lbs. and features a flat profile that is designed to fit in a battery box or a location where a larger brick may not be an option. Ballast measures 9-1/2" x 6-3/4" x 1" tall.

Ballast

Add weight where it's needed. Sizes listed are approximate.

ALL14176 2.5 lbs. 3-1/2" Round x

3/4" Tall*

ALL14177 5 lbs. 3-1/2" Round x 1-3/8" Tall* **ALL14180** 25 lbs. 4" x 8" x 2"

ALL14179 30 lbs. 2-1/2" x 2-1/2" x 12" **ALL14182** 40 lbs. 12" x 3-1/2" x 2-3/4"

*Pre-drilled with 1/2" Mounting Hole



ALL14180

ALL14177

Clamp-On 10-lb. Ballast ALL14205

Designed for safely adding weight to small tube chassis found on mini wedges, mini sprints or jr dragsters. Clamp-on design is formed of two halves which bolt together around 1" to 1-1/4" round tubing. Mounting hardware included.



Clamp-On 25-lb. Ballast ALL14181

Securely add weight where it's needed. Clamp-on design is formed of two halves which bolt together around 1" to 1-3/4" round tubing, allowing easy installation and removal. Bolts are included for use on tubing up to 1-5/8". When clamping to 1-3/4" tubing, longer bolts (not included) are required.



Ballast Brackets

Black anodized two-piece aluminum bracket clamps around tubing with included 5/16" fasteners and features a





1/2"-13 tapped hole on each side for mounting ballast. Mounting stud and nut sold separately.

	Recessed 5/16"	Exposed 5/16"
	Socket Head	Hex Head
Description	Fasteners	Fasteners
1" O.D. Round Tubing	ALL14178	ALL14192
1-1/4" O.D. Round Tubing	ALL14183	ALL14193
1-3/8" O.D. Round Tubing	ALL14184	ALL14194
1-1/2" O.D. Round Tubing	ALL14185	ALL14195
1-5/8" O.D. Round Tubing	ALL14186	ALL14196
1-3/4" O.D. Round Tubing	ALL14187	ALL14197
2" O.D. Round Tubing	ALL14188	_
2" x 2" Square Tubing	ALL14189	_

Threaded Stud and Lock Nut for Mounting Ballast ALL14190

1/2"-13 x 6" threaded rod is often used with clamp-on ballast brackets when mounting ballast or may be used to bolt ballast directly to frame or chassis.



Threaded rod may be cut to desired length and includes a nylon lock nut and flat washer.



Oil Eater Degreaser

The cleaner/degreaser that really works! We can't say enough about this cleaner; it can be used as a pre-wash on greasy clothing, to clean engine components, transmission cases and engine compartments, and is even strong



LL78211 ALL78

enough to clean the shop and trailer floors! You won't be disappointed! Cleaner is non-toxic, non-corrosive and biodegradable so it is safe for the environment.

ALL78213..... 32 oz. Spray Bottle ALL78211..... 1 Gallon Container

Dirt Tire Soap

ALL78236

Clean your tires like the Pros! Simply mix with water and spray on your tires before washing them, and the mud almost falls off. Cleaner also works for pre-treating your chassis and body before cleaning to help loosen dirt and clay. 1-gallon container.



Ultrasonic Cleaning Solution

ALL10644

Ready-to-use detergent based cleaning solution designed for use in ultrasonic cleaning machines can be used full strength or diluted with water.



Novus Plastic Cleaner And Polish

Novus plastic polish will restore the finish of plastics, including polycarbonate windows and windshields. Offered in three formulas.

Cleaner 1 - ALL78201

Gently cleans all plastics without scratching. Leaves a lustrous shine that resists fogging, repels dust, and eliminates static. 8 oz. spray bottle.



Polish 2 – ALL78202

Removes fine scratches, haziness, and abrasions from most plastics. With repeated use, polish 2 will restore faded and discolored plastics. 8 oz. squeeze bottle.



Polish 3 - ALL78203

Removes heavy scratches and abrasions from most acrylic surfaces. Requires both #1 and #2 polishes for final finishing. 8 oz. squeeze bottle.



Mud-X Cleaner

ALL78232

Cleans and shines plastic, polycarbonate, chrome, fiberglass, paint, vinyl and leather and leaves an invisible coating that protects surfaces and repels dirt, dust, fingerprints, smudges and bugs. Spray it on and wipe it off. Excellent anti-fog coating for helmet shields. 14-oz. can.



Mud-X Concentrate

ALL78230

Mix concentrate with up to ten quarts of water to produce a coating that prevents mud, dirt, oil, rubber, and exhaust residue from sticking to body panels. Safe for metal, plastic, rubber, and painted surfaces. One-quart container.



Pressurized Sprayer

ALL10516

Sprayer features a refillable canister that can be recharged after each use with compressed air making this great for applying bulk degreasers, solvents, penetrating oils and other chemicals. The removable fill cap features a built-in Schrader style air fill port for easy operation and the adjustable nozzle can be adjusted to change the pattern from a light mist to a fine stream.

Pre-Race Dirt Solution

ALL78234

Spray directly on the body and underside of your car before entering the racetrack. Helps prevent dirt, oil and rubber from sticking to the frame and body panels. Use direct without water. Half-gallon container.



Towels

Soft, absorbent terry cloth towels can be used for polishing, wiping



up spills or general detailing. Shop towels belong in every tool box as well as in the shop, garage or trailer.

ALL12010..... Red Shop Towels, 25-Pack ALL12011..... White Shop Towels, 25-Pack ALL12012..... White Terry Towels, 12-Pack

Dial-In Window Marker

ALL78205

Easy on, easy off white marker works well on glass and plastic. 3-oz. bottle has a built-in felt applicator.





Castrol SRF Brake Fluid

ALL78115

Castrol SRF Brake Fluid has a wet boiling point of 518°F (270°C) which exceeds DOT 3 and 4 standards. Do not mix Castrol SRF and other brake fluids, as this will reduce the benefits of Castrol SRF. Sold in 33.8 oz. bottle.



AP Radi-CAL R2 Brake Fluid

ALL78108

Designed for extreme, high temperature racing conditions with a dry boiling point of 594°F and a wet boiling point of 383°F. Conforms to DOT 4 specifications. Sold in 16.9-oz. bottle.



AP Radi-CAL R3 Brake Fluid

ALL78116

Developed for extreme, high temperature racing conditions with a typical dry boiling point of 617°F and a wet boiling point of 383°F. Conforms to DOT 4 specifications. Sold in 16.9-oz. bottle.



Motul 600 Brake Fluid

ALL78117

100% synthetic brake fluid has an extremely high boiling point, helping to prevent vapor lock and brake fade during hard use. Motul 600 exceeds DOT 3 and DOT 4 specifications. Dry boiling point 594°F, wet boiling point 421°F. Sold in 16.9-oz. bottle.



Motul 660 Brake Fluid

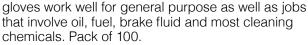
ALL78118

100% synthetic brake fluid is specifically designed to resist extreme temperatures generated by racing carbon and ceramic brakes. Motul 660 exceeds DOT 3, DOT 4 and DOT 5.1 specifications. Dry boiling point 617°F, wet boiling point 401°F. Sold in 16.9oz. bottle.



Nitrile Gloves

Nitrile gloves protect against dirt and grime and help prevent oil and harsh chemicals from contacting the skin. Chemical resistant



ALL12024..... Medium **ALL12025**..... Large **ALL12026**..... X-Large **ALL12027**..... XX-Large



Brake Bleeder Bottles

Contain the mess of bleeding brakes by capturing fluid in this 16-oz. bottle with a 15" long hose which attaches to most bleeder screws. The removable cap has a built-in fitting to secure



ALL11019 ALL11018 ALL11017

the hose during storage to help prevent spills. Choose from a steel lanyard retainer that suspends the bottle from a chassis or suspension component, or a magnet retainer to secure the bottle to a steel object such as a brake drum or rotor during bleeding. ALL11017 has a magnet retainer and a built-in one way check valve for one person brake bleeding.

ALL11019 Bottle with Lanyard **ALL11018** Bottle with Magnet

ALL11017 Bottle with Magnet and Check Valve

ALL99435 Replacement Hose

Shop Towels

ALL12006

Shop towels are much heavier than standard paper towels and work great for numerous tasks around the shop or track. Rolls contain 60 individually perforated 11" x 9-1/2" disposable sheets.



Cleaning Cloths Will

Disposable cleaning cloths are great for cleaning hands when washing is not an option. Perfect for use after fueling vehicles, making roadside repairs or even as a



pre-clean to remove stubborn grease. Durable cloths are pre-moistened and enriched with aloe to deep clean and promote soft skin. Large 15" x 10" cloths are easily removed from pop-up dispenser and resealable package helps prevent product from drying out.

ALL12018 Power Scrub, Textured Cloth 80-Pack ALL12019....Auto, Smooth Cloth 100-Pack

Multi-Purpose Absorbent

ALL12035

Organic material is a dust free alternative when cleaning up spills. Sprinkle product on spills and sweep up. 5-lb. resealable bag.





Competitive Edge Tire Conditioner

Ground **Shipment Only**

Ground

Chemically treats and softens race tires to increase traction without making tires greasy. Apply race day or night before on new or old tires, can be used on the inside or outside. One gallon container treats 4 to 6 tires.

Increase tire life by 20% over other

softeners and reduce lap times by

2-3 tenths. Hot Lap relies on a special

formula and will provide instant results.

Formulated to pass tire "sniffer" tests.



ALL78105..... Single ALL78105-4 4-Pack

Fuel fragrances can be added to most types of fuels including methanol, nitromethane, gasoline and also may

Fuel Fragrances

be used in 2-cycle mixtures. Available in



many scents in a resealable 4-oz. bottle enough to treat 30-55 gallons of alcohol or Shipment Only 20 gallons of gasoline. Mixes clear with fuel.



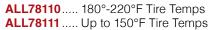
Hot Lap Tire Softener Shipment Only

ALL78101..... One-Gallon Hot Lap, Quick for 200 Laps ALL78107..... One-Pint Hot Lap

Track Claw Tire Strengthener

Ground **Shipment Only**

Strengthens the rubber and will work on all tires. Undetectable. Reduces lap times 0.2 to 0.3 seconds. One gallon container.





Tire Wrap

Tires lose solvents and moisture over time but keeping them covered helps prevent tires from drying out. Wrap also

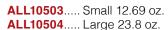


helps contain or reduce the amount of chemicals used during "soaking" by minimizing evaporation. Wrap is 18"W x 1500'L.

ALL44221 Black ALL44224 Clear



Disposable fire extinguishers are perfect for keeping on hand in the home, shop or trailer for keeping small fires contained with minimal mess. A B style extinguishers are suitable for ordinary non-metal combustibles including wood, paper and plastics as well as flammable combustible liquids including gasoline, oil and other oil based products.





ALL78123..... Cinnamon **ALL78124....** Cherry ALL78125..... Blueberry **ALL78126.....** Grape ALL78127..... Banana ALL78128..... Fruit Punch ALL78129..... Pina Colada ALL78130..... Root Beer ALL78131..... Bubble Gum

ALL78132 ... Cotton Candy ALL78133 ... Raspberry ALL78135 ... Reefer Madness ALL78137 ... Green Apple ALL78138 ... Strawberry ALL78139 ... Watermelon **ALL78140** ... Baby Powder ALL78141 ... Trophy Girl NEW

Upper Lube Fuel Additive

Ground Shipment Only

Upper Lube is a high temperature cylinder lube that protects and extends engine life. Added directly to the fuel, upper lube additive reduces chalky residue



and corrosion from fuel system components while lubricating cylinders, valves, guides, and helps to prevent fuel wash down. It mixes completely, additive won't separate from fuel, leaves no varnish residue and does not contain a flame agent. One 16 oz. bottle treats 55 gallons of alcohol, 110 gallons of ethanol, 150 gallons of gasoline or 250 gallons of diesel fuel.

ALL78099......Upper Lube Blue NEW ALL78100......Upper Lube Clear ALL78120......Upper Lube With Cherry Fragrance ALL78122.....Upper Lube With Grape Fragrance

Fogging Oil

ALL78220

Ground **Shipment Only**

Spray aerosol lubricant (with special additives) into the intake and spark plug holes to coat and lubricate the cylinders, valves and valve seats. Prevents horsepower-robbing corrosion and eliminates scuffing at start-up after periods of storage. May be used in all 2- or 4-cycle carbureted or fuel injected gasoline engines in cars, trucks, motorhomes, ATV's, etc. Sold in a 12-oz. can.

Extreme Pressure Lube

ALL78246

Originally used throughout the tool and die industry.



this lube provides superior durability and wear protection taking the place of anti-seize in many applications. Recommended for spline-to-spline contact, threaded adjusters, and engine fasteners. 4-oz. tube.



Aluminum Radiators

Aluminum radiators are fully welded units designed to hold up to the stresses of most motorsports and street use applications. Radiators feature two rows of 1" wide tubes that are furnace brazed to the tanks and a fully welded billet aluminum filler neck with a removable overflow fitting. All radiators feature a slightly raised and inward angled 1-3/4" beaded lower outlet for applications that require the radiator to be mounted lower in the chassis. Sizes listed are overall dimensions, core widths are approximately 5" less than overall width. Radiator caps rated at 28lbs or less are recommended for all aluminum radiators.

Single Pass Radiators

Our most popular radiator, this design allows coolant to enter the top inlet and flow from one side of the radiator

to the other and exit the opposite side. These radiators feature beaded standard hose fittings for push-on style radiator hoses, 1-1/2" upper inlet and 1-3/4" lower outlet.

ii iici ai iu	1-5/4	IOMEI OUTIG	7ι.
Part No:	Over	all Dimensio	ns
GM			
ALL30010		19" x 22"	
ALL30011		19" x 24"	
ALL30012		19" x 26"	
ALL30014		19" x 28"	
ALL30016		19" x 31"	
ALL30042		16" x 28"	
Ford			
ALL30020		19" x 22"	
ALL30021		19" x 24"	
ALL30022		19" x 26"	
ALL30024		19" x 28"	
ALL30026		19" x 31"	
ALL30043		16" x 28"	



Dual Pass Radiators

Dual pass radiators are basically two radiators in one, coolant enters through the inlet and passes through the top half of the radiator and then passes back through the lower portion of the radiator. These radiators feature a universal 1-5/8"-12 ORB fitting inlet design that allows

for multiple inlet fitting options (sold separately). The lower outlet is a fully welded 1-3/4" standard hose fitting for pushon style radiator hoses.

orr oryto radiator rioddor			
Part No:	Overall Dimensions		
ALL30033	19" x 24"		
ALL30035	19" x 26"		
ALL30036	19" x 28"		
ALL30037	19" x 31"		



Dual Pass Radiators with 1/4" NPT Bung

This radiator offers the same benefits as our standard dual pass radiator but also features a 1/4" NPT bung in LH tank which is commonly used as an accessory port for installing an electric cooling fan switch or a coolant pressure switch.

Part No:	Overall Dimensions
ALL30333	19" x 24"
ALL30335	19" x 26"
ALL30336	19" x 28"
ALL30337	19" x 31"



Triple Pass Radiators

Triple pass radiators circulate coolant across the top portion of the radiator, back across the mid-section and through the bottom allowing maximum heat dissipation. This style radiator requires a high flow water pump to be most effective. These radia-



tors feature a universal 1-5/8"-12 ORB fitting inlet design that allows for multiple inlet fitting options (sold separately). The lower outlet is a fully welded 1-3/4" standard hose fitting for push-on style radiator hoses.

Part No:	Overall Dimensions
ALL30045	19" x 24"
ALL30046	19" x 26"
ALL30047	19" x 28"
ALL30048	19" x 31"

Radiator Inlet Fittings

Inlet fittings thread into Allstar dual and triple pass radiators offering different connection options for one radiator. Aluminum fittings have a o-ring seal and a built-in hex with a 1-5/8" -12 thread.

ALL30038 1-1/2" Hose Fitting **ALL30041** 1-3/4" Hose Fitting* **ALL30039** -16AN Fitting

ALL30040 -20AN Fitting

 ${}^{\star}\text{Use}$ with lower radiator hose as an upper hose



ALL30038

Lightweight Dual Pass Single Row Aluminum Radiators

Dual pass radiators feature an all-aluminum construction including a 1-1/2" wide single row core that is furnace brazed, a fully welded billet filler neck with a removable overflow fitting, 1/4" NPT bung for an accessory port and finished with a heat-resistant black coating. These radia-



tors feature a universal 1-5/8"-12 ORB fitting inlet design that allows for multiple inlet fitting options (sold separately). The lower outlet is a fully welded 1-3/4" standard hose fitting for push-on style radiator hoses.

Part No:	Overall Dimensions
ALL30343	19" x 24"
ALL30345	19" x 26"
ALL30346	19" x 28"
ALL30347	19" x 31"



Asphalt Late Model Radiator ALL30044

Aluminum dual pass radiator measures 16" x 28" overall featuring two rows of 15/16" tubes, a core width of 2-1/4" and an overall tank width of 2-3/4". The outlet is designed for a standard 1-3/4" hose connection and welded 90 degrees to the tank not angled upward. The inlet is a universal design to accept fittings for 1-1/2" standard hose, 1-3/4" hose, -16AN, or -20AN fittings (sold separately). Radiator is designed for use with a surge tank, so it does not have a filler neck. A 1/4" petcock located near the top on the driver's side to release possible trapped air in the system when filling.

Sprint Radiator ALL30028

Aluminum radiator with furnace brazed tanks provides superior cooling in sprint applications. Features machined filler neck, 1-1/2" RH bottom outlet and (4) female top outlet ports for use with -10AN O-ring fittings. Radiator uses a smaller diameter cap (not included) such as ALL30124 or ALL30125. 20" wide x 22" tall x 2" wide. 9.7 lbs.



Aluminum radiator with a unique black thermal coating provides superior cooling! Built-in mounting brackets enable the radiator to be quick-turn fastened directly to frame tabs. Radiator with -10AN O-ring inlets and 1-1/2" outlet is 20-1/2" wide x 18-1/2" tall (including outlet neck) x 2-3/8" thick core. Recommended radiator cap is ALL30126 (28-32 lbs.) sold separately. Approximate weight 8.5 lbs.

Upper Mount Kit for Two Row Radiators ALL30121

Channel rests on top of the core and two flat aluminum straps may be bolted or welded to

the channel. Hook the steel springs into provided hole and connect to a lower chassis location.

Related Components:

ALL30123 ... Channel for Two Row Radiators **ALL30153** ... Channel for Single Row Radiators

Upper Radiator Support Bracket

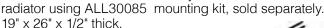
ALI 30120

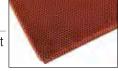
Universal upper support bracket is preformed to fit over the top of radiator cores (up to 2-1/2" thick) to keep radiator secured in saddle style lower mounts. Steel bracket is .085" thick and has a 3/16" hole for riveting or bolting in place.

Radiator Honeycomb

ALL30158

Honeycomb screen mounts to front of radiator to protect fins/core from rocks and debris. Secure directly to





Universal Mounting Kit

ALL30085

Mounting kits are commonly used to mount electric fans, oil coolers, transmission coolers or honeycomb screen directly to a radiator. Kits include four 8" nylon mounting bolts with washers, rubber spacer blocks and retaining nuts. Bolts are pressed through the fins of the radiator to mount accessory.

Radiator Shaker Screen ALL30160

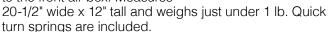
Commonly used on Dirt Late Models, universal shaker screen is mounted in front of the radiator

on most dirt cars. Unit includes black powder-coated aluminum frame, screen, 1/2" x 32" cross rod, springs and retaining clips. Frame dimensions are 17" tall and 25" wide.



ALL30163

Aluminum rock screen helps to protect radiators from heavy rocks and mud. Mounting tabs are integrated into the frame for quick and easy installation to the front air box. Measures



Stainless Wire Screen

Use screen to protect radiators, oil coolers or other items. Size referenced is the approximate opening of the screen.



1/8" (.035" Wire Diameter) ALL22265 12" × 36"

ALL22267 36" x 36" **ALL22268** 36" x 48"

3/16" (.047" Wire Diameter)

ALL22270 12" x 36" **ALL22272** 36" x 36" **ALL22273** 36" x 48"











1955-56 Chevy **Aluminum Radiator**

ALL30005

A direct replacement for all 1955-56 Chevy passenger cars with six cylinder engines, also ideal for 1955-57 Chevy V8's with long style water pumps. Radiator has mounting brackets that position it in front of the



core support bar, two rows of 1" tubes, furnace brazed tanks, a machined billet filler neck with over flow fitting, drain petcock, 1/2"NPT bung for additional temperature sender/switch and mounting clips. The built-in automatic transmission cooler has 1/4"NPT fittings. 23-1/4"H x 23-1/4"W. Core width is 22".

1957 Chevy Aluminum Radiator

ALL30007

A direct replacement for all 1957 Chevy passenger cars with sixcylinder engines, also ideal for V8's with long style water pumps that require additional space between engine and radiator. Radiator fea-



tures mounting brackets that position the radiator in front of the core support bar, two rows of 1" tubes, furnace brazed tanks, a machined billet filler neck with overflow fitting, drain petcock, 1/2"NPT bung for additional water temperature sender/switch, and mounting clips. The built-in automatic transmission cooler has 1/4"NPT fittings. 23-1/4"H x 23-1/4"W. Core width is 22".

1955-57 Chevy **Aluminum Radiator**

ALL30006

A direct replacement radiator for all 1955-57 Chevy passenger cars with a V8 engine using a short style water pump. Radiator has mounting brackets that position it behind the core support bar, two rows of



1" tubes, furnace brazed tanks, a machined billet filler neck with overflow fitting, drain petcock, 1/2"NPT bung for additional temperature sender/switch, and mounting clips. The built-in automatic transmission cooler has 1/4"NPT fittings. 23"H x 24-1/2"W. Core width is 22".

Radiator Fin Tool Kit

ALL10680

Handheld tool straightens and repairs dam-



aged fins in radiators, coolers, and air conditioning condensers. Repairing damaged fins provides better airflow through core, increasing cooling ability. Six interchangeable heads in 13, 15, 16, 17, 18, and 20 fins per inch.

Direct-Fit Radiators

Aluminum direct-fit radiators provide increased cooling over original copper radiator. Designed for performance vehicles, features include machined billet aluminum



ALL30300

filler necks, fully welded construction and two rows of large 1" tubes properly spaced for maximum airflow and cooling on the street, even at lower speeds. Built-in automatic transmission coolers. O.E. fan shrouds may require modification for installation.

ALL30300 1967-69 GM F-Body (Camaro and Firebird)
PS Outlet, DS Inlet, 31"W x 19-1/2"H Overall, 23"W x 18"H Core

ALL30301 1970-81 GM F-Body (Camaro and Firebird)
PS Outlet, DS Inlet, 26"W x 19-1/2"H Overall, 20-1/2"W x 18"H Core

ALL30302 1982-92 GM F-Body (Camaro and Firebird) PS Outlet, DS Inlet, 30"W x 19-1/2"H Overall, 24-1/2"W x 18"H Core

ALL30304 1968-77 GM A-Body (Chevelle, Cutlass, LeMans) PS Outlet, DS Inlet, 34"W x 19-1/2"H Overall, 28-1/2"W x 18"H Core

ALL30306 1966-80 Mopar DS Outlet, PS Inlet, 29"W x 19-1/2"H Overall, 22-1/2"W x 18"H Core

ALL30308 1964-66 Mustang PS Outlet, PS Inlet, 19-3/4"W x 21"H Overall, 18"W x 16"H Core

ALL30310 **1979-93 Mustang** DS Outlet, PS Inlet, 29-3/4"W x 19-1/2"H Overall, 24-1/2"W x 18"H Core

Blower Fan Cool Box

ALL30001

Help cool down engine between practice sessions or races. Outside plenum works with Allstar's ALL30002 blower fan, creating a forced air cooling system designed to fit the grill opening of most template body noses. Plenum suspends by straps that attach to the hood pins, allowing the car to be raised for adjustments or maintenance. Assembly required

due to blower fan variances.





Blower Fan

ALL30002

Compact, plastic blower moves up to 300 CFM of air. The quiet electric blower has three speeds and can be adjusted to move cooling air wherever it's needed, up to 30 ft. away. Weighs just 8 lbs. with two built-in receptacles and a 12' long power cord.





Radiator Caps

Radiator caps are an often-overlooked component of the cooling system that should be checked and replaced often. Higher cooling system pressure raises the boiling point of coolant to help reduce the risk of overheating. Caps allow coolant to exit the cooling system into an overflow or recovery bottle as coolant heats and expands. Recovery style caps work when the overflow hose is properly connected to the recovery bottle, as the system cools, coolant from the recovery bottle will be drawn back into the radiator to keep the cooling system full. Standard diameter caps fit 2-1/8" O.D. x 3/4" deep necks, and small diameter caps fit 1-5/8" O.D. x 5/8" deep necks (dimensions are approximate).

,		
Part No.	Pressure	
Standard Di	ameter Caps (2-1/8")	
ALL30132	14-18 PSI	
ALL30133	14-18 PSI w/ Lever	
ALL30134	18-22 PSI	
ALL30130	18-22 PSI w/ Lever	
ALL30136	20-24 PSI	
ALL30138	38-42 psi NEW	
ALL30131	20-24 PSI w/ Lever	
ALL30129	28-32 PSI	
Small Diameter Caps (1-5/8")		
ALL30124	14-18 PSI	
ALL30125	18-22 PSI	
ALL30126	28-32 PSI	



ALL30129



ALL30131

*Warning: High-pressure radiator caps are made for use on race vehicles only. Do not use these caps on passenger vehicle cars with stock type radiators. It is recommended to pressure test the complete cooling system to the maximum level of pressure indicated on the cap. Failure to test cooling system to the proper pressure prior to installing the cap may result in damage to the cooling system and/or bodily injury.

Billet Aluminum Radiator Cap

ALL30139

Polished billet aluminum cover is permanently pressed onto a 16-lb. recovery style radiator cap for enhanced appearance within any engine compartment. .



Radiator Tank Heating Pad

ALL76420



Fasten pad directly to the side of radiator tank to help add heat to your engine on cool nights. 2" x 15" high temperature silicone heating pad externally pre-heats coolant in the radiator and reduces overall warm up time. These are not thermostatically controlled, units will continue to heat as long as they are plugged in.

Note: Additional pads are located in the Engine section for oil pan and oil tank applications to add additional heat to the engine before start-up.

Electric Fan Shrouds

Aluminum shrouds are designed to work with electric fans mounted as a puller behind the radiator. Special air release flaps allow additional airflow to pass through the core and shroud as the vehicle is moving, and close to allow fan to draw air through the core of the radiator at rest. Dimensions are overall including a 1/2" top and bottom mounting flange and all pans are 1" deep.



ALL30062



Fan Sold Separately

ALL30060 16-3/4" x 18-3/4" Single 16" Fan ALL30061 18-3/4" x 18-3/4" Single 16" Fan **ALL30062** 20-3/4" x 18-3/4" Single 16" Fan **ALL30063** 25-3/4" x 18-3/4" Single 16" Fan **ALL30064** 25-3/4" x 18-3/4" Dual 12" Fans

Curved Blade Electric Fans

Electric fans require very little amperage and are suitable for use in race car or tow vehicle. Fans are set up as "puller" units, mounted behind the radiator. By flipping blades, reversing wires, and mounting in front of radiator, fans will operate in "pusher" configuration. Each unit includes a mounting kit.



ALL30085 Replacement Mounting Kit



ALL30074



Debbie Farrington



Fan Shrouds

Allows fan to pull more air through the radiator for increased cooling. Aluminum and impact-resistant plastic shrouds fit fans up to 17" diameter. Radiator size reference is based on outside tank dimension.



Part No.	Radiator Size*	Shroud Width	Shroud Depth	Max Fan Dia.
Fits Allstar Ra	diators			
ALL30107	22"	17-3/8"	9-3/4"	15"
ALL30112	24"	19"	9-3/4"	15"
ALL30109	26"	20-3/4"	9-3/4"	17"
ALL30110	28"	23"	9-3/4"	17"
ALL30115	31"	25-3/4"	9-3/4"	17"
Fits Griffin Ra	diators			
ALL30106	26"	21-1/8"	11"	17"
ALL30108	28"	23"	11"	17"
ALL30111	31"	26-1/4"	11"	17"
Fits Howe Radiators				
ALL30114	26"	22-1/2"	11"	17"
ALL30116	28"	24"	11"	17"
ALL30111	31"	26-1/4"	11"	17"

^{*}Radiator size reference is based on outside tank dimension.

Molded Nylon Fans

Lightweight 6-blade fans are economical and very durable. Universal bolt pattern with a 5/8" pilot hole.





Reinforcement Plate for Nylon Fans ALL30079

Plate installs beneath the mounting hardware to strengthen fan mounting location and prevent hardware from damaging the fan.

6-Blade Fans

Heavy-duty, 27° 6-blade fans, available with aluminum or steel blades, can move the volume of air needed to keep race engines cool. Universal bolt pattern with a 5/8" pilot hole.





GM Style 4-Blade Steel Fan

ALL30099

Steel 4-blade fan is a direct replacement for the popular GM 4-blade fan. Fan features a 60° blade design, a universal bolt pattern with a 5/8" pilot hole and weighs approximately 3 lbs. Small diameter flat washers included for proper installation.



Tech Tip:

This 4-blade fan was originally designed for use in O.E. production vehicles. When this fan is used in high-performance applications it is recommended that fan and mounting fasteners be inspected as a part of regular vehicle maintenance.

4-Blade Steel Fans

Steel high RPM fans are available in 15", 18", or 19". All have a universal bolt pattern with a 5/8" pilot hole. Riveted reinforcement plate adds strength and high-pitch 32° blades increase airflow. Painted black to resist corrosion.



ALL30104 15" Dia. **ALL30105** 18" Dia. **ALL30101** 19" Dia.

Fan Spacer Kits

Fan spacers position fan closer to radiator or fan shroud and away from pulleys. 1-1/2" and larger spacers are uniquely designed allowing spacer to remain bolted to water pump while changing fans. Aluminum spacers include 3/4" to 5/8" water pump shaft reducer bushing, four Allen bolts to secure spacer to water pump and four hex bolts with washers to secure fan to spacer. Spacers work with 1-3/4" bolt circle flanges only.





ALL30182

*Includes one set of four bolts for fan and spacer installation.

Replacement Component:

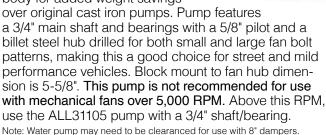
ALL99026........Reducer Bushing (3/4" to 5/8") 1/4" Long (ALL30180 only) **ALL99027**.......Reducer Bushing (3/4" to 5/8") 1/2" Long



Aluminum SB Chevy "Short Style"

Water Pump ALL31100

Popular "short style" water pump that was originally used on pre-1969 small block Chevrolets. Pumps are built using all new components and an aluminum body for added weight savings



Aluminum SB Chevy "Corvette Style" Water Pumps

This aluminum version of "Corvette style" water pump was originally used on 1971-82 small block Chevrolet Corvette, but is now used throughout the motorsports industry. Pump is built using all new components and an aluminum body for added weight savings over original cast iron pumps. Pump features a 3/4" main shaft and bearings with a 3/4" pilot and a billet steel hub that has a set screw retainer for



use on higher RPM applications. Block mount to fan hub dimension is 5-13/16".

ALL31105..... Water Pump

ALL31106..... Water Pump with 3/8"NPT Bypass Ports and Cam Stop Hardware

Note: Water pumps may need to be clearanced for use with 8" dampers.

Water Pump Cam Stop Kit

ALL99415

Water pump cam stop kit includes a 2" long 3/8"-24 threaded stud, washer and nut to replace or add a cam stop bolt to a water pump equipped with a stud mounting boss. Stud can be tightened against timing cover when cam buttons are used to help prevent "cam walk".

SB Chevy Water Pump Spacer Kits

Kits provide additional clearance needed for belt or gear drive timing systems. Gaskets are included.

ALL31070 1/8" ALL31071 1/4" ALL31072 3/8" ALL31073 1/2"



LS Electric Water Pump

ALL31122

- Fits LS Gen III/IV
- Black Anodized Finish
- Machined from 6061 T6 Billet Aluminum
- High-flow electric motor perfect for race applications
- F-Body inlet/outlet location Pair with our Allstar inline thermostat housing if a

thermostat is required! (ALL31160)

GM LS Coolant Bypass/Crossover Plugs

ALL31170

Plugs provide a location to bleed air from cooling system of most GM LS engines. Replace factory original plugs or use in place of factory crossover steam tubes. Kit includes two plugs with O-rings.





Pulley Shim Kits

Use shim kits to properly align pulleys. Water pump shims have dual bolt hole pattern to fit most GM and Ford water pumps. Crank pulley spacers are for small block Chevys.



ALL31066

ALL31064 Water Pump, 1/16", 1/16", 1/8" (3 Shims) **ALL31066** Crankshaft, 1/16", 5/64", 1/8" (3 Shims)

Aluminum SB Chevy Reduction Pulleys

Specifically for short or Corvette water pumps, pulleys work with power steering pump and pulley to provide a ratio within the GM specified RPM range. Race engine RPM differs greatly from street





ALL31040 ALL31030

engines. For 30% less water pump speed and reduced weight and inertia, the crankshaft and water pump pulleys are smaller in diameter than standard reduction pulleys. Acceleration capabilities are greatly enhanced.

ALL31030.. Crankshaft Pulley (4-3/4" Diameter)

ALL31040.. Water Pump Pulley, Short Pump with 5/8" Pilot Hole (6-5/8" Dia.)

ALL31050...Water Pump Pulley, Corvette Pump with 3/4" Pilot Hole (6-5/8["] Dia.)

ALL86120.. Belt, Crank to Water Pump, 31.5"

ALL86122.. Belt, Crank/Water Pump/Block Mount P/S Pump, 39" ALL86124.. Belt, Crank/Water Pump/Head Mount P/S Pump, 42"

Note: Crankshaft pulley will work with either water pump pulley without spacers.



SB Chevy 1:1 **Ratio Pulley Kits**

Double groove aluminum pulley kits feature 6-5/8" diameter pulleys and include common 15/32" V-belts to work



with block or head-mounted Allstar power steering kits. Pulley kits are designed to work with short style water pumps with a 5/8" shaft that measure 5-5/8" from block mount to hub face. Components also sold separately.

ALL31080 Kit for Block Mount Power Steering Pump ALL31082 Kit for Head Mount Power Steering Pump ALL31083 Kit for No Power Steering

Individual Components

ALL31084 1:1 Crank Pulley (6-5/8") ALL31085 1:1 Water Pump Pulley (6-5/8") ALL86121 Belt, Crank to Water Pump, 34"

ALL86123 Belt, Crank/Water Pump/Block Mount P/S Pump, 41" ALL86125 Belt, Crank/Water Pump/Head Mount P/S Pump, 44"

V-Belts

Premium quality V-belts are perfect replacements for worn or cracked belts.

ALL86120 31.5" ALL86121 34" ALL86122 39" ALL86123 41" ALL86124 42" ALL86125 44"



SB Chevy Premium Reduction Pulley Kits

Premium reduction pulley kit features a 4-3/4" diameter crankshaft pulley and a 5-1/8" water pump pulley with 1/2" wide grooves for use with industrial grade belts. The increased belt width helps reduce belt slippage when used with high performance mechanical fans. The small diameter pulley



ALL31090

combination provides less than 10% RPM reduction in fan speed while providing a 30% RPM reduction when using a power steering pump with a 6" pulley

Note: Pulleys are designed to use with short "Corvette Style" 3/4" shaft water pump (ALL31105 or ALL31106).

ALL31090 Kit for Block Mount Power Steering Pump **ALL31092** Kit for Head Mount Power Steering Pump **ALL31093** Kit for No Power Steering

Individual Components

ALL31094 Crank Pulley (4-3/4") **ALL31095** Water Pump Pulley 5-1/8" ALL86127 ... Belt, Crank to Water Pump. 29"*

ALL86128 ... Belt, Crank/Water Pump/Block Mount P/S Pump, 37"*

ALL86129 ... Belt, Crank/Water Pump/Head Mount P/S Pump, 41"

*These will not work with standard width pulleys that are designed for 7/16"

Crank Pulley Mandrel Kit

ALL31031

Kit is made specifically for use with Allstar ALL31030 crank pulley. Mandrel is attached



to the crankshaft pulley with three bolts, while the vibration damper is retained with the stock bolt. The mandrel bolt is then connected to the mandrel - not to the crankshaft – to reduce engine harmonics (helps prevent loosening or breaking). Pulleys sold separately.

Mandrel Spacers

Aluminum spacers properly space and align pulleys when used with a 1/8" keyed mandrel. The same spacers are found in the ALL31031 Mandrel Kit. Sold each.



ALL31020 1/4" ALL31022 1/2" **ALL31024** 3/4" ALL31026 1" ALL31028 1-1/4"

Gilmer Belts

1" wide, assorted lengths.

ALL86130 21.0" ALL8613222.5" ALL86134 24.0" ALL86136 25.5" ALL86138 27.0"



TECH TIP

Belt Tension - Gilmer style belts are properly tensioned when belt can be twisted 1/2 turn

Crown Vic Serpentine Belt (A/C Delete) ALL86140



for popular 1999-2012 Crown Vic cars with the 4.6L 2-valve PI (Performance Improved) engines. Belt is correct length for use when A/C has been deleted.

Remote Mount **Electric Water Pump**

Compact water pump will flow up to 25 GPM which is perfect for intercoolers, dragsters or compact engines. Pump can



be used on 12-16 volt systems and only draws 8 amps. Electric motor is sealed to help prevent damage or corrosion and 6061-T6 billet aluminum housing is black hard coat anodized with threaded mounting holes for easy mounting. Accepts -12AN ORB fittings, complete unit weighs only 5 lbs.



Inline Electric Water Pump

ALL31130

Inline water pump will flow up to 50 GPM, which is suitable for many applications throughout the motorsports industry. Pumps are designed to provide better cooling and space savings over mechanical pumps. Pump can be used on 12-16 volt systems and only draws 6 amps. Electric motor is sealed to help prevent damage or corrosion and billet 6061-T6 aluminum housing is black hard coat anodized with threaded mounting holes for easy mounting. Use with Allstar ALL31135-31140 adapter fittings. Complete unit weighs 6 lbs. Wire harness with 20-amp inline fuse included.

ALL31135..... 1-1/4" Hose Fitting ALL31136..... 1-1/2" Hose Fitting ALL31137..... 1-3/4" Hose Fitting ALL31138.....-12AN Fitting ALL31139.....-16AN Fitting ALL31140.....-20AN Fitting



Y-Block Adapter ALL31159

Billet aluminum Y-block is commonly used when connecting inline or remote electric water pumps to AN block adapters. 1-1/4"-12 inlet port accepts Allstar ALL31135-31140 O-ring style fittings for direct hose or AN style connections. Outlet ports accept standard -12AN ORB fittings to connect to block adapters.

Water Pump AN Block Adapters

Adapters mount in place of standard mechanical water pumps when using inline or remote electric water pumps. Ford pump adapters require water pump back plates for complete installation.

ALL31150..... SB Chevy -12AN **ALL31151**..... BB Chevy -12AN **ALL31152**..... SB Ford -12AN

ALL31153..... SB Ford Water Pump Back Plate (Early) **ALL31154**..... SB Ford Water Pump Back Plate (Late)

Inline Thermostat Housing

ALL31160

Black anodized aluminum inline thermostat housing fits GM-style thermostats. Use with 1.5" hose size.



Billet Water Neck Spacer

ALL30375

Billet aluminum spacer fits between intake manifold and water neck, pro-

viding connection options for temperature senders or additional water lines. 1" tall spacer fits Chevrolet V8's. Includes four 1/2"NPT ports with plugs and an O-ring seal on one side, eliminating the need for a gasket.

Water Necks

Aluminum water necks fit Chevrolet V8's. Two-piece design necks swivel 360° to accommodate LH and RH radiator inlets. An O-ring seal and two chrome-plated socket head cap screws are included.

		Black Powder
	Polished	Coated
90° Neck	ALL30170	ALL30270
75° Neck	ALL30173	ALL30273
45° Neck	ALL30171	ALL30271
Straight Neck	ALL30172 ⁻	ALL30272



• One-Piece Fixed Neck

Billet Aluminum Swivel Water Necks

Billet aluminum water necks fit
Chevrolet V8's, accept most standard
thermostats and swivel a full 360°
to simplify connection of LH or RH
radiator hoses to engine. Black anodized finish helps protect against corrosion.
Stainless steel hardware and an O-ring for sea

Stainless steel hardware and an O-ring for sealing the base of the water neck to engine are included.

ALL30370 1-1/2" ALL30371 1-3/4" ALL30372 -16AN ALL30373 -20AN

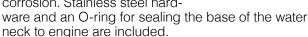
O-Ring Water Necks

Aluminum O-ring water neck bolts to SB Chevy intake. Black in color.



Low Profile Water Necks

Aluminum Chevrolet V-8 style water neck sits only 1.75" above the intake flange and features a front exiting fitting. Black anodized finish helps protect against corrosion. Stainless steel hard-



ALL 30380 ... -16 AN Kit **ALL 30381** ... -20 AN Kit **ALL 30382** ... Housing only

SB Ford Chrome-Plated Water Neck ALL30174

Cast aluminum 45° water neck fits small block Ford. Includes an O-ring for sealing the base flange and two hexhead bolts.





Water Outlet Restrictor Kit

ALL30241

Restrictor replaces the thermostat to control the flow of water through the cooling system. Kit contains three

2-1/8" O.D. aluminum restrictors with 5/8", 3/4", and a 1" center I.D. hole that fit most GM V8 or V6 and SB Ford water outlets.

Aluminum Radiator Hose Restrictor ALL30242

Lower radiator hose restrictor helps keep the water in your radiator longer to improve cooling. Machined aluminum restrictor has a 5/8" I.D. and will fit into most 1-3/4" radiator outlets or radiator hose.

Upper Radiator Hose Kit ALL30260

Upper hose kit eliminates the concern of the upper hose collapsing and fits a variety of radiator widths. 1-1/2" hose kit includes a 90° steel tube and two silicone hoses.

Radiator Hose I.D. Reducer

ALL30240

Rubber reducer allows a lower radiator hose with a molded-in spring to be used as an upper radiator hose. In continuous high RPM applications, the upper hose can collapse limiting coolant flow. Upper hoses with an internal spring support can also collapse if the spring is drawn into the radiator tank. Reducer fits inside 1-3/4" lower radiator hoses which have molded-in reinforcement springs and reduces the I.D. from 1-3/4" to 1-1/2".

Billet Aluminum Hose Clamps

Billet aluminum clamps provide a lightweight finished look for securing popular standard and silicone style radiator hoses.



ALL18326.... Clamp for 1-1/2" I.D. Hose **ALL18327....** Clamp for 1-3/4" I.D. Hose

T-Bolt Band Clamps

Stainless steel constructed band clamps provide a better sealing option over traditional hose clamps in performance applications. Clamps feature a 3/4" wide band and are sold in pairs.

ALL18345.... Clamp for 1-1/2" I.D. Hose **ALL18347....** Clamp for 1-3/4" I.D. Hose

See page 121 for additional sizes.

Radiator Hoses

Two-ply coolant hose is flexible and adapts to a variety of applications. Abrasion-resistant cover will not crack or harden.

1-1/2" I.D. Upper Hose ALL30200 ... 12" ALL30202 ... 14" ALL30204 ... 15-1/2" ALL30206 ... 17" ALL30208 ... 20"

ALL30210 ... 22" ALL30212 ... 25" ALL30214 ... 30"

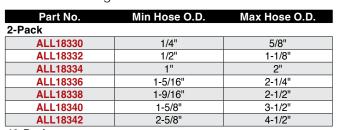
1-3/4" I.D. Lower Hose

ALL30220 ... 11" ALL30222 ... 13-1/2" ALL30224 ... 16-1/2" ALL30226 ... 19" ALL30228 ... 23-1/2"

Hose Clamps

Heavy-duty all stainless steel construction clamps are easily tightened with a deep-slot hex-

head screw. Superior to standard hardware store clamps. For best connection, select the clamp which fits within the range of hose O.D.



10-Pack

ALL18330-10	1/4"	5/8"
ALL18332-10	1/2"	1-1/8"
ALL18334-10	1"	2"
ALL18336-10	1-5/16"	2-1/4"
ALL18338-10	1-9/16"	2-1/2"

Power Grip Clamps

Gates Power Grip Clamps seal when heated with a standard heat gun, forming a tight band around standard rubber and silicone coolant hoses to provide





a secure connection, even under harsh race conditions. Installed clamps provide a smooth, flush fit around hoses and eliminate exposed sharp edges associated with standard hose clamps. Select the band clamp which fits within range of hose O.D. for best connection. Sold each.

Part No.	Min Hose O.D.	Max Hose O.D.
ALL30250	1/2"	11/16"
ALL30251	11/16"	13/16"
ALL30252	13/16"	15/16"
ALL30253	15/16"	1-1/16"
ALL30254	1-1/16"	1-3/16"
ALL30255	1-3/16"	1-1/2"
ALL30256	1-1/2"	1-3/4"
ALL30257	1-3/4"	2"
ALL30258	2"	2-1/4"

Note: Clamps are not designed for use with flammable liquids or fuel line connections.



Expansion Tanks

Aluminum expansion tanks are commonly mounted as the highest point of the cooling system and used as a fill point on vehicles that have a low mounted radiator or when the fill point on the radiator is not accessible. The 1/2"NPT bottom supply fitting is commonly connected to the low pressure side of the cooling system and the return fitting is connected to a port located high on the engine to help release any air trapped in the system. Tanks feature a machined filler neck to accept standard radiator caps and a 1/8"NPT port for connecting to an overflow tank.

ALL36115..... Tank with Attached Mounting Bracket 28-oz. Capacity with a 3/8"NPT Return Fitting

ALL36116..... Tank with Separate Mounting Bracket 20-oz. Capacity with a 1/4"NPT Return Fitting

Plastic Overflow Tanks

Plastic tanks have a one-quart capacity and help prevent coolant from spilling onto the ground. Tanks have swivel fittings that accept 5/16" overflow hose and have 1/4"-20 molded inserts for easy mounting.

ALL36154 Tank with Drain Valve (Non-Recovery) **ALL36155** Tank with 90° Fitting (Recovery)

Plastic Overflow Tank Brackets

Billet aluminum bracket mounts popular plastic overflow tanks to round chassis tubing and pivot to any angle. Tank mounting holes accept 1/4" fasteners and are slotted to fit tanks with mounting holes between 3-1/2" to 4" CTC.

ALL14200..... Bracket for 1-1/2" Tubing **ALL14201**..... Bracket for 1-3/4" Tubing

Overflow Tank

ALL36112

Aluminum tank has a 3/8"NPT bung on the side and a 1/2"NPT bung on the bottom that includes fitting and petcock. One-quart capacity tank can be used in many forms of competition and is mandated by many sanctioning bodies to prevent coolant from spilling on the racing surface.

Stainless Overflow Tanks

Stainless steel tanks capture coolant overflow and recirculates it to the radiator. Machined aluminum cap twists into the filler neck and seals with an O-ring. Inlet/outlet fittings accept 1/4" diameter hose. Unit includes mounting brackets and hardware. Measurements are of tank body; add 2" for overall length.

ALL36150 2" x 13" **ALL36151** 2" x 15"

Petcock

ALL99030

Replacement petcock for Allstar breather and overflow tanks is also perfect for draining coolant from engines. 1/4"NPT threads.

Overflow Nozzles

Aluminum nozzle acts as a signal to the driver to indicate a possible ALL30178 ALL30178 overheating condition as the cooling system pushes out water. Nozzle with threaded body mounts in a body panel outside the drivers compartment and is available with a 1/4" barb or a -4AN male fitting.

ALL30178 Nozzle with 1/4" Barb Fitting **ALL30179** Nozzle with -4AN Male Fitting

Radiator Overflow Fitting

ALL99312

Commonly used fitting threads into the filler neck on most radiators allowing connection to an overflow tank. Aluminum fitting has 1/8"NPT threads and accepts a 5/16" hose.

Overflow Hose

Overflow hose, also referred to as fuel line is reinforced to help prevent kinking and is rated up to 50PSI. Size indicated is I.D. of hose.



Hose I.D.	3' Length	25' Length
1/4"	ALL40350	ALL40351
5/16"	ALL40353	ALL40354
3/8"	ALL40356	ALL40357

Water Pressure Warning Kit

ALL80250

Warning kit senses pressure in the cooling system

and alerts driver of a problem when coolant pressure drops below 4 PSI. In the event of coolant loss (i.e. blown radiator hose). The temperature gauge probe is no longer surrounded by coolant to detect the engine temperature, this will lead to a false temperature gauge reading and major engine damage.

Temperature Gauge Probe Adapters

Aluminum adapters are a nice upgrade from brass adapters and feature a longer length for use in shallow applications when the mechanical temperature gauge probe may contact the inside of a cylinder head or intake manifold. Extra length of fitting will still allow end of probe to protrude into the coolant for accurate readings.

ALL50203 3/8"NPT **ALL50204** 1/2"NPT

Mechanical Gauges

Allstar Performance 2-5/8" mechanical gauges feature

ges 2-5/8" eature needle, silver faced back



a full 270° sweeping needle, silver faced background, black bezel and are backlit for easy reading, even in low light conditions. Perfect for building custom dash panels or when adding mechanical gauges to replace existing gauges or warning lights.

See Page 70 for a Complete Listing of Gauges and Gauge Panels.





Primary Wire

Single conductor stranded copper wire with polyvinyl insulation remains flexible and is abrasion resistant. Stranded copper is the wire of choice for many projects when building custom wire harnesses or adding accessories.



20AWG

Used for low-voltage sensors, indicator lights, instrument panel or dash lighting.

Color	50' Coil	100' Spool
Red	ALL76500	ALL76510
Black	ALL76501	ALL76511
White	ALL76502	ALL76512
Green	ALL76503	ALL76513
Yellow	ALL76504	ALL76514
Brown	ALL76505	ALL76515
Blue	ALL76506	ALL76516

14AWG

Most popular when fabricating harnesses for general use including lighting of headlights, taillights and brake lights, ignition systems and interior accessories such as radios, interior fans and gauge panels.

Color	20' Coil	100' Spool
Red	ALL76540	ALL76550
Black	ALL76541	ALL76551
White	ALL76542	ALL76552
Green	ALL76543	ALL76553
Yellow	ALL76544	ALL76554
Brown	ALL76545	ALL76555
Blue	ALL76546	ALL76556

12AWG

Wire can be used to supply power to ignition boxes, cooling fans, fuel pumps and other higher amperage accessories including power to electric trailer brakes.

12' Coil	100' Spool
ALL76560	ALL76565
ALL76561	ALL76566
ALL76562	ALL76567
ALL76563	ALL76568
	ALL76560 ALL76561 ALL76562

10AWG

Commonly used for higher amperage applications including alternator charging wire and supplying power to trailer for interior lighting or charging trailer batteries when utilizing tow vehicle charging system.

Color	10' Coil	75' Spool
Red	ALL76570	ALL76575
Black	ALL76571	ALL76576
White	ALL76572	ALL76577

Wire and Cable Cutters

ALL11003

Capable of cutting copper stranded wire from 20-gauge primary wire to 1/0-gauge battery cable. These specially designed cutters will not flatten wire during cutting, which is helpful when installing connectors and building battery cables. Cutters are not designed to cut steel wire.

Heat Sleeve

High-temperature silicone-coated fiberglass sleeving is non-flammable and resists temperatures up to 500°F. An excellent choice for protection of fuel lines, wiring, cables and various similar uses. Sleeving is resistant to gasoline and many other chemicals. Sold in 3' lengths. Size referenced is sleeve I.D. or O.D. of hose to be covered.

ALL34280 1/4" Red	ALL34290 1/4" Black
ALL34282 1/2" Red	ALL34292 1/2" Black
ALL34284 3/4" Red	ALL34294 3/4" Black
ALL34285 7/8" Red	ALL34295 7/8" Black
ALL34286 1" Red	ALL34296 1" Black

Braided Wire Wrap

Split loom braided wrap is easily applied over existing hoses or wiring to conceal



and protect against wear or abrasion. Wrap features a 25% overlap based on the nominal size listed, allowing the wrap to bend and flex without opening. Wrap is constructed of polyethylene material, heat resistant up to 250°F, and easily cuts with a hot knife or a soldering iron with knife attachment.

ALL76610 1/8" x 20'	ALL76616 3/4" x 5
ALL76612 1/4" x 15'	ALL76618 1" x 10'
ALL76614 1/2" × 10'	

Spiral Wire Loom

Loom keeps wiring bundled together for a neat appearance and can be easily

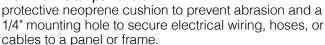


removed when adding or removing wires during wiring harness changes. Open design makes identifying or locating a wire simple and will not hold dirt and moisture like solid looms. Loom also provides abrasion resistance to protect wiring or hoses. High-density polyethylene material is rated from -30°F to 165°F and sold in 10' lengths.

ALL76600	1/4"
ALL76602	1/2"
ALL76604	3/4"

Line Clamps

Aluminum clamps have a



Black nylon clamps have a 3/16" mounting hole to secure electrical wiring, hoses or cables to a panel or frame.

	Alun	ninum	Nylon			
Clamp Size	10-Pack	50-Pack	10-Pack	50-Pack		
1/8"	_	_	ALL18309	ALL18309-50		
3/16"	ALL18300	ALL18300-50	ALL18310	ALL18310-50		
1/4"	ALL18301	ALL18301-50	ALL18311	ALL18311-50		
3/8"	ALL18302	ALL18302-50	ALL18312	ALL18312-50		
1/2"	ALL18303	ALL18303-50	ALL18313	ALL18313-50		
5/8"	ALL18304	ALL18304-50	ALL18314	ALL18314-50		
3/4"	ALL18305	ALL18305-50	ALL18315	ALL18315-50		
7/8"	ALL18306	ALL18306-50	_	_		
1"	ALL18307	ALL18307-50	ALL18317	ALL18317-50		
1-1/4"	ALL18308	ALL18308-50	_	_		



Weather Pack Kits

Kits include a variety of tower housings, shroud housings, seals and terminals to build 1, 2, 3, 4, and 6 pin connectors for standard 16-14 gauge wire. Kits also include a pin removal tool and convenient carrying case.



ALI 76262

ALL76260 Weather Pack Starter Kit ALL76262 Weather Pack Master Kit

Quantity ALL76260	Quantity ALL76262	Description
1	3	1-Pin Tower Housing
1	3	1-Pin Shroud Housing
2	4	2-Pin Tower Housing
2	4	2-Pin Shroud Housing
1	3	3-Pin Tower Housing
1	3	3-Pin Shroud Housing
1	2	4-Pin Tower Housing
1	2	4-Pin Shroud Housing
1	2	6-Pin Tower Housing
1	2	6-Pin Shroud Housing
40	100	Seals (50% Blue/50% Green)
40	100	Terminal Pins 16-14GA (50% Male/50% Female)
1	1	Pin Removal Tool
1	1	Carrying Case

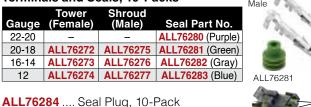
Weather Pack Connector Individual Kits

Weather Pack connectors are designed for harsh weather conditions. Originally used by top vehicle manufacturers, the reliability of these connectors has been proven for years and they have become common in many applications requiring a weather-proof connection. Snap-lock feature assures positive connection and allows connector to be easily separated as needed. Connectors are rated up to 20A at 12V DC and include tower housing, seals and terminals for standard 16-14 gauge wire.

ALL76265 1-Wire ALL76266 2-Wire ALL76267 3-Wire ALL76268 4-Wire Flat ALL76269 4-Wire Square ALL76270 6-Wire

Weather Pack Individual Components

Terminals and Seals, TU-Packs					
Gauge	Tower (Female)	Shroud (Male)	Seal Part No.		
22-20	_	_	ALL76280 (Purple)		
20-18	ALL76272	ALL76275	ALL76281 (Green)		
16-14	ALL76273	ALL76276	ALL76282 (Gray)		
40	A L L 70074	A L L 70077	ALL 70000 (DL -)		



Housings, Each

Description	Tower (Female)	Shroud (Male)
1-Pin	ALL76288	ALL76289
2-Pin	ALL76290	ALL76291
3-Pin	ALL76292	ALL76293
4-Pin	ALL76294	ALL76295
4-Pin Square	ALL76296	ALL76297
6-Pin	ALL76298	ALL76299



Weather Pack Terminal Tool

ALL76264

Tool removes male and female pin terminals from weather pack connectors without damage.



Weather Pack Pliers

ALL76221

Weather pack pliers will crimp most popular 22-10 gauge non-insulated terminals. 8" overall length.

Test Leads with Alligator Clips

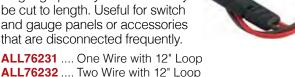
ALL76216

30" long test leads are color coded red and black. Clips are 5-amp rated.



Universal Wire Connectors

Molded connectors include a male and female end, joined by a loop of 16 gauge primary wire which may be cut to length. Useful for switch and gauge panels or accessories that are disconnected frequently.



ALL76232 Two Wire with 12" Loop ALL76233 Three Wire with 48" Loop ALL76234 Four Wire with 48" Loop ALL76235 Five Wire with 48" Loop

HEI Connectors

The proper connector when repairing or wiring HEI ignition systems. Connectors



have a built-in retaining clip same as originals to secure connector to ignition cap. The included pigtail wires are also the correct gauge for easy installation.

ALL81214..... 12V Ignition Connector ALL81215..... Tach Connector



Cory Crapser

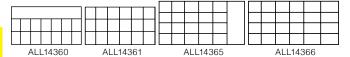
Female



Storage Cases

These handy storage cases help organize many items around the shop, trailer or home such as electrical connectors, quick turn fasteners, tire groover blades, small fasteners

and many more items. Curved bottom compartments create a smooth scoop, making it easy to remove the smallest of items. Molded-in dividers prevent items from slipping under dividers and accidentally mixing product.



ALL14360.... Plastic Case 15 Compartment, 11" x 7" x 1-3/4" **ALL14361....** Plastic Case 18 Compartment, 11" x 7" x 1-3/4" **ALL14365....** Metal Case 21 Compartment, 9-1/2" x 13-1/2" x 2" **ALL14366....** Metal Case 24 Compartment, 9-1/2" x 13-1/2" x 2"

Wire Terminal Kit

ALL76224

A 100-piece terminal kit with a generous supply of the most commonly used connectors for automotive wiring. A sturdy plastic case with divided compartments helps keep connectors organized.



Each Kit Includes:

22-18ga.	16-14ga.	12-10ga.
(10) Butt Connectors	(10) Butt Connectors	(10) Butt Connectors
(8) Ring Terminals #6	(10) Ring Terminals #10	(8) Ring Terminals #10
(8) Ring Terminals #8	(8) Ring Terminals 1/4"	(7) Ring Terminals 3/8"
-	(7) Female Blade	-
_	(7) Male Blade	-
_	(7) Spade	_

Ratcheting Crimp Pliers

ALL76220

Perform professional quality crimps on standard insulated electrical connectors. Pliers include jaws for 22-18, 16-14, and 12-10 gauge connectors and are easily compressed with help from the ratcheting mechanism which releases when connector is fully crimped.



Electrical Tape

ALL14280

Protect electrical connections and secure wires. 3/4" x 60' roll. UL approved.



Terminal Connectors

Crimp style connectors work great when building custom wire harnesses or making repairs to existing wiring. Tin-plated copper terminals are available in a variety of types and sizes.



Non-insulated terminals are designed to be crimped but may also be soldered for a more secure complete connection. Often used with separate heat shrink that is applied after connection is made. Pack of 20.

Non-Insulated	Terminals	22-18	16-14	12-10
Butt Connectors		ALL76000	ALL76010	ALL76020
	#6 Hole	ALL76001	ALL76011	ALL76021
	#8 Hole	ALL76002	ALL76012	ALL76022
Ding Torminals	#10 Hole	ALL76003	ALL76013	ALL76023
Ring Terminals	1/4" Hole	ALL76004	ALL76014	ALL76024
	5/16" Hole	ALL76005	ALL76015	ALL76025
	3/8" Hole	ALL76006	ALL76016	ALL76026
Diada Tarminala	Male 1/4"	ALL76007	ALL76017	ALL76027
Blade Terminals	Female 1/4"	ALL76008	ALL76018	ALL76028



Vinyl-insulated terminals are the most popular crimp terminal used in a variety of applications. PVC insulated sleeve is securely attached to terminal and has a flared end for easy installation. Pack of 20.

Vinyl Insulated	Terminals	22-18	16-14	12-10
Butt Connectors		ALL76030	ALL76040	ALL76050
	#6 Hole	ALL76031	ALL76041	ALL76051
	#8 Hole	ALL76032	ALL76042	ALL76052
Ring Terminals	#10 Hole	ALL76033	ALL76043	ALL76053
	1/4" Hole	ALL76034	ALL76044	ALL76054
	5/16" Hole	ALL76035	ALL76045	ALL76055
	3/8" Hole	ALL76036	ALL76046	ALL76056
Blade Terminals	Male 1/4"	ALL76037	ALL76047	ALL76057
Diade Terrilliais	Female 1/4"	ALL76038	ALL76048	ALL76058



Heat shrink terminals protect connections from corrosion. Terminals with attached shrink tube are adhesive lined to grip wire insulation and conform to crimp when heated, sealing out moisture. Pack of 10.

Heat Shrink	Terminals	22-18	16-14	12-10
Butt Connectors		ALL76060	ALL76070	ALL76080
	#6 Hole	ALL76061	ALL76071	ALL76081
	#8 Hole	ALL76062	ALL76072	ALL76082
Ring Terminals	#10 Hole	ALL76063	ALL76073	ALL76083
	1/4" Hole	ALL76064	ALL76074	ALL76084
	5/16" Hole	ALL76065	ALL76075	ALL76085
	3/8" Hole	ALL76066	ALL76076	ALL76086
Blade Terminals	Male 1/4"	ALL76067	ALL76077	ALL76087
Diaue reminais	Female 1/4"	ALL76068	ALL76078	ALL76088



Heat-Shrink Tubing

Single-wall tubing is placed over wiring and electrical connectors to seal and strengthen electrical connections. Tubing is



pre-cut to 6" and has a 2:1 shrink ratio, meaning this with shrink to approximately half the size when heat is applied using a heat gun or other heat source.

Heat-Shrink Assortment Kit

ALL76160..... Includes 9 pcs. of 1/8" and 3/16", 6 pcs. of 1/4", and 3 pcs. of 3/8" and 1/2"

Individual Sizes (Pack of 20)

ALL76161 1/16"	ALL76165 3/8
ALL76162 1/8"	ALL76166 1/2
ALL76163 3/16"	ALL76167 3/4
ALL 76164 1/4"	

Grommet Set ALL18360

Grommets are perfect for protecting wiring and hoses that pass through panels up to 1/16" (.062") thick. Kit includes 36 grommets (6 of each size: 1/4", 5/16", 3/8", 1/2", 5/8", and 11/16"). Grommets are also available in size specific 10-packs.

Individual Sizes (Pack of 10)

Part No.	Grommet Hole I.D.	Panel Hole I.D.
ALL18362	3/16"	5/16"
ALL18363	1/4"	3/8"
ALL18364	5/16"	7/16"
ALL18365	3/8"	1/2"
ALL18366	1/2"	5/8"
ALL18367	5/8"	7/8"
ALL18368	11/16"	1"

Step Drill Sets

Drill multiple size holes with one bit. Drill sheet metal and aluminum without deforming or distorting. Bits start on contact, deburr, and chamfer while drilling, and does not require a center punch. Titanium nitride coated high speed steel. 1/4" shank.

ALL11040 (3-Piece Set)

712211010 (0 1 1000 001)		
Drill Bit	Sizes	
Six Step	3/16", 1/4", 5/16", 3/8", 7/16", 1/2"	
Nine Step	1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"	
i nimaan Stan	1/8", 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32", 1/2"	

ALL11041 (2-Piece Set)

Drill Bit	Sizes
I E IAMAN STAN	1/4", 25/64", 35/64", 11/16", 13/16", 7/8", 1", 1-1/8", 1-7/32", 1-1/4", 1-3/8"
I IWEIVE STED	3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8"

Test Light

ALL76215

Quickly diagnose electrical problems by testing

for current in electrical circuits, relays, switches, or fuses. Handheld test light has a 36" lead wire with an insulated clip which fastens to a common ground and a sharp piercing point to probe insulated wire or terminals. Indicator light illuminates to identify powered circuits in 6-12V systems.

Nylon Tie Wraps

Secure electrical wiring, gauge lines, and roll bar padding. 100 per bag.



Black	Red
ALL14120 3-1/2"	ALL14126 7"
ALL14122 5"	ALL14127 14'
ALL14123 7"	Blue
ALL14124 11"	ALL14128 7"
ALL14125 14"	ALL14129 14'
Natural	Yellow
ALL14130 3-1/2"	ALL14136 7"
ALL14132 5"	ALL14137 14'
ALL14133 7"	Purple
ALL14134 11"	ALL14138 7"
ALL14135 14"	ALL14139 14'

Nylon Flush-Fit Tie Wraps

Flush-fit design ties have the excess portion of the tie exit in the same direction as the original tie, helping to eliminate the protruding sharp portion remaining as found in standard ties. Pack of 100.



ALL14395..... 8" ALL14396..... 11"

Nylon Tie Wraps with Mounting Holes

Built-in tab with mounting hole to easily secure wiring harnesses, hoses or cables to a panel with rivets or other fasteners. Pack of 25.



ALL14390..... 8" with 3/16" Mounting Hole **ALL14391**..... 11" with 3/16" Mounting Hole **ALL14392**..... 14" with 1/4" Mounting Hole

Wire Tie Mounting Bases

Self-adhesive mounting bases provide a location for attaching standard wire ties to secure wiring, cables and hoses. Bases mount to clean flat surfaces and accept most standard wire ties. Pack of 10.



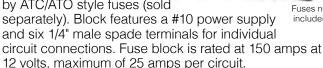
ALL14116 3/4" x 3/4" **ALL14117** 1-1/8" x 1-1/8"



6-Circuit Fuse Block

ALL76180

This fuse block is a great power distribution starting point for up to six individual circuits which are protected by ATC/ATO style fuses (sold





Fuses not included.

ATC Fuse Assortment Kit

ALL76360

Kit includes an assortment of the most popular fuses in a plastic case. Kit includes 7 pcs. each of the following sizes: 5, 10, 15, 20, 25, and 30 amp.

Individual Components (Packs of 5)

ALL76362 3 amp **ALL76363** 5 amp ALL76364 7.5 amp **ALL76365** 10 amp ALL76366 15 amp ALL76367 20 amp **ALL76368** 25 amp ALL76369 30 amp



Fuse Terminals

Terminals attach to cartridge style fuses installed in

fuse blocks to create an additional ALL76090 circuit to power accessories. Terminals slide over the protected leg or "fused" side (side of fuse block that does not have power when fuse is removed) of the fuse.

ALL76090 Mini Fuse Style Terminal ALL76091 ATC/ATO Fuse Style Terminal

Buss Bars

Pack of 5.

Buss bars create a remote power source for powering multiple accessories. Bar features a 1/4" power supply stud and 12 separate #8 connections. Insulated base



ALL76091

measures 5-1/4" x 1-1/8" wide and can be mounted with two #10 (3/16") fasteners. Bars include a removable protective cover and power supply boot.

ALL76170..... Red Buss Bar Kit ALL76172..... Black Buss Bar Kit

Junction Block

ALL76146

Junction block with single M10-1.50 thread (3/8") stud offers a location to



30-Amp Relays

Relays are commonly used to control higher amperage components such as electric fuel pumps, cooling fans or water pumps rated up to 30 amps. Relays allow the use of a lower amp switch to turn on or control a component with a higher amp draw. A connector with a wiring harness and installation instructions are included.

ALL76186..... Standard Relay ALL76188..... Weatherproof Relay

30-Amp Circuit Breaker

ALL76212

Circuit breaker protects electrical circuits similar to fuses but will cool and selfreset to maintain power to critical items such as headlights or ignition systems. Use circuit breaker to power accessories in a race car and to keep constant power to ignition. Steel case and mounting bracket provide durability and ease mounting to panels. #10-32 threaded stud terminals include nuts and lock washers.

Plunger Style **Brake Light Switch**



ALL76253

Popular two terminal brake light switch found in vehicles from the 1950's to today. Ideal for most applications, switch is spring loaded to the on position and turns off when contacted by the brake pedal assembly. Switch has 1/2" threads with jam nuts for easy mounting in a bracket, and two .250" blade type terminals.

Lever Style Brake Light Switch

ALL76250

Switch is commonly used with under-floor mounted brake pedal assemblies where switch can contact the brake pedal arm. Spring loaded switch is designed to return to the open position and has two #10-32 tapped mounting holes, 5/8" on centers. Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switch is rated at 4.5 amps and features two male bullet terminals.

Pressure Activated Brake Light Switches

Switch is plumbed into the brake





ALL76252

ALL76251

system and is activated by closing the electrical connection with rising brake pressure (60-120 PSI). Designed for easy two wire connection, one "+" supply and the other to power brake lights or a brake light relay. Switches are rated at 4.5 amps and have 1/8"-27 dry seal mounting threads.

ALL76251 Male Bullet Terminals **ALL76252** 6-32 Screw Terminals

ALL76110



Battery Boxes

Universal, lightweight steel battery boxes may be welded or bolted to the frame. Boxes are available in two sizes and include hold-down hardware.



ALL76100 12" Wide x 7-1/4" Deep **ALL76101** 10" Wide x 7-1/4" Deep

Replacement Components

ALL99175 J-Bolts with Nuts, 1 Pair ALL99177 Hold-Down Strap for ALL76100 ALL99176 Hold-Down Strap for ALL76101

Bolt-On Battery Boxes

Battery box has multiple 1/2" mounting holes to bolt box directly to the frame rail, inner fender or firewall. Box can also be fastened to round tubing using clamp-on ballast brackets. Constructed of 13-gauge steel, measures 11" wide x 7" deep and includes 3/8" hold-down hardware.

ALL76102..... Clear Zinc ALL76103..... Black

Stainless Steel Drop-Out Battery Box ALL76105

The perfect battery box where battery mounts under floor.
Eases battery service and replacement. Box is 10-1/2" wide x 7" deep x 9-1/2" tall.

Battery Hold-Down Kit for Optima ALL76107

Aluminum hold-down kit provides an attractive option for keeping Optima 34/78 series batteries in place. Battery not included.



Plastic Battery Box

ALL76099

Two-piece battery box fits up to group 27 size batteries and includes nylon strap with plastic mounting brackets. Box may be bolted through the bottom for more permanent mounting.

Cover is designed with quick lock snaps to keep cover securely in place.

Outside box dimensions 16-1/8" x 9-5/8" x 10-7/8" tall. Inside dimensions 12-3/4" x 7-1/4" x 10" tall.

Battery Cable Kits

Kits have everything needed to connect a top post style battery to starter and include fine stranded, rope-lay copper cable for best current carrying capabilities. Kits are offered with traditional red and black cables or all black cables.

Single Battery Kits Include:

- 15' Positive Battery Cable
- 2' Negative Battery Cable
- 1 Pair Battery Terminals
- 8 Pcs. Ring Terminals (4) 5/16" & (4) 3/8"
- · 8 Pcs. Heat Shrink Tubing

ALL76110..... 2-Gauge Cable Kit with Red and Black Cables ALL76111..... 2-Gauge Cable Kit with All Black Cables ALL76114..... 4-Gauge Cable Kit with Red and Black Cables ALL76115..... 4-Gauge Cable Kit with All Black Cables

Dual Battery Kits Include:

 25' Positive Battery Cable

ALL76103

- 8' Negative Battery Cable
- 2 Pair Battery Terminals
- 14 Pcs. Ring Terminals (7) 5/16" & (7) 3/8"
- 14 Pcs. Heat Shrink Tubing



ALL76112..... 2-Gauge Cable Kit with Red and Black Cables

Crown Vic Battery Cable Kit

ALL76109

Kit is for use when battery has been moved behind the driver's seat. Kit includes a battery disconnect switch, mounting bracket, a 2ft length of black nega-

tive, a 2ft and 13ft length of red positive 2-gauge battery cable, cable ends and top post to ring style battery terminal adapters.

Battery Cables

Pre-made black cables are built using PVC-insulated 4-gauge copper stranded wire and include ring terminals on each end with 3/8" mounting holes. Cables are ideal for adding additional ground connections or installing remote starter solenoids. Dimensions listed are approximate center to center of terminal ends.

ALL76341-10..... 10" ALL76341-15..... 15" ALL76341-20..... 20" ALL76341-25.... 25" ALL76341-35.... 35" ALL76341-40.... 40"





Ring Terminals

Use to repair or build customlength battery cables, or when installing a battery disconnect



switch. Terminals may be crimped or soldered to wire. Sold in pairs with heat shrink sleeving for a waterproof connection.

Wire Size	5/16" Hole	3/8" Hole	1/2" Hole
2 Gauge	ALL76116	ALL76117	ALL76128
4 Gauge	ALL76118	ALL76119	ALL76129

Impact Crimper

ALL76135

Excellent for permanently crimping standard cable ends to battery cables.



Solder Slugs

Use solder slugs to secure ring terminal ends to battery cable. Individual pieces are the correct amount of solder to be used for each size of cable. Pack of 10.



ALL76131..... Slug for 2-Gauge Terminals **ALL76132**.... Slug for 4-Gauge Terminals **ALL76133**.... Slug for 6-Gauge Terminals

Ground Straps

The number one problem with electrical systems is often related to poor ground connections. Straps are similar to OE applications which is perfect for various 6 or 12- volt grounding applications. Flexible, braided copper 12-gauge ground straps have non-insulated ring terminals on each end.

Straps with 1/4" Ring Terminals:

ALL76328-6...... 6" ALL76328-9...... 9" ALL76328-12..... 12" ALL76328-18..... 18" ALL76328-24.... 24"

Straps with 1/4" and 3/8" Ring Terminals:

ALL76329-6...... 6" ALL76329-9...... 9" ALL76329-12..... 12" ALL76329-18..... 18" ALL76329-24.... 24"

Straps with 3/8" Ring Terminals:

ALL76330-6...... 6" ALL76330-9..... 9" ALL76330-12.... 12" ALL76330-18.... 18" ALL76330-24.... 24"

Gold Battery Terminals

Terminals are machined from solid brass stock, 24K gold plated for maximum conductivity, and feature 5/16" fasteners to secure battery cables with ring terminal ends. Top post terminals have additional provisions for attaching accessory or ground wires for a clean appearance. Sold in pairs.



ALL76120..... Top Post ALL76122..... Side Post

Battery Terminal Covers

ALL76150

Covers slip over battery cables and cover top post battery terminals to prevent accidental

shorting. Required by many sanctioning racing bodies. Includes one black and one red cover.

Battery Cable Boots

ALL76154

Battery cable boots can be used for a variety of applications including covering battery terminals on smaller terminal batteries and starter solenoid core

batteries and starter solenoid connections. Boots have an opening that will accept up to 2-gauge cable. Sold as a pair, one red and one black.

Battery Cable Thru-Stud

ALL76142

Run battery cable through firewall or any body panel safely. 3/8"-16 thread.



Firewall Cable Bushing

Mounts securely to the firewall and locks onto the wire for a waterproof and vibration-proof seal.

ALL76137..... 2 Gauge **ALL76138**..... 4 Gauge



Ground Stud

ALL76147

Steel ground stud welds to round tubing providing a secure location for mounting a negative battery cable. Weld stud directly to the chassis or create a secure ground wire location in the foot box or engine compartment. Stud accepts battery cables with 3/8" ring terminals.





Battery Disconnect Switches

Battery disconnect switches shut down the vehicle in an emergency or secure it when not in use. Offered as a single and double pole version.

Single Pole Disconnect has two terminals and is recommended for vehicles not using an alternator that need the ability to be shut down in an emergency or when securing a vehicle by shutting off all power to the vehicle.

Note: When attempting to shut down a vehicle with an alternator using a single circuit battery disconnect, the alternator may continue supplying power to the vehicle ignition system, allowing vehicle to continue to run.

Double Pole Disconnect has four terminals with two separate circuits, which is recommended for vehicles with an alternator that need to be shut down in the event of an emergency.

Standard-Duty Switch with Decal

Standard-duty switch mounts in a 3/4" hole in a panel up to 1/4" thick and includes a decal to indicate on/off position. Switch has 3/8"-24 terminals and is rated at 175 amps continuous duty. Double pole switch also has #10-32 studs rated at 20 amps continuous duty.

ALL80156 Switch w/ Decal (Single Pole) **ALL80157** Switch w/ Decal (Double Pole)

Severe-Duty Switch with Decal

Heavy-duty switch mounts in a 3/4" hole in a panel up to 1/4" thick and include a decal to indicate on/off position. Switch has 1/2"-20 terminals, is rated at 300 amps continuous duty and is sealed to resist weather and help prevent internal corrosion. Double pole switch also has #10-32 studs rated at 20 amps continuous duty.

ALL80154 Switch w/ Decal (Single Pole)
ALL80155 Switch w/ Decal (Double Pole)

Battery Disconnect Boots

Protect the terminals on battery disconnects from being accidentally shorted.

ALL76152..... Red, 2-Pack **ALL76153**..... Black, 2-Pack



ALL80155

Battery Disconnect Switch Mounting Bracket

ALL60365

Steel weld-on bracket provides a secure mounting location for battery disconnect. The dual mount bracket is pre-notched for welding to 1-1/2" round tubing (easily modified to fit other sizes) and features a 3/4" mounting hole for most battery disconnect switches.

Standard-Duty Switch with Panel

Standard duty switch is pre-mounted in a 2-3/4" x 3-1/4" aluminum panel with bright screen printed graphics to indicate the on/off position. Switch has 3/8"-24 terminals and is rated at 175 amps continuous duty. Double pole switch also has #10-32 studs rated at 20 amps continuous duty.



ALL80158

ALL80158 Switch w/ Panel (Single Pole)
ALL80159 Switch w/ Panel (Double Pole)

Battery Disconnect Switch with Removable Key

Battery disconnect features a removable metal key allowing vehicle to be shut down in the event of an emergency or to secure vehicle when not in use. Disconnect is rated at 160 amps continuous duty and features two 3/8"-24 terminals for installing battery cables with ring terminals. Ideal for use in street cars as a theft deterrent.



a their deterrent.

ALL80152 Switch w/ Decal ALL80153 Switch w/ Panel

Battery Disconnect Panel ALL80129

Aluminum panel is pre-drilled and labeled with on/off to easily identify the position of most standard battery disconnects. Panel features four 3/16"" mounting holes and a 3/4" disconnect mounting hole.



Battery Disconnect Decal

ALL99045

Required by many sanctioning bodies to help track and safety crew identify the battery disconnect switch in the event of an emergency. Replacement vinyl decal works for most battery disconnects.





WARNING: PROP. 65

The products on this page can expose you to lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov



Performance Chevy Mini-Starter ALL80525

SB Chevy clockable starter has twelve mounting positions and is a good choice for street or crate engines. Starter has 1.4kw permanent magnet and weighs only 7.5 lbs. Clears most kickout oil pans and works with 153- and 168-tooth flywheels or flexplates. Use with compression ratios up to 10.5:1. Mounting bolts and shim kit included.

Chevy Mini-Starter

ALL80520

It's smaller, lighter and offers several mounting options. Perfect starter for race cars with clearance problems in the chassis or around header pipes. Chevy 153-and 168-tooth applications. Starter has 1.4kw permanent magnet, weighs just 9.6 lbs. and includes bolts and shims.

Chevy Mini-Starter

ALL80515

3HP high-torque gear reduction, block mount Chevy mini-starter. In-line mounting block will fit either 153- or 168-tooth flywheels and has rotation holes for added clearance. Mounting bolts and shim kit included.

GM LS Mini-Starter

ALL80516

Block mount GM LS gear reduction mini-starter works with 168-tooth flywheels and provides increased starting performance over OE style starters. Starter features a 3-position mounting block which allows the starter motor to be rotated for additional clearance around exhaust and frame obstructions. A high-torque, 3HP motor combined with 3.75:1 gear reduction is ideal for engines with up to 11:1 compression ratio. Mounting hardware and shims not included.

Heavy Duty Bellhousing Mount Starters

Heavy-duty starter with a 3HP motor is designed to handle up to 16:1 compression engines.

ALL80532 .. Bert/Brinn Mount (9T)

ALL80533 .. Quarter Master Mount (8T/91T)



Bert/Brinn Starter

ALL80530

Bert/Brinn Starter can handle up 16:1 compression. 4.4:1 gear reduction starter has a 1.4kw motor that produces 1.9 hp and 200 ft./lbs of torque.

Starter Cover

ALL26236

Protective water repellent cover for the ALL80530 Bert/Brinn style starter helps prevent dirt and water from entering starter motor causing premature damage to starter. Nylon cover features an elastic band to fit tightly around starter body and a terminal window with openings for solenoid connections.

Universal Heat Wrap ALL34238

Heat-resistant material measures 7" x 22", making it ideal for wrapping starter motor or other components that are close to high heat areas. Wrap features a reflective material on one side to protect against radiant heat and includes two 24" long stainless steel tie wraps for securing material.

Starter Solenoid ALL76203

Ford-style solenoid is perfect for use with high torque racing starters. Flat base eases mounting, and a remote under-hood starter switch or

timing light hook-up can be easily adapted. Solenoid is offered separately, or may be ordered with installation kit (ALL76202) that includes wiring, terminals, and hardware.

Solenoid and Installation Kit

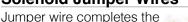
ALL76202

Relocate starter solenoid away from direct engine heat to provide easy access and eliminate hot start problems common on General Motors vehicles. An under-hood starter switch can also be added. Includes standard duty, Ford-style solenoid, mounting screws, terminals, and wiring kit.

Solenoid Jumper Wires

circuit to the starter solenoid when using remote mounted solenoids such as ALL76203.

ALL76208 Jumper Wire with Spade Terminal **ALL76209** Jumper Wire with Ring Terminal







Electrical Outlets

Universal outlets provide remote 110V connection when powering block heaters



tank heaters or other accessories

mounted in a race car. Outlets accept standard three prong extension cords and mount directly into decking or to a chassis mounted bracket. ALL76432 and ALL76436 outlet kits are prewired with 5 feet of 14 AWG wiring.

ALL76430 Outlet

ALL76432 Outlet w/Wiring ALL76434 Covered Outlet

ALL76436 Covered Outlet w/Wiring

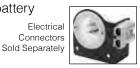
Brackets for Electrical Outlet And Quick Disconnect

Steel bracket mounts to the chassis. providing a single convenient location to install an electrical outlet and a battery quick disconnect (ALL76320). Electrical

ALL60352 Weld-On Bracket ALL60353 Bolt-On Bracket



ALL60352



Battery Quick Disconnect Kits

Disconnects provide a connection for battery charging, or for quick battery changes during a race. Prevent accidental reverse polarity. Choose from 50- or 175-amp



ratings. Sold in pairs and include cable terminals.

ALL76320 50-Amp Gray Disconnects, 1 Pair ALL76322 175-Amp Red Disconnects, 1 Pair

Replacement Components

ALL76321 6-Gauge Terminals for ALL76320, 1 Pair ALL76323 2-Gauge Terminals for ALL76322, 1 Pair

Related Components

ALL76133..... Solder Slugs for 6-Gauge Terminals 10pk ALL76131..... Solder Slugs for 2-Gauge Terminals 10pk

Bracket for Quick Disconnects

ALL60350

Steel bracket mounts battery disconnect (ALL76320) to the bend on the underside of deck panels found on Late Models and Modifieds.

Quick Disconnect Covers

Covers install over the end of the quick disconnects to help prevent dirt and debris from entering the connections.



Covers have a built in lanvard to keep the cover close to connector and for easy assembly.

ALL76324 Cover for 50-Amp Quick Disconnect ALL76325 Cover for 175-Amp Quick Disconnect

Remote Starter Button

ALL76206

Remote button is helpful when performing valve lash maintenance if the ignition panel can't

be reached. Leads are 60" long and come complete with gator clamps to connect to starter solenoid.

Quick-Connect Battery Charging Posts

Two-piece, color-coded connectors make safe, out-of-car connection to battery charger quick and easy. Female ends have 1/2"-20 threaded studs that connect to battery cables and pass through a 5/8" hole in a panel up to 1/8" thick. Male ends of connectors fit on battery charger cables. Shafts are tapered for tight, secure connections.

ALL76300 Red **ALL76310**..... Black

Battery Charging Posts

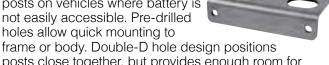
Mount remote charging posts through a body panel for access to battery terminals and quick, easy battery charging. Posts have 3/8" studs and have color-coded caps for safety. Posts require a 1.25" mounting hole.





Charging Post Bracket ALL60064

Securely mount Allstar charging posts on vehicles where battery is not easily accessible. Pre-drilled holes allow quick mounting to



posts close together, but provides enough room for charging or jumper cable clamps. Charging posts sold separately. (ALL76140 and ALL76141).

GM Single Wire Alternators

Completely remanufactured GM Delco single wire alternators are easily hooked up. Housings are natural finish aluminum.

ALL80500 80 Amp, Full Size ALL80501 80 Amp, Compact Size



ALL80500

GM Single Wire Chrome Alternator ALL80505

Chrome finish, single wire GM alternator with aluminum housing has a 100-amp capacity.





Gauge Panels

Gauge panels are completely assembled, pre-wired, and



include lighted mechanical gauges, warning indicator lights with senders to alert you of problems, detailed instructions and installation template. Select from panels fitted with Allstar, AutoMeter Sport-Comp or Pro-Comp liquid-filled 2-5/8" gauges. Panels are available in two-, three-, or four-gauge configurations.

Note: Pressure gauges feature a male 1/8"-27 NPT port fitting, adapter fittings and line kits sold separately.

Note: Fuel pressure isolator such as AutoMeter ATM5282 or QuickCar QRP61-300 is always recommended when mounting a fuel pressure gauge inside vehicle.

Part No.	Description
Allstar	
ALL80090	2-Gauge Panel (OP/WT)
ALL80091	3-Gauge Panel (OP/WT/OT)
ALL80092	3-Gauge Panel (OP/WT/FP)
ALL80093	4-Gauge Panel(OP/WT/OT/FP)
AutoMeter	Sport Comp
ALL80110	2-Gauge (OP/WT)
ALL80113	3-Gauge (OP/WT/FP)
ALL80114	4-Gauge Panel (OP/WT/OT/FP)
AutoMeter	Pro-Comp (Liquid Filled)
ALL80120	2-Gauge (OP/WT)
ALL80123	3-Gauge (OP/WT/FP)

Mechanical Gauges

Allstar Performance 2-5/8" mechanical gauges feature a full 270° sweeping needle, silver faced background, black bezel and are backlit for easy reading even during low light conditions. Perfect for building custom dash panels or when adding mechanical gauges to replace existing gauges or warning lights.

ALL80094 Water Pressure 0-60 PSI
ALL80095 Oil Pressure Gauge 0-100 PSI
ALL80096 Water Temperature Gauge 140-280°F
ALL80097 Oil Temperature Gauge 140-340°F
ALL80098 Fuel Pressure Gauge 0-15 PSI
ALL80099 Volt Gauge 8-18V

Note: Pressure gauges feature a male 1/8*-27 NPT port fitting, adapter fittings and line kits sold separately.

Gauge Kits

Kits include all the components of our popular gauge panels while offering



the flexibility of installing gauges and warning lights into a custom dash or prefabricated dash panel. Kits feature 2-5/8" 270° sweeping mechanical gauges which are pre-wired with warning indicator lights and senders to alert you of problems.

ALL80080 2-Gauge Kit OP/WT ALL80081 3-Gauge Kit OP/WT/OT ALL80082 3-Gauge Kit OP/WT/FP ALL80083 4-Gauge Kit OP/WT/OT/FP

Note: Pressure gauges feature a male 1/8"-27 NPT port fitting, adapter fittings and line kits sold separately.

Gauge Line Kits

Gauge line kits provide easy connection to most mechanical oil and fuel pressure gauges. Includes a pre-assembled length of #4 braided steel line with -4AN ends and male and female 1/8"NPT adapters to work with most applications.



ALL46110-36 Kit with 36" Line ALL46110-48 Kit with 48" Line ALL46110-60 Kit with 60" Line ALL46110-72 Kit with 72" Line

LED Bulbs for Gauge Panels

0000

ALL99147

LED bulbs offer a brighter lighting solution and will hold up much longer than standard incandescent bulbs on 16 volt systems. Bulbs replace standard 53 bulbs.

Warning Lights

Lights snap into a 3/4" hole in material up to .065" thick. Lights have standard male blade electrical connections and are designed for 12V systems.



ALL99062 Amber Light ALL99063 Blue Light ALL99064 Green Light ALL99065 Red Light

Temperature Switches



Temperature switches are commonly used to turn on indicator lights to warn

the driver of a possible overheating condition. Switches complete a circuit to ground when the pre-set temperature is reached so they may also be used to control a relay for electric fans. Switches have male 1/2"-14NPT threads and a standard male blade electrical connector.

ALL99057 230°F **ALL99056** 280°F

Pressure Switches

Pressure switches are commonly used to turn on indicator lights warning of a low pressure condition to help prevent engine damage. Switches complete a circuit to ground until the pre-set pressure is reached. Switches have male 1/8"-27NPT threads and a standard male blade electrical connector.

ALL99058 4 PSI **ALL99059** 20 PSI

Water Pressure Warning Kit

ALL80250

Warning kit senses pressure in the cooling system and alerts driver of a problem when coolant pressure drops below 4 PSI.





Switch Panels

Designed with the racer in mind, panels feature well marked switches and indicator lights. Units are completely wired for easy installation and include detailed instructions. Choose from panels with standard or weatherproof switches.

Switch Panels with Standard Switches









ALL80140 ALL80150

L80140 AL

ALL80142

ALL80146

ALL80140 Panel without Light
ALL80141..... Panel with Flip-Up Cover
ALL80142 Panel with Light, One Switch
ALL80146 Panel with Lights, Two Switches
ALL80150 Magneto Ignition Panel

Switch Panels with Weatherproof Switches







ALL80160

ALL80162

ALL80164

ALL80160 Panel without Light

ALL80162 Panel with Light, One Switch

ALL80164 Panel with Two Lights, Two Switches

Weatherproof Switch Panel

ALL80165

Compact three switch panel has sealed weatherproof toggle switches for use in open cockpit vehicles or when exposed to harsh conditions. Panel mea-



sures 2-1/2" tall x 4-5/8" wide and includes one momentary start switch, one ignition switch and one accessory switch. Switches are rated up to 20 amps and each circuit includes 60" of 14AWG wire for easy connections.

Fused Switch Panel

ALL80138

Universal 4" x 7" switch panel includes one momentary start switch, one fused ignition switch and four fused acces-



sory switches. Ideal for many motorsports applications, this panel features separately fused and switched circuits for a variety of uses including electric fuel pumps, water pumps, cooling fans, brake duct fans, and lighting. Individual circuits are rated up to 20 amps and include pre-terminated pigtails for easy connection.

Spiral Corded Momentary Buttons

Buttons are designed for fast, consistent and reliable trans-brake release. Sealed spiral cord leads are ideal for steering wheel mounting or into a 5/8" hole.

Momentary buttons may also be used in many other applications such as nitrous and line lock systems. 18" spiral cords stretch to approximately 5'.

ALL80180 Cord with Small Green Button **ALL80181** Cord with Large Red Button

Heavy Duty Toggle Switches

On/off, two-position toggle switches are used in Allstar Performance ignition panels. Rated up to 20 amps.



panels. Hated up to 20 amps.

ALL80175 Standard Switch

ALL80176 Weatherproof Switch **ALL80177** Weatherproof Switch Momentary

Start/Return to Off

Toggle Extensions

Toggle extensions increase the length of most toggle switches enabling easier access to switch panels and other toggle style switches. Push-on extensions are 1-7/8" long and have an id of .230" to fit most round handled toggle switches. Pack of 2.

ALL80167 ... Red **ALL80168** ... Black

Toggle Switch Cover

ALL99068

Cover fastens onto the front of most standard-length toggle switches to help seal out the elements. Cover features a molded-in brass nut to secure tight to the switch.

Starter Button

ALL99069

Button mounts in a 5/8" hole and has #8 terminal mounting screws. Rubber boot threads on after installation to help seal out the elements.

Remote Starter Button Shroud Kits

Kit mounts a remote starter button directly to chassis tubing. Kit includes a shroud to help protect against accidental activation, tab, and starter button.



ALL60360 Welded Kit ALL60361 Unwelded Kit

Indicator Lights

Lights snap into 1/2" holes in up to 0.065" thick material, have ring terminal connectors and are designed for 12V systems.



ALL99066 ... Red Indicator Light **ALL99146** ... Green Indicator Light



Street/Strip Distributors with Rev-Limiter

A performance electronic distributor which includes a soft touch rev control, ignition timing start retard function and an adjustable vacuum advance for street use. Simple four wire connection only requires a 12V power source and an external coil. The CNC-machined 6061-T6 aluminum housing features a sealed upper support bearing and an extra-long lower bronze bushing which helps maintains accurate timing at higher RPMs. The small bodied design is perfect for early muscle cars when firewall clearance is often a concern. Distributors include a molded cap and rotor with plug wire retainer, an optional

vacuum advance lock out plate, a mechanical advance curve kit, a weather pack harness for simple coil connection and installation instructions.

ALL81223Chevrolet V8*

ALL81241Ford V8 221-302 (Non-EFI)

ALL81243Ford V8 351W

ALL81245Ford 351C, 400C/M, 429-460

ALL81253Ford V8 332-428 FE

ALL81258Pontiac V8 326-455

*Excluding 348-409 CID

Note: GM distributors include a melonized drive gear compatible with most flat tappet or hydraulic roller camshafts. If used with a mechanical roller camshaft, a bronze or other compatible gear should be used as recommended by the cam manufacturer.

Note: Ford distributors include OE style cast iron gears

Replacement Components







ALL81224 Cap and Retainer (Chevrolet) **ALL81226** Cap and Retainer (Ford)

ALL81225 Rotor

High-Output Coil

ALL81232

High-output coil is specifically designed for use with the high-output inductive storage ignition module found in Allstar Performance Street/Strip series



distributors. Delivering up to 40,000 volts, this coil has a male secondary tower which offers superior boot and terminal retention and brass primary terminals for maximum conductivity. Includes mounting hardware, ring terminals, and high temperature silicone boot.

High-Performance Distributors for Use with Ignition Box

This high-performance distributor is an excellent choice for many types of motorsports.

Requires an aftermarket ignition box (such as an MSD, Accel, Crane or Mallory) and an external coil such as ALL81230. Housing is CNC-machined 6061-T6 aluminum with an upper support bearing and an extra-long lower bronze bushing for smooth operation and accurate timing at higher RPMs. Distributor includes a molded cap and rotor with brass and stainless steel contacts, a mechanical curve kit with advance springs and stop bushings, manifold gasket, housing O-rings, spark plug wire retainer cap with screws, and instructions.

ALL81220 Chevrolet V8*

ALL81216..... Chevrolet V8* w/Vacuum Advance ALL81221 Chevrolet V8* w/Adjustable Collar

ALL81218..... Chevrolet V8* w/Adjustable Collar, Dual Pick-Up

ALL81246 Ford V8 221-302 (Non-EFI)

ALL81248 Ford V8 351W

ALL81250 Ford V8 351C, 400C/M, 429-460

*Excluding 348-409 CID

Note: Chevrolet distributors include melonized drive gears compatible with most flat tappet or hydraulic roller camshafts. If used with a mechanical roller camshaft, a bronze or other compatible gear should be used as recommended by cam manufacturer.

Replacement Components









ALL81224 Cap and Retainer (Chevrolet)

ALL81226 Cap and Retainer (Ford)

ALL81225 Rotor

ALL81228 Magnetic Pick-Up

CD Ignition Coil ALL81230

High-output ignition coil is specifically designed for use with capacitive discharge ignition systems.

40,000 volt coil is recommended for use with Allstar Performance HP series distributors. Sturdy, high-impact housing is epoxy filled to protect against vibration. Extruded aluminum bracket eases mounting. Mounting hardware, anti-vibration mounting pads, ring terminals, and high temperature silicone boot are included.

Jeep/AMC 6-Cylinder Performance Distributor ALL81255

Replace troublesome point or OE computercontrolled distributors in most 3.8L and 4.2L engines with a more reliable electronic ignition distributor, plus an adjustable vacuum advance. Three-wire connection requires only a 12V power source and an external coil such as the ALL81232 or ALL81234.





ALL81200

Chevy HEI Performance Distributors

Distributors have high-output coils and adjustable vacuum advances, perfect for upgrading stock HEI distributors for higher RPM. Fit small and big block Chevy (except 348 and 409). Housings are CNC-machined 6061-T6 aluminum with an upper support bearing to provide accurate timing at higher RPM. Include snap-on spark plug wire retainer and instructions.

ALL81200 Distributor with Red Cap **ALL81202** Distributor with Black Cap

Replacement Component



HEI Connectors

The proper connector when repairing or wiring HEI ignition systems. Connectors have a built-in retaining clip same as originals to secure connector to ignition cap. The included pigtail wires are also the correct gauge for easy installation.

ALL81214..... 12V Ignition Connector **ALL81215**..... Tach Connector

HEI Advance Curve Kit

ALL81300

Advance kit fits all '74-79 GM HEI distributors except those that are computer controlled.

Includes two weights, center plate, three sets of colorcoded springs, two pairs of nylon bushings, and complete instructions.

Chevy Distributor/Magneto Hold-Down

ALL27500

Aluminum hold-down fits aftermarket distributors and magnetos. An Allen head bolt prevents distributor from turning in the clamp so distributor can be removed and reinstalled without resetting the timing. Fits all Chevy V8 except 348-409. Will not fit Mallory magnetos.

Low-Profile Chevy Distributor Hold-Down ALL27505

Strong steel hold-down clamp with gold iridite finish fits small and big block Chevy V8 and 90° Chevy V6. Flat design provides extra distributor clearance and easy access to hold down fastener. Stud and nut included.

Chevy Distributor Hold-Down

Aluminum hold-down keeps distributor secured at high RPM. Fits small or big block Chevy V8 and 90° Chevy V6. Stainless steel stud, nut and washer are included. Choose blue, clear, or red anodized.

ALL27502 Blue Chevy Distributor Hold-Down **ALL27503** Clear Chevy Distributor Hold-Down **ALL27504** Red Chevy Distributor Hold-Down

Chevy Iron Distributor Gears

Melonized or Melonite coated gears are direct replacement for Allstar Performance and other stock and performance distributors. Iron gears are suitable for applications using high-volume oil pumps.

ALL81308 0.491" Dia. Shaft Chevy V8 **ALL81309** 0.500" Dia. Shaft Chevy V8

Chevy Bronze Distributor Gears

When installing a steel billet roller camshaft, a bronze distributor gear must be installed in place of the original cast iron gear. Gears made of premium aluminum bronze offer high strength to withstand the stresses created by high-pressure oil pumps. Roll pins are included.

ALL81310..... 0.491" Dia. Shaft Chevy V-8 **ALL81311**..... 0.500" Dia. Shaft Chevy V-8

Spark Plug Gap Tool

ALL96515

Tool properly cradles the spark plug to consistently set plug gaps using a standard feeler gauge. Insert plug into holder, place desired thickness of feeler gauge between ground strap and electrode then gently turn the knob until feeler gauge is snug.

Spark Plug Gap Tool Kit

ALL96516

Spark plug gap tool quickly and accurately gaps 14mm threaded spark plugs. Thread spark plug into tool, place the correct size feeler gauge beneath the ground strap then tighten knob to set plug gap. Includes 17 different feeler gauge sizes 0.010" thru 0.035".





Spark Plug Index Shims

Stackable shims index spark plugs at 30° intervals up to 360°, properly positioning ground strap in cylinder head for increased power and clearance between spark plug and piston. Shims are intended for use with 14mm flat seat



spark plugs only. Pack of 24 shims contains 12 silver 60°, 12 black 90°, detailed instructions, and dial chart.

ALL96505 Shim Kit, Standard O.D. (0.800") ALL96506 Shim Kit, Small O.D. (0.720")*

*Shims are designed for close tolerance spark plug pockets such as those on ALL-PRO cylinder heads.

Spark Plug Indexing Tool

ALL96510



Indexing positions the ground strap of the spark plug properly for best piston dome clearance and un-shrouds the electrode for a more even burn and possible gains of 5-15 horsepower. Works with flat gasket or taper seat 14mm spark plugs. Includes instructions.

Coil Wire Kits

Kit includes 36" of 8mm spiral core race wire, ends, connectors, and wire stripping/ crimp tool.



ALL81380 Kit without Sleeving ALL81381 Kit with Sleeving

Coil Wires

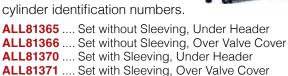


Pre-terminated versions of our 8mm sleeved coil wires found in our kits and sets feature ends for HEI tower style terminals. Often overlooked when performing maintenance or diagnosing a problem, coil wires are susceptible to damage or weakening over time.

ALL81382-12 12" ALL81382-18 18" ALL81382-24 24" ALL81382-36 36" ALL81382-42 42'

Spark Plug **Race Wire Sets**

Custom length SBC wire sets feature 8mm spiral core race wire with pre-terminated ends and universal coil wire. Sets feature shrink sleeved ends and cylinder identification numbers.



Universal Spark Plug Race Wire Sets

Universal length 8mm spiral core wire sets include a non-terminated end, ends, and boots for a build-to-length option.

ALL81360 Set with 90° HEI Ends ALL81361 Set with 135° HEI Ends



Fiberglass braided sleeves are heat resistant to protect spark plug boots from header heat up to 1,200°F. 7-1/2" long sleeves slide over a variety of boots.

ALL34272 Natural, 8-Pack ALL34273 Natural, 2-Pack ALL34274 Black, 8-Pack ALL34275 Black, 2-Pack

SB Chevy Spark Plug Wire Loom Set

ALL81340

Polished aluminum spark plug wire loom fits wires up to 9.5mm. Includes mounting hardware. Engines with center bolt style valve covers require ALL81341 mounting kit. Pack of 2.

Note: May not clear oil dipstick or exhaust manifolds on some later model engines with "log" style manifolds.

Related Component

ALL81341..... Mounting Kit For Centerbolt Covers

Spark Plug Wire Separator Set ALL81345

Black plastic set will fit up to 9mm wires. Includes two of each 2-, 3-, and 4-hole separators.

Spark Plug Wire Retainer

ALL81350

No more melted plug wires from hot exhaust. These aluminum retainers will neatly mount separated 4-wire sets to the front or rear of cylinder head. Pack of 2.



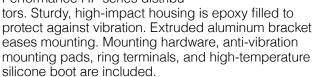
ALL81341



CD Ignition Coil

ALL81230

High-output ignition coil is specifically designed for use with capacitive discharge ignition systems. 40,000 volt coil is recommended for use with Allstar Performance HP series distribu-



High-Output Coil

ALL81232

High-output coil is specifically designed for use with the high-output inductive storage ignition module found in Allstar Performance Street/Strip



series distributors. Delivering up to 40,000 volts, this coil has a male secondary tower which offers superior boot and terminal retention and brass primary terminals for maximum conductivity. Includes mounting hardware, ring terminals, and high-temperature silicone boot.

Canister Style Ignition Coil

ALL81234

45,000 volt, oil-filled coil for electronic breakerless ignitions has low primary resistance and 112:1 turn ratio for improved throttle response and more power at higher rpms. Coil fits all standard O.E.M. brackets or Allstar ALL81324 coil bracket.

Coil Mounting Bracket

ALL81324

Aluminum canister style coil mounting bracket features a flat mount for securing to a flat panel or firewall. Bracket includes a tension screw to secure coil in bracket before mounting.

Universal Coil Mounting Bracket

ALL81326

Universal bracket is an OE style bracket that mounts canister style coils to some popular V8 intake manifolds or may be used to mount coil to a flat panel or firewall. Bracket includes a tension screw to secure coil in bracket before mounting.

LS Ignition Coils









ALI 81400

ALL814

ALL81402

ALL81403

Direct replacement 40,000V coils are a good choice when upgrading the OE ignition system in high-performance applications or when power adders are used. Sold each.

ALL81400 1997-05 LS1/LS6 (Delco D580) **ALL81401** 1999-07 4.8/5.3/6.0L Truck (Round Style Delco D585)

ALL81402 1999-07 4.8/5.3/6.0L Truck (Square Style Delco D581)

ALL81403 2005-13 4.8/5.3/6.0/6.2/7.0L

(Delco D510C/D514A)

LS Coil Mounting Brackets

ALL26212

OE style steel mounting brackets fit OE and fabricated valve covers with factory mounting bosses and have a black epoxy-coated finish.

Brackets are for use with Delco D580 Coils (ALL81400).

Remote Mount LS Coil Brackets

Designed for remote mounting LS Coils. Black anodized billet aluminum brackets

come complete with stainless hardware and standoffs for easy removal.

ALL26216 Fit Delco D580, LS1/LS6 Coils (ALL81400) **ALL26217** Fit Delco D581 and D510C, LS2,LS3,LS7 Coils (ALL81402 & ALL81403)

MSD/FAST Ignition Box Mount

ALL81330

Box mount provides a quick release method for replacing MSD or FAST ignition boxes with 7-1/2" x 3-1/2" or 4-1/8" x 6-1/2" center to center mounting dimensions. Kit includes aluminum box mount, (4) quick turn



fasteners, springs, and 1/8" aluminum rivets.

LS Oil Pan Kits Cast aluminum oil pan kits ease the installation of LS series engines into early production vehicles by providing addi-ALL26240

tional clearance between

the oil pan and frame crossmember. Kits include oil pan, pick-up tube, gaskets, and mounting hardware required for installation.

Note: These kits may not fit all applications; additional engine mount adapters and possible frame modification may be required for installation in some

ALL26240 Natural ALL26241 Black

6-Qt. Claimer Oil Pans and Pick-Ups

Small block Chevy pans have a 6-quart capacity and are 7" deep. Two swinging trap doors and a

built-in baffle provide consistent oil con-

trol. Oil pan fits pre-'86 blocks with 2-pc rear main seal.

ALL26132 L.H. (Driver's Side) Dipstick ALL26133 R.H. (Passenger's Side) Dipstick

ALL26134 Pick-Up for Use with Standard Volume Pumps

ALL26135 Pick-Up for Use with High Volume Pumps

Magnetic Drain Plug

ALL87040

Replacement plug for standard 1/2"-20 drain holes has a magnetic end to capture small particles in oil or to help identify a problem early.



ALL26132

Engine Diaper

ALL69011

Engine diaper will help contain engine oil and fragments if an engine failure occurs. Increase safety and reduce



the chance of control loss due to debris on the racing surface. Diaper wraps around oil pan and secures to header bolts. Diaper is NHRA approved but is not designed for vehicles that require SFI approved diapers. Diaper features a sewn-in, non-replaceable oil absorbent pad and is 23" long x 12-1/2" high x 12" wide.

Replacement Components

ALL99043 Tabs, 4-Pack ALL99347 Buckle, 1 Set ALL69013 Engine Diaper Pad, 22" x 30"



SB Chevy Rear Main Seal Adapters

Billet aluminum adapter allows installation of a two-piece style crankshaft seal and early (pre-



1986) crankshaft into a

1986 and newer SB Chevy (pre-LS) engine. Adapters include mounting hardware. Alignment tool ALL26127 (sold separately), is recommended to ensure proper installation and centering of adapter plate.

ALL26125 Seal Adapter for Early (Pre-'86) Oil Pan ALL26126 Seal Adapter for Late (86'-Up) Oil Pan ALL26127 Alignment Tool

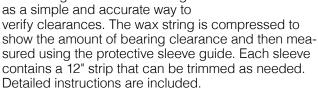
Balancing Plate

ALL26120

Plate is installed between crankshaft flange and the flywheel allowing a popular internally balanced Chevy 350 flywheel to be used with an externally balanced 400 crankshaft. Note: These are not designed to be used with an automatic transmission flexplate.

Plastigage[®] Kits

Plastigage® is a thin strip of wax string that is temporarily torqued between the crankshaft and connecting rod or main bearings as a simple and accurate way to



ALL96474 .. Kit with two green .001"-.003" (.025-.076mm)

ALL96475 .. Kit with two green .001"-.003" (.025-.076mm) and one red 002" to .006"(.051-.152mm)

In-Line Oil Filter

Aluminum in-line oil filter includes a specially made hi-flow WIX brand filter



element that has a 47-micron rating capable of flowing 30GPM. Filter features a CNC-machined clear anodized housing which is 7-3/4" long x 2-1/2" in diameter with removable O-ring sealed end caps for easy disassembly and cleaning.

Note: Not recommended for dirt racing applications, the high-flow capacity of this filter will not stop small contaminants found in dirt racing.

ALL92040 -16AN ALL92041 -12AN

Replacement Component ALL92043 Filter Element





ALL92004

Oil Filter Adapters

Oil filter adapters are OE style replacement mounts for securing



oil filter to engine block or oil pan when rebuilding or replacing an engine.

ALL92000 1968-96 SB Chevy Including LT1 and 1968-90 Gen IV BB
Chevy Engines Aluminum adapter with bypass
valve bolts to block and has 13/16"-16 threads
to accept oil filter.

ALL92001 Bolt kit for ALL92000

ALL92004 Gen V and VI 1991-Up BB Chevy Engines Adapter threads into block with 1"-12 threads and has 13/16"-16 threads to accept oil filter.

ALL92005 2006-2019 LS Series Engines Hex body adapter threads into oil pan with 20mm x 1.50 thread and has 22mm x 1.50 thread to accept oil filter (PH10575).

ALL92006 1998-2009 LS Series Engines Round body with internal hex adapter threads into oil pan with 20mm x 1.50 thread and has 13/16"-16 thread to accept oil filter (PH3506).

ALL92003 Most SB Ford 302-351W Engines. Adapter threads into block with 1-1/16"-12 threads and has 3/4"-16 threads to accept oil filter.

Chevy Billet Oil Filter Adapter

ALL92020

Billet aluminum adapter replaces the stock cast aluminum adapter and eliminates the bypass found in OE adapters. Adapter fits 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines, has 13/16"-16 threads for spin-on style oil filters and includes mounting hardware.

Chevy Oil Filter Sandwich Adapter

ALL92022

Aluminum adapter installs in place of the OE style oil filter adapter, eliminating the bypass found in OE adapter and providing 1/2"

NPT inlet and outlet ports for connecting an external oil cooler. Adapter lowers the oil filter 1-1/2" and directs oil first to the oil cooler and then through the filter before entering the engine. Adapter fits 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines, has 13/16"-16 threads for spin-on style oil filters and includes mounting hardware and O-rings.

Chevy Remote Oil Filter Adapter ALL92025

Aluminum adapter installs in place of the OE style oil

filter adapter, providing 1/2"NPT inlet and outlet ports for connecting to an external oil filter mount. Adapter is commonly used when header clearance does not allow easy access to block mounted oil filter. Adapter fits 1968-96 SB Chevy and 1968-90 Gen IV BB Chevy engines and includes mounting hardware and O-rings.

Remote Oil Filter Mount Kit

ALL92027

Kit includes a machined billet aluminum mount for relocating an oil filter to a location that is easier to access and protected from possible damage. Mount features top



mounted -12 ORB ports for easy connection and hose routing, a 1/8" NPT pressure port, and multiple oil filter fittings. Fittings included are 3/4"-16, 13/16"-16, and 1-1/8"-16 for popular 3-5/8" O.D. oil filters.

Aluminum Oil Inlet Fittings

Aluminum fittings adapt NPT to the AN threads commonly used when connecting oil lines and for other applications. Length stated is overall length. ALL90045 features two additional 1/8"NPT ports commonly used when plumbing valve spring oilers.



ALL90044 ALL90045

ALL90048 3/8"NPT to -10AN, 3" Long **ALL90043** 1/2"NPT to -10AN, 3" Long **ALL90044** 1/2"NPT to -12AN, 3" Long **ALL90045** 1/2"NPT to -12AN, 3-1/2" Long (With 1/8"NPT Ports)

Inline Oil Temperature Tees

Install in the oil return line (pump-to-tank) to adapt a probe for an oil temperature gauge. All inline tees have 1/2"NPT threads for probe fittings and 1/4" holes for mounting.



ALL90039

ALL90039 -8AN ALL90040 -10AN ALL90041 -12AN ALL90042 -16AN

Reducer Fittings

Reducer fittings are an economical way to reduce the male AN thread size on items such as oil coolers and inline temperature T-fittings.

ALL90075 -10AN to -8AN **ALL90076** -12AN to -10AN

Oil Pressure Fittings

Fittings allow easier access when plumbing oil pressure lines on many engine blocks. 1/8" NPT to -4AN.







Engine Oil Pressure Primer Tank

ALL10535

Primer tank supplies initial oil to the oil pump in engines equipped with a crank-driven oil pump. Fill primer tank with engine oil then apply compressed air to force the fluid throughout the engine via the oil pressure sender/switch

port to pre-lube the entire engine, including the oil pump. Tank features fill cap with safety pressure release slot (sealed by O-ring), an easy to read pressure gauge and a quarter turn on/off supply valve. The oil supply line is a durable 90" long steel braided hose with -4AN ends and includes a fitting with

braided hose with -4AN ends and includes a fitting wit male 1/8"-27NPT threads. Adapter fittings sold separately.

Chevy Oil Restrictors

Oil restrictors reduce the amount of oil flow to the top of the engine, reducing the risk of evacuating the oil pan in continuous high rpm engines while allowing more oil to be directed to the main and rod bearings. Restrictors have a .055" I.D. hole and include two extra O-ring seals. Pack of 2.



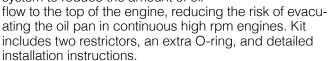
ALL90071

ALL90070 SB/BB Chevy, Aluminum with Hex Head ALL90071 SB/BB Chevy and Bowtie Block, Steel with Allen Head

Note: Not recommended for hydraulic lifter engines.

Dart/Chevy SHP Oil Restrictors

Oil restrictors for use in Dart SB Chevy SHP blocks are specifically designed for the priority main oil system to reduce the amount of oil



ALL90072 Restrictor Kit With .090" I.D. Hole ALL90073†... Restrictor Kit With .030" I.D. Hole

†Smaller port size may be modified as needed for preferred amount of oiling.

GM LS Oil Galley Plug

Galley plugs, commonly referred to as "Barbells", are used by the factory to divert oil to the factory oil filter and prevent unfiltered oil from circulating through the engine. The original GM barbells are a nylon material that may become brittle over time and should be replaced when performing a rebuild or upgrades.

ALL90067 OE Style Nylon **ALL90068** Billet Aluminum

Immersion Heaters

Immersion style heater preheats oil in wet sump oil pan or dry sump tanks to reduce overall

warm up time and improve lubrication during initial start up. 5/8" diameter stainless steel sleeve inserts into pan or tank and secures with a welded on 1/2"NPT brass screw-in fitting. 120-volt operation. These are not thermostatically controlled, units will continue to heat as long as they are plugged in.

ALL76415..... 4-3/4" Long Heater Element w/ 3' Long Cord, 400W

ALL76416..... 7-1/2" Long Heater Element w/ 12" Long Cord, 250W

Heating Pads

High-temperature silicone heating pads externally preheat oil in wet sump oil



pans, dry sump tanks and automatic transmission pans, reducing overall warm up time and improving lubrication during initial start up. 3" cord, 120-volt operation. These are not thermostatically controlled, units will continue to heat as long as they are plugged in.

ALL76420 2"x15", Self-Adhesive Pad, 200W **ALL76422** 5"x7", Self-Adhesive Pad, 375W

ALL76424 6"x12". Velcro-Strapped Pad for 6" O.D. Tanks. 435W

WARNING! Do not plug heater in without being installed on tank or metallic surface to absorb heat. Element heats up quickly and damage will result.

Flange Mount Oil Coolers

Adding an oil cooler to a vehicle increases engine life and reduces engine operating temperature. Engine oil not only lubricates but also removes a large amount of heat from the



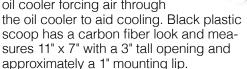
engine. Top engine builders recommend and often require use of an oil cooler. Coolers have a 1/2"NPT female bung commonly used for connecting a temperature sending unit or similar accessories and have built in flanges for mounting to the deck underside of Dirt Late Models, Modifieds, or other vehicles that would benefit from use of an oil cooler.

ALL30146 Cooler with -10AN Fittings, 4" x 15" x 3-1/2" Tall for Wet Sump Systems

ALL30145 Cooler with -12AN Fittings, 8-3/4" x 15" x 3-1/2"
Tall for Dry Sump Systems

Oil Cooler Scoops

Scoop mounts to the deck of most race cars above the oil cooler forcing air through the oil cooler to aid cooling. B



ALL23228 Scoop with 7" Wide Opening **ALL23229** Scoop with 11" Wide Opening





Linear Oil Coolers

Finned aluminum coolers have 3/4"NPT ends and T-slots for easy mounting.

ALL30142 3' **ALL30143** 4' **ALL30144** 5'



ALL36092

Sprint Car Dry Sump Tank Mounting Brackets

Mounting brackets are designed to mount 6" diameter tanks to the left front corner of standard small block

Chevy engines. Commonly mounted with ALL38145 sprint engine plate, the upper bracket utilizes the water pump mounting holes and the lower bracket fastens to the early front engine mount mounting hole.

ALL36092 Upper Tank Mount ALL36093 Lower Tank Mount

LS Lifter Valley Covers

Billet aluminum covers come complete with stainless hardware and O-ring. Black anodized.

ALL90106. ... Gen III **ALL90107**..... Gen IV/LSX



SB Chevy Lifter Valley Vents

ALL90065

Lifter valley vents positively vent the crankcase and eliminate oil drain-through and windage losses. When used with valley



screens, vents prevent damage from broken valvetrain components. Vents have 1/4"NPT threads and a 9/16" hex head to ease installation. Pack of 8.

Mini Breather Tanks

Small capacity, aluminum tank will vent dry sump tank, transmission, or rear end. Tank measures 6-3/4" overall, features a 1/4" NPT bung on bottom for connecting a vent hose and includes a washable breather element. Tanks are offered with a clamp style bracket for mounting to chassis tubing, or a flat mount for mounting to a panel or firewall.

ALL36140 Tank for 1-1/2" Dia. Tubing ALL36141..... Tank for 1-3/4" Dia. Tubing ALL36142 Tank with Flat Mount ALL36103 Replacement Filter

ALL36140

Breather Tanks

Aluminum breather tanks are 11-1/2" x 3", include mounting bracket, clamp on breather element, drain, and one or two 3/8"NPT bung(s). ALL36109 can vent two systems. Ideal for dry sumps and rear ends.

ALL36108 Tank with One RH Bung ALL36117..... Tank with One LH Bung ALL36109 Tank with Two Bungs



ALL36108

ALL36117

ALL36109

SB Chevy Fuel Pump Mount Plate ALL40254

O.E. style plate replaces lost or missing mounting plate required to mount mechanical style fuel pump to small block Chevrolet engines. Clear zincplated finish may also be painted to match original appearance. Mounting hardware included.

SB Chevy Fuel Pump Block-Off Plate ALL40255

Plate covers mechanical fuel pump engine opening on most small block Chevrolets when omitting a mechanical style fuel pump. Plate is often used when converting to electric or belt driven fuel pumps. Clear zincplated finish may also be painted.

Billet Aluminum Fuel Pump Block-Off Plates

CNC-machined billet aluminum plates cover the mechanical pump opening in the engine block and include a gasket and stainless steel fasteners.





ALL40305

Description	Blue	Clear	Red	Black
SB Chevy	ALL40300	ALL40301	ALL40302	ALL40306
BB Chevy,				
SB/BB Ford*,	ALL40303	ALL40304	ALL40305	ALL40307
SB/BB Chrysler				

^{*}Will not fit Ford 351C, 351M-400.

LS Timing Cover Conversion Kit

ALL90090

LS timing cover conversion kit adapts a standard small block Ford distributor into CT525 crate and LS series engines, allowing adjustment of timing and the mechanical advance curve and also provides an alternative to installing complete computer and fuel injection systems when placing a late model LS engine into an older street performance vehicle. Enjoy the performance and durability of the GM LS series engine with the simplicity and tune-ability of a distributor and carburetor. Kit includes all internal components and new timing cover for converting LS series engines to utilize a standard distributor ignition system and a carburetor with a belt-driven or electric fuel pump.

SB Chevy Steel Timing Cover

ALL90010

Excellent replacement for distorted or leaking OE style timing cover.

Aluminum Timing Covers

Polished cast aluminum covers resist warping and leaking that is common with OE style stamped steel covers. Recessed mounting holes are designed for button head fasteners (ALL99390) for proper installation. Covers clear most double roller style timing chains.





ALL90008 SB Chevy ALL90009 BB Chevy

Related Component

ALL99390 Timing Cover Fasteners

Timing Cover Seals

Seal works with stamped steel or aluminum covers.

ALL87280 SB Chevy ALL87282 BB Chevy



Pontiac Timing Cover

ALL90019

Cast aluminum cover with timing marks includes water pump backing plate and two coolant inserts. Fits most 1969-79 Pontiac V8 engine models

including 350, 400, and 455.

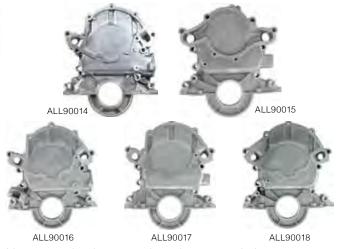
SB Mopar Timing Cover

ALL90028

Aluminum timing cover fits SB Mopar "LA" series blocks with driver's side timing marks including 273, 318, 340, and 360 CID engines.



SB Ford 302/351 Timing Covers



New cast aluminum stock replacement timing covers are available in several styles.

ALL90014 Early Style, with Fuel Pump Mounting Boss and Dipstick Tube Opening

ALL90015 1995 Mustang/1996-01 Explorer/Mountaineer Rev. Rotation with Short Water Pump

ALL90016 1983-89 Cars/Trucks/SUV's, with ECC Sensor Mount and Fuel Pump Mounting Boss

ALL90017 1985-94 Mustang with EFI

ALL90018 1987-96 Trucks with EFI, Reverse Rotation

BB Ford Timing Cover

ALL90029

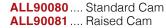
Aluminum timing cover fits 429-460cid engines. Cover has provisions for a dipstick tube and mechanical fuel pump for early applications. A dipstick tube plug and a fuel pump block off plate for use with later model fuel injected engines are included.





SB Chevy Billet Timing Covers (for Sprint Cars)

Machined billet aluminum timing cover is lightweight, durable and weighs over one lb. less than cast aluminum covers. Fits major brand oil pumps. Mounting hardware included.





Aluminum Cam Seal Plates

Aluminum cam seal plate provides a reliable seal and tight fit.

0	١
3	

Part No.	Size	Color	Application	
ALL90085	2.103"	Black	GM Small Block	
ALL90086	2.253"	Gold	Rodeck Block w/ 1.875" Roller Cam Bearing	
ALL90087	2.310"	Blue	Blocks w/ 50mm Roller Cam Bearing	
ALL90088	2.382"	Silver	Dart Small Block, Aluminum	
ALL90089	_	_	Replacement Cam Plate Seal	

Chevy Cam Lock Plate and Bolts ALL90060

Kit includes camshaft retaining plate with locking tabs and three alloy steel, 150,000 PSI bolts. Fits all small and big block Chevys.



Cam Button Spacers

Buttons limit lateral movement of the camshaft in engines without cam thrust plates and



reduce friction for "free" horsepower. Machining of the cam sprocket may be required.

ALL90050.... SB Chevy Aluminum, Early with Flat Cover ALL90052.... SB Chevy Aluminum, Late with Reinforced Cover

ALL90054 SB Chevy Steel, Roller Bearing

ALL90053 BB Chevy Aluminum

ALL90055 BB Chevy Steel, Roller Bearing

SB Chevy Cam Bearing Tool

ALL96470



For installing cam bearings quickly and easily without damage. Shaft is steel; pilot and driver are aluminum.

Crankshaft Keys

Replace worn crankshaft keys for proper timing gear and dampener positioning.

ALL87030 Chevy Short, 2-Pack

ALL87032 Chevy Long

ALL87034 Chevy Vortec, LS1/LS2/LS6

SB Chevy Gear Drive Assemblies

Aluminum gear drive provides accurate cam timing and the ability to adjust valve timing without removing the oil pan.
Aluminum frame features a built-in front oil pan gasket retainer and an idler gear



cradle for accurate cam timing throughout the RPM range. Gear drive are complete with cam, crankshaft and idler gears, needle bearing thrust kits, offset degree bushing kit, extra-long dowel pins and installation instructions. Gear drives are commonly used with ALL90080 and ALL90081 Billet Timing Covers or may be used with most stock-type covers such as the ALL90010 with slight modification.

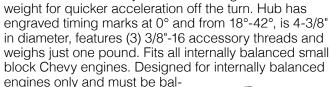
ALL90000 Standard Cam Gear Drive **ALL90100**..... Raised Cam Gear Drive (+.391")

Replacement Components

ALL90001...Cam Gear
ALL90002...Crank Gear
ALL90003...Idler Gear
ALL90007...Thrust Washer Set

SB Chevy Aluminum Crankshaft Hub ALL90030

Designed specifically for circle track racers, this SB Chevy aluminum crank hub is NOT a harmonic damper. Hub is significantly lighter than a harmonic balancer and dramatically reduces rotating



anced with rotating assembly.

Related Component

ALL90031 Adjustable Aluminum Timing Pointer

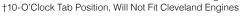
Timing Pointers

Black anodized billet aluminum timing pointers are adjustable to precise timing increments



ALL90027 BB Chevy 8" Dia. Balancers ALL90033 SB Chevy 6-1/8" Dia Balancers ALL90036*.... SB Ford Stock B, 5/16" Bolt ALL90037†.... SB Ford Stock C, 5/16" Bolt

*11-O'Clock Tab Position, Will Not Fit Cleveland Engines





ALL 90020



ALL26170

ALL26211

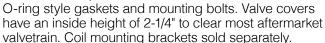
SB Chevy Fabricated Aluminum Valve Covers

TIG-welded covers are lightweight with a thick rail for gasket support. Covers without tubes are perfect for custom modification and use on dry sump systems. 1-3/8" breathers sold separately.

ALL26170 Standard Covers without Tubes
ALL26171 Standard Covers with Tubes
ALL26172 Centerbolt Covers without Tubes

Chevy LS Fabricated Aluminum Valve Covers

Fabricated valve covers for most 1997-2005 LS1/ LS6 engines feature a thick billet rail, an O-ring sealed threaded fill cap and include



ALL26210 Valve Covers without Coil Mount
ALL26211 Valve Covers with Coil Mount

ALL26212 Coil Mounting Brackets 1997-2005 LS1/LS6 Coils Steel Stamped Brackets for Use with Delco D580 Coils (ALL 81400)

BB Chevy Fabricated Aluminum Valve Covers

TIG-welded valve covers with a thick billet rail are available with or without breather holes for custom modification such as vacuum

pump fittings. Recessed bolt pockets and tall design to clear most aftermarket valvetrains. Hardware included.

ALL26176 Valve Covers without Holes **ALL26177** Valve Covers with Holes

SB Chevy Cast Aluminum Valve Covers

Tall polished aluminum valve covers are sold in pairs, with two 1-3/8" baffled breather tubes on one cover. Breathers sold separately.





ALL26137

SB Chevy Steel Valve Covers

Steel small block Chevy valve covers are an excellent alternative to more expensive and heavier aluminum valve covers. Sold in pairs, one cover is solid without holes



and one cover includes two fully welded, 1-1/2" baffled breather tubes for proper crankcase venting. Breathers sold separately.

ALL26143 Raw Unpainted ALL26145 Yellow Zinc Plated ALL26147..... Black Painted

Valve Cover Hold-Down Nuts

Easily remove these hold-down nuts with a 1/4" extension. The spring ball on your extension holds the nut in place, no wrench or socket needed! Pack of 4.

ALL26320 1/4"-20 Coarse Thread Nuts **ALL26322** 1/4"-28 Fine Thread Nuts

SB Chevy Cork Valve Cover Gaskets

Natural cork material gaskets conform to irregular castings to provide a leak free fit.



Coated gaskets feature an additional layer of protection against leaking and are reusable. Gaskets are sold in pairs.

ALL87210 5/16" Thick

ALL87212 5/16" Thick with Steel Core

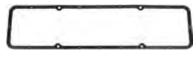
ALL87214 5/16" Thick with Steel Core (Coated)

ALL87216 3/16" Thick with Steel Core Centerbolt/Vortec (Coated)

SB Chevy Rubber Valve Cover Gaskets

ALL87215

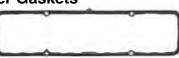
Reusable rubber gaskets are 3/16" thick and feature a molded-



in steel reinforcing layer to help gasket keep its shape and provide a leak-free fit. Gaskets are sold in pairs.

Silicone Valve Cover Gaskets

Reusable silicone rubber gaskets are 3/16" thick and feature a molded-in steel rein-



forcing layer and mounting hole inserts to help gaskets keep their shape and prevent overtightening. Gaskets also feature a multi-ribbed surface for use with composite or aluminum valve covers, not recommended for stamped steel valve covers. Gaskets are sold in pairs.

ALL87217 SB Chevy **ALL87218** BB Chevy

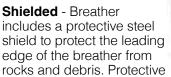


Clamp-On Breathers

Clamp-on style breathers have many applications including engine valve cover breathers, breather tanks, dry sump tanks and even helmet blowers. Breathers measure 3" in diameter x 3-1/4" tall and feature a pleated cotton material over a wire mesh screen construction allowing breather to be cleaned and reused.

Non-Shielded - Breather works well for tighter spaces that are enclosed or protected.

ALL362041-3/8", Chrome ALL362241-3/8", Black ALL36202 1-1/2", Chrome ALL362221-1/2", Black



shields adds an additional 1/2" to overall diameter.

ALL36205 1-3/8", Chrome ALL362251-3/8", Black ALL362031-1/2", Chrome ALL362231-1/2", Black



ALL36208

The breather sock fits over standard 3" diameter, 2-1/2" tall valve cover breathers to help catch residual oil discharged from the engine through valve cover

breathers. A practical alternative to wrapping dirty shop rags around valve cover breathers! Socks are easily cleaned with a mild detergent.

Breather Filters

Mesh filters add another layer of protection against dirt, dust and debris. Fits 3" diameter breathers typically used on valve covers, breather tanks and helmet systems.

ALL26227 Fits Non-Shielded Breathers ALL26228 Fits Shielded Breathers

Breather Cover

ALL26232

Water-repellent cover fits 3" diameter breathers commonly found on valve covers, breather tanks and helmet systems. Cover with drawstring fits both shielded and non-shielded breathers.



Small Fill Plug Kits

Kits include a weld-in or bolt-in bung and an easy grip O-ring cap with positive seal. Kits are often used as an inspection plug or a filler plug. Small fill plugs have a 1-3/8" opening with 1-1/2"-12 threads.

Kit with Aluminum Weld-In Bung

ALL36160 Silver Kit ALL36164 Black Kit **ALL36165** Red Kit ALL36166 Polished Kit

Kit with Steel Weld-In Bung

ALL36161 Silver Kit **ALL36167** Black Kit **ALL36168** Red Kit ALL36169 Polished Kit

Kit with Aluminum **Bolt-In Buna**

ALL36180 Silver Kit ALL36181 Black Kit **ALL36182** Red Kit ALL36183 Polished Kit



ALI 36182

Weld Bungs

Weld-on bungs are available in 6061 aluminum or mild steel and allow additional fittings to be added to radiators, or oil pans and building of custom tanks or other components.

Female NPT

Size	O.D.	Aluminum	Steel
1/8"-27NPT	3/4"	ALL50740	ALL50750
1/4"-18NPT	7/8"	ALL50741	ALL50751
3/8"-18NPT	1"	ALL50742	ALL50752
1/2"-14NPT	1-1/4"	ALL50743	ALL50753
3/4"-14NPT	1-3/8"	ALL50744	ALL50754
1"-11-1/2NPT	1-5/8"	ALL50745	_



Male AN

	Flange				
Size	Thread	O.D.	Aluminum	Steel	
-4AN	7/16"-20	3/4"	ALL50760	ALL50770	
-6AN	9/16"-18	7/8"	ALL50761	ALL50771	
-8AN	3/4"-16	1"	ALL50762	ALL50772	
-10AN	7/8"-14	1-1/8"	ALL50763	ALL50773	
-12AN	1-1/16"-12	1-3/8"	ALL50764	ALL50774	
-16AN	1-5/16"-12	1-5/8"	ALL50765	ALL50775	
-20AN	1-5/8"-12	1-3/4"	ALL50766	ALL50776	





Female AN ORB

Size	Thread	O.D.	Aluminum	
-4AN	7/16"-20	3/4"	ALL50780	
-6AN	9/16"-18	7/8"	ALL50781	
-8AN	3/4"-16	1"	ALL50782	
-10AN	7/8"-14	1-1/8"	ALL50783	
-12AN	1-1/16"-12	1-3/8"	ALL50784	
-16AN	1-5/16"-12	1-5/8"	ALL50785	





LS Cylinder Head Bolt Kits

LS head bolt kits are direct replacement OE style Torque-To-Yield (TTY) head bolts which make them ideal for use on stock and mild performance rebuilds. Follow OEM torque sequence and specifications for proper installation.



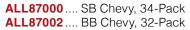
ALL87004.....1997-2003 Gen III

ALL87005.... 2004-06 Gen III (Fully-threaded)

ALL87006.... 2004-2019 Gen III & IV

Chevy Cylinder Head Bolts

Original equipment Grade 8 cylinder head bolts are ideal for stock or budget performance rebuilds.





Head Dowel Pin Kits

Dowel pins are an often overlooked item when performing a rebuild or upgrading cylinder heads. Dowel pins keep gaskets in position and properly align cylinder heads to the engine block. Kits include four pins.

ALL87020 SB Chevy **ALL87026** BB Chevy **ALL87024** LS GM **ALL87028** SB Ford



Port and Polish Kit ALL11052

Kit includes an assortment of 60, 80, and 120 grit cartridge rolls for cleaning and modifying intake and exhaust ports to match gaskets, remove casting marks and for smoothing out runners. Two 1/4" mandrels are included with each kit.



Dykem Layout Fluid ALL12070

Apply layout fluid to the work surface to enhance visibility of scribes during fabrication. Blue fluid dries in minutes to a uniform, thin film without cracking or chipping. 4 oz. container has a built-in brush under cap. Not intended for use in set up of ring and pinion gear sets.

High-Performance 11/32" Umbrella Valve Seals

ALL90235

High quality umbrella style seal moves with valve and deflects oil

away from valve guide area. Seals have an O.D. of .750" to fit under most stock or larger diameter valve springs and a .580" I.D. to clear valve guides on engines. Seals require no machining for installation. Set of 16.

High-Performance PTFE Valve Seals

Seals have spring loaded wipers for maximum oil control.

Machining is required for most installations. Set of 16.

ALL90240 11/32" Valve Seals, 0.620" Seal O.D., 0.531" Mach. Tool Guide O.D.

ALL90241 11/32" Valve Seals, 0.600" Seal O.D., 0.500" Mach. Tool Guide O.D.

ALL90242 3/8" Valve Seals, 0.620" Seal O.D., 0.531" Mach. Tool Guide O.D.

ALL90244 5/16" Valve Seals, 0.620" Seal O.D., 0.531" Mach. Tool Guide O.D.

Rocker Arm Nut Kits

Sets include 16 matched rocker arm nuts which are direct replacements for many stud girdles.

ALL90206 SB Chevy 3/8" **ALL90207** SB Chevy 7/16" **ALL90208** BB Chevy 7/16"

SB Chevy Rocker Arm Stud Kit

ALL90230

Grade 8, 3/8"-24 original equipment style studs require a 7/16"-14 tapped hole in the head. Studs have a 2.375" overall length. Pack of 8.



SB Chevy Flat Pushrod Guide Plate ALL90250

Guide plates are designed for 5/16" hardened pushrods and stabilize valvetrains using high-lift camshafts and high-pressure valve springs. Pack of 8.

Valve Lash Wrenches

Allstar valve lash wrenches save precious time and make valve adjustment easy. No more fumbling with two separate wrenches. Available for Jesel, T&D, and other poly-lock style rocker assemblies.

ALL96400 7/16" Adjuster Wrench, 1/8" Allen Wrench, Jesel Assemblies

ALL96401 1/2" Adjuster Wrench, 3/16" Allen Wrench, T&D Assemblies

ALL96402 9/16" Adjuster Wrench, 3/16" and 7/32"
Allen Wrenches, for Stud Girdle Assemblies

ALL96403.... 5/8" Adjuster Wrench, 3/16" and 7/32" Allen Wrenches, Poly Lock

Intake Manifold Bolt Kit ALL87010

Grade 8, 12-point flange clear zinc bolts are 3/8" x 1-1/8" long to fit small block Chevys and Chrysler "A" and "B" engines where clearance is insufficient for standard hexhead bolts. Sets of 12 include stainless washers.





SB Chevy Gaskets

Popular gaskets and gasket sets for 1955 to 1985 SB Chevy engines.



ALL87220 Oil Pan Set, 1975 and later*
ALL87240 Front Of Engine Set
ALL87230 Water Pump To Block
ALL87230-10 Water Pump To Block 10-Pack
ALL87231 Thermostat Housing
ALL87231-10 Thermostat Housing 10-Pack
ALL87236 Fuel Pump
ALL87236-10 Fuel Pump 10-Pack
ALL87238 Fuel Pump Plate
ALL87238-10 Fuel Pump Plate 10-Pack
ALL87250 Distributor Gasket
ALL87250-10 Distributor Gasket 10-Pack

^{*}This set only includes the thick front oil pan seal which is designed for 1975 and later engines and most aftermarket pans.

Carburetor Gaskets



ALL87200 4150 Open **ALL87202** 4150 4-Hole **ALL87204** 4412 2-Hole, 2bbl. **ALL87206** 4500 Open, Dominator

SB Chevy Header Gaskets

Durable reinforced steel core and graphite composite gaskets remain soft and pliable to conform to header and head ALL87264

surfaces, providing an excellent, long lasting seal. Sold each.

ALL87260 1-5/8" Square Port (Stock) **ALL87262** 1-3/4" D-Port (Standard)

ALL87264 Spread Port (Staggered Bolt Pattern) **ALL87266** Crate Engines (Non LS/Fast Burn) **ALL87268** LS Series Engines (Excluding LS7)

Chevy Aluminum Exhaust Block-Off Plates



Aluminum block-off plates seal exhaust ports during engine storage or repairs. Plates help protect against moisture, dust, and dirt. Sold in pairs.

ALL34212 SB Chevy

ALL34214 SB Chevy Spread Port

ALL34218 LS **ALL34219** BB Chevy

SB Chevy Plastic Exhaust Block-Off Plates

One-piece design 1/4" thick block-off plates seal exhaust ports during engine storage or repairs. Plates protect against moisture, dust and dirt. Sold in pairs.



ALL34213 Standard 23°

ALL34215 Spread Port and Dart (Excluding 23°)

ALL34217 SB2

Fogging Oil

ALL78220

Spray aerosol lubricant (with special additives) into the intake and spark plug holes to coat and lubricate the cylinders, valves, and valve seats. Prevents horsepowerrobbing corrosion and eliminates scuffing at start-up after periods of storage. May be used in all 2- or 4-cycle, carbureted or fuelinjected gasoline engines in cars, trucks, motorhomes, ATV's, etc. Sold in a 12-oz. can.



ALL34217

Engine Cover

ALL26234

Water-repellent cover with bottom draw string is perfect for storage or transportation. 32" long x 23" wide x 28" tall.





Header Wrap

Reduce under hood temperature while containing header tube heat for increased power. Fiberglass woven wrap is available in natural or black rolls.



1" Wide Rolls

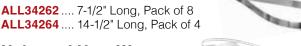
ALL34240	Natural 15'
ALL34241	Natural 25'
ALL34242	Natural 50'
ALL34250	Black 15'
ALL34251	Black 25'
ALL34252	Black 50'

2" Wide Rolls

ALL34244 Natural 15'
ALL34245 Natural 25'
ALL34246 Natural 50'
ALL34247 Natural 100'
ALL34254 Black 15'
ALL34255 Black 25'
ALL34256 Black 50'
ALI 34257 Black 100'

Stainless Steel Cable Ties

ALL34264 14-1/2" Long, Pack of 4



Universal Heat Wrap

ALL34238

Heat-resistant material measures 7" x 22", making it ideal for wrapping starter motor or other components that are close to high-heat areas. Wrap features a reflective material on one side to protect against radiant heat and includes two 24" long stainless steel tie wraps for securing material.

Replacement Component

ALL34266 24" Stainless Steel Ladder Ties, 2-Pack

Exhaust Shields

Aluminum shields protect body panels from exhaust exiting through the passenger door and provide a clean, finished look from the outside, simplifying exhaust routing. Round shield I.D. is 6", commonly used for exiting one 5" diameter exhaust



pipe. Oval shield I.D. is 5" x 9", commonly used for exiting two 3-1/2" diameter exhaust pipes.

ALL34180 Round Flange, 55° to Door ALL34181 Round Flange, 90° to Door ALL34182 Oval Flange, 55° to Door ALL34183 Oval Flange, 90° to Door

Header Tab Kits

Weld to headers to hold slip-on collectors in place or use to retain primary tubes on adjustable headers. Kit includes two pairs of tabs, two bolts, and two hex nuts. Two tabs are recommended to secure each collector. Tabs are .085" thick.

ALL60040

ALL60039 3/4" Tall Tabs x 1-1/2" Long

(When Combined 2-1/2" Long), 2-Pack

ALL60040 1" Tall Tabs x 2-1/2" Long

(When Combined 4" Long), 2-Pack

Crankcase Evacuation System

ALL34145

Reduce crankcase pressure for optimum piston ring seal, fewer oil leaks and better engine performance. System includes two of each: chrome plated pushin breathers, check valves, weld-in 3-1/2" long threaded pipe adapters, rubber breather grommets and four hose clamps. Evacuation hoses not included. Use with 5/8" diameter hose.

Replacement Component

ALL34146 Check Valve

Electric Exhaust Cutouts

Eliminate the need to manually uncap the exhaust. 12V electric cutout bolts to a standard 3-bolt collector flange and



uses a powerful geared motor to open and close a butterfly valve to direct exhaust. Sold each.

ALL34230 3" Collector Pattern (3-7/8" B.C.) ALL34231 2-1/2" Collector Pattern (3-1/2" B.C.)

IMPORTANT! ALL34232 or ALL34233 harness (sold separately) is required for proper operation.

Related Components

ALL34232 Single System Harness ALL34233 Dual System Harness



O₂ Sensor Plug And Bung

Hard-to-find O₂ sensor fittings work in a variety of uses.







ALI 34150

ALL34150 18mm Sensor Plug

ALL34152..... 18mm Sensor Bung, Angled ALL34153 18mm Sensor Bung, Straight

Swivel Exhaust Hanger

ALL34220

Hanger swivels horizontally and vertically to simplify mounting in any position. Bolt or weld to chassis to support additional weight of mufflers, turndowns, etc. Steel strapping is 1/8" thick.





Universal Front Engine Plates

Engine plates are used to replace the front engine mounts allowing relocation of the



engine in the chassis, including lowering or when moving the engine back in the chassis. Plates prevent engine movement and reinforce the front suspension for better handling and increased reaction times. Fabricated from 1/4" thick 6061-T6 aluminum, plates are often trimmed to fit the chassis or frame mounts. Plates are machined for a perfect fit to mount between the water pump and engine block.

ALL38120 SB Chevy 10" x 36" **ALL38124** BB Chevy 12" x 36"

Universal Dragster Front Engine Plates

Universal width engine plate includes separate frame saddles for the engine plate to rest on allowing installation of



engine into any width dragster style chassis. Saddles feature machined flats which allow the engine plate to rest directly on the saddle securing the engine plate between the saddle and the existing frame mounting tab. Plate is 1/4" thick and includes saddles for chassis up to 1-3/8" in diameter. Note: Drilling will be required to fasten saddles and engine plate to existing frame mounts once plate is positioned on frame.

ALL38142 SB Chevy **ALL38143** BB Chevy

Engine Lift Plate

ALL10123

Ease engine swaps
with the Allstar engine
lift plate. Bolts to
manifold in place of carburetor. Yellow zinc-coated plate
fits standard Holley 4150/4160
and 4500 Dominator, Rochester Quadrajet, Carter,
Motorcraft, Edelbrock, Edelbrock Q-Jet, and Carter
AFB carburetors.

Bellhousing Dowel Pins

Steel dowel pins are approximately 1/2" longer than stock pins and are required when running an engine mid-plate, rear engine mounts or an aftermarket bell-housing. Pins fit most GM blocks and are sold in pairs.



ALL38150 Solid Pins ALL38152 Hollow Pins

Universal Engine Mid-Plates

Universal plates are positioned between the engine and transmission to provide a mid-engine mounting location and help stiffen the chassis. These mid plates



are great for drag racing and street cars, allowing easier engine or transmission removal, and installation of engine/transmission into almost any chassis. Plates fit most GM V8 applications and measure 15"H x 29"W.

ALL38121 Steel (0.090") **ALL38122** Aluminum (0.250")

Engine Mid-Plate

ALL38132

An engine mid-plate locates between the engine block and transmission to provide



a center mounting point in a fabricated chassis. Plate is 1/4" thick 6061 aluminum, black powder coated and profiled to keep weight at a minimum without compromising strength or durability. Mid-plate features multiple mounting holes spaced 1/2" apart and a 5/8" offset to work with many different chassis.

Engine Cradles

Engine cradles are available in standard duty or heavy-duty, both with provisions for mounting wheels and are made of 1" square tubing with black powder coating. All cradles are for V8



engines, include Grade 5 fasteners and may be easily disassembled for

storage. Standard-duty cradles accept wheel kits with 3/8" studs. Heavy-duty cradles accept wheel kits with 1/2" studs. Wheel kits sold separately.

Standard Duty

ALL10130 SB and BB Chevy ALL10138 GM LS Series ALL10145 SB Ford** ALL10147 SB Ford

Modular/Coyote **ALL10150**..... SB Mopar

ALL10151 Hemi (5.7 And 6.1)



Standard Duty Wheel Mount

Heavy Duty

ALL10132..... SB and BB Chevy ALL10139..... GM LS Series ALL10142..... Oldsmobile ALL10144..... Pontiac ALL10148..... SB Ford** ALL10149..... SB Ford

Modular/Coyote

ALL10152..... SB Mopar **ALL10154**..... BB Ford **ALL10156**..... BB Mopar



Heavy Duty Wheel Mount

**Designed to work with stock and most aftermarket blocks including Dart, World, and Ford Boss with ribbed engine mount bosses and bulged water jackets.



Standard Chevy Front Engine Mounts

Mounts are designed for fabricated chassis or stock chassis that have fabricated engine mounts attached to the frame. Solid style mounts bolt in place of stock engine mounts on standard Chevy engines and features a frame mounting hole that is centered on the original

mounting location. Frame mounting holes are designed for 1/2" fasteners and slotted for universal fit in many applications. Sold each.

ALL38100 Steel ALL38098 Aluminum

Offset Chevy Front Engine Mounts

Mounts are designed for fabricated chassis or stock chassis that have fabricated engine mounts attached to the frame. Solid style mounts bolt in place of stock engine mounts on



standard Chevy engines and features a frame mounting hole that is offset to the original mounting location. Frame mounting holes are designed for 1/2" fasteners and slotted for a universal fit in many applications. Sold in pairs.

ALL38108 1" Offset **ALL38109** 2" Offset **ALL38110** 3-3/8" Offset

Chevy Rear Engine Mounts

Solid style mounts bolt between the engine and transmission of Chevy V8's creating a middle support. Unwelded version allows tab to be installed in any location. Commonly used with solid front engine mounts. Extended bellhousing dowel pins recommended, extended pilot bearings or other spacers may be required.

ALL38101 Welded

ALL38102 Unwelded Universal Kit

Chevy Raised Engine Mounts

Use these mounts to raise the engine in the chassis instead of spacers and longer bolts. Use when changing from a dry sump to a wet sump engine or when extra clearance is required. Steel mounts are 1/4" thick and slotted for easy installation. Mounts are sold each.

ALL38060 Front, Raised 1"
ALL38061 Front, Raised 1-1/2"
ALL38062 Front, Raised 2" NEW
ALL38064 Rear, Raised 1"
ALL38065 Rear, Raised 1-1/2"
ALL38066 Rear, Raised 2" NEW



ALL38065

ALL38101

Ford Engine Mounts

Steel mounts have been updated and now fit the newer and original 302-351W small blocks. Sold in pairs.

ALL38112..... Rear **ALL38113**..... Front



ALL38113

CT525 Engine Mounts

ALL38085

Steel mounts allow a CT525 crate or other LS series engine to fit in most circle track



cars. Slots are 1" wide and can be used in standard or 1" setback locations. Sold as a pair.

GM Engine Mount Kit

ALL38082

Bolt-in steel mounts for GM metric chassis bolt to crossmember and accept Allstar steel engine mounts (ALL38100). A "captured" 1/2"-13 nut eases engine installation. Sold in pairs.



LS Engine Adapters

ALL38084

Adapters allow bolting an early GM 3-bolt engine mount to the late model LS style block with a 4-bolt pattern. Adapters place the early mount in approximately the



same location as found on the original SB/BB Chevy engines and also features optional holes for moving the engine forward up to 2-1/4" for additional firewall clearance. Sold in pairs and includes mounting hardware.

Chevy Solid Engine Mount

ALL38080

Solid engine mount is 1/4" thick steel and replaces stock Chevy rubber mount to eliminate torque loss and





prevent engine movement. Sold each.



Kyle Crump



Engine Mount Spacers

Aluminum spacers are profiled for weight reduction and are 1-1/2" O.D. x 1/2" I.D. Use with pedestal style engine mounts. Sold each.

ALL18620..... 1/4" ALL18621 1/2" ALL18622..... 1" ALL18623..... 1-1/2" ALL18624..... 2"

High-Vibration Engine Mount Spacer Kit (Big Bar Soft Spring Cars)

ALL18626

Ever wonder what happens to many race car components when

you continually bottom out your chassis? Spacers are made from a unique material that won't let your engine vibrate around under normal conditions yet will give some when you bottom out, making life a little easier on your engine and driveline components. Spacers are 1/4" thick, 1-1/2" O.D. with a 1/2" hole. Set of two.

Chevy Engine Mount Pads

ALL38090

Steel pads are 3/16" thick and traditionally used as shims to gain extra oil pan or header clearance. May also be used for building custom engine mounts or engine stands. Sold in pairs.

GM Engine Mount

ALL38114

Replacement stock mount for GM engines. Mount bolts to chassis.

Fits:

1970-88 Monte Carlo

1970-87 El Camino

1971-92 Camaro

1977-87 Regal

1970-73 Chevelle

1973-87 Cutlass

1974-83 Malibu

1970-79 Nova

1970-85 Impala

GM Engine Mount

ALL38115

Replacement stock mount for most GM V-6 engines. Mount bolts to chassis. Designed to work with metal shell type mount bolts to engine.

Ford Engine Mount

ALL38116

Replacement rubber mount for Allstar Ford Ranger V8 conversion kit. Mount bolts to the engine.





Chevrolet/GM V8 Engine Conversion Kits

Conversion kits are a good starting point when installing a small block Chevy/TH350 transmission combination into most 1982-up S-10, S-15, Jimmy, or Blazer. Additional components and fabrication will be required depending on engine and application.

ALL38250 2WD Conversion Kit Includes:

- · Engine Mount Set
- Headers
- · Engine Mounts

ALL38251 2WD Conversion Kit Includes:

- · Engine Mount Set
- Headers
- · Engine Mounts
- Radiator



Ford V8 Engine Conversion Kit

ALL38200

Conversion kits are a good starting point when installing a 289/302 with a C-4 transmission combination into a 1982-97 2WD Ranger. Additional components and fabrication will be required, depending on engine and application.

Kit Includes:

- · Engine Mount Adapter Set
- Oil Pump Pick-Up Tube
- Filter Adapter
- · Engine Mounts
- Radiator
- · Oil Pan
- Headers



3/16" Small Head Economy Rivets

Small head rivets have a 3/8" O.D. head and packaged 250 per box.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18000	ALL18040	1/4" to 3/8"
White	ALL18001	_	1/4" to 3/8"
Red	ALL18002	_	1/4" to 3/8"
Black	ALL18003	_	1/4" to 3/8"
Chevron Blue	ALL18004	_	1/4" to 3/8"
Orange	ALL18005	_	1/4" to 3/8"
Yellow	ALL18006	_	1/4" to 3/8"
Silver	ALL18020	_	5/8" to 3/4"
White	ALL18021	_	5/8" to 3/4"
Red	ALL18022	_	5/8" to 3/4"
Black	ALL18023	_	5/8" to 3/4"



3/16" Small Head Rivets

Small head rivets have a 3/8" O.D. head and packaged 250 per box.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18101	ALL18107	1/8" to 1/4"
Silver	ALL18103	ALL18109	1/4" to 3/8"
Silver	ALL18105	_	3/8" to 1/2"
White	ALL18114	ALL18116	1/4" to 3/8"
Red	ALL18120	ALL18122	1/4" to 3/8"
Black	ALL18126	ALL18128	1/4" to 3/8"
Pepsi Blue	ALL18132	_	1/4" to 3/8"
Chevron Blue	ALL18134	ALL18135	1/4" to 3/8"
Orange	ALL18136	ALL18137	1/4" to 3/8"
Yellow	ALL18138	ALL18139	1/4" to 3/8"



3/16" Large Head Economy Rivets

Large head rivets have a 5/8" O.D. head and packaged 250 per box unless otherwise noted.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18010	ALL18050	1/4" to 3/8"
White	ALL18011	ALL18051	1/4" to 3/8"
Red	ALL18012	ALL18052	1/4" to 3/8"
Black	ALL18013	ALL18053	1/4" to 3/8"
Chevron Blue	ALL18014	ALL18054	1/4" to 3/8"
Orange	ALL18015	_	1/4" to 3/8"
Yellow	ALL18016	ALL18056	1/4" to 3/8"
Silver	ALL18030 [†]	_	5/8" to 3/4"
White	ALL18031 [†]	_	5/8" to 3/4"
Red	ALL18032 [†]	_	5/8" to 3/4"
Black	ALL18033†	_	5/8" to 3/4"



3/16" Large Head Rivets

Large head rivets have a 5/8" O.D. head and packaged 250 per box.

Color	Steel Mandrel	Aluminum Mandrel	Grip Range
Silver	ALL18141	ALL18149	1/8" to 1/4"
Silver	ALL18143	ALL18151	1/4" to 3/8"
Silver	ALL18145†	_	3/8" to 1/2"
Silver	ALL18147	ALL18153	3/8" to 1/2"
White	ALL18156	ALL18158	1/4" to 3/8"
Red	ALL18162	ALL18164	1/4" to 3/8"
Black	ALL18168	ALL18170	1/4" to 3/8"
Pepsi Blue	ALL18174	ALL18175	1/4" to 3/8"
Chevron Blue	ALL18176	ALL18177	1/4" to 3/8"
Orange	ALL18178	_	1/4" to 3/8"
Yellow	ALL18180	ALL18181	1/4" to 3/8"



[†]Contain 200 pcs.

[†]Box of 3,000 rivets



3/16" Multi Grip Rivets

Multi grip style rivets have a ribbed body that draws panels together tighter than standard smooth body rivets. Select proper grip range and use with 13/64" drill bit for best results. Box of 250.

Color	Steel Mandrel	Aluminum Mandrel	Head Size	Grip Range
Silver	ALL18110	_	Sm. (3/8")	3/16" to 3/8"
Silver	ALL18090	ALL18070	Med. (1/2")	1/16" to 3/8"
Silver	ALL18086	ALL18074	Med. (1/2")	1/16" to 5/8"
Silver	ALL18094	_	Lg. (9/16")	1/16" to 3/8"
Silver	ALL18093	_	Lg. (9/16")	1/16" to 3/4"
White	ALL18092	_	Med. (1/2")	1/16" to 3/8"
White	ALL18096	_	Lg. (9/16")	1/16" to 3/8"
Black	ALL18091	ALL18071	Med. (1/2")	1/16" to 3/8"
Black	ALL18087	ALL18075	Med. (1/2")	1/16" to 5/8"
Black	ALL18095	_	Lg. (9/16")	1/16" to 3/8"
Black	ALL18097	_	Lg. (9/16")	1/16" to 3/4"



3/16" Tri-Fold Rivets

Tri-fold rivets have a perforated body that opens and expands to create a large backside surface area, eliminating the need for backer washers. Use a 13/64" drill bit for best results. Box of 250.

Color	Steel Mandrel	Aluminum Mandrel	Head Size	Grip Range
Silver	_	ALL18184	Sm. (3/8")	1/8" to 3/8"
Silver	_	ALL18183	Med. (1/2")	1/8" to 3/8"
Silver	ALL18185	_	Med. (1/2")	1/8" to 1/2"
Silver	_	ALL18060	Lg. (5/8")	1/8" to 3/8"
White	_	ALL18080	Sm. (3/8")	1/8" to 3/8"
White	_	ALL18188	Med. (1/2")	1/8" to 3/8"
White	_	ALL18061	Lg. (5/8")	1/8" to 3/8"
Red	_	ALL18081	Sm. (3/8")	1/8" to 3/8"
Red	_	- ALL18189		1/8" to 3/8"
Red	_	ALL18062	Lg. (5/8")	1/8" to 3/8"
Black	_	ALL18082	Sm. (3/8")	1/8" to 3/8"
Black	_	ALL18187	Med. (1/2")	1/8" to 3/8"
Black	_	ALL18063	Lg. (5/8")	1/8" to 3/8"
Chevron Blue	_	ALL18083	Sm. (3/8")	1/8" to 3/8"



Cleco Pin Fastener Kits

Cleco pins are reusable and easily make a temporary connection between pieces of sheet metal during fitting. Pins will work with thicknesses up to 1/4". Kits include pliers and 10 pins.



ALL18221..... Kit with 1/8" Pins **ALL18225**..... Kit with 3/16" Pins

Cleco Pliers

ALL18220

Unique tool readily installs and removes Cleco fasteners.

Clamp Type Cleco Fastener

ALL18230

A very strong spring clamp to hold pieces together when drilling is not an option. The smooth throat prevents paint damage and is 1" deep, with a maximum clamping range of 1/2".

Pin Type Cleco Fasteners

Cleco pins permit quick, easy installation and removal of sheet metal during fitting. Pins work with thicknesses up to 1/4".

1/8" Dia. Pins

ALL18222..... 10-Pack **ALL18223**..... 25-Pack **ALL18224**..... 100-Pack **3/16" Dia. Pins ALL18226** 10-Pack

ALL18227 25-Pack **ALL18228** 100-Pack

TECH TIP

Drill holes one drill size smaller than the Cleco pin size to assure a tight fit.

1/4" Pin Type Cleco Fastener

ALL18234

Cleco Pins are temporary fasteners that can easily be installed or removed in 1/4" holes when fitting sheet metal or chassis tabs using the ALL18220 Cleco Pliers. 1/4" size pin is ideal to use in place of body bolts or other 1/4" fasteners. Pack of 10.





1/8" Rivets

Color	Stainless Steel Mandrel	Aluminum Mandrel	Qty	Grip Range
Silver	_	ALL18190	500	1/8" to 1/4"
Silver	-	ALL18191	25	1/8" to 1/4"
Silver	-	ALL18192	500	1/4" to 3/8"
Silver	-	ALL18194	25	1/4" to 3/8"
Black	-	ALL18193	500	1/8" to 1/4"
Black	-	ALL18195	500	1/4" to 3/8"
Stainless Steel*	ALL18196	_	500	1/8" to 1/4"
Stainless Steel*	ALL18197	_	25	1/8" to 1/4"

^{*}Stainless steel body and mandrel.

1/8" Multi-Grip Rivets

Multi-grip style rivets have a ribbed body that draws panels together tighter than standard smooth body rivets. Rivets feature steel mandrels, a 1/8" to 3/8" grip range and are sold in 250-piece boxes.

ALL18198..... Silver **ALL18098**..... Black



1/8" Flange Tri-Fold Rivets

Tri-fold rivets have a perforated body that opens and expands to create a large backside surface area, eliminating the need for backer washers. Rivets feature aluminum mandrels, a 1/8" to 3/8" grip range and are sold in 100-piece boxes.

ALL18199..... Silver **ALL18099**..... Black

Back-Up Washers

Back-up washers provide added strength when fastening panels together or when resecuring damaged panels.



ALL18200 ALL18215

Part No.	I.D.	O.D.	Pkg. Qty.					
Aluminum								
ALL18200	1/8"	3/8"	500					
ALL18202	3/16"	1/2"	500					
Steel								
ALL18215	3/16"	1"	100					

Double-Ended Drill Bits

Double-ended bits are basically two bits in one. Convenient bit can be flipped around for a fresh sharp bit when drilling panels for Cleco fasteners or rivets. Pack of 6.



13/64" Drill Bits

ALL18203

Drill bit is for flange rivets. High-speed steel bits have a black oxide finish and self-centering tips. Flute length: 1-3/16", overall length: 2-1/4". Pack of 2.

Racer's Tape

A hundred uses in the shop or at the track, this is true "Racer's Tape".



ALL14141 Black **2" Wide x 180' ALL14150** Silver

1" Wide x 90'

ALL14150 Silver ALL14151 White ALL14152 Red ALL14153 Black ALL14154 Yellow ALL14155 Blue ALL14157 Green ALL14158 Burgundy ALL14159 Purple ALL14162 Teal 3" Wide x 180' ALL14142 White

2" Wide x 180'

ALL14156 Orange

ALL14142 White **ALL14143** Black

Gaffer's Tape

Vinyl-coated gaffer's tape has a dull appearance and is much stronger than standard racer tape.

2" Wide x 165'

ALL14251 White **ALL14252** Red **ALL14253** Black **ALL14254** Yellow **ALL14255** Navy Blue



4" Wide x 165' ALL14261.... White **ALL14263**.... Black

1" Wide x 150'

ALL14245 Fluorescent Green ALL14246 Fluorescent Pink ALL14247..... Fluorescent Orange ALL14248 Fluorescent Yellow

2" Wide x 45'

ALL14145.....Fluorescent Green ALL14146.....Fluorescent Pink ALL14147.....Fluorescent Orange ALL14148.....Fluorescent Yellow

2" Wide x 150'

ALL14265 Fluorescent Green ALL14266 Fluorescent Pink ALL14267 Fluorescent Orange ALL14268 Fluorescent Yellow





Stewart Friesen



Nylon Tie Wraps

Secure electrical wiring, gauge lines, and roll bar padding.



Black	Red
ALL14120 3-1/2"	ALL14126 7"
ALL14122 5"	ALL14127 14
ALL14123 7"	Blue
ALL14124 11"	ALL14128 7"
ALL14125 14"	ALL14129 14
Natural	Yellow
ALL14130 3-1/2"	ALL14136 7"
ALL14132 5"	ALL14137 14
ALL14133 7"	Purple
ALL14134 11"	ALL14138 7"
ALL14135 14"	ALL14139 14

Heavy-Duty Nylon Tie Wraps

Heavy-duty black nylon ties are ideal for emergency repairs and applications that require a secure attachment.





Nylon Flush-Fit Tie Wraps

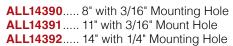
Flush-fit design ties have the excess portion of the tie exit in the same direction as the original tie, helping to eliminate the protruding sharp portion remaining as found in standard ties. Pack of 100.



ALL14395..... 8" ALL14396..... 11"

Nylon Tie Wraps with Mounting Holes

Built-in tab with mounting hole to easily secure wiring harnesses, hoses, or cables to a panel with rivets or other fasteners. Pack of 25.





Tired of cuts from nylon tie wraps that have been trimmed with standard wire cutters? This tool does a great job of drawing nylon ties tight around bundles of wires or cables in tight areas and easily cuts flush with a twist of the wrist. ABS constructed tool has steel cutting blades and works with common size nylon wire ties.

Stainless Steel Tie Wraps

Stainless steel ties are an excellent choice when securing header wrap to exhaust tubes or similar applications when nylon wraps won't stand up to the heat! Rust and corrosion resistant cable ties are T-304 stainless.

ALL34262 7-1/2" Long, Pack of 8 **ALL34264** 14-1/2" Long, Pack of 4

Tie Wrap Mounting Bases

Self-adhesive mounting bases provide a location for attaching standard tie wraps to secure wiring, cables and hoses. Bases mount to clean, flat surfaces and accept most standard wire ties.

Pack of 10.

ALL14116 3/4" × 3/4" **ALL14117** 1-1/8" × 1-1/8"

Safety Wire Twister Pliers ALL10120

Never lose another race because of loose bolts. Rugged pliers have an end bearing for smoother, faster twisting, especially in tight areas where a second pull is needed.

Safety Wire

Wire is used to mechanically lock pre-drilled fasteners for added security. Type 302/304 stainless steel wire features high corrosion resistance and good tensile strength in applications up to 500°F. Sold in a 1-lb. spool enclosed in a convenient dispensing container.

ALL10121 0.032" Diameter **ALL11008** 0.041" Diameter

Safety Wire Drill Fixture ALL10122

Accurately drill holes in fasteners, allowing them to be mechanically locked in place with safety wire. Fixture accommodates 3/16", 1/4", 5/16", 3/8", 7/16", 1/2", and 5/8" socket head and hex head fasteners. Guide bolt tightens



against fastener, holding it secure for drilling. Fixture includes two guide bolts and two 1/16" drill bits conveniently stored within the fixture.

Replacement Component

ALL 99102 1/16" Drill Rits 2-Pa







Quick Turn Fasteners



Flush Head			Sil	Silver		ack
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.500"	Aluminum	ALL19256	ALL19258	ALL19257	ALL19259
5/16"	.500"	Steel	ALL19186	ALL19188	_	_
7/16"	.400"	Aluminum	ALL19260	ALL19262	ALL19261	ALL19263
7/16"	.400"	Steel	ALL19190	ALL19192	_	_
7/16"	.500"	Aluminum	ALL19266	ALL19268	ALL19267	ALL19269
7/16"	.500"	Steel	ALL19200	ALL19202	_	_
7/16"	.550"	Aluminum	ALL19270	ALL19272	ALL19271	ALL19273
7/16"	.550"	Steel	ALL19210	ALL19212	_	_



Flush Head Self-Ejecting			Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.400"	Steel	ALL18990	ALL18992	ALL18991	ALL18993
5/16"	.450"	Steel	ALL18996	ALL18998	_	_
5/16"	.500"	Aluminum	ALL18997	ALL18999	ALL19004	ALL19005
5/16"	.500"	Steel	ALL19000	ALL19002	ALL19001	ALL19003
5/16"	.550"	Steel	ALL19006	ALL19008	_	_
5/16"	.650"	Steel	ALL19010	ALL19012	_	_
7/16"	.500"	Aluminum	ALL19113	ALL19114	ALL19115	ALL19116
7/16"	.500"	Steel	ALL19100	ALL19102	ALL19098	ALL19099
7/16"	.550"	Steel	ALL19110	ALL19112	ALL19101	ALL19103



Flush Head Allen			Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19117	ALL19118	ALL19140	ALL19141
7/16"	.500"	Steel	ALL19142	ALL19143	_	_
7/16"	.550"	Steel	ALL19144	ALL19145	_	_



Flush Head Self-Ejecting Allen			Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.500"	Aluminum	_	_	ALL19128	ALL19129
5/16"	.500"	Steel	ALL19130	ALL19131	_	_
5/16"	.550"	Steel	ALL19132	ALL19133	_	_
7/16"	.500"	Aluminum	_	_	ALL19134	ALL19135
7/16"	.500"	Steel	ALL19136	ALL19137	_	_
7/16"	.550"	Steel	ALL19138	ALL19139	_	_



Winged Head			Sil	ver	Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.400"	Steel	ALL19236	ALL19238	_	_
7/16"	.500"	Steel	ALL19240	ALL19242	ALL19241	ALL19243
7/16"	.550"	Steel	ALL19250	ALL19252	_	_



Winged Head Self-Ejecting			Winged Head Self-Ejecting Silver		Віаск	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.450"	Steel	ALL19046	ALL19048	_	_
5/16"	.500"	Steel	ALL19050	ALL19052	_	_
5/16"	.550"	Steel	ALL19056	ALL19058	_	_
5/16"	.650"	Steel	ALL19060	ALL19062	_	_
7/16"	.500"	Steel	ALL19064	ALL19066	_	_
7/16"	.650"	Steel	ALL19068	ALL19070	_	_



Quick Turn Fasteners



Oval Head			Sil	ver	Bla	ack
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
1/4"*	.400"	Steel	ALL19211	ALL19213	ALL19224	ALL19225
5/16"	.500"	Aluminum	ALL19276	ALL19278	ALL19277	ALL19279
5/16"	.500"	Steel	ALL19214	ALL19215	ALL19226	ALL19227
7/16"	.400"	Aluminum	ALL19280	ALL19282	ALL19281	ALL19283
7/16"	.400"	Steel	ALL19216	ALL19218	_	_
7/16"	.500"	Aluminum	ALL19286	ALL19288	ALL19284	ALL19285
7/16"	.500"	Steel	ALL19220	ALL19222	ALL19228	ALL19229
7/16"	.550"	Aluminum	ALL19290	ALL19292	ALL19291	ALL19293
7/16"	.550"	Steel	ALL19230	ALL19232	ALL19231	ALL19233
7/16"	.600"	Aluminum	_	_	ALL19294	ALL19295
7/16"	.750"	Aluminum	ALL19274	ALL19275	_	_

^{*} Use .062" diameter springs ALL19296 or ALL19298.



Oversized Oval Head			Sil	ver	Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19287	ALL19289	ALL19168	ALL19169
7/16"	.500"	Steel	ALL19221	ALL19223	ALL19170	ALL19171



Oval Head Allen			Silver		Black	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
5/16"	.500"	Steel	ALL19152	ALL19153	_	_
5/16"	.550"	Steel	ALL19154	ALL19155	_	_
7/16"	.500"	Aluminum	ALL19172	ALL19173	ALL19176	ALL19177
7/16"	.500"	Steel	ALL19162	ALL19163	_	_
7/16"	.550"	Steel	ALL19164	ALL19165	_	_



Oversized Oval Head Allen		Silver		Black		
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19180	ALL19181	ALL19178	ALL19179



Oval Head T-30 Torx			Silver Black		ack	
Body Size	Length	Material	10 Pack	50 Pack	10 Pack	50 Pack
7/16"	.500"	Aluminum	ALL19071	ALL19072	ALL19073	ALL19074
7/16"	.550"	Aluminum	ALL19075	ALL19076	ALL19077	ALL19078

Quick Turn Starter Kit



Not sure where to start when using quick turn fasteners? Use this kit as a starting point to determine correct fasteners for application. Kit includes two different lengths of Allstar's most popular oval head 7/16" fasteners (five ALL19280 and five ALL19286), ten ALL19330 springs and twenty-five multi-grip rivets.

Quick Turn Fastener Tools

The quick turn fastener tool reduces the risk of body panel or fastener damage.

ALL19398..... Composite Tool with 3/16" Hex ALL19399..... Composite Tool with Slot Head

ALL19400..... Tool with Flat Handle

ALL19401..... Tool with Screwdriver Handle







Quick Turn Springs



	10-Pack	50-Pack			
1-3/8" (.090" Wire Diam	neter)				
.325" Reach	ALL19320	ALL19322			
.375" Reach	ALL19330	ALL19332			
.425" Reach	ALL19336	ALL19338			
1" (.080" Wire Diamete	r)				
.250" Reach	ALL19300	ALL19302			
.325" Reach	ALL19310	ALL19312			
3/4" (.062" Wire Diameter)					
.200" Reach	ALL19296	ALL19298			

Quick Turn Spring Fixture

Accurately drill panels when installing quick turn fastener springs. Start with a 1/4" center hole and use the fixture to locate and drill 1/8" holes for mounting the springs. Size listed is spring center-to-center distance.

ALL19406.... Fixture for 3/4" Spring ALL19407..... Fixture for 1" Spring ALL19408..... Fixture for 1-3/8" Spring

Quick Turn Spring Adjuster

ALL19405

This tool is a must when adjusting tension of quick turn springs. Simply turn knob on adjuster to evenly pull spring from front or backside without kinking or breaking spring.

Transfer Punches

For use with quick turn fasteners, place transfer punch in a weld plate or body panel. Position panel over top of punch and lightly tap with a hammer to leave a mark on the panel where hole is to be drilled.

ALL19402..... For 5/16" Fasteners **ALL19403**..... For 7/16" Fasteners

TECH TIP

Quick Turn Fastener Measurement Guidelines

To find (A) Fastener Length, add together (B) Spring Reach and (C) Material Thickness (including bracket if applicable). A=B+C

Quick Turn Fastener Selection

- Determine the total thickness of the panels being joined, including mounting brackets and the space between the panels, if any.
- Select the proper body length and spring height combination that provides the proper thickness range.

ALL19407

			Fastener Length "A"					
		.400"	.450"	.500"	.550"	.600"		
Ē.,	1" Springs		Total Ma	aterial Thickn	ess "C"		İ	
Length "B"	.250"	.165"200"	.215"250"	.265"300"	.315350"	.365"400"		
Jgt	.325"	.098"133"	.148"183"	.198"233"	.248"283"	.348"383"		
Г	1-3/8" Springs						ı	
ng	.325"	.105"148"	.155"198"	.205"248"	.255"298"	.355"398"	1	
Spring	.375"	.055"098"	.105"148"	.155"198"	.205"248"	.305"348"	1	
S	.425"	.005"048"	.055"098"	.105"148"	.155"198"	.255"298"		

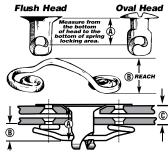
Mounting Brackets for 1" Springs (.0625" Thick)



Description	10-Pack	50-Pack
Weld-on, Lightweight	ALL19364	ALL19366
Weld-on Lightweight w/ .250" Spring	ALL19365	ALL19367
Weld-on	ALL19340	ALL19342
Weld-on w/ ALL19300 Spring	ALL19350	ALL19352



Description	10-Pack	50-Pack
Weld-on, Lightweight (for 1-3/8" Spring Only)	ALL19360	ALL19362
Weld-on, Lightweight w/ .375" Spring	ALL19361	ALL19363
Weld-on LH	ALL19380	ALL19382
Weld-on RH	ALL19384	ALL19386
Rivet-on LH	ALL19390	ALL19392
Rivet-on RH	ALL19394	ALL19396





Clamp-On Quick Turn Fastener Brackets

These cool brackets allow you to clamp a quick turn bracket to round tubing. Allows a flush mount bracket behind a panel without grinding your powder coat. Designed for use with



1-3/8" quick turn springs, insert plates or threaded nut inserts. Black anodized.

ALL19430..... 1" ALL19431..... 1-1/4" ALL19432..... 1-3/8" ALL19433..... 1-1/2" ALL19434..... 1-5/8" ALL19435.... 1-3/4"

Related Components

ALL19330..... Quick Turn Spring 1-3/8" (Most Popular)
ALL19422..... Quick Turn Insert Plate, 1/4"- 20 Thread
ALL18547..... Threaded Nut Insert, Steel, 1/4"- 20 Thread
ALL18548..... Threaded Nut Insert, Aluminum, 1/4"- 20
Thread



Quick Turn Fastener Insert Plates

Insert plate directly replaces the quick turn spring, allowing panels to be bolted together. May also be used



as a blind nut on a panel with limited access. Inserts have 1/4"-20 threads and are typically riveted to the backside of a panel or bracket with 1/8" rivets.

Body Reinforcing Plates

Plates help protect fiberglass and aluminum panels from cracking when using 7/16" quick turn fasteners. Stainless steel plates are precision stamped with a strengthening border, attach with 1/8" rivets, and measure 2" wide x 1" tall.

ALL18986...... Black, 10-Pack **ALL18986-50....** Black, 50-Pack



Threaded Insert Tool Kit

ALL19450

Tool works with a cordless drill to install a threaded insert into a panel or bracket.

Inserts are helpful when

the backside of the panel is not easily accessible. Simply drill the correct size hole, install the threaded insert onto the mandrel, then place the insert into the hole and tighten using any cordless drill. Once the insert is compressed, reverse the drill and remove the mandrel from the insert. Kit includes mandrel and nosepiece for 1/4"-20, 5/16"-18, and 3/8"-16 inserts; other sizes available separately. Threaded inserts sold separately.

Replacement Components

ALL19452 Mandrel and Nosepiece for 8-32
ALL19453 Mandrel and Nosepiece for 10-24
ALL19454 Mandrel and Nosepiece for 10-32
ALL19455 Mandrel and Nosepiece for 1/4"-20
ALL19456 Mandrel and Nosepiece for 5/16"-18
ALL19457 Mandrel and Nosepiece for 3/8"-16

Threaded Inserts

Steel inserts are helpful when the backside of the panel is not easily accessible. Inserts work great for frequently removed items including gauge panels, switch panels, access panels, and body panels, or when mounting items to trailer walls. Inserts are designed for installation using insert tool ALL19450 with coordinating mandrel and nosepiece. Pack of 10.



ALI 19454

Part No.	Thread Size	Pilot Hole Size	Grip Range	Body Length (Before Comp.)
ALL19460	8-32	17/64"	Up to .080"	.420"
ALL19461	10-24	5/16"	Up to .130"	.475"
ALL19462	10-32	5/16"	Up to .130"	.475"
ALL19463	1/4"-20	13/32"	Up to .165"	.580"
ALL19465	5/16"-18	17/32"	Up to .150"	.690"
ALL19467	3/8"-16	17/32"	Up to .150"	.690"



Carson Ferguson



Countersunk Bolt Kits with **Aluminum Washers**

Kit includes specially designed aluminum washers which allow the socket head fasteners to install flush with the



surface creating a smooth finished look. Many uses include mounting roofs, side skirts, and spoilers, and replacing sharp edged fasteners inside cockpit. Kits include washers, bolts, and nyloc nuts.

Bolt Size	Washer O.D.	Finish	10-Pack	50-Pack
#10-24 x 1"	1"	Clear	ALL18630	ALL18630-50
#10-24 x 1"	1"	Black	ALL18631	ALL18631-50
1/4"-20 x 1"	3/4"	Clear	ALL18628	ALL18628-50
1/4"-20 x 1"	3/4"	Black	ALL18629	ALL18629-50
1/4"-20 x 1"	1"	Clear	ALL18632	ALL18632-50
1/4"-20 x 1"	1"	Black	ALL18633	ALL18633-50
1/4"-20 x 1"	1-1/4"	Clear	ALL18634	ALL18634-50
1/4"-20 x 1"	1-1/4"	Black	ALL18635	ALL18635-50



Aluminum Countersunk Washers

ALL18660

Washer I.D. x O.D.	Finish	10-Pack	50-Pack
#10 x 1"	Clear	ALL18660	ALL18660-50
#10 x 1"	Black	ALL18661	ALL18661-50
1/4" x 3/4"	Clear	ALL18658	ALL18658-50
1/4" x 3/4"	Black	ALL18659	ALL18659-50
1/4" x 1"	Clear	ALL18662	ALL18662-50
1/4" x 1"	Black	ALL18663	ALL18663-50
1/4" x 1-1/4"	Clear	ALL18664	ALL18664-50
1/4" x 1-1/4"	Black	ALL18665	ALL18665-50



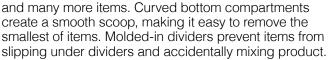
Aluminum Flat Backer Washers

ALL18638

Washer I.D. x O.D.	Finish	10-Pack	50-Pack
#10 x 1"	Clear	ALL18638	_
1/4" x 1"	Clear	ALL18639	_

Storage Cases

These handy storage cases help organize many items around the shop. trailer or home such as electrical connectors, quick turn fasteners, tire groover blades, small fasteners



ALL14360..... Plastic Case 15 Compartment, 11" x 7" x 1-3/4" **ALL14361**..... Plastic Case 18 Compartment, 11" x 7" x 1-3/4" ALL14365..... Metal Case 21 Compartment, 9-1/2" x 13-1/2" x 2" **ALL14366.....** Metal Case 24 Compartment, 9-1/2" x 13-1/2" x 2"

Countersunk Bolt Kits with Plastic Washers

Kit includes specially designed plastic washers which allow the socket head fasteners to install



flush with the surface creating a smooth finished look. Many uses include mounting roofs, side skirts, spoilers and replacing sharp edged fasteners inside cockpit. Kits include washers, bolts, and nyloc nuts.

	Washer			
Bolt Size	O.D.	Color	10-Pack	50-Pack
1/4"-20 x 1"	1"	Black	ALL18680	ALL18680-50
1/4"-20 x 1"	1"	White	ALL18681	ALL18681-50
1/4"-20 x 1"	1"	Red	ALL18682	ALL18682-50
1/4"-20 x 1"	1"	Blue	ALL18683	ALL18683-50
1/4"-20 x 1"	1"	Orange	ALL18684	ALL18684-50
1/4"-20 x 1"	1"	Silver	ALL18685	ALL18685-50
1/4"-20 x 1"	1"	Pink	ALL18686	ALL18686-50
1/4"-20 x 1"	1"	Purple	ALL18687	ALL18687-50
1/4"-20 x 1"	1"	Fluorescent Yellow	ALL18688	ALL18688-50
1/4"-20 x 1"	1"	Fluorescent Orange	ALL18689	ALL18689-50

Plastic Countersunk Washers



Washer			
I.D. x O.D.	Color	10-Pack	50-Pack
1/4" x 1"	Black	ALL18690	ALL18690-50
1/4" x 1"	White	ALL18691	ALL18691-50
1/4" x 1"	Red	ALL18692	ALL18692-50
1/4" x 1"	Blue	ALL18693	ALL18693-50
1/4" x 1"	Orange	ALL18694	ALL18694-50
1/4" x 1"	Silver	ALL18695	ALL18695-50
1/4" x 1"	Pink	ALL18696	ALL18696-50
1/4" x 1"	Purple	ALL18697	ALL18697-50
1/4" x 1"	Fluorescent Yellow	ALL18698	ALL18698-50
1/4" x 1"	Fluorescent Orange	ALL18699	ALL18699-50

Steel Fender Washers

ALL18216

Washers have 1/4" I.D., 1" O.D. and are sold 100 to a pack.



Spin Lock Nuts

Nuts have a built-in washer with a serrated face to lock nut tight against panels. 1/4"-20 nuts are perfect to use as a backer nut with Allstar body bolts, nose bolts, and body stud kits.

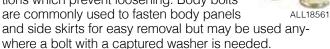
Color	10-Pack	50-Pack
Black	ALL18555	ALL18555-50
Gold	ALL18556	ALL18556-50
Silver	ALL18557	ALL18557-50



ALI 18655

Body Bolt Kits

Bolts are designed for easy installation and removal, have 1/4"-20 thread and a built-in captured washer. Nuts have built-in serrations which prevent loosening. Body bolts are commonly used to fasten body panels



Under-Head Length	Color	10-Pack	50-Pack
3/4"	Black	ALL18553	ALL18553-50
3/4	Clear	ALL18654	ALL18654-50
	Black	ALL18560	ALL18560-50
1-1/8"	Clear	ALL18655	ALL18655-50
	Gold	ALL18561	ALL18561-50

Body Bolts

These bolts are the same bolts found in our body bolt kits but without nuts. Bolts have 1/4"-20 threads and a built-in captured washer. Bolts are commonly used to fasten body panels and side skirts for easy removal, used anywhere a bolt with a captured washer is needed.

Under-Head Length	Color	10-Pack	50-Pack
3/4"	Black	ALL16550	ALL16550-50
3/4	Silver	ALL16552	ALL16552-50
	Black	ALL16553	ALL16553-50
1-1/8"	Gold	ALL16554	ALL16554-50
	Silver	ALL16555	ALL16555-50

Threaded Nut Insert

Insert provides a convenient option to quickly install and easily remove a 1/4"-20 fastener on panels up to 1/8" thick. Insert fits into a 3/8" O.D. hole and is held in place on the backside with a steel serrated locking nut. Internal threads accept fasteners ideal for mounting dash panels, access panels, body panels, electrical components, or other accessories.



Insert Material	2-Pack	10-Pack	50-Pack
Steel	ALL18547	ALL18547-10	ALL18547-50
Aluminum	ALL18548	ALL18548-10	ALL18548-50

Quick Turn Fastener Insert Plates

Insert plate directly replaces the quick turn spring, allowing panels to be bolted together or used as a blind



nut on a panel with limited access. Inserts have 1/4"-20 threads and are typically riveted to the backside of a panel or bracket with 1/8" rivets.

ALL19420	1", 2-Pack
ALL19420-10	1", 10-Pack
ALL19420-50	1", 50-Pack
ALL19422	1-3/8", 2-Pack
ALL19422-10	1-3/8", 10-Pack
ALL19422-50	1-3/8", 50-Pack

Body Bolt Kit with Clips

Kit allows the clip to stay fastened to body panel or angle bracing when removing body panels for maintenance or cleaning. 1/4"-20 thread bolts are 1-1/8" UHL and have a built-in captured washer.

Bolt Color	10-Pack	50-Pack
Black	ALL18558	ALL18558-50
Clear	ALL18656	ALL18656-50
Gold	ALL18559	ALL18559-50

e ALL18558 d ALL18656

Body Bolt Clips

Steel clips have built-in 1/4"-20 threads making them ideal for often removed panels or when the backside is not easily accessible. Clips feature a friction tab to hold clips firmly in place on panels up to 3/16" thick. Dimension listed is center of hole to edge of clip (depth).

Depth	10-Pack	50-Pack
1/2"	ALL18554	ALL18554-50
3/4"	ALL18564	ALL18564-50

Aluminum Body Bolt Washers

1-1/4" O.D. aluminum
washers work with most
body bolts to increase the
surface area, preventing
pull-through while providing
a smooth finished, look. Washers are 1/8"
thick and have a built-in pocket to accept
most body bolts or other washer headed
fasteners up to 3/4" in diameter.





Finish	10-Pack	50-Pack
Clear	ALL18840	ALL18840-50
Black	ALL18841	ALL18841-50

Plastic Body Bolt Washers

1-1/4" O.D. plastic washers work with most body bolts to increase the surface area, preventing pull-through while providing a smooth, finished look. Washers are 1/8" thick and have a built-in pocket to accept most body bolts or other washerheaded fasteners up to 3/4" in diameter.





Color	10-Pack	50-Pack
Black	ALL18845	ALL18845-50
White	ALL18846	ALL18846-50
Red	ALL18847	ALL18847-50
Blue	ALL18848	ALL18848-50
Orange	ALL18849	ALL18849-50
Silver	ALL18850	ALL18850-50
Pink	ALL18851	ALL18851-50
Purple	ALL18852	ALL18852-50
Fluorescent Yellow	ALL18853	ALL18853-50
Fluorescent Orange	ALL18854	ALL18854-50



Hex Head Bolts - Coarse Thread Grade 5



Length	1/4"-20	5/16"-18	3/8"-16	7/16"-14	1/2"-13	5/8"-11	3/4"-10
3/4"	ALL16201	ALL16221	ALL16241	-	ALL16281	-	-
1"	ALL16202	ALL16222	ALL16242	ALL16262	ALL16282	-	_
1-1/4"	ALL16203	ALL16223	ALL16243	ALL16263	ALL16283	_	-
1-1/2"	ALL16204	ALL16224	ALL16244	ALL16264	ALL16284	_	_
1-3/4"	ALL16205	ALL16225	ALL16245	ALL16265	ALL16285	-	_
2"	ALL16206	ALL16226	ALL16246	ALL16266	ALL16286	ALL16316	ALL16336
2-1/4"	-	_	_	_	ALL16287	-	_
2-1/2"	ALL16208	ALL16228	ALL16248	ALL16268	ALL16288	ALL16318	ALL16338
2-3/4"	_	_	_	_	ALL16289	_	_
3"	ALL16210	_	ALL16250	ALL16270	ALL16290	ALL16320	ALL16340
3-1/2"	ALL16211	_	_	_	ALL16291	ALL16321	_
4"	ALL16212	_	ALL16252	_	ALL16292	ALL16322	ALL16342
4-1/2"	ALL16213	_	_	_	ALL16293	_	_
5"	ALL16214	_	ALL16254	_	ALL16294	ALL16324	ALL16344
6"	-	_	ALL16256	_	ALL16296	-	ALL16346
6-1/2"	-	_	_	_	_	-	ALL16347
7"	-	_	ALL16258	_	ALL16298	_	ALL16348
8"	-	-	-	-	-	-	ALL16350

Hex Head Bolts – Fine Thread Grade 5



	1/4"-28	5/16"-24	3/8"-24	7/16"-20	1/2"-20	5/8"-18	3/4"-16
Length	Part No.						
1"	ALL16402	ALL16422	ALL16442	ALL16462	ALL16482	_	_
1-1/2"	ALL16404	ALL16424	_	ALL16464	ALL16484	_	_
2"	ALL16406	ALL16426	ALL16446	ALL16466	ALL16486	_	ALL16536
2-1/2"	-	-	_	ALL16468	ALL16488	ALL16518	ALL16538
3"	_	_	_	ALL16470	ALL16490	ALL16520	ALL16540
4"	-	-	-	ALL16472	ALL16492	ALL16522	ALL16542
5"	_	_	_	ALL16474	_	_	_
6"	-	-	-	ALL16476	-	-	ALL16546

Button Head Bolts

Common bolts provide a nice finished look to your project.



Size	Length	Pkg Qty	Black	Stainless
8-32	1/2"	25	ALL16936	ALL16920
10-24	1/2"	25	ALL16938	ALL16922
1/4"-20	1/2"	25	ALL16940	ALL16924
1/4"-20	3/4"	25	ALL16941	ALL16925
5/16"-18	1"	10	ALL16944	_
3/8"-16	1"	10	ALL16946	_

Windshield Mounting Kit

Flat #8-32 x 1/2" long head countersunk bolt kits are the correct way to mount racing windshields to minimize cracking commonly found when using rivets. Use when you need a flush finish. Pack of 50.

ALL16914 Stainless ALL16930 Black

Set Screws

Standard cup point set screws are manufactured from alloy steel and heat treated for maximum holding power. Common replacements for oil pump pulleys, coil

over kits, and many other applications. Pack of 10.

ALL16902..... #10-24 x 3/8" **ALL16903**..... #10-32 x 3/8" **ALL16905**..... 1/4"-20 x 1/4" **ALL16907**..... 1/4"-20 x 3/4"



ALL16903

Socket Head BoltsCoarse Thread Grade 5

Socket head bolts are coarse thread, grade 5. Pack of 5.

Length	1/4"-20	5/16"-18	3/8"-16	7/16"-14	1/2"-13
3/4"	ALL16731	ALL16741	ALL16751	-	_
1"	ALL16732	ALL16742	ALL16752	ALL16762	ALL16772
1-1/2"	ALL16734	ALL16744	ALL16754	ALL16764	ALL16774
2"	ALL16736	ALL16746	ALL16756	ALL16766	ALL16776



Hex Nuts and Washers





ALL18557





ALL16041-10 ALL16042-10 ALL16043-10 ALL16044-10 ALL16045-10





Coarse Thread	1/4"-20	5/16"-18	3/8"-16	7/16"-14	1/2"-13	5/8"-11	3/4"-10
Nut, 10-Pack	ALL16000-10	ALL16001-10	ALL16002-10	ALL16003-10	ALL16004-10	ALL16005-10	ALL16006-10
Nut, 50-Pack	ALL16000-50	ALL16001-50	ALL16002-50	ALL16003-50	ALL16004-50	-	_
Nylon Insert, 10-Pack	ALL16010-10	ALL16011-10	ALL16012-10	ALL16013-10	ALL16014-10	ALL16015-10	ALL16016-10
Nylon Insert, 50-Pack	ALL16010-50	ALL16011-50	ALL16012-50	ALL16013-50	ALL16014-50	-	_
Thin Nylon Insert, 10-Pack	ALL16020-10	ALL16021-10	ALL16022-10	ALL16023-10	ALL16024-10	ALL16025-10	ALL16026-10
Mech. Lock Nut. 10-Pack	ALL16030-10	ALL16031-10	ALL16032-10	ALL16033-10	ALL16034-10	_	ALL16036-10

Fine Thread	1/4"-28	5/16"-24	3/8"-24	7/16"-20	1/2"-20	5/8"-18	3/4"-16
Nut, 10-Pack	ALL16050-10	ALL16051-10	ALL16052-10	ALL16053-10	ALL16054-10	ALL16055-10	_
Nylon Insert, 10-Pack	ALL16060-10	ALL16061-10	ALL16062-10	ALL16063-10	ALL16064-10	ALL16065-10	ALL16066-10
Thin Nylon Insert, 10-Pack	ALL16070-10	ALL16071-10	ALL16072-10	ALL16073-10	ALL16074-10	ALL16075-10	ALL16076-10
Mech. Lock Nut, 10-Pack	ALL16080-10	ALL16081-10	ALL16082-10	ALL16083-10	ALL16084-10	ALL16085-10	ALL16086-10

Washers	1/4"	5/16"	3/8"	7/16"	1/2"	5/8"	3/4"
USS Flat*, 25-Pack	ALL16100-25	ALL16101-25	ALL16102-25	ALL16103-25	ALL16104-25	_	_
SAE Flat*, 25-Pack	ALL16110-25	ALL16111-25	ALL16112-25	ALL16113-25	ALL16114-25	ALL16115-25	ALL16116-25
Lock, 25-Pack	ALL16120-25	ALL16121-25	ALL16122-25	ALL16123-25	ALL16124-25	ALL16125-25	ALL16126-25
AN, 25-Pack	ALL16150-25	ALL16151-25	ALL16152-25	ALL16153-25	ALL16154-25	_	_

^{*}USS washers have a larger O.D. than SAE washers

Steel Jam Nut Assortments

Assortments contain five each of 1/4"-20, 5/16"-24, 3/8"-24, 7/16"-20, 1/2"-20, 5/8"-18, and 3/4"-16.

Flange Nut, 10-Pack



ALL18290..... 35 Asst. RH Jam Nuts **ALL18291**..... 35 Asst. LH Jam Nuts

Jam Nuts - Standard Hex

Allstar jam nuts have many uses. Great for locking rod ends tightly on suspension tubes or rack and pinion steering units. Pack of 4, unless noted.

Thread	Wrench	Steel	Aluminum
1/4"-28 RH	7/16"	ALL18250	_
1/4"-28 LH	7/16"	ALL18251	_
5/16"-24 RH	1/2"	ALL18252	_
5/16"-24 LH	1/2"	ALL18253	-
3/8"-24 RH	9/16"	ALL18254	ALL18274
3/8"-24 LH	9/16"	ALL18255	ALL18275
7/16"-20 RH	11/16"	ALL18256	ALL18276
7/16"-20 LH	11/16"	ALL18257	ALL18277
1/2"-20 RH	3/4"	ALL18258	ALL18278
1/2"-20 LH	3/4"	ALL18259	ALL18279
5/8"-18 RH	15/16"	ALL18260	ALL18280
5/8"-18 LH	15/16"	ALL18261	ALL18281
3/4"-16 RH	1-1/8"	ALL18262	ALL18282
3/4"-16 LH	1-1/8"	ALL18263	ALL18283
3/4"-10 RH	1-1/8"	ALL18264 [†]	_
7/8"-9 RH	1-5/16"	ALL18266 [†]	-
1"-8 RH	1-1/2"	ALL56110 [†]	_



Jam Nuts - Small Hex

Specialty jam nuts have smaller outside diameters, allowing smaller wrenches to be used when changing radius rod lengths. Example: with 1/2" bolts, the same 3/4" wrench can be used to adjust radius rod or mounting hole locations. Pack of 4.

Thread Size	Wrench Size	Steel	Alum.	Black Alum.
5/8"-18 RH	3/4"	ALL18292	ALL18296	ALL18286
5/8"-18 LH	3/4"	ALL18293	ALL18297	ALL18287
3/4"-16 RH	15/16"	ALL18294	ALL18298	ALL18288
3/4"-16 LH	15/16"	ALL18295	ALL18299	ALL18289

Spin Lock Nuts

Nuts have a built-in washer with a serrated face to lock nut tight against panels. 1/4"-20 nuts are perfect to use as a backer nut with Allstar body bolts, nose bolts, and body stud kits.

Color	10-Pack	50-Pack
Black	ALL18555	ALL18555-50
Gold	ALL18556	ALL18556-50
Silver	ALL18557	ALL18557-50

Black Half Nuts

ALL17048

Black plated steel 1/2"-20 nylon lock nuts are grade 8 and a lightweight option to keep fasteners in place. Pack of 10.





Tapered Spacers

Universal spacers have many uses including spacing rod ends on linkages to prevent binding or just to provide clearance. Spacers provide a finished look when fitting body



panels or spacing components away from floors and firewalls. Pack of 2.

I.D.	Small O.D.	Large O.D.	Length	Steel	Aluminum
1/4"	.345"	.500"	1/4"	_	ALL18700
1/4	.545	.500	1/2"	_	ALL18702
5/16"	.475"	.625"	1/4"	_	ALL18706
3/10	.475	.025	1/2"	_	ALL18708
			1/4"	_	ALL18712
3/8"	.525"	.680"	1/2"	_	ALL18714
			1"	_	ALL18716
			1/4"	ALL18570	ALL18590
			3/8"	ALL18571	_
1/2"	.740"	.995"	1/2"	ALL18572	ALL18592
1/2	.740		3/4"	ALL18574	ALL18594
			1"	ALL18576	ALL18596
			1-1/2"	ALL18578	ALL18595
			1/4"	ALL18580	ALL18597
			1/2"	ALL18582	ALL18598
5/8"	.825"	.995"	3/4"	ALL18584	ALL18599
			1"	ALL18586	_
			1-1/2"	ALL18585	_
			1/2"	ALL18587	_
3/4"	.950"	1.125"	3/4"	ALL18588	_
			1"	ALL18589	_



Tired of simple spacers on your cool ride, these aluminum spacers look nice while also offering additional support on both ends. Pack of 2.

	1/4" I.D.	5/16" I.D.	3/8" I.D.	1/2" I.D.
Length	1" O.D.	1" O.D.	1" O.D.	1-1/2" O.D.
1/4"	ALL18800	ALL18810	ALL18820	ALL18830
1/2"	ALL18802	ALL18812	ALL18822	ALL18832
1"	ALL18804	ALL18814	ALL18824	ALL18834
1-1/2"	ALL18806	ALL18816	ALL18826	ALL18836
2"	ALL18808	ALL18818	ALL18828	ALL18838

Aluminum Flat Spacers

Flat spacers are great for shimming and adding additional clearance to brackets for brake calipers, power steering, alternators, dry sump pumps, or just about anything to help with alignment issues. Pack of 2.

Length	3/8" I.D. (11/16" O.D.)	1/2" I.D. (1" O.D.)
1/8"	ALL18740	ALL18760
1/4"	ALL18742	ALL18762
3/8"	ALL18744	ALL18764
1/2"	ALL18746	ALL18766

Rod End Reducer Bushings

Steel bushings reduce the rod end pivot ball I.D. to accept a smaller bolt size.



O.D. To I.D.	2-Pack	10-Pack
1/2" to 3/8"	ALL18565	ALL18565-10
5/8" to 1/2"	ALL18566	ALL18566-10
3/4" to 1/2"	ALL18567	ALL18567-10
3/4" to 5/8"	ALL18568	ALL18568-10

High Misalignment Reducer Spacers

Dual-purpose spacers reduce fastener size

mounting hole and allow the rod end to rotate more than 30° in each direction which is 25% more than most standard spacers. Stainless steel spacers resist rust and corrosion. Pack of 2.



Rod End Size	I.D.	O.D. "A"	Length "B"	Overall Width "C"	Part No.
5/8"	1/2"	.750"	.465"	1.68"	ALL18785
3/4"	1/2"	.890"	.475"	1.825"	ALL18786
3/4"	5/8"	.890"	.475"	1.825"	ALL18787

5/8" Rod End Reducer Spacers

Reducer spacers fit into 5/8" rod ends, reducing the hole size for 1/2" hardware while also spacing the rod end away from chassis brackets.





Standard spacers are 3/4" O.D. and flanged spacers have 1" O.D. flanges to help support rod end. Size referenced indicates the amount of space between rod end pivot ball and chassis bracket. Pack of 2.

Standard Spacers

ALL18615 Aluminum, 1/2" ALL18617 Aluminum, 1" ALL18618 Aluminum, 1-1/4" ALL18619 Aluminum, 1-3/4"

Flanged Spacers

ALL18611 Aluminum, 1/4" ALL18613 Aluminum, 1/2" ALL18610 Steel, 1/4" ALL18612 Steel, 1/2"



ALL64283-10

ALL64284-10

Shock Spacers

Steel spacers have a 1/2" I.D. and 3/4" O.D. and can be used in a variety of other locations.

ALL64283

ALL64284



5/8"

3/4"



Rod Ends

Two-piece spherical rod ends have a pivoting steel ball and are sold each.



Bore x Thread	RH Male	LH Male	RH Female	Strength	
Standard Series	Steel				
1/4" x 1/4"-28	ALL58004	ALL58014	ALL58034	2,835 lbs.	
5/16" x 5/16"-24	ALL58005	ALL58015	ALL58035	4,517 lbs.	
3/8" x 3/8"-24	ALL58006	ALL58016	ALL58036	6,323 lbs.	
1/2" x 1/2"-20	ALL58008	ALL58018	ALL58038	10,046 lbs.	
5/8" x 5/8"-18	ALL58010	ALL58020	ALL58040	15,488 lbs.	
3/4" x 3/4"-16	ALL58012	ALL58022	ALL58042	15,894 lbs.	
3/4" x 3/4"-16	ALL58013 [†]	_	ı	15,894 lbs.	
Pro Series Steel	Pro Series Steel (Moly) – Black				
1/2" x 1/2"-20	ALL58058	ALL58068	ı	17,000 lbs.	
1/2" x 5/8"-18	ALL58059	ALL58069	_	19,300 lbs.	
5/8" x 5/8"-18	ALL58060	ALL58070	_	18,000 lbs.	
3/4" x 3/4"-16	ALL58062	ALL58072	-	25,000 lbs.	
Pro Series Steel	(Moly) - Blac	ck (PTFE Lir	ied)		
1/2" x 1/2"-20	ALL58078	ALL58083		16,240 lbs.	
1/2" x 5/8"-18	ALL58079	ALL58084	_	17,650 lbs.	
5/8" x 5/8"-18	ALL58080	ALL58085	_	15,200 lbs.	
3/4" x 3/4"-16	ALL58082	ALL58086	-	21,400 lbs.	
Aluminum – Bla	ck				
1/2" x 1/2"-20	ALL58088	ALL58098	-	7,700 lbs.	
1/2" x 5/8"-18	ALL58089	ALL58099	_	15,000 lbs.	

†ALL58013 has an oversized hole and is for use with steering shaft tubing.

Heavy-Duty 3/4" Chrome Moly Rod Ends

Often referred to as "Aircraft-Style", these heavy-duty 4130 chrome moly rod ends have larger bodies, making them thirty percent stronger than standard 3/4" rod ends. These rod ends are commonly used on Panhard bars and lower strut rods.



ALL99314 ALL99315

ALL99314 RH Male, 3/4" x 3/4"-16 **ALL99315** RH Female, 3/4" x 3/4"-16

3/4" Solid Rod End

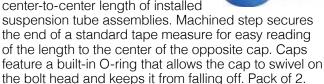
ALL58112

Solid rod ends are built using 1045 steel and are then chrome plated for added wear resistance. End has a body width of .875" to match the width of standard rod ends.

Bolt Center Caps

ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed



Steel Shock Quick Pin

ALL60108

Steel shock quick pins allow coil-over shocks to be quickly serviced or changed. Works with Allstar coil-over brackets, eliminating the need for a separate bushing. Shock quick pins are 2-1/2" long and include a hairpin. Sold each.

Titanium Shock Quick Pins

Titanium shock quick pins allow coilover shocks to be quickly serviced or
changed. ALL17120 has a long shoulder
and will work with Allstar coil-over
brackets, eliminating the need for a separate bushing. ALL17121 is commonly used
on non-bushing type brackets, but can be
used with Allstar brackets along with bushing. Pins are
2-1/2" long and include a hairpin.

ALL17120..... Quick Pin with Shoulder **ALL17121**..... Quick Pin without Shoulder

Quick-Release T-Handle Pins

Positive lock quick-release pins hold tightly in place until the handle button is depressed, allowing the pin to



Lengths stated are from base of T-handle to top of detent ball.

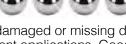
be inserted or removed into or out of a hole with ease. Handles are made from die cast 380 aluminum, shanks are made from 4130 steel. Each pin is equipped with a stainless steel split ring to allow the attachment of a cable assembly.

ALL60300 ... 1/4" x 1"
ALL60301 ... 1/4" x 1-1/2"
ALL60302 ... 1/4" x 2"
ALL60304 ... 5/16" x 1"
ALL60306 ... 5/16" x 2"
ALL60308 ... 5/16" x 3"
ALL60310 ... 3/8" x 1"

Steel Balls

Hardened chrome-

ALL60312 ... 3/8" x 2"



plated steel balls replace damaged or missing detent or check balls for many different applications. Good item to keep on hand when rebuilding transmissions. Pack of 5.

ALL26960 ... 1/4" ALL26961 ... 5/16" ALL26962 ... 3/8" ALL26963 ... 1/2"



ALI 18514

Steel Hood Pin Kits with 1/2" Pins

Kits include two each: 4" long x 1/2" dia. chrome steel pins, chrome steel scuff plates, clips, and four steel jam nuts.

ALL18512 Kit with 3/16" Flip-Over Clips ALL18514 Kit with 5/32" Hairpin Clips ALL18513 Kit with 1/4" Flip-Over Clips



Kits include two each: 4" x 1/2" dia. aluminum pins, aluminum scuff plates, flip over style, 1/4" dia. steel clips, and four steel jam nuts. Clip flips over pin and over-center action locks clip in place.



ALL18496..... Silver **ALL18497**..... Black

Kits with 1/4" Flip-Over Clips

ALL18500.... Silver **ALL18504**.... Black **ALL18501**.... Red **ALL18502**.... Blue **ALL18503**.... Gold

Aluminum Hood Pin Kits with 3/8" Pins

Kits include two each: 3-1/2" x 3/8' dia. aluminum pins, aluminum scuff plates, 3/16" dia. steel flip over clips and four steel jam nuts. Clip flips over pin and over-center action locks clip in place.

ALL18480..... Silver ALL18484.... Black ALL18481.... Red ALL18482.... Blue

Lightweight Aluminum Hood Pin Kits

Kits include two each: 2-3/4" long gundrilled aluminum pins, lightweight aluminum scuff plates, 3/16" steel flip-over clips and four steel jam nuts. Clip flips over pin and over-center action locks clip in place



Aluminum Hood Pins

Pins only for replacing damaged pins or for fabricating custom mounts. Pack of 2.



Color	3/8" Pins w/3/16" Holes x 3-1/2"	1/2" Pins w/3/16" Hole x 4"	1/2" Pins w/1/4" Hole x 4"
Silver	ALL18487	ALL18498	ALL18500
Black	ALL18491	ALL18499	ALL18511
Red	ALL18488	_	ALL18508
Blue	ALL18489	_	ALL18509

Hood Pin Supports

Supports thread onto hood pins (before installation) and are a good alternative to sections of rubber hose commonly used to support hoods and deck lids. Once supports are in place, a set screw prevents movement. Supports work with Allstar aluminum hood pins. Pack of 2.

ALL18478..... 3/8"-24 **ALL18479**..... 1/2"-20

Hood Pin Extensions

Aluminum extensions fit into existing chassis mounts. 1/2"-20 male to 1/2"-20 female, with 13/16" thread depth. Sold each.

ALL18524..... 1-3/4" Tall **ALL18525**..... 2-3/4" Tall

Hood Pin Adapters

Aluminum adapters convert existing chassis mounts over to hood pin mounts. Sold each.

ALL18526..... 1/2" Hood Pin Mount to 3/8" Hood Pin, 1/2"-20 Male to 3/8"-24 Female

ALL18527..... Converts 1/2" Coarse Mount to 1/2" Hood Pin, 1/2"-13 Male to 1/2"-20 Female

Hood Pin Clips

The same quick removal pins and clips included with Allstar's hood pin kits. Hairpin clip has a rotated loop for easy grasp and the flip-over clips have a loop with an over center locking feature that keeps pin in place. Pack of 2.

ALL18516..... Hairpin Clip, 5/32" **ALL18515**..... Flip-Over Clip, 3/16" **ALL18506**..... Flip-Over Clip, 1/4"

Flip-Over Clip with Lanyard

Our most popular size flip-over clip commonly used with hood pins is now available with an added lanyard which fastens to body panel for easy installation and prevents lost clips. Sold each.

ALL18460..... Clip with 6" Lanyard ALL18462..... Clip with 10" Lanyard



ALL18516

ALL18506





Steel Lanyards



Steel lanyards feature 1/16" diameter cable with 3/4" loops on each end for light duty applications such as hood pins or retention of similar type fasteners to prevent loss. Sold each.

ALL18461 6" Long ALL18463..... 10" Long

Nylon Lanyards

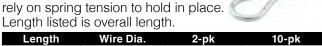
ALL18468



Nylon lanyards feature a molded end with a 3/16" hole on one end and a snap together open loop on the other end to quickly and easily secure a variety of components. Once snapped together, loop is permanently locked. 10" long, pack of 4.

Hair Pins

Steel hair pins are zinc coated and rely on spring tension to hold in place.



Length	Wire Dia.	2-pk	10-pk
1-5/8"	.093"	ALL18442	ALL18442-10
2-1/2"	.093"	ALL18444	ALL18444-10

Diaper Pins

Steel diaper pins are zinc coated and have a locking feature to keep secured in place. Length listed is overall length.

Length	Wire Dia.	2-pk	10-pk
1-3/4"	.060"	ALL18446	ALL18446-10
2-1/2"	.093"	ALL18448	ALL18448-10

Lock Pins

Use lock pin in place of a bolt for items that need to be removed frequently or easily. Wire loop folds over pin to lock in place. Size noted is under head length to end of pin. Sold each.

ALL18452..... 1/4" × 2" ALL18454..... 5/16" x 2-3/4"



Michael Ledford

Line Clamps

Aluminum clamps have a protective neoprene cushion to prevent abrasion and a 1/4" mounting hole to secure electrical



wiring, hoses or cables to a panel or frame.

Black nylon clamps have a 3/16" mounting hole to secure electrical wiring, hoses or cables to a panel or frame.

	Aluminum		Nylon	
Clamp				
Size	10-Pack	50-Pack	10-Pack	50-Pack
1/8"	_	_	ALL18309	ALL18309-50
3/16"	ALL18300	ALL18300-50	ALL18310	ALL18310-50
1/4"	ALL18301	ALL18301-50	ALL18311	ALL18311-50
3/8"	ALL18302	ALL18302-50	ALL18312	ALL18312-50
1/2"	ALL18303	ALL18303-50	ALL18313	ALL18313-50
5/8"	ALL18304	ALL18304-50	ALL18314	ALL18314-50
3/4"	ALL18305	ALL18305-50	ALL18315	ALL18315-50
7/8"	ALL18306	ALL18306-50	_	_
1"	ALL18307	ALL18307-50	ALL18317	ALL18317-50
1-1/4"	ALL18308	ALL18308-50	_	_

Lightweight Composite AN Hose Separators

Lightweight two-piece composite clamps bolt together and keep hoses routed together for a nice clean look. Sold each.



Universal Line Clamps

Two-piece aluminum clamps dress up wiring or hard lines. Pack of 4.

ALL18320..... 3/16" ALL18321 1/4" ALL18322..... 5/16" ALL18323..... 3/8"



Ludwig Clamps

ALL18232

Clamps are used to secure access panels. deck lids and a variety of other items in place.

Zinc plated carbon

steel clamps have a 3/16" mounting hole allowing clamp to be bolted or riveted in place. Pack of 4.



Aluminum Reusable Hose Ends

Hose	Ends	
	Part No.	AN Size
Straigh	t	
	ALL49311	-4
	ALL49312	-6
	ALL49313	-8
	ALL49314	-10
	ALL49315	-12
	ALL49316	-16
30° Elb	ow	
	ALL49322	-6
	ALL49323	-8
	ALL49324	-10
	ALL49325	-12
	ALL49326	-16
45° Elb	ow	
	ALL49331	-4
	ALL49332	-6
	ALL49333	-8
	ALL49334	-10
	ALL49335	-12
	ALL49336	-16
60° Elb		
00 2.0	ALL49342	-6
	ALL49343	-8
	ALL49344	-10
	ALL49345	-12
	ALL49346	-16
90° Elb		-10
30 LID	ALL49351	-4
	ALL49352	-6
	ALL49353	-8
	ALL49354	-10
	ALL49355	-12
	ALL49356	-12
120° EII		-10
120 EII	ALL49362	-6
	ALL49363	-8
	ALL49364 ALL49365	-10 -12
	ALL49365 ALL49366	-12 -16
150° EII		-16
150, Ell		
	ALL49372	-6 -8
	ALL49373	
	ALL49374	-10
180° EII	ALL49375	-12
180° Ell	<u> </u>	_
	ALL49382	-6
	ALL49383	-8
	ALL49384	-10
	ALL49385	-12
	ALL49386	-16



Aluminum Pushlock Hose Ends

Part No.	AN Size
Straight	
ALL49411	-4
ALL49412	-6
ALL49413	-8
ALL49414	-10
ALL49415	-12
ALL49416	-16
30° Elbow	
ALL49422	-6
ALL49423	-8
ALL49424	-10
ALL49425	-12
ALL49426	-16
45° Elbow	
ALL49431	-4
ALL49432	-6
ALL49433	-8
ALL49434	-10
ALL49435	-12
ALL49436	-16
60° Elbow	10
ALL49442	-6
ALL49443	-8
ALL49444	-10
ALL49445	-12
ALL49446	-16
90° Elbow	-10
ALL49451	-4
ALL49451	-6
	-
ALL49453	-8
ALL49454	-10
ALL49455	-12
ALL49456	-16
120° Elbow	
ALL49462	-6
ALL49463	-8
ALL49464	-10
ALL49465	-12
ALL49466	-16
150° Elbow	
ALL49472	-6
ALL49473	-8
ALL49474	-10
ALL49475	-12
ALL49476	-16
180° Elbow	
ALL49482	-6
ALL49483	-8
ALL49484	-10
ALL49485	-12





Aluminum AN to NPT Adapters



AN Size	NPT	Straight	45°	90°
-3	1/8"	ALL49502	ALL49532	ALL49562
-4	1/8"	ALL49505	ALL49535	ALL49565
-4	1/4"	ALL49506	ALL49536	ALL49566
-4	3/8"	ALL49507	ALL49537	ALL49567
-6	1/8"	ALL49508	ALL49538	ALL49568
-6	1/4"	ALL49509	ALL49539	ALL49569
-6	3/8"	ALL49510	ALL49540	ALL49570
-6	1/2"	ALL49511	ALL49541	ALL49571
-8	1/4"	ALL49512	ALL49542	ALL49572
-8	3/8"	ALL49513	ALL49543	ALL49573
-8	1/2"	ALL49514	ALL49544	ALL49574
-10	3/8"	ALL49517	ALL49547	ALL49577
-10	1/2"	ALL49518	ALL49548	ALL49578
-10	3/4"	ALL49519	ALL49549	ALL49579
-12	1/2"	ALL49520	ALL49550	ALL49580
-12	3/4"	ALL49521	ALL49551	ALL49581
-16	3/4"	ALL49522	_	ALL49582
-16	1"	ALL49523	_	_

Aluminum 90° Swivel to Male NPT

Part No.	NPT	AN Size
ALL49584	1/8"	-4
ALL49585	1/4"	-4
ALL49587	1/8"	-6
ALL49588	1/4"	-6
ALL49589	3/8"	-6
ALL49590	1/2"	-6
ALL49591	1/4"	-8
ALL49592	3/8"	-8
ALL49596	3/8"	-10
ALL49599	1/2"	-12



Aluminum AN Bulkhead Adapters

Part No.	A Size	B Size			
Straight Bul	Straight Bulkhead				
ALL49610	-3	-3			
ALL49611	-4	-4			
ALL49612	-6	-6			
ALL49613	-8	-8			
ALL49614	-10	-10			
ALL49615	-12	-12			
ALL49616	-16	-16			
ALL49617	-20	-20			
90° Bulkhea	90° Bulkhead				
ALL49620	-3	-3			
ALL49621	-4	-4			
ALL49622	-6	-6			
ALL49623	-8	-8			
ALL49624	-10	-10			
ALL49625	-12	-12			
ALL49626	-16	-16			





Aluminum AN Bulkhead Nuts



Aluminum AN Flare Adapters

Part No.		B Size
Female Swiv		
ALL49700	-3	-3
ALL49701	-4	-4
ALL49702	-6	-6
ALL49703	-6	-8
ALL49704	-8	-8
ALL49705	-8	-10
ALL49706	-10	-10
Male Union		
ALL49710	-3	-3
ALL49711	-4	-4
ALL49712	-6	-6
ALL49713	-8	-8
ALL49714	-10	-10
ALL49715	-12	-12
ALL49716	-16	-16
90° Union		
ALL49720	-3	-3
ALL49721	-4	-4
ALL49722	-6	-6
ALL49723	-8	-8
ALL49724	-10	-10
ALL49725	-12	-12
Male Reduce		
ALL49730	-3	-4
ALL49731	-4	-6
ALL49732	-4	-8
ALL49733	-4	-10
ALL49734	-6	-8
ALL49735	-6	-10
ALL49736	-8	-10
ALL49737	-8	-12
ALL49738	-10	-12
ALL49739	-12	-16
Swivel Redu		
ALL49740	-4	-3
ALL49741	-6	-4
ALL49742	-8	-4
ALL49743	-8	-6
ALL49744	-10	-6
ALL49745	-10	-8
ALL49746	-12	-8
ALL49747	-12	-10
ALL49748	-16	-10
ALL49749	-16	-12
Swivel Flare		A
ALL49750	-3	-4
ALL49751	-4 e	-6 o
ALL49752	-6	-8
ALL49753	-8	-10
ALL49754	-10	-12
ALL49755	-12	-16
ALL49756	-16	-20









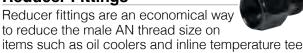




Reducer Fittings

to reduce the male AN thread size on items such as oil coolers and inline temperature tees.

ALL90075 -10AN to -8AN **ALL90076** -12AN to -10AN





Aluminum Tee Fittings

Part No.	A Size	B Size	C Size	
Tee				
ALL49660	-3	-3	1/8" NPT	
ALL49661	-3	1/8" NPT	-3	
ALL49640	-3	-3	-3	
ALL49641	-4	-4	-4	
ALL49642	-6	-6	-6	
ALL49643	-8	-8	-8	
ALL49644	-10	-10	-10	
ALL49645	-12	-12	-12	
ALL49646	-16	-16	-16	
Tee, Female Swivel On Side				
ALL49650	-3	-3	-3	
ALL49651	-4	-4	-4	
ALL49652	-6	-6	-6	
ALL49653	-8	-8	-8	
A.L	4115		. —	







Pressure Gauge Adapters

Part No.	A Size	B Size	C Size
ALL49760	-4	-4	1/8"
ALL49761	-6	-6	1/8"
ALL49762	-6 Fem.	-6	1/8"
ALL49763	3/8" Male	-6	1/8"
ALL49765	-8	-8	1/8"



Aluminum Gauge Fittings

ALL50201 1/8"NPT Female to -3AN **ALL50202** 1/8"NPT Female to -4AN **ALL50206** 1/8"NPT Female to -4AN 90°



Steel Gauge Fittings

ALL50199 1/8"NPT Female to -3AN **ALL50200** 1/8"NPT Female to -4AN



Aluminum AN Bulkhead Tee

Part No.	A Size	B Size	C Size
Tee On-The-S	ide		
ALL49630	-3	-3	-3
ALL49631	-4	-4	-4
ALL49632	-6	-6	-6
ALL49633	-8	-8	-8
ALL49634	-10	-10	-10



NPT Adapters

Part No.	A Size	B Size			
Aluminum NI	Aluminum NPT Reducer				
ALL49770	1/4"	1/8"			
ALL49771	3/8"	1/8"			
ALL49772	3/8"	1/4"			
ALL49773	1/2"	1/8"			
ALL49774	1/2"	1/4"			
ALL49775	1/2"	3/8"			
ALL49776	3/4"	1/4"			
ALL49777	3/4"	3/8"			
ALL49778	3/4"	1/2"			
-					



Aluminum Flare Cap

Part No.	AN Size
ALL49670	-3
ALL49671	-4
ALL49672	-6
ALL49673	-8
ALL49674	-10
ALL49675	-12
ALL49676	-16



Aluminum Flare Plug

Part No.	AN Size
ALL49680	-3
ALL49681	-4
ALL49682	-6
ALL49683	-8
ALL49684	-10
ALL49685	-12
ALL49686	-16



Aluminum Tube Nut, 2-Pack

Part No.	AN Size
ALL50320	-3
ALL50321	-4
ALL50322	-6
ALL50323	-8
VI 1 EU334	10



Aluminum Tube Sleeve, 2-Pack

Part No.	AN Size
ALL50330	-3
ALL50331	-4
ALL50332	-6
ALL50333	-8
ALL50334	-10



Part No. **NPT Size** Qty. **Aluminum Male NPT Nipple ALL49780** 1/8" 1 **ALL49781** 1/4" Aluminum Female NPT Coupler **ALL49785** 1/8" Aluminum Internal Allen NPT Plug **ALL49800** 1/16" ALL49801 1/8" 2 1/4" 2 **ALL49802 ALL49803** 3/8" 2 **ALL49804** 1/2" 1 **ALL49805** 3/4" Steel Internal Allen NPT Plug* **ALL49811** 1/8" 2 ALL49812 1/4" 2 3/8" **ALL49813** 2 **ALL**49814 1/2" Aluminum Hex NPT Plug **ALL49820** 1/8" 1 **ALL49821** 3/8" 1 **ALL49822** 1/2"















AN Flare to ORB Adapters

Part No	A Size	B Size
	O-Ring Boss	D GIZE
ALL49830	3/8"-24 (-3)	-4
ALL49831	7/16"-20 (-4)	-4
ALL49832	9/16"-18 (-6)	-4
ALL49833	3/4"-16 (-8)	-4
ALL49834	7/8"-14 (-10)	-4
ALL49836	9/16"-18 (-6)	-6
ALL 49837	3/4"-16 (-8)	-6
ALL 49838	7/8"-14 (-10)	-6
ALL49839	1-1/16"-12 (-12)	-6
ALL 49841	9/16"-18 (-6)	-8
ALL 49842	3/4"-16 (-8)	-8
ALL49843	7/8"-14 (-10)	-8
ALL 49844	1-1/16"-12 (-12)	-8
ALL49845	1-5/16"-12 (-16)	-8
ALL49847	3/4"-16 (-8)	-10
ALL49848	7/8"-14 (-10)	-10
ALL49849	1-1/16"-12 (-12)	-10
ALL49850	1-5/16"-12 (-16)	-10
ALL49852	3/4"-16 (-8)	-12
ALL49853	7/8"-14 (-10)	-12
ALL49854	1-1/16"-12 (-12)	-12
ALL49855	1-5/16"-12 (-16)	-12
ALL49857	1-1/16"-12 (-12)	-16
ALL49858	1-5/16"-12 (-16)	-16
ALL49859	1-5/16"-12 (-16)	-20



Large Fill Plug Kits

Kits include a weld-in bung and an easy-grip O-ring cap with positive seal. Kits are often used as an inspection plug or a filler plug. Large fill plugs have a 3" opening. 3"-12 thread.





Kit with Aluminum Weld-In Bung

ALL36170	 Silver	Kit	
ALL36171	 Black	Kit	
ALL36172	 Red K	it	
ALL36173	 Polish	ed K	ίt

Kit with Steel Weld-In Bung

ALL36174	Silver Kit
ALL36175	Black Kit
ALL36176	Red Kit
ALL36177	Polished Kit

Small Fill Plug Kits

Kits include a weld-in or bolt-in bung and an easy-grip O-ring cap with positive seal. Kits are often used as an inspection plug or a filler plug. Small fill plugs have a 1-3/8" opening with 1-1/2"-12 threads.

Kit with Aluminum Weld-In Bung

ALL36160 Silver Kit
ALL36164 Black Kit
ALL36165 Red Kit
ALL36166 Polished Kit

Kit with Steel Weld-In Bung

ALL36161	Silver Kit
ALL36167	Black Kit
ALL36168	Red Kit
ALL36169	Polished Kit

Kit with Aluminum Bolt-In Bung

ALL36180 Silver Kit	
ALL36181 Black Kit	
ALL36182 Red Kit	
ALL36183 Polished Kit	ŀ



Female NPT

nents.

Weld Bungs

Size	O.D.	Aluminum	Steel
1/8"-27NPT	3/4"	ALL50740	ALL50750
1/4"-18NPT	7/8"	ALL50741	ALL50751
3/8"-18NPT	1"	ALL50742	ALL50752
1/2"-14NPT	1-1/4"	ALL50743	ALL50753
3/4"-14NPT	1-3/8"	ALL50744	ALL50754
1"-11-1/2NPT	1-5/8"	ALL50745	_

Weld-on bungs are available in 6061 aluminum or mild steel and allow additional fittings to be added to radiators, oil pans, or for building custom tanks or other compo-



Male AN

Size	Thread	Flange O.D.	Aluminum	Steel
4AN	7/16"-20	3/4"	ALL50760	ALL50770
6AN	9/16"-18	7/8"	ALL50761	ALL50771
8AN	3/4"-16	1"	ALL50762	ALL50772
10AN	7/8"-14	1-1/8"	ALL50763	ALL50773
12AN	1-1/16"-12	1-3/8"	ALL50764	ALL50774
16AN	1-5/16"-12	1-5/8"	ALL50765	ALL50775
20AN	1-5/8"-12	1-3/4"	ALL50766	ALL50776





Female AN ORB

Size	Thread	O.D.	Aluminum
4AN	7/16"-20	3/4"	ALL50780
6AN	9/16"-18	7/8"	ALL50781
8AN	3/4"-16	1"	ALL50782
10AN	7/8"-14	1-1/8"	ALL50783
12AN	1-1/16"-12	1-3/8"	ALL50784
16AN	1-5/16"-12	1-5/8"	ALL50785





Drain Plug Kits

Drain plug kits include a machined weld-on bung that has a step added to fit inside a drilled hole for easy installation. Kits are perfect when adding drain plugs to oil pans, rear end housings, dry sump tanks, etc.

Size	Aluminum Bung	Steel Bung
3/8"NPT	ALL50732	ALL50733
1/2"NPT	ALL50734	ALL50735





WARNING PROP. 65 (See Below)

NPT to AN Fittings

1/8"-27NPT steel fittings are commonly used when connecting braided lines to brake calipers, engine oiling systems, etc.







ALI 50010 ALL50011

ALI 50018







ALL50021 ALI 50020

ALL50000 1/8"NPT Male to -3AN Straight, 2-Pack ALL50001 1/8"NPT Male to -4AN Straight, 2-Pack ALL50004 1/8"NPT Male to -4AN Straight, Tall

ALL50010 1/8"NPT Male to -3AN 45° **ALL50011** 1/8"NPT Male to -4AN 45°

ALL50018 1/8"NPT Male to -3AN 90° **ALL50019** 1/8"NPT Male to -4AN 90° ALL50020 1/8"NPT Male to -3AN 90° Tall ALL50021 1/8"NPT Male to -4AN 90° Tall

ALL50199 1/8"NPT Female to -3AN ALL50200 1/8"NPT Female to -4AN

NPT Fittings

Popular brass 1/8"-27NPT fittings used for a variety of applications.









ALL50138

ALL50182 1/8"NPT Plug, 4-Pack ALL50184 1/8"NPT Male Union, 4-Pack ALL50185 1/8"NPT Female Union, 4-Pack

ALL50138 1/8"NPT Tee, 2-Pack ALL50139 1/8"NPT Tee, 2-Pack



ALL50139

Petcock

ALL99030

Replacement petcock for Allstar breather and overflow tanks is also perfect for draining coolant from engines. 1/4"NPT threads.



🔼 WARNING: PROP. 65

The products on this page can expose you to lead, which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov

Caliper Fittings

Commonly used in stock type calipers in place of the banjo fitting and bolt. Fittings allow direct connection to a steel braided line. Fittings are sold in a pack of 2.











ALL50029 3/8"-24 to -3AN Straight ALL50030 3/8"-24 to -4AN Straight **ALL50032** 7/16"-20 to -4AN Straight **ALL50035** 7/16"-20 to -4AN 90° **ALL50037** M10-1.50 to -3AN Straight ALL50036 M10-1.50 to -4AN Straight ALL50040 M10-1.50 to Female 1/8"-27NPT

Banjo Fittings

Banjo fittings are commonly used with banjo bolts and crush washers in stock type calipers to allow direct connection of a steel braided line and allow pivoting the line as needed. Fittings are sold in a pack of 2.

ALL50060 3/8" to -3AN ALL50061 3/8" to -4AN ALL50062 7/16" to -3AN ALL50063 7/16" to -4AN ALL50067 10mm to -3AN ALL50068 10mm to -4AN ALL50066 10mm to -4AN Extended





ALL50066

Banjo Bolts

Banjo bolts are a drilled bolt to allow fluid to pass through and are commonly used with banjo fittings and crush washers in stock type calipers to allow direct connection of a steel braided line. Bolts are sold in a pack of 2.





Crush Washers

Crush washers are used when sealing metal to metal contact points of banjo fittings and bolts. Soft material conforms to the irregularities of the sealing surfaces. Washers are sold in a pack of 10.

ALL50082 3/8" and 10mm ALL50080 7/16"

Bleeder Fitting with Screw ALL50180

Designed for popular aftermarket calipers, these fittings have 1/8"-27 threads and include a 1/4"-28 bleeder screw. Pack of 4.



Bleeder Caps ALL50855

Rubber caps keep dirt and moisture out of brake caliper bleeder screw fittings. Caps fit ALL50180 and most other popular small bleeder screws. Pack of 10.





Inverted Flare Fittings

An inverted flare fitting is a common brake fitting designed to withstand the high pressures found in braking systems.



ALL50120 3/16" to Male 1/8"-27 NPT, 4-Pack

ALL50125 3/16" to Male 1/8"-27 NPT 90 Degree, 4-Pack

ALL50127 3/16" to Female 1/8"-27 NPT, 4-Pack

ALL50136 3/16" Tee, 2-Pack

ALL50137 3/16" Tee with 1/8"-27 NPT Female Port on Side

ALL50135 3/16" Tee with 1/8"-27 NPT

Male Nipple on Side

ALL50183 3/16" Steel Plug, 4-Pack

ALL50121 1/4" to Male 1/8"-27 NPT, 4-Pack **ALL50129** 5/16" to Male 1/4"-18 NPT 2-Pack

ALL50130 3/16" Union, 4-Pack ALL50131 1/4" Union, 4-Pack

ALL50132 5/16" Union, 4-Pack ALL50133 3/8" Union, 4-Pack

Master Cylinder Adapter Fittings

ALL41012

Fittings adapt master cylinders or combination valves with 1/2"-20 and 9/16"-18 ports to accept 3/16" inverted flare brake line with standard 3/8"-24 fittings. Kit includes one of each fitting.

Bolt-In Adapter Fittings

Bulkhead style aluminum fittings adapt 3/16" inverted flare line to an AN type fitting. The 9/16" threaded body with attaching nut can be mounted through a C-channel style frame or a chassis tab.

ALL50104 3/16" to 3AN ALL50105 3/16" to 4AN

ALL60092 Weld-On Tabs, 4-Pack



WARNING: PROP. 65

The products on this page can expose you to lead. which is known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to: www.P65Warnings.ca.gov

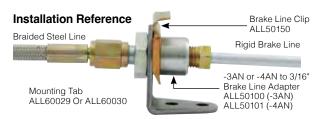
Clip-In Adapter Fittings

Steel adapter fittings provide a bulkhead style connection to AN lines that can be mounted directly to the chassis by using tabs or brackets and retainer clips. Fittings fit in a 5/8" hole and are sold in a pack of 2.



TECH TIP





D.O.T. Legal **Brake Hose Kits**

Kit includes everything necessary to complete the connection between 3/16" steel brake line and the brake caliper for one axle. Kit includes two brake line adapter fittings, steel weld on tabs, retainer clips, banjo bolts, crush washers, and 16" DOTapproved #3 braided steel hoses.

ALL42032 GM Metric Kit with M10-1.50 Banjo Bolts ALL42033 Big GM Kit with 7/16"-20 Banjo Bolts

Brake Hose Kits

Kit includes everything necessary to complete the connection between 3/16" steel brake line and the brake caliper for one axle. Kit includes two brake line adapter fittings, steel weld on tabs, retainer clips, banjo caliper fittings, banjo bolts, crush washers, and 15" #3 braided steel hoses.

ALL42025 GM Metric Kit with M10-1.50 Banjo Bolts ALL42027 Big GM Kit with 7/16"-20 Banjo Bolts

Brake Hose Kit for Wilwood/Strange Calipers ALL42048

Kit includes everything necessary to complete the connection between 3/16" steel brake line and Wilwood or Strange brake caliper for one axle. Kit



includes two brake line adapter fittings, steel weld-on and steel bolt-on tabs, retainer clips, straight and 90° caliper fittings and 15" #3 braided steel hoses.

ALL60092



Braided Steel Lines

A wide selection of braided steel lines in various lengths. All lines come with one straight end and your choice of straight, 45°, or 90° on the other end. The inner PTFE hose is compatible with all brake fluids. The braided stainless steel outer covering resists abrasion and corrosion. Ideal for use where bending and flexing occurs. More durable than rubber hose. Lengths stated are overall end-to-end, including fittings.

Note: Lines are also available in 5-pack and 25-pack quantities. Add a (-5) or (-25) to end of part number. Example ALL46400-6-25 for a 25-pack. Lengths stated are overall end-to-end, including fittings. Lines are NOT DOT approved.

#3 Braided Steel Lines with -3 Ends

		-3 Straight and	-3 Straight and	-3 Straight and	
Length	Two -3 Straight	-3 45°	-3 90° Forged	-3 90° Tube	
6"	ALL46300-6	_	ALL46302-6	ALL46304-6	
9"	ALL46300-9	_	ALL46302-9	ALL46304-9	
10"	ALL46300-10	_	ALL46302-10	ALL46304-10	
12"	ALL46300-12	_	ALL46302-12	ALL46304-12	
14"	ALL46300-14	ALL46301-14	ALL46302-14	ALL46304-14	
15"	ALL46300-15	ALL46301-15	ALL46302-15	ALL46304-15	
16"	ALL46300-16	ALL46301-16	ALL46302-16	ALL46304-16	
18"	ALL46300-18	ALL46301-18	ALL46302-18	ALL46304-18	
20"	ALL46300-20	_	ALL46302-20	ALL46304-20	
21"	ALL46300-21	_	ALL46302-21	ALL46304-21	
22"	ALL46300-22	_	ALL46302-22	ALL46304-22	
24"	ALL46300-24	ALL46301-24	ALL46302-24	ALL46304-24	
26"	ALL46300-26	_	ALL46302-26	ALL46304-26	
28"	ALL46300-28	_	ALL46302-28	ALL46304-28	
30"	ALL46300-30	-	ALL46302-30	ALL46304-30	
32"	ALL46300-32	_	ALL46302-32	ALL46304-32	
34"	ALL46300-34	ALL46301-34	_	_	
36"	ALL46300-36	_	ALL46302-36	ALL46304-36	
40"	ALL46300-40	_	_	_	
42"	ALL46300-42	-	ALL46302-42	ALL46304-42	
43"	ALL46300-43	-	_	_	
44"	ALL46300-44	ı	_	_	
47"	ALL46300-47	_	_	_	
48"	ALL46300-48	_	ALL46302-48	ALL46304-48	
50"	ALL46300-50	_	_	_	
56"	ALL46300-56	_	_	_	
60"	ALL46300-60	_	ALL46302-60	ALL46304-60	
96"	ALL46300-96	_	_	_	
108"	ALL46300-108	_	_	_	
120"	ALL46300-120	_	_	_	
180"	ALL46300-180	_	_	_	







#4 Braided Steel Lines with -4 Ends

		-4 Straight and	-4 Straight and	-4 Straight and
Length	Two -4 Straight	-4 45°	-4 90° Forged	-4 90° Tube
6"	ALL46400-6	_	ALL46402-6	ALL46404-6
9"	ALL46400-9	_	ALL46402-9	ALL46404-9
10"	ALL46400-10	_	ALL46402-10	ALL46404-10
12"	ALL46400-12	_	ALL46402-12	ALL46404-12
14"	ALL46400-14	_	ALL46402-14	ALL46404-14
15"	ALL46400-15	ALL46401-15	ALL46402-15	ALL46404-15
16"	ALL46400-16	_	ALL46402-16	ALL46404-16
18"	ALL46400-18	ALL46401-18	ALL46402-18	ALL46404-18
20"	ALL46400-20	_	ALL46402-20	ALL46404-20
21"	ALL46400-21	_	ALL46402-21	ALL46404-21
22"	ALL46400-22	_	ALL46402-22	ALL46404-22
24"	ALL46400-24	ALL46401-24	ALL46402-24	ALL46404-24
26"	ALL46400-26	_	ALL46402-26	ALL46404-26
28"	ALL46400-28	_	ALL46402-28	ALL46404-28
30"	ALL46400-30	_	ALL46402-30	ALL46404-30
32"	ALL46400-32	_	ALL46402-32	ALL46404-32
36"	ALL46400-36	_	ALL46402-36	ALL46404-36
42"	ALL46400-42	_	ALL46402-42	ALL46404-42
48"	ALL46400-48	_	ALL46402-48	ALL46404-48
60"	ALL46400-60	_	ALL46402-60	ALL46404-60
72"	ALL46400-72	_	_	_
90"	ALL46400-90	_	_	_
120"	ALL46400-120	_	ALL46402-120	ALL46404-120
180"	ALL46400-180	_	_	_







Coated Braided Steel Lines with Steel Ends

Black coated braided steel lines with steel ends. Choose #3 or #4 line in straight/straight or straight/90° configurations. Lengths stated are overall, end-to-end.

#3 Line		#4 Line		
Length	Two -3 Straight	-3 90° and -3 Straight	Two -4 Straight	-4 90° and -4 Straight
12"	ALL48430-12	ALL48434-12	ALL48440-12	ALL48444-12
15"	ALL48430-15	ALL48434-15	ALL48440-15	ALL48444-15
18"	ALL48430-18	ALL48434-18	ALL48440-18	ALL48444-18
21"	ALL48430-21	ALL48434-21	ALL48440-21	ALL48444-21
24"	ALL48430-24	ALL48434-24	ALL48440-24	ALL48444-24
30"	ALL48430-30	ALL48434-30	ALL48440-30	ALL48444-30
32"	ALL48430-32	ALL48434-32	ALL48440-32	ALL48444-32
36"	ALL48430-36	ALL48434-36	ALL48440-36	ALL48444-36
40"	ALL48430-40	ALL48434-40	ALL48440-40	ALL48444-40
48"	ALL48430-48	ALL48434-48	ALL48440-48	ALL48444-48



Coated Braided Lines with 1/8" NPT and Straight Steel Ends

Black coated braided steel lines with steel ends. Choose #3 or #4 line in straight / 1/8" NPT end configuration. Lengths stated are overall, end-to-end.

Length	#3 Line -3 Straight	#4 Line -4 Straight
18"	ALL48435-18	ALL48445-18
21"	ALL48435-21	ALL48445-21
24"	ALL48435-24	ALL48445-24
28"	ALL48435-28	ALL48445-28
30"	ALL48435-30	ALL48445-30
36"	ALL48435-36	ALL48445-36
48"	ALL48435-48	ALL48445-48



Coated Braided Steel Lines with Aluminum Ends

Black coated braided steel lines have black aluminum ends. Choose #2, #3, or #4 line in straight/straight or straight/90° configurations. Lengths stated are overall, end-to-end.



	#2 Line	#3 Line		#4 [_ine
Length	Two -3 Straight	Two -3 Straight	-3 90° and -3 Straight	Two -4 Straight Ends	-4 90° and -4 Straight
6"	ALL48385	ALL48387	ALL48413	ALL48349	ALL48398
9"	ALL48386	ALL48388	ALL48414	ALL48350	ALL48399
12"	ALL48371	ALL48361	ALL48415	ALL48351	ALL48400
15"	ALL48372	ALL48362	ALL48416	ALL48352	ALL48401
18"	ALL48373	ALL48363	ALL48417	ALL48353	ALL48402
21"	ALL48374	ALL48364	ALL48418	ALL48354	ALL48403
24"	ALL48375	ALL48365	ALL48419	ALL48355	ALL48404
30"	ALL48376	ALL48366	ALL48420	ALL48356	ALL48405
32"	_	ALL48367	_	_	_
36"	ALL48378	ALL48368	ALL48422	ALL48358	ALL48407
40"	ALL48384	ALL48389	ALL48426	ALL48390	ALL48427
46"	_	_	ALL48394	_	_
48"	ALL48379	ALL48369	ALL48423	ALL48359	ALL48408
52"	_	ALL48392	_	_	_
60"	ALL48380	ALL48370	ALL48424	ALL48360	ALL48409
62"	_	ALL48393	_	_	_
73"	ALL48383	ALL48382	ALL48425	ALL48381	ALL48410

#6 Coated Braided Steel Lines with Aluminum Ends

Black coated braided steel lines have black aluminum ends. Lengths stated are overall, end-to-end.

Length	Two -6 Straight	-6 90° and -6 Straight
12"	ALL48465-12	ALL48466-12
18"	ALL48465-18	ALL48466-18
24"	ALL48465-24	ALL48466-24
36"	ALL48465-36	ALL48466-36
48"	ALL48465-48	_
72"	ALL48465-72	_
120" (10 ft.)	ALL48465-120	_
168" (14 ft.)	ALL48465-168	_
192" (16 ft.)	ALL48465-192	_







#3 Braided Steel Lines with -4 Ends

Length	Two -4 Straight Ends	-4 90° and -4 Straight
9"	ALL46310-9	ALL46312-9
12"	ALL46310-12	ALL46312-12
15"	ALL46310-15	ALL46312-15
18"	ALL46310-18	ALL46312-18
21"	ALL46310-21	ALL46312-21
24"	ALL46310-24	ALL46312-24
28"	ALL46310-28	ALL46312-28
32"	ALL46310-32	ALL46312-32
36"	ALL46310-36	ALL46312-36
40"	_	ALL46312-40
42"	ALL46310-42	ALL46312-42
48"	ALL46310-48	ALL46312-48
60"	ALL46310-60	ALL46312-60
72"	ALL46310-72	_
108"	ALL46310-108	ALL46312-120
120"	ALL46310-120	_



Braided Steel Lines with 10mm Banjo Fitting

	#3 Line		
Length	-3 Straight -4 Straight		-4 Straight
18"	ALL46340-18	_	ALL46440-18
21"	_	-	ALL46440-21
24"	_	ALL46341-24	ALL46440-24
44"	ALL46340-44	_	-



#4 Braided Steel Line with 1/8"NPT and 10mm Banjo Fitting

Length	Part No.
24"	ALL46441-24



#4 Braided Steel Lines with 1/8"NPT and Straight -4 Ends

Length	Part No.
18"	ALL46420-18
21"	ALL46420-21
24"	ALL46420-24
30"	ALL46420-30
36"	ALL46420-36
48"	ALL46420-48



#3 Braided Steel Lines with 3/16" Inverted Flare 90° and Straight -3 Ends

Length	Part No.
24"	ALL46332-24
36"	ALL46332-36
48"	ALL46332-48



Bulkhead Fittings

Black anodized aluminum bulkhead adapter fittings are perfect when plumbing needs to pass through a firewall, interior panel, or a mounting bracket.

ALL50092 Straight -3AN to -3AN ALL50093 Straight -4AN to -4AN **ALL50094** 90° -3AN to -3AN ALL50095 90° -4AN to -4AN ALL50096 Tee (Run) -3AN (3x) **ALL50097** Tee (Run) -4AN (3x) ALL50098 - 3AN Nut, 2-Pack ALL50099 -4AN Nut, 2-Pack



Bulkhead Mounting Tab

ALL60093

One-piece steel mounting tab with 7/16" hole can be bolted to the chassis or rear end to hold bulkhead fittings in place. Bracket is 5/64" thick.

90° Swivel Fitting

Black anodized aluminum fitting swivels a full 360° for convenient hose connection. 1/8"NPT fitting is commonly used in aftermarket calipers, gauge panels, or anywhere a swivel connection would be useful.

ALL50108 1/8"NPT to -3AN ALL50109 1/8"NPT to -4AN

AN Union Fittings

Black anodized aluminum flare union adapter fittings are commonly used to connect two hoses with female AN ends.

ALL50090 - 3AN to -3AN ALL50091 -4AN to -4AN





Quick Disconnect Couplings

2-piece couplings allow lines to be separated without loss of fluid or requirement of bleeding. Commonly used on brake systems when changing front or rear axle assembly, hydraulic wing cylinders, a hydraulic clutch system using a



hydraulic throw out bearing, or when servicing a transmission with an internal hydraulic clutch.

ALL50212 Alum. Coupling with -3AN Male Threads
ALL50213 Alum. Coupling with -4AN Male Threads
ALL50215 Steel Coupling with 1/8"NPT Female Threads

Clutch Line Kits

Designed to connect clutch master cylinder to hydraulic throw-out bearing or directly to transmissions with internal clutches. Preassembled braided steel hose



assemblies have #3 lines and are fitted with one -3AN straight end and one 3/16" inverted flare 90° hard line end. Also includes one 1/8" male to -3AN fitting (ALL50000).

ALL46100-24..Kit with 24" Line **ALL46100-36**..Kit with 36" Line **ALL46100-48**..Kit with 48" Line

Universal Clutch Line Kit

ALL46101-36

Universal kit includes a variety of fittings to connect most master cylinders to a hydraulic slave cylinder, throw-out bearing or to an internal clutch



transmission. Kit includes an 8" long 3/16" hard line, a straight and 90° male 1/8" NPT to 3/16" inverted flare fittings, a straight female 1/8" NPT to 3/16" inverted flare fitting, two straight male 1/8" NPT to -4 hose fittings, a 36" #4 braided steel hose with -4AN fittings, and line clamps for the steel and braided line.

Hydraulic Throw-Out Bearing Remote Bleed Kit

ALL46102

Bleed line kit connects to most popular hydraulic bearings to allow easier bleeding of system by placing



the bleeder screw outside of the bellhousing. Kit includes a 10" long line with adapter fittings for bearings with -3AN, -4AN, or 1/8" NPT bleed ports.

Dirt Race Car Brake Line Kit

Kit allows braided lines to be run

throughout a dirt race car.

Includes all lines needed to reach from the calipers to inside the foot box. Additional fittings may be required. This kit uses #3 line size for stiffer pedal feel while utilizing the more popular -4AN ends.

ALL42052 Kit for Dirt Modifieds with OEM Calipers **ALL42053** Kit for Dirt Modifieds with Aftermarket Calipers **ALL42054** Kit for Dirt Late Models with Aftermarket Calipers

Rear End Brake Line Kit (Single Line Drop)

Kit is designed to eliminate "hanging" brake lines near the rear calipers.
Rear brake line kits utilize a single line drop located near the left side of the

center section. Kit includes braided lines (#3 line with -4AN ends), -4AN tee, 3" axle tube clamp bracket, and a tee bracket.

ALL42056..... Kit for Dirt Modifieds (60" Wide) with OEM Calipers

ALL42057..... Kit for Dirt Modifieds (60" Wide)

with Aftermarket Calipers

ALL42058..... Kit for Dirt Late Models (62" Wide)

with Aftermarket Calipers

Front End Brake Line Kit

Kits include braided lines to reach from the front calipers to inside the foot box. Braided lines are #3 size with -4AN ends. The #3 line size offers a stiffer pedal feel while utilizing the more popular -4AN ends.



ALL42061 Kit for Dirt Modifieds with Aftermarket Calipers **ALL42062** Kit for Dirt Late Model with Aftermarket Calipers Note: Visit our website for specific components used in these kits!

Gauge Line Kits

Gauge line kits provide easy connection to most mechanical oil and fuel pressure gauges. Includes a pre-assembled length of #4 braided steel line with -4AN ends and male and female 1/8"NPT adapters to work with most applications.



ALL46110-36 Kit with 36" Line ALL46110-48 Kit with 48" Line ALL46110-60 Kit with 60" Line ALL46110-72 Kit with 72" Line



Steel Brake Line

Steel brake line is available in lengths from 8" to 72" for plumbing brake systems. Standard galvanized zinc coating.



	3/16" Line
Length	with 3/8"-24 Ends
8"	ALL48048
12"	ALL48050
20"	ALL48052
30"	ALL48054
40"	ALL48056
51"	ALL48058
60"	ALL48060
72"	ALL48062

Stainless Steel Brake Line

304 Grade stainless steel line has been double annealed for easier bending and flaring. Pre-made lines exceed SAE and DOT requirements and include standard size stainless flare nuts for years of service and show quality finish.



Length	3/16" Line with 3/8"-24 Ends	1/4" Line with 7/16"-24 Ends
8"	ALL48300	ALL48310
12"	ALL48301	ALL48311
20"	ALL48302	ALL48312
30"	ALL48303	ALL48313
40"	ALL48304	ALL48314
51"	ALL48305	ALL48315
60"	ALL48306	ALL48316
72"	ALL48307	ALL48317

Gravel Guard Brake Line Protector

Guard protects steel and plastic brake lines against possible damage caused by gravel, rocks and other road/ track debris. Zinc coated steel material is placed over tubing or brake line before ends are installed. Sold in 8' long lengths.

ALL48330 3/16" ALL48332 1/4"

Tubing Cutters

Cut plastic, aluminum, copper or steel tubing without distorting or crushing. Standard cutter works with tubing from 1/8" up to 1-1/8" and has wide rollers for even tracking of cutter wheel, built-in reamer for cleaning inside of tubing, and an

ALL11010 Mini ALL11011 Standard

extra cutting wheel. Mini cutter can cut tubing from 1/8" to 5/8" in

Coiled Tubing

Coiled tubing works great for building 1 piece custom fuel lines without unions. Stainless steel tubing is 304 grade and double annealed for easy flaring and bending. Tubing does not include flare nuts (sold separately).

Part No.	Size	Material	Length
ALL48040	3/16"	Steel (Zinc Coated)	25'
ALL48308	3/16"	Stainless	20'
ALL48326	1/4"	Steel (Zinc Coated)	25'
ALL48318	1/4"	Stainless	20'
ALL48327	5/16"	Steel (Zinc Coated)	25'
ALL48328	3/8"	Steel (Zinc Coated)	25'
ALL48322	3/8"	Stainless	20'

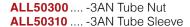
Inverted Flare Nuts

Flare nuts are used for building custom hard brake lines, transmission cooler lines, oil lines, and fuel lines. 3/16" and 1/4" nuts are available to fit most master cylinder and metering/proportioning valve applications. Select proper thread size for line used.

Part No.	Thread Size	Material	Qty.		
Flare Nuts for 3	/16" Line				
ALL50110	3/8"-24	Steel	10-Pack		
ALL50111	3/8"-24	Stainless	10-Pack		
ALL50113	7/16"-24	Steel	2-Pack		
ALL50114	1/2"-20	Steel	2-Pack		
ALL50115	9/16"-18	Steel	2-Pack		
Flare Nuts for 1	Flare Nuts for 1/4" Line				
ALL50116	7/16"-24	Steel	10-Pack		
ALL50117	7/16"-24	Stainless	10-Pack		
ALL50118	1/2"-20	Steel	2-Pack		
ALL50119	9/16"-18	Steel	2-Pack		
Flare Nuts for 5	Flare Nuts for 5/16" Line				
ALL50140	1/2"-20	Steel	10-Pack		
Flare Nuts for 3	Flare Nuts for 3/8" Line				
ALL50142	5/8"-18	Steel	10-Pack		
ALL50143	5/8"-18	Stainless	4-Pack		

Steel Tube Nut and Sleeve

Tube nuts and sleeves are used when making hard line connections to male AN fittings. Line requires a 37° flare for proper sealing. Pack of 4.







ALI 50310

Aluminum Tube Nuts and Sleeves

Aluminum tube nuts and sleeves are used with corresponding hard lines to connect to male AN fittings. Line requires a 37° flare for proper sealing. Pack of 2.

Size (Fe- male)	For Tubing O.D.	Tube Nut	Tube Sleeve
-3	3/16"	ALL50320	ALL50330
-4	1/4"	ALL50321	ALL50331
-6	3/8"	ALL50322	ALL50332
-8	1/2"	ALL50323	ALL50333
-10	5/8"	ALL50324	ALL50334





ALL50330

ALL11010

ALL11011

tight areas.



Double Flare Tool

ALL11015

Double flares 3/16", 1/4", 5/16", 3/8" and 1/2" steel or aluminum and .040" copper tubing at 45°, the most common flare used in custom brake and fuel lines. Includes detailed instructions and a convenient plastic storage case.



ALL48030

Quickly plumb any race car using an Allstar nylon brake line kit. Kit extends from the master cylinder to the caliper and includes 35' of 3/16" line,

Nylon Brake Line Kit



compression ends, unions, tees, and 1/8"NPT fittings. Race proven for years. Not for street use.

Universal Line Clamps

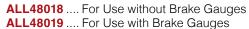
Two-piece aluminum clamps dress up wiring or hard line. Pack of 4.

ALL18320..... 3/16" **ALL18321**..... 1/4" ALL18322..... 5/16" ALL18323..... 3/8"



Deluxe Nylon Brake Line Kits

Deluxe kits feature push lock fittings to ease installation. Kits include 30' of 3/16" line and fittings. Not for street use.



Aluminum Line Clamps

Aluminum clamps have a protective neoprene cushion to prevent abrasion and a 1/4" mounting hole to secure electrical wiring, hoses, or cables to a panel or frame.

Clamp Size	10-Pack	50-Pack
3/16"	ALL18300	ALL18300-50
1/4"	ALL18301	ALL18301-50
3/8"	ALL18302	ALL18302-50
1/2"	ALL18303	ALL18303-50
5/8"	ALL18304	ALL18304-50
3/4"	ALL18305	ALL18305-50
7/8"	ALL18306	ALL18306-50
1"	ALL18307	ALL18307-50
1-1/4"	ALL18308	ALL18308-50



3/16" Nylon Brake Line

ALL48026 10' ALL48027 50' ALL48028 100'



3/16" Nylon Brake Line Compression Fittings











Nylon Line Clamps

Black nylon clamps have a 3/16" mounting hole to secure electrical wiring, hoses, or cables to a panel or frame.

Clamp Size	10-Pack	50-Pack
1/8"	ALL18309	ALL18309-50
3/16"	ALL18310	ALL18310-50
1/4"	ALL18311	ALL18311-50
3/8"	ALL18312	ALL18312-50
1/2"	ALL18313	ALL18313-50
5/8"	ALL18314	ALL18314-50
3/4"	ALL18315	ALL18315-50
1"	ALL18317	ALL18317-50



ALL48032 1/8"-27NPT Male to 3/16" Straight ALL48033 1/8"-27NPT Male to 3/16" 90°

ALL48034 3/16" Union

ALL48035 3/16" Tee, All Compression

ALL48036 3/16" Captured End Caps, 10-Pack

3/16" Nylon Brake Line Push-Lock Fittings



ALL48020



ALI 48021





ALI 48022

ALL48020 1/8"-27NPT Male to 3/16" **ALL48021** 1/8"-27NPT Female to 3/16" ALL48022 3/16" Tee, All Push-Lock

ALL48023 3/16" Tee, Two Push-Lock and One 1/8"-27NPT Male



Fuel Logs

Fuel logs efficiently provide fuel to most 4150 series Holley style carburetors with 7/8"-20 inlet threads



ALL26153

and standard metering blocks. Choose log with a -8AN male inlet fitting or -8 barbed inlet fitting for use with push lock hose. Logs have 1/2"NPT and 1/8"NPT plugs which can be removed when installing a return line or fuel pressure gauge.

ALL26152 Fuel Log with -8AN Barbed Inlet Fitting **ALL26153** Fuel Log with -8AN Male Inlet Fitting

Fuel Line Kits

Dual-feed fuel line kits include the correct fittings and hoses to properly plumb single carburetor applications when connecting to AN style fitting. Line kits



also include a capped -4AN fitting which can be easily connected to a fuel pressure gauge. Kits are offered with -6AN or -8AN lines and fittings.

		Carb	Red/	
Application	C to C	Thread	Blue	Black
-6 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26154	ALL26164
-8 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26156	ALL26166
-8 Holley (4150 Series)*	9-5/8"	7/8"-20	ALL26159	ALL26169
-8 Holley Ultra HP (4150 Series)	9-5/8"	3/4"-16	_	ALL26165
-8 Holley Dominator (4500 Series)	11-5/8"	7/8"-20	ALL26158	ALL26168
-8 BG Demon	9-5/8"	9/16"-24	ALL26157	ALL26167

^{*}Designed for carburetors with custom metering block including Willy's and KB.

Aluminum Carb Fittings

Convert Holley carburetors with 7/8"-20 threads, Holley Ultra HP with 3/4"-16 ORB threads or BG/Demon style with 9/16"-24 threads to an AN style connection. Anodized aluminum fittings simplify plumbing fuel systems and building custom fuel lines. Fittings sold each.



Blue	Black
ALL50890	ALL50892
ALL50894	ALL50896
ALL50900	ALL50902
_	ALL50907
ALL50901	_
ALL50904	ALL50906
ALL50905	_
	ALL50890 ALL50894 ALL50900 - ALL50901 ALL50904

Vacuum Line

Premium vacuum line resists kinking and is pliable for easy routing. Often used when connecting sensors, vacuum advance units, windshield washers, or replacing existing cracked, leaking vacuum lines. Size indicated is I.D. of hose.

ALL40340 5/32", 5' Long **ALL40341** 5/32", 50' Long **ALL40342** 7/32", 5' Long **ALL40343** 7/32", 50' Long

Fuel Line

Premium fuel line is reinforced to help prevent kinking and is rated up to 50 PSI for use with carbureted applications. Fuel line has many other uses, including connecting PCV valves, coolant



overflow tanks, and vent lines for transmissions and differentials. Line is compatible with gasoline, E-85, diesel, and biodiesel. Size indicated is I.D. of hose.

ALL40350 1/4", 3' Long **ALL40351** 1/4", 25' Long **ALL40353** 5/16", 3' Long **ALL40354** 5/16", 25' Long **ALL40356** 3/8", 3' Long **ALL40357** 3/8", 25' Long

Aluminum Fuel Line

Allstar aluminum fuel line is seamless and available in three diameters. 25' coil.

ALL40180 3/8" Dia. **ALL40185** 1/2" Dia. **ALL40186** 5/8" Dia.



Fuel Cell Hose

Clear vent and filler hose is ideal for Circle Track cars. Sold in pre-cut lengths.

Vent Hose	3'	5'	10'	20'
1" I.D.	ALL40160-3	ALL40160-5	ALL40160-10	ALL40160-20
1-1/4" I.D.	ALL40161-3	ALL40161-5	ALL40161-10	ALL40161-20
1-1/2" I.D.	ALL40162-3	ALL40162-5	ALL40162-10	ALL40162-20

Filler Hose	3'	5'	10'	20'
2-1/4" I.D.	ALL40168-3	ALL40168-5	ALL40168-10	ALL40168-20
2-1/2" I.D.	ALL40170-3	ALL40170-5	ALL40170-10	ALL40170-20

GM T.P.I. Fuel Injection Fittings

Special tube O-ring fittings convert GM Tuned Port Injection fuel systems to -6AN fittings.



ALL50950 TPI Return Fitting, M14-1.50 **ALL50951** TPI Inlet Fitting, M16-1.50

Replacement Component

ALL50910 Sealing Washer for 7/8" Fittings, 10-Pack



Power Steering Hose Kits

Kits include hose and fittings to properly install a remote reservoir style power steering pump to most cars. Steering box fittings are sold rately.



Front Mount Kits - O.E. Style location with pump mounted to front of engine.

ALL48204 Kit for Stock Type Gear Box (Modified, Street Stock)

ALL48200 Kit for Rack and Pinion Steering

Rear Mount Kits - Pump mounted to bellhousing mounted dry sump pumps, fuel pumps, etc.

ALL48201 Kit for Rack and Pinion ALL48205 Kit for Steering Box

Power Steering Hose

The same quality hose included in our power steering hose kits, available in a variety of lengths for building custom power steering lines or making repairs. Hose is suitable for most steering applications.

Pressure Hose

ALL48270-3... -6, 3' Long **ALL48270-6...** -6, 6' Long ALL48270-10. -6, 10' Long ALL48270-15. -6, 15' Long ALL48270-20. -6, 20' Long



ALL48275-3... -10, 3' Long ALL48275-6... -10, 6' Long



Power Steering Hose Ends

The same quality hose ends included in Allstar's power steering hose kits for building custom power steering lines or making repairs. Fittings are suitable for most steering applications.

-6 Hose Ends (Steel)

ALL48271 Straight **ALL48272** 45° ALL48273 90°

-10 Hose Ends (Aluminum)

ALL48276 Straight **ALL48277** 45° ALL48278 90° ALL48279 120°



Power Steering Box Fittings







Allstar fittings convert most power steering boxes and racks to -6AN fitting.

O-Ring Style Fittings

ALL48210*... -6AN Male to M16-1.50 Fitting With O-Ring ALL48211 -6AN Male to M14-1.50 Fitting With O-Ring ALL48212*... -6AN Male to M18-1.50 Fitting With O-Ring ALL48214 -6AN Male to 9/16"-18 Fitting With O-Ring

Non O-Ring Style Fittings

ALL48215 -6AN Male to 5/8"-18 Fitting ALL48217 -6AN Male to 11/16"-18 Fitting

*These are the two most common fittings when O-rings are needed.

Sprint Power Steering Lines



Assembled lines for power steering have -6AN ends ALL48260 and are compatible with high-pressure pumps found in today's sprint cars where standard hose and fittings cannot be used. Lines are lightweight yet strong, weighing less than a standard high-pressure hose assembly. Plumbing is perfect for connection of KSE steering gear to pump. 13-1/2"

ALL48260 Line with Steel Ends and Protective Wrap **ALL48261** Line with Aluminum Ends

Power Steering Supply Line for KSE Gen2 Steering Gear

Gen2 supply line has -10AN aluminum fitting and built specifically for use with KSE Gen2 steering gear. New style hose is very flexible, and will not collapse under suction. Total overall length of hose including fittings is 9".

ALL48262 Hose with 90° End **ALL48263** Hose with 45° End

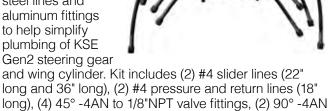
Sprint Wing Line Kit

ALL48006

Kit includes lightweight, coated, braided stainless steel lines and aluminum fittings to help simplify plumbing of KSE

Gen2 steering gear

-4AN fittings.



to 1/8"NPT cylinder fittings, and (2) high-flow -3 ORB to



Grommet Set ALL18360

Grommets are perfect for protecting wiring and hoses that pass through panels up to 1/16" (.062") thick. Kit includes 36 grommets (6 of each size: 1/4", 5/16", 3/8", 1/2", 5/8", and 11/16").

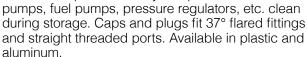


Grommets are also available in size specific 10-packs.

Part No.	Grommet Hole I.D.	Panel Hole I.D.
ALL18362	3/16"	5/16"
ALL18363	1/4"	3/8"
ALL18364	5/16"	7/16"
ALL18365	3/8"	1/2"
ALL18366	1/2"	5/8"
ALL18367	5/8"	7/8"
ALL18368	11/16"	1"

Caps and Plugs

A must for keeping debris out of lines and hoses. Ideal for keeping internal components of dry sump



alaitiii laitii						
Сар	Plug		Thread Size	No. Per Pkg.		
Plastic Cap	Plastic Caps And Plugs					
ALL50801	ALL50811	-3	3/8"-24	20		
ALL50802	ALL50812	-4	7/16"-20	20		
ALL50803	ALL50813	-6	9/16"-18	20		
ALL50804	ALL50814	-8	3/4"-16	20		
ALL50805	ALL50815	-10	7/8"-14	10		
ALL50806	ALL50816	-12	1-1/16"-12	10		
ALL50807	ALL50817	-16	1-5/16"-12	10		
ALL50808	ALL50818	-20	1-5/8"-12	5		
Aluminum	Caps and P	lugs				
ALL50821	ALL50831	-3	3/8"-24	20		
ALL50822	ALL50832	-4	7/16"-20	20		
ALL50823	ALL50833	-6	9/16"-18	20		
ALL50824	ALL50834	-8	3/4"-16	20		
ALL50825	ALL50835	-10	7/8"-14	10		
ALL50826	ALL50836	-12	1-1/16"-12	10		
ALL50827	ALL50837	-16	1-5/16"-12	10		

Cap and Plug Kits

Kits include five of each size, -3 to -16.



ALL50800 Plastic Cap Kit ALL50810 Plastic Plug Kit ALL50820 Aluminum Cap Kit ALL50830 Aluminum Plug Kit

Aluminum Oil Inlet Fittings

Aluminum fittings adapt NPT to AN threads that are commonly used when connecting oil lines, and other applications. Length stated is overall length. ALL90045 features two additional 1/8"NPT ports commonly used when plumbing valve spring oilers.



ALL90044 ALL90045

ALL90048 3/8"NPT to -10AN, 3" Long **ALL90043** 1/2"NPT to -10AN, 3" Long **ALL90044** 1/2"NPT to -12AN, 3" Long **ALL90045** 1/2"NPT to -12AN, 3-1/2" Long (with 1/8"NPT Ports)

Inline Oil Temperature Tees

Install in the oil return line (pump-to-tank) to adapt a probe for an oil temperature gauge. All inline tees have 1/2"NPT threads for probe fittings and 1/4" holes for mounting.

ALL90039 -8AN **ALL90040** -10AN **ALL90041** -12AN **ALL90042** -16AN

Oil Filter Adapters

Oil filter adapters are OE style replacement mounts for securing oil filter to engine block or oil pan when rebuilding or replacing an engine.



ALL92000

ALL92000 1968-96 SB Chevy Including LT1 and 1968-90

Gen IV BB Chevy Engines Aluminum adapter with bypass valve bolts to block and has 13/16"-16 threads to accept oil filter.

ALL92001 Bolt kit for ALL92000
ALL92004 Gen V and VI 1991-Up BB Chevy Engines
Adapter threads into block with 1"-12
threads and has 13/16"-16 threads
to accept oil filter.



ALL92005 2006-2019 LS Series Engines Hex body
adapter threads into oil pan with 20mm x 1.50
thread and has 22mm x 1.50 thread to accept
oil filter (PH10575).

ALL92006.... 1998-2009 LS Series Engines Round body with internal hex adapter threads into oil pan with 20mm x 1.50 thread and has 13/16"-16 thread to accept oil filter (PH3506).



ALL92003

ALL92003 Most SB Ford 302-351W Engines Adapter threads into block with 1-1/16"-12 threads and has 3/4"-16 threads to accept oil filter.

Chevy Billet Oil Filter Adapter

ALL92020

Billet aluminum adapter replaces the stock cast aluminum adapter and eliminates the bypass found in OE adapters.

Adapter fits most 1968-96 SB

Chevy and 1968-90 Gen IV BB Chevy engines, has

Chevy and 1968-90 Gen IV BB Chevy engines, has 13/16-16 threads for spin-on style oil filters and includes mounting hardware.



Overflow Nozzles

Aluminum nozzle acts as a signal to the driver indicating a possible overheating condition as the cooling system pushes out water. Nozzle



ALL30178 ALI 30179

with threaded body mounts in a body panel outside the driver's compartment and is available with a 1/4" barb or a -4AN male fitting.

ALL30178 Nozzle with 1/4" Barb Fitting ALL30179 Nozzle with -4AN Male Fitting

Temperature Gauge Probe Adapters

Aluminum adapters are a nice upgrade from brass adapters and feature a longer length for use in shallow applications when the mechanical temperature gauge probe may contact the inside of a cylinder head or intake manifold. Extra length of fitting will still allow end of probe to protrude into the coolant for accurate readings.

ALL50203 3/8"NPT ALL50204 1/2"NPT

Radiator Overflow Fitting

ALL99312

Commonly used fitting threads into the filler neck of most radiators, allowing connection to an overflow tank. Aluminum fitting has 1/8"NPT threads and accepts a 5/16" hose.

Petcock

ALL99030

Replacement petcock for Allstar breather and overflow tanks is also perfect for draining coolant from engines. 1/4"NPT threads.



Stainless steel constructed band clamps provide a better sealing option over traditional hose clamps in performance applications. Clamps feature a 3/4" wide band and are sold in pairs.



Part No.	Min O.D.	Max O.D.
ALL18344	1-1/2"	1-3/4"
ALL18345	1-3/4"	2"
ALL18347	2"	2-3/8"
ALL18349	2-1/4"	2-5/8"
ALL18350	2-3/8"	2-3/4"
ALL18351	2-3/4"	3-1/4"
ALL18352	3"	3-3/8"
ALL18353	3-1/4"	3-5/8"
ALL18354	3-3/4"	4-1/4"
ALL18355	4-1/4"	4-5/8"

Radiator Hoses

Two-ply coolant hose is flexible and adapts to a variety of applications. Abrasion resistant cover will not crack or harden.



1-1/2" Dia. Upper Hose ALL30200 ... 12" ALL30202 ... 14" ALL30204 ... 15-1/2" ALL30206 ... 17" ALL30208 ... 20" ALL30210 ... 22" ALL30212 ... 25"

1-3/4" Dia. Lower Hose ALL30220 ... 11" ALL30222 ... 13-1/2" ALL30224 ... 16-1/2" ALL30226 ... 19" ALL30228 ... 23-1/2" Hose Clamps (2-Packs): **ALL18334**.... Clamps, Upper Hose ALL18336.... Clamps, Lower Hose

Hose Clamps

ALL30214 ... 30"

Heavy-duty all stainless steel clamps are easily tightened with a deep-slot hex-head screw. Superior to standard hardware store clamps. For best connection, select the clamp which fits within the range of hose O.D.

Part No.	Min Hose O.D.	Max Hose O.D.		
2-Pack				
ALL18330	1/4"	5/8"		
ALL18332	1/2"	1-1/8"		
ALL18334	1"	2"		
ALL18336	1-5/16"	2-1/4"		
ALL18338	1-9/16"	2-1/2"		
ALL18340	1-5/8"	3-1/2"		
ALL18342	2-5/8"	4-1/2"		
10-Pack				
ALL18330-10	1/4"	5/8"		
ALL18332-10	1/2"	1-1/8"		
ALL18334-10	1"	2"		
ALL18336-10	1-5/16"	2-1/4"		
ALL18338-10	1-9/16"	2-1/2"		

Power Grip Clamps

Gates Power Grip Clamps seal when heated with a standard heat gun, forming a tight band around stan-

dard rubber and silicone coolant hoses



to provide a secure connection, even under harsh race conditions. Installed clamps provide a smooth, flush fit around hoses and eliminate exposed sharp edges associated with standard hose clamps. Select the band clamp which fits within range of hose O.D. for best connection. Sold each.

Part No.	Min Hose O.D.	Max Hose O.D.
ALL30250	1/2"	11/16"
ALL30251	11/16"	13/16"
ALL30252	13/16"	15/16"
ALL30253	15/16"	1-1/16"
ALL30254	1-1/16"	1-3/16"
ALL30255	1-3/16"	1-1/2"
ALL30256	1-1/2"	1-3/4"
ALL30257	1-3/4"	2"
ALL30258	2"	2-1/4"

Note: Clamps are not designed for use with flammable liquids or fuel line connections.



Performance SBC Fuel Pumps with AN Fittings

Lightweight die-cast three valve pump is great for use with Sportsman type engines up to 700HP and 8,000 RPM. Pump features AN style inlet and outlet fittings for easy plumbing. Lower section is clockable every 30° to fit most

applications. Pump is rated at 45 GPH @ 7–8.5 PSI and does not require an external fuel pressure regulator.

ALL40266 -8AN Inlet / -8AN Outlet **ALL40267** -10AN Inlet / -8AN Outlet

Replacement Component ALL50915 -8AN Fitting ALL50916 -10AN Fitting

Performance Fuel Pumps

Die-cast aluminum pumps for performance SBC engines feature heat-treated levers, anti-float springs and clockable inlet and outlet for easy installation and plumbing. Great for performance applications. Designed to be used without fuel pressure regulators but are recommended.

ALL40256 1/4" NPT Ports 7-8.5psi 120gph **ALL40257** 3/8" NPT Ports 6.5-8 psi 110gph **ALL40258** 3/8" NPT Ports 7.5-9psi 130gph

Sportsman 2-Valve Fuel Pumps

Pumps with aluminum housings have 1/4"NPT inlet/outlet fittings, heavy-duty diaphragms, anti-float springs, and "clockable" lower base for rotation of inlet and outlet. Pumps deliver 6-1/2 to 8 PSI with 80 GPH free flow.

ALL40260 SB Chevy **ALL40261** BB Chevy **ALL40262** SB Ford



ALL40320

High-flow, low-pressure electric fuel pump equipped with a 5/16" inlet/outlet. The pump flows 18 gph at 4.0 PSI, 5.5 PSI maximum. Includes a rubber padded mounting bracket and two heavy duty hose clamps. Rated 12V/5 amps. Overall length is 5-1/2" x 1-1/2" wide.

Bracket for Compact Electric Fuel Pump ALL40322

Bracket mounts our popular electric fuel pump ALL40320 with 1-1/2" O.D. to 1-1/8" chassis tubing, commonly used on mini-sprint cars.



Fuel Pressure Regulator ALL40290

Regulator is commonly placed between the fuel pump and carburetor to regulate fuel pressure when using mechanical or electric fuel pump, this is often referred to as a "Dead Head" style regulator as it does not require a return line back to fuel tank. The two-piece aluminum body uses a single 3/8"NPT inlet port on the bottom, two 3/8"NPT side outlet ports and a 1/8" NPT port for mounting a fuel pressure gauge or sender line. Regulator is gasoline, ethanol, and E85 compatible for 4.5 to 14 PSI systems and includes a steel mounting bracket. Not methanol compatible.

Replacement Component ALL99430 Rebuild Kit

Aeromotive Fuel Pressure Regulator Bracket for Dirt Late Models

ALL54298

Specifically designed for use with Aeromotive double adjustable fuel pressure regulator #AFS13214 commonly used on dirt late models. Mount is typically bolted to the front deck bracing behind the engine.

Fuel Pressure Regulator Brackets

Billet aluminum brackets will mount four different style regulators. Hardware included. Silver in color.

Regulator	4150 Carb	4500 Carb
Aeromotive	ALL54280	ALL54282
Holley	ALL54284	ALL54286
Magnafuel	ALL54288	ALL54290
Mallory	ALL54292	_



SB Chevy Fuel Pump Mount Plate ALL40254

O.E. style plate replaces lost or missing mounting plate required to mount mechanical style fuel pump to most small block Chevrolet engines. Clear zinc-plated finish may also be painted to match original appearance. Mounting hardware included.

SB Chevy Fuel Pump Block-Off Plate

ALL40255

Plate covers mechanical fuel pump engine opening on most small block Chevrolet when omitting a mechanical style fuel pump. Plate is often used when converting to electric or belt driven fuel pumps. Clear zinc-plated finish may also be painted.



Billet Fuel Pump Block-Off Plates

CNC-machined billet aluminum plates cover the mechanical pump opening in the engine block and include a gasket and stainless steel fasteners.

3	1	h
		900
	Pod	Black

Description	Blue	Clear	Red	Black
SB Chevy	ALL40300	ALL40301	ALL40302	ALL40306
BB Chevy,				
SB/BB Ford [†] ,	ALL40303	ALL40304	ALL40305	ALL40307
SB/BB Chrysler				

†Will not fit Ford 351C, 351M-400.



Inline Aluminum Fuel Filters

Black anodized, high-flow inline filters are available with no element or with a stainless or paper element. Filter elements are 8" long and fit in a 9" housing. Overall length is 12" and outside diameter is 2". Filter flows enough fuel for any race car. Filters including stainless element have a 63 micron filter and are compatible with E-85 and methanol fuels.



	With Paper	With Stainless	Without
Fitting Size	Element	Element	Element
-6AN Ends	ALL40238	ALL40239*	ALL40243
-8AN Ends	ALL40216	ALL40218*	ALL40244
-10AN Ends	ALL40217	ALL40219*	ALL40245
-12AN Ends	ALL40240	ALL40242*	ALL40246

^{*} Compatible with E-85 fuels.

Inline Aluminum Fuel Filters with Shut-off Valve



Our popular inline filter assembly combined with our shut-off valve in one package. The shut-off valve is assembled on the inlet side of the filter assembly which allows shutting the fuel off to the filter and the remaining portion of the fuel system for maintenance and safety during transportation. Filter assembly is sold without element.

ALL40196 -6AN Ends **ALL40197** -8AN Ends ALL40198 -10AN Ends ALL40199 -12AN Ends **Replace Components:**

ALL40223 ... -6 AN End Cap **ALL40224** ... -8 AN End Cap **ALL40226** ... -10 AN End Cap **ALL40225** ... -12 AN End Cap

ALL40236 ... Spring

ALL40237 ... O-Ring, 2-Pack

Fuel Filter Elements

Fuel filter elements are 8" long and are direct replacements for our in-line fuel filers.

ALL40220 Paper (10 Micron) ALL40222*... Stainless Steel (63 Micron) ALL40221*... Stainless Steel (100 Micron)

Fuel Filter Brackets

Brackets mount Allstar inline aluminum fuel filters to round or square tubing and flat surfaces. Flush mount bracket fastens to flat panels like a frame rail or firewall. A locking set screw holds filter in place. Brackets for round and square tubing clamp with caps secured by Allen head screws. Sold each.

Part No.	Tubing Size	Tubing Shape
ALL40229	1-1/4"	Round
ALL40227	1-3/8"	Round
ALL40228	1-1/2"	Round
ALL40230	1-3/4"	Round
ALL40232	2" x 2"	Square
ALL40235	Flush Mount	_



ALL40235



2-Piece Fuel Filter Brackets

Brackets are a two-piece design that clamps our 2" O.D. in-line style fuel filter directly to the chassis tubing. Bracket secures filter to the tubing but

does not fit completely around chassis tubing for applications when decking or sheet metal is mounted directly against the tubing. Sold each.

ALL40190 1-1/8" ALL40191 1-1/4" ALL40192 1-1/2" ALL40193 1-3/4"

Fuel Line Check Valve

ALL40208

Valve is placed in-line near the fuel cell to prevent fuel from free-flowing in the event of an accident that damages the fuel pump or fuel line. The suction action of the fuel pump overrides the internal spring which opens the valve allowing fuel to flow without restriction. Valve accepts -10 ORB style fittings.

Fuel Filter Shut-Off Valve

ALL40210

Valve installs on the inlet end of our inline aluminum fuel filters allowing fuel to be shut-off for maintenance or safety reasons. Ball style shut-off features a lever with a 1/4"-20 threaded hole for mounting a ball stud or securing a rod end for use with remote shut off.

Hi-Flow Chrome Fuel Filter

ALL40250

Canister-type filter has 3/8"NPT inlet and outlet, a replaceable 10 micron element, and 90 GPH flow.

Replacement Component

ALL40251 Filter Element and Seals



^{*} Compatible with E-85 fuels



Adjustable Fuel Logs

Adjustable fuel logs feature over 4" of adjustment to work with a variety of dual inlet carburetors. Black anodized aluminum



log has a -8AN x 3/4"-16 ORB fuel inlet and a 3/8" NPT plug in rear port that can be removed to install a return line or fuel pressure regulator.

ALL26150 Fuel Log with 7/8"-20 Fitting (Standard Holley) **ALL26151** Fuel Log with 3/4"-16 ORB Fitting (Holley Ultra HP)

Fuel Logs

Fuel logs efficiently provide fuel to most 4150 series Holley style carburetors with 7/8"-20 inlet threads and standard metering



blocks. Choose log with a -8AN male inlet fitting or -8 barbed inlet fitting for use with push lock hose. Logs have 1/2"NPT and 1/8"NPT plugs that can be removed to install a return line or fuel pressure gauge.

ALL26152 Fuel Log with -8 Barbed Inlet Fitting **ALL26153** Fuel Log with -8AN Male Inlet Fitting

Shockproof Pressure Gauges

1-1/2" diameter gauges are constructed using reliable brass internal parts and have a 1/8"NPT male fitting on the backside of the gauge. Dry gauges feature a chrome-plated steel housing, while glycerin-filled gauges feature a stainless steel housing helping to dampen the effect of pulsation and pressure spikes of the gauge needle.





ALL80200

ALL80216

Description	Glycerine Filled	Dry Type
0-15 PSI	ALL80200	ALL80210
0-30 PSI	ALL80202	_
0-60 PSI	ALL80204	ALL80214
0-100 PSI	ALL80206	ALL80216
0-1,500 PSI	ALL80208 (NOS)	ALL80218

Aluminum Carb Fittings

Convert Holley carburetors with 7/8"-20 threads, Holley Ultra HP with 3/4"-16 ORB threads or BG/Demon style with 9/16"-24 threads to an AN style connection. Anodized aluminum fittings simplify plumbing fuel systems and building custom fuel lines. Fittings sold each.



Fittings with:	Blue	Black
Female -6AN End Holley (7/8"-20)	ALL50890	ALL50892
Male -6AN End Holley (7/8"-20) Short	ALL50894	ALL50896
Female -8AN End Holley (7/8"-20)	ALL50900	ALL50902
Female -8AN End Holley HP (3/4"-16 ORB)	-	ALL50907
Female -8AN End BG/Demon (9/16"-24)	ALL50901	_
Male -8AN End Holley (7/8"-20) Short	ALL50904	ALL50906
Male -8AN End Holley (7/8"-20)	ALL50905	_

Replacement Component

ALL50910 Sealing Washer for 7/8" Fittings, 10-Pack

Fuel Line Kits

Dual feed fuel line kits include the correct fittings and hoses to properly plumb single carburetor applications when connecting to AN style fittings. Line kits also include a capped -4AN fitting which can be easily





connected to a fuel pressure gauge. Kits are offered with -6AN or -8AN lines and fittings.

Application	C to C	Carb Thread	Red/ Blue	Black
-6 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26154	ALL26164
-8 Holley (4150 Series)	9-5/16"	7/8"-20	ALL26156	ALL26166
-8 Holley (4150 Series)*	9-5/8"	7/8"-20	ALL26159	ALL26169
-8 Holley Ultra HP (4150 Series)	9-5/8"	3/4"-16	-	ALL26165
-8 Holley Dominator (4500 Series)	11-5/8"	7/8"-20	ALL26158	ALL26168
-8 BG Demon	9-5/8"	9/16"-24	ALL26157	ALL26167

^{*}Designed for carburetors with custom metering block including Willy's and KR

GM T.P.I. Fuel Injection Fittings

Special tube O-ring fittings convert GM Tuned Port Injection fuel systems to -6AN fittings.



ALL50950 TPI Return Fitting, M14-1.50 **ALL50951** TPI Inlet Fitting, M16-1.50

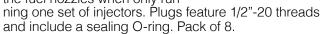


Down Nozzle Filter with Breather Ring ALL40325

Filters allow excess fuel to evacuate the injection lines once engine is shut down to help prevent fuel from entering the cylinders. Low-profile filter design reduces the chance of damage. Pack of 8.

Nozzle Plugs ALL40327

Nozzle plugs take the place of the fuel nozzles when only running one set of injectors. Plugs feat



Nitrous Bottle Warmer

ALL76428

Nitrous bottle warmers are the right way to safely obtain correct pressure in colder weather. Wrap around design evenly distributes heat on the bottle, eliminating hot spots. 12-16-volt warmers are designed to work w

spots. 12-16-volt warmers are designed to work with ALL76197 and ALL76198 pressure control kits. Bottle warmer measures 19" x 6" and includes adjustable straps to fit most 5-, 10-, and 15-lb. bottles.

Nitrous Pressure Control Kits

Kit simplifies installation of a bottle warmer and helps maintain a consistent pressure when using a bottle warmer. 12V kit



includes an adjustable pressure switch which controls the bottle warmer.

ALL76197..... Kit with -4AN Line Adapter ALL76198..... Kit with -6AN Line Adapter









Burst Panel Components

Burst panel is designed to blow open or release excessive manifold pressure in the event of an internal engine explosion, helping to prevent costly supercharger and body damage. Panel meets SFI 23.1 specifications and is commonly used on supercharged, alcohol injected engines, mounting directly to the intake manifold or supercharger (screw type only). Outer frame deflectors will direct force away from car.

ALL26310 Burst Panel, Large (3-1/8" x 6-1/8")

ALL26311 Outer Burst Panel Frame

ALL26314 Outer Burst Panel Frame with Deflector

ALL26313 Inner Burst Panel Frame (used when manifold has an open plenum without burst panel

support)

ALL26315 Fastener Kit 10-24 x 3/4", 24-Pack (for use with panel and outer frame or deflector)

ALL26316 Fastener Kit 10-24 x 1", 24-Pack (for use with panel, inner frame, and outer frame or deflector)

Carb Hats

Carburetor hats are ideal to cover open carbs and prevent debris from falling into the engine while working in garage or pit area while the air cleaner is removed. 2-1/2" tall carb hats are designed to fit most carbs or throttle



ALL26043

ALL26044

ALL26040 Plastic

ALL26042 Plastic with Screen

bodies with a 5-1/8" diameter neck.

ALL26043 Aluminum

ALL26044 Aluminum, with Sealing O-Ring

Note: Hats will not clear choke linkage or shaft on Holley style carbs but will clear choke horn with choke linkage and shaft removed.

Dominator Carb Hat ALL26041

Plastic carb hat is 2-3/8" tall and fits over the 7-1/4" air cleaner opening of Holley

Dominator carburetors to prevent water or debris from entering the engine. Solid cover may be drilled when an air cleaner stud is used.

Drag Race Only Carburetor Spacers

Specially designed for drag race applications to isolate carburetor from manifold, spacers prevent horsepower-robbing heat transfer and increase the distance from the bottom of the carburetor to the manifold plenum for better air flow. Spacers are CNC-machined in the U.S. from a polymer compound able to withstand temperatures up to 400°F. Available in open or four hole versions for 4150 and 4500 series Holley and Holley style carburetors in 1/2", 1", and 2" heights. Tapered four-hole spacers have specially contoured holes to increase air velocity under the carburetor.

Not intended or recommended for street or circle track use.

4	4150 Series		4500 Series	
Part No.	Description	Part No.	Description	
ALL25980	Open, 1/2"	ALL25990	Open, 1/2"	
ALL25981	Open, 1"	ALL25991	Open, 1"	
ALL25982	Open, 2"	ALL25992	Open, 2"	
ALL25983	4-Hole, 1/2"	ALL25993	4-Hole, 1/2"	
ALL25984	4-Hole, 1"	ALL25994	4-Hole, 1"	
ALL25986	Tapered 4-Hole, 1"	ALL25996	Tapered 4-Hole, 1"	

Carb Drain/Primer Bottle ALL40091

Durable plastic 8-oz. squeeze bottle is ideal to assist draining and priming carburetors when making jet changes. Cap has an angled filler tube with a tapered tip that fits easily into the vent tube of the carburetor to refill fuel bowl.

Primer Bottle ALL40090

Durable plastic squeeze bottle is ideal for priming alcohol engines. Cap has an angled filler tube, with tapered tip that easily fits into the vent tube of carburetor fuel bowl. 16-oz. capacity.

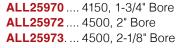




ALL25970

Carb Shear Plates

Carb plates with built-in shear design help maximize performance on race engines with a large amount of cam overlap by creating a dam under the throttle plates, helping to build low pressure while improving vacuum signal to the carb. 1/2" tall plates are machined from 6061-T6 aluminum and clear anodized to protect against corrosion. Bottom View



Carburetor Gaskets

ALL87200 4150 Open ALL87202 4150 4-Hole ALL87204 4412 2-Hole, 2bbl.

ALL87206 4500 Open, Dominator

Carburetor **Hold Down Nuts**

Easily remove these hold down nuts with a 1/4" extension. The spring ball on your extension holds the nut in place, no wrench or socket needed! Pack of 4.

ALL26324 5/16"-18 Coarse-Thread Nuts ALL26326 5/16"-24 Fine-Thread Nuts

Angled Carb Spacer

ALL25975

For Dirt Late Models and Modifieds, spacer is angled downward, toward left front. to correct hesitation caused by poor fuel distribution as



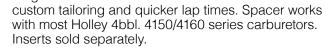
car "rocks up". Four-hole design enhances carb signal to improve throttle response and increase torque.

Angled Restrictor Plate

ALL25977

Four-hole aluminum spacer angles the carburetor left and to the rear so the carb is closer to level when in race attitude. Spacer accepts 1/2" or 1" tapered inserts which can be

changed quickly by removing the carb. Inserts restrict air/fuel entry and reduce power slightly to prevent wheel spin and range in size from 0.950" to 1.400" for



Restrictor Plates

The "Governor" is a four-hole aluminum spacer that accepts tapered inserts which can be changed quickly by removing the carb. Inserts restrict air/fuel entry and reduce power slightly to prevent wheel spin and range in size from 0.950" to 1.400" for custom tailoring and quicker lap times. Spacer works with most Holley 4bbl. 4150/4160 series carburetors. Inserts sold separately.

ALL26180

ALL26180 1/2" Restrictor Plate ALL26060 1" Restrictor Plate

Restrictor Plate Inserts

Tapered inserts are machined to be within .002' for precise tuning. Inserts feature a step to simply drop into spacers and have sizes engraved on each insert for easy identification. Sold in a set of 4.

For 1/2" Restrictor Plate	
Part No.	Size
ALL26181	0.950"
ALL26182	1.000"
ALL26179	1.050"
ALL26183	1.100"
ALL26184	1.150"
ALL26185	1.200"
ALL26186	1.250"
ALL26187	1.300"
ALL26188	1.350"
ALL26189	1.400"

For 1" Re	For 1" Restrictor Plate	
Part No.	Size	
ALL26061	0.950"	
ALL26062	1.000"	
ALL26059	1.050"	
ALL26063	1.100"	
ALL26064	1.150"	
ALL26065	1.200"	
ALL26066	1.250"	
ALL26067	1.300"	
ALL26068	1.350"	
ALL26069	1.400"	

Full Throttle Non-Restricting Inserts

ALL26190

Inserts are used in place of restricting inserts allowing full throttle operation without restriction, commonly used when qualifying or when track conditions allow for more power. Insert design provides a smooth transition over simply removing the restrictor inserts. Sold in a set of 4.

Restrictor Plate In-Use Tab

ALL54201

ALL26191

Reminder tab fits under a carburetor mounting stud nut to identify if restrictors are installed. Remove or flip over when not in use. Light red plastic tab fits 5/16" studs and measures 5/8" wide x 1-1/4" long.

Throttle Return Spring Brackets

Billet aluminum bracket can be used with cable or mechanical linkage. Bracket fastens to carb mounting studs and includes dual stainless steel return springs which are adjustable for tension. A specially designed

return spring arm attaches to the carb for simplified installation and smooth operation. Low profile design clears most air cleaner assemblies.

Carb Size	Clear	Black
4150/Edelbrock	ALL54200	ALL54202
4500	ALL54201	ALL54203

Note: Longer carburetor studs will be required to accommodate bracket.



Adjustable Throttle Brackets with Return Springs

Billet aluminum throttle bracket securely mounts and holds throttle cable in place.

Bracket fastens to carb mounting studs and includes dual stainless steel return springs which are adjustable for tension. Specially designed return spring arm attaches to the carb for simple installation and smooth operation. Low profile design clears most air cleaner assemblies. Optional transmission kickdown brackets mount to the underside of throttle cable brackets.

Carb Size	Cable Style	Clear	Black
4150/Edelbrock	GM	ALL54210	ALL54211
4150/Edelbrock	Lokar	ALL54214	ALL54215
4150/Edelbrock	Morse	ALL54218	ALL54219
4150/Edelbrock	Ford	ALL54222	ALL54223
4150/Edelbrock	Mopar	ALL54224	ALL54225
4500	GM	ALL54226	ALL54227
4500	Lokar	ALL54230	ALL54231
4500	Morse	ALL54234	ALL54235
4500	Ford	ALL54238	ALL54239
4500	Mopar	ALL54240	ALL54241

Note: Longer carburetor studs will be required to accommodate bracket.

Transmission Kickdown Brackets

Kickdown bracket attaches to the bottom of Allstar's adjustable throttle brackets. Fully adjustable to achieve correct cable setting.

ALL54276 GM Style, Clear ALL54277 GM Style, Black ALL54278 Lokar Style, Clear ALL54279 Lokar Style, Black



ALL54185

Circle Track Throttle Return Spring Brackets

Black anodized aluminum bracket fastens to the carbu-

retor mounting studs and features a larger opening specifically designed for use with mechanical linkage found on many circle track cars. The larger opening allows throttle linkage to be routed from underneath to help prevent clearance or interference issues. Dual return springs are connected to a universal return spring bracket to work with most carburetors. Brackets include a built-in adjustable throttle stop to help prevent damage to carburetor.

ALL54185 Bracket for 4150 Series 4bbl. ALL54186 Bracket for 4412 Series 2bbl.



Mike Stanton

Scoop Tray Mounts

Scoop tray mounts offer an all in one solution to mount a scoop tray, throttle, and nitrous solenoids. Mounts provide a clean look, eliminating the need to use multiple brackets, mounts and gaskets. CNC machined from 6061 aluminum, black anodized.

ALL54302 4150 (1.755" Bore) **ALL54304** 4500 (2.375" Bore)

Wide Open Throttle Microswitch Brackets

Black anodized microswitch brackets are made from lightweight billet aluminum and work with the standard secondary arm as well as a throttle adjustment-screw sec-

ondary arm. ALL54180 includes stainless hardware for mounting bracket to carburetor. ALL54181 mounts to an existing carb stud.

ALL54180 WOT Microswitch and Bracket for 4150 Carbs*
ALL54181..... WOT Microswitch and Bracket for 4500 Carbs
ALL54182 Microswitch Only

*Some model carbs may require mounting bosses be 8-32 tapped for installation.

Throttle/Shifter Cables

Cables have many uses including use as a throttle cable or as a shifter cable for many applications. Cables have 7/16" mounting threads, #10-32 RH cable ends and 3" of travel.

Part No.	Overall Length	Mount to MountLength
ALL54142	43"	29" +/- 1"
ALL54145	60"	45" +/- 1"

Morse Cable Half Clamp

ALL18325

Aluminum clamp fits over groove in non-threaded Morse style cables with a 3/8" housing to secure cable in place. Clamps feature a #10 (3/16") mounting hole. Sold each.



Return Spring Brackets

Kits are replacement hardware found on Allstar throttle brackets or may be used when building custom return spring brackets.

ALL54194 4150, Clear **ALL54195** 4150, Black **ALL54196** 4500, Clear **ALL54197** 4500, Black

ALL54193 Return Springs Only, (2)





Aluminum Throttle Linkage with Return Spring Kit

Linkage kit includes a throttle linkage with 1/4" rod ends for smooth operation and a

return spring kit for

2300 2bbl./4150 4bbl. Holley style carburetors. Return spring kit includes correct stepped bushings, mounting hardware, and heavy and light rate return springs. Throttle rod is easily formed to fit many applications and may be shortened and re-threaded using a 1/4"-28 tap.

ALL54158 Kit with 24" Throttle Linkage ALL54178..... Kit with 36" Throttle Linkage

Individual Components

ALL54159 Throttle Linkage with Rod Ends 24" ALL54179..... Throttle Linkage with Rod Ends 36" ALL54168 Return Spring Kit

Steel Throttle Linkage Kit ALL54170 ALL54171

Linkage kit includes a 26" steel rod with a disconnect that speeds up carb changes and servicing. The kit includes 1/4" hardware for mounting to carburetor and throttle pedal.

ALL54170..... Kit with Quick Disconnect and Rod End ALL54171..... Kit with Two Quick Disconnects ALL54172..... Throttle Ball Stud Kit

Aluminum Throttle Linkage Kit with Quick Disconnects

Kit features quick disconnects on each end to help provide easy carb changes

without the

need of

wrenches. The kit includes a 24" long 3/8" linkage that is pre-formed

with a 4" drop to clear carb bracket and air cleaner base and has 10" of 3/8"-24 threaded area that allows linkage to be cut to desired length as needed. Carb stud kit is also available separately to set-up additional carbs with quick disconnect connection.

ALL54188 Complete Kit ALL54189 Carb Stud Kit

Quick-Release Ends

Quick-release ends are used when a connection needs to be removed and installed often. Steel constructed housing has a spring loaded release to keep housing secure to pivot ball.



ALL54147..... #10-32 With #10-32 And 1/4"-28 Studs ALL54149..... 1/4"-28 With 1/4"-28 Stud

Carb Mount Return Spring Kit

ALL54168

Kit includes chrome plated steel bracket, springs, bushings and hardware to fit a variety of applications.



Return Spring Bushing Kit

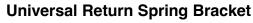
ALL54165

This kit includes a double stepped bushing that acts as a reducer bushing for carb lever and a bushing for return spring tab to pivot on reducing the amount of spacers needed for mounting carb linkage. Bushing kit includes correct length bolt and lock nut for mounting linkage with a 1/4" rod end.

Throttle Bushing Kit

ALL54164

Aluminum bushings are stepped for clearance and adapt from 1/2" to 1/4" holes.



ALL54167

Chrome-plated steel bracket provides mounting location for return spring.



Universal Return Spring Kit

ALL54166

Kit includes two springs and mounting bracket.

Return Springs

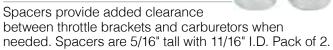
ALL54163

Universal springs for carburetor

are 11-1/2" long unextended. Pack of 2.

Carb Stud Spacers

ALL99388







Throttle Pedals



Pedals can be pulled back if throttle binds or return spring fails. Side mount pedals are available as standard or roller design for smoother throttle control. Firewall mount pedal is used on race cars with flat or stock type firewalls.

ALL54100 Standard ALL54101..... Roller ALL54107 Firewall Mount

Adjustable Throttle Pedals

Fully adjustable aluminum pedals are available for straight or angled foot box panels. Bronze bushings and nylon rollers provide smooth operation. Linkage arm has 1/4" holes spaced every 1/2"

for adjustment of throttle linkage.

ALL54098 Straight ALL54099 Angled



Adjustable Idle Kit

ALL54154

Need cold start help to keep your race car running and get it warmed up? This kit allows you to adjust your idle speed from inside the cockpit! All items mount inside the foot box to stay clean and away from the carb itself! Designed to work

n arb ork

with throttle pedals that have a flat surface on the arm, like Allstar ALL54098, bracket bolts to the foot box and adjusts against the top arm of the throttle pedal. Once your car is started, simply turn the adjustment knob to the desired idle setting. Kit is complete with adjustment knob, 5' cable assembly, mounting bracket and hardware. Throttle pedal sold separately.

Floor Mounted Throttle Pedal Kit



Floor mount pedal offers a smooth, natural feel to maximize throttle control and comfort. Complete kit includes a pedal with a built-in return spring and throttle stop, universal firewall bell crank assembly and two 24" throttle rods with rod ends and mounting hardware.

Firewall bell crank assembly requires welding to match the firewall angle and throttle rods will need to be cut and threaded to your specific lengths.

Individual Components

ALL54104 Pedal Only

ALL54105 Throttle Cross Shaft ALL54159 Linkage Rod Only

Heel Riser

Aluminum heel risers are drilled for easy mounting and include a non-skid pad. 4-1/2" wide.

ALL54090 1" Tall Riser **ALL54091** 1-1/2" Tall Riser



Heel Riser Rest

ALL54092

Aluminum bracket is 1" tall and rivets to heel risers to help keep foot in place on the riser.



Sprint Car Throttle Pedals

Pedals fit most sprint chassis with pivot spud welded on frame rail.



ALL54094 Titanium **ALL54095** 4130 Chrome Moly



Fuel Cell Cap and **Bolt-In Bung Kits**

Billet aluminum neck looks good and provides a positive seal. The filler neck is raised to help prevent dirt and debris from falling into cell, causing fuel system contamination, while the large 3" opening helps when refueling. Kit includes mounting hardware.

ALL40133 12-Bolt JAZ/RCI w/Red Cap ALL40134 6-Bolt JAZ w/Red Cap ALL40136 12-Bolt JAZ/RCI w/Black Cap

ALL40137 6-Bolt JAZ w/Black Cap



ALL40136

Fuel Cell Mounting Bracket

ALL60063

Steel bracket is radiused to fit 1-1/2" tubing and has (8) 3/8" holes on 1/2" centers. Bracket is .085" thick and 1-1/2" wide x 4-3/4" tall.

Fuel Cell Mounting Brackets

Steel brackets are .125" thick, 1-3/4" wide and available in three lengths. All have 3/8" holes.

ALL60060 2" Long ALL60061 3" Long ALL60062 4-3/4" Long





Drum/Barrel Pump

ALL40114

Hand-siphon drum pump dispenses or transfers low-viscosity fluids from a 55-gallon drum. Self-priming bulb delivers up to 5 gallons per minute. Compatible with gasoline, methanol, and nitro methane.

Drum Pump Kit for Utility Jugs

Easily transfer low-viscosity fluids from most popular utility jugs without lifting a heavy jug by converting jug into a hand pump unit. Kit includes a cap and hand pump to replace the original utility jug cap. Individual cap may be purchased separately when using an existing pump. Pump siphon tube will need to be cut to length depending on the size of jug used.



ALL40117..... Kit for VP Jugs

ALL40118..... Cap Only for Allstar/Scribner/Sunoco Jugs

ALL40119..... Cap Only for VP Jugs

Redhead Dry Break Valves

Safe and effective method for refueling prevents fluid loss. Spring-loaded female receptacle mounts in a





variety of locations and automatically closes when male dry break is removed. Female dry break accepts 2-1/2" fuel hose. Male dry break accepts 2-1/4" fuel hose.

ALL40213 Female ALL40215 Male

Replacement Components

ALL99028 Seal Kit for ALL40213 ALL99029 Seal Kit for ALL40215

Overflow Check Valves

Valves are 9-3/4" long and available in two styles. Use with overflow catch can.

ALL40200 1" Flapper Style **ALL40201** 1-1/4" Flapper Style ALL40203 1-1/4" Spring-Loaded



ALI 40200

Fuel Cell Hose

Clear vent and filler hose is ideal for Circle Track cars. Sold in precut lengths.



Vent Hose	3'	5'	10'	20'
1" I.D.	ALL40160-3	ALL40160-5	ALL40160-10	ALL40160-20
1-1/4" I.D.	ALL40161-3	ALL40161-5	ALL40161-10	ALL40161-20
1-1/2" I.D.	ALL40162-3	ALL40162-5	ALL40162-10	ALL40162-20

Filler Hose	3'	5'	10'	20'
2-1/4" I.D.	ALL40168-3	ALL40168-5	ALL40168-10	ALL40168-20
2-1/2" I.D.	ALL40170-3	ALL40170-5	ALL40170-10	ALL40170-20

Funnels

Heavy-duty plastic funnels are perfect for topping off fuel or other liquids. Available in several sizes.



ALL40100 6-Qt. Funnel with Brass Screen ALL40102 2-Qt. Funnel with Brass Screen ALL40104 1-Pint Funnel with Brass Screen





Wheel Hub Kits

Wheel hub kits for 2-1/2" pin GN style axle tubes are a popular choice for modifieds and street stocks. Kits include a steel hub with a built-in rotor ring for most popular



8-bolt brake rotors and 5/8-11 x 2" wheel studs, a 24-spline drive flange, inner and outer wheel bearings with races installed, hub seal, brake rotor bolt kit and double-sided lug nuts. Spindle nut kit sold separately.

ALL68806 5 x 5" Bolt Circle **ALL68807** 5 x 4-3/4" Bolt Circle

Related Components

ALL72173..... Locking Spindle Nut Kit **ALL72177**..... Steel RH Spindle Nut

32 Vane Non-Directional Brake Rotor ALL42010

Popular 8-bolt brake rotor is commonly used on the rear of modifieds and stock cars and features a 32 non-directional vane design which allows this rotor to be used on either side of the vehicle. Rotor measures 11.75" x .810" wide and weighs just 8 lbs.

See Brake section for other Hub/Rotor products!





Wheel Bearings and Races

Tapered roller wheel bearings and bearing races are direct replacements for many popular applications. REM finished bearings and races feature a special polished finish for reduced drag over standard bearing/race combinations.

Description	Inner Bearing	Inner Race	Outer Bearing	Outer Race
Standard				
Wide 5	ALL72215	ALL72230	ALL72245	ALL72255
5x5 2" Pin	ALL72200	ALL72260	ALL72200	ALL72260
5x5 2-1/2" Pin	ALL72210	ALL72225	ALL72210	ALL72225
Ford Granada, Mustang II, Hybrid	ALL72270	-	ALL72274	-
GM Metric 1979-81 Monte Carlo, etc.	ALL72275	-	ALL72277 [†]	-
GM Metric 1982-88 Monte Carlo, etc.	ALL72275	-	ALL72278‡	-
Timken				
Wide 5	ALL72217	_	ALL72247	_
5x5 2" Pin	ALL72202	_	ALL72202	_
5x5 2-1/2" Pin	ALL72212	-	ALL72212	-
REM Finished				
All Wide 5	ALL72216	ALL72231	ALL72246	ALL72256
5x5 2-1/2" Pin	ALL72290	-	ALL72290	-
Ford Granada, Mustang II, Hybrid	ALL72291	-	ALL72292	-
GM Metric 1979-81	ALL72293	_	ALL72294†	_





†Bearing for Outer Race or Cup with a 1.97" O.D. ‡Bearing for Outer Race or Cup with a 1.78" O.D.

Wheel Bearing Kits

Kits contain inner bearing, outer bearing and seal.

ALL72300 Wide 5 Kit, Wilwood, Winters **ALL72311*** ... Wide 5 Low Drag Kit, Wil-

wood, Winters

ALL72301 Wide 5 Kit, Howe (Contender Hub Only)

ALL72302 5x5 Kit, 2" Pin **ALL72303** 5x5 Kit, 2-1/2" Pin

*Kit includes REM finished bearings and low drag lip style seal.



1-Ton Wheel Bearing Kits

Kits contain all components to install one hub assembly including a hub seal, inner bearing,

inner race, outer bearing, and outer race. REM finished bearings and races feature a special polished finish for reduced drag over standard bearing/race combinations

ALL72313..... Kit with Standard Bearings
ALL72314..... Kit with REM Finished Bearings



ALL72310

This wheel bearing and seal kit is designed to fit most Wide 5 hubs. The complete kit will update one hub and includes inner and outer wheel bearings, inner and outer races, and a low-drag hub seal.



Timken Wheel Bearing Grease

ALL78241..... 16-oz. Tub Standard ALL78240 14-oz. Cartridge Standard ALL78242 14-oz. Cartridge High-Temp. Synthetic





Master Wheel Bearing and Seal Kits

Kits contain all components to install one brake rotor/hub assembly including hub seal, inner bearing, outer bearing, locknut kit and dust cap.



ALL72305

ALL72305[†] ... GM Metric, 1979-81 **ALL72306**[‡] ... GM Metric, 1982-88

ALL72308 Granada Rotor with Mustang II Spindle **ALL72309** Hybrid Rotor with Mustang II Spindle

†Bearing for Outer Race or Cup with a 1.97" O.D. ‡Bearing for Outer Race or Cup with a 1.78" O.D.

Bearing Spacers

Spacers fit between inner and outer bearings. Prevent overtightening and consistently set bearing pre-load while reducing bearing drag. US Patent No. 6,312,162.



ALL72320 Wide 5

ALL72323 5x5 with 2" Pin **ALL72324** 5x5 with 2-1/2" Pin

ALL72322 Mustang II Spindle

ALL72325 GM Metric Spindle 1979-88

Standard and Low-Drag Hub Seals

Hub seals keep grease in the hub and on the wheel bearings. Available for 5x5 and Wide 5 hubs. Low-drag seals reduce drag for improved performance.



Description	Standard Hub Seal	Low-Drag Hub Seal
Wide 5 (Except Howe)	ALL72120	ALL72121
Wide 5 (Except Howe) O-Ring Style	-	ALL72122
Wide 5 Howe	ALL72124	ALL72125
Wide 5 1-Ton	ALL72130	_
5x5 2" Pin	ALL72124	ALL72125
5x5 2-1/2" Pin	ALL72114	ALL72115
5x5 2-1/2" Pin O-Ring Style	-	ALL72123
Ford Granada, Mustang II, Hybrid	ALL72126	_
GM Metric (Monte Carlo) 1978-88 (Front)	ALL72128	_

Spindle Nut Sockets

Aluminum hex style spindle nut socket features a 1/2" drive for use with a ratchet.



ALL10110 Socket for 2" Pin Wide 5 and 5x5 Spindle Nuts, 2-3/8"

ALL10114 Socket for 1-Ton Wide 5 Spindle Nuts, 2-5/8" ALL10115 Socket for 2-1/2" Pin 5x5 Spindle Nuts, 2-7/8"

Spindle Nut Kit for 2" Pin Wide 5 and 5x5 Hubs

Spindle Nut Kit for most popular Wide 5 Hubs and Howe, PCR 5x5 hubs with a 2" pin. Kit includes a tabbed washer, retaining nut, and a tabbed locking ring with locking screws. Retaining nut has 1-13/16"-16 RH threads.

1-13/16"-16 RH threads.

ALL44130 Steel Nut Kit

ALL44131..... Aluminum Nut Kit



Spindle nut kit for 1-Ton style Wide 5 axle tube includes a retaining nut, tabbed washer and a tabbed locking ring with locking screws. Retaining nut has 2"-16 RH threads.



Spindle Nut Kit for 2-1/2" Pin 5x5 Hubs ALL72173

Spindle nut kit for most popular Allstar, PEM, Winters, AFCO and SCP 5x5 GN hubs with a 2-1/2" pin. Kit includes a steel retaining nut, tabbed washer and a tabbed locking ring with locking screws. Retaining nut has 2-3/8"-18 RH threads.

Spindle Nut for 2-1/2" Pin 5x5 Hubs ALL72177

Spindle nut used with tab style locking ring/washer. Retaining nut has 2-3/8"-18 RH threads.



GM Spindle Nut Kit ALL72160

Spindle nut kit for 1978-88 G-Body metric chassis spindle includes a castle style retaining nut, tabbed washer and a cotter pin. Retaining nut has 3/4"-20 RH threads.



Mustang II Spindle Nut Kit ALL72161

Spindle nut kit for most Mustang II stock type spindles includes a retaining nut, tabbed washer, crown retainer, and a cotter pin. Retaining nut has 13/16"-20 RH threads.



Front Hub Dust Caps

Stock replacement style dust caps.

ALL72164 GM Metric Hub, 2-3/32" O.D. **ALL72165** Ford Hub, 1-25/32" O.D.





Ford 9" Floater Axle Housings

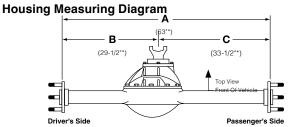


Housings are jig welded for correct alignment using all new components including a fabricated center section, new 3" O.D. x 3/16" wall axle tubes and include a vent fitting, carrier mounting studs, fill and drain plugs. Note: Dimensions listed are from hub face to hub face.

Housing Width/Offset	2" Pin	2-1/2" Pin
58"/Centered	_	ALL68820
60"/Centered	ALL68700	ALL68822
62"/Centered	ALL68704*	ALL68824
63"/2" Offset	ALL68708	_

^{*} Special Order Housing

TECH TIP



Example: Bare housing ALL68708 is 63" from hub face to hub face and the pinion is located 2" to the left of the housing centerline when viewed from rear of housing.*

Notes: Please measure and inspect housing before welding brackets or painting. Housing is non-returnable if modified or custom. Welding suspension brackets on rear end housings can cause warping. Check for straightness after welding. These housings use Allstar ALL72100 inner grease seals.

*Dimensions for example only.



Steel axle housings are built with all new components. The center section is centered, so the pinion yoke is offset approximately 1" to the right allowing for symmetric tube bracketry on each side. Housing includes vent, carrier studs and axle bearing retainer t-bolts. Tube diameter is 3" with 3/16" wall thickness and features large bearing Late/Torino style ends. Axles sold separately.

Part No.	Axle Housing Width	Axle Housing Width w/ Axle*
ALL68830	51"	56"
ALL68832	53"	58"
ALL68834	55"	60"

*Width measurements are from axle flange to axle flange when using axles with a 2-1/2" offset.

Custom Ford 9" Axle Housings



Custom Ford 9" housings can be built to any width and pinion location with floating axle style pins or standard flanged axle ends. Floating axle style housings are available with most 5x5 or Wide 5 hub pins. Standard flanged axle housings can be ordered with Small Ford, Early Ford or Late/Torino style ends. All housings feature new fabricated center sections, new 3" O.D. x 3/16" wall axle tubes completely jig-welded for straightness. To order please call and request a special-order form then fill in all required information and return to us with a signature attached. Housings are non-returnable and offered on a special-order basis only.

ALL68710 Custom Housing Bare **ALL68711** Custom Housing w/GM Metric Mounts

Rear End Station Brackets

ALL10178

Stand adapter brackets fasten to adjustable arms of most engine stands. Supports full-size car and light truck rear



axle housings when servicing or replacing differential gear sets. Position housing onto arms and secure into place with included retaining straps. (Engine stand sold separately).

Pinion Centering Jig

ALL68370

Pinion centering jig fastens to the rear end housing and locates the pinion centerline when building or narrowing housings. Machined slots are designed to retain most tape measure ends for accurate measurements. Applications include GM 12 and 14-Bolt, Dana 44 and 60, Chrysler 8-3/4", and Ford 8.8" and 9" housings.



Ford 9" Truss Support

ALL68330

Weld-on support adds strength to rear axle housing and reduces



unwanted flex during extreme torque. Constructed of 12-gauge (.108") steel. 36" L x 2" W. Additional trimming required to properly fit housing.



Ford 9" Flanged Axle Housing Kit for GM Intermediate Metric Chassis



Housing kit fits the 1978-88 GM intermediate chassis. Replace a stock GM 7.5" rear-end with the much stronger Ford 9" style. Kit includes a new fabricated center section, new axle tubes with large bearing late Ford/Torino style-ends, 31-spline axles with bearings and seals installed, drilled for studs with 5 on 4-1/2" or 5 on 4-3/4" bolt circles. Choose from two widths, 58" and 60" axle flange to axle flange. Note: this kit includes two unequal length axles, locating the pinion approximately in stock (centered) location.

ALL68758 Ford 9" Housing Kit 58" with Trailing Arm Brackets* **ALL68756** Ford 9" Housing Kit 58" without Brackets **ALL68759** Ford 9" Housing Kit 60" with Trailing Arm Brackets* **ALL68757** Ford 9" Housing Kit 60" without Brackets

 * Trailing arm mounting brackets installed to position the pinion angle approximately 4° down.

Ford 9" Cut-to-Fit Flanged Axles

Cut-to-fit 31-spline axles for Ford 9" rear ends are a great alternative to custom axles for street, drag racing and circle track use. Axles are drilled for .687" press-in style wheel studs and have multiple wheel bolt



patterns for 5 on 4-1/2", 4-3/4" and 5" bolt circles. Axles have .470" thick flanges with a 5.94" outer diameter and a 3.06" hub register to center most rotors and drums. Axles with bearings have a 3.150" O.D. bearing installed for housings with large bearing ends, a press-on sleeve to retain bearing to the axle and an axle retainer for large bearing late/Torino style housing end. Wheel studs sold separately.

ALL67500 Axle, 29-1/2" Long (with 10" of Spline)

ALL67501 Axle With Bearing, 29-1/2" Long (with 10" of Spline)

ALL67502 Axle, 33" Long (with 9" of Spline)

ALL67503 Axle With Bearing, 33" Long (with 9" of Spline)

Note: Axle includes a spacer which allows axle to be a replacement for 2.36" or 2.50" offset axles. Spacer is pre-installed between axle flange and bearing assembly for 2.50" offset.

Related Components

ALL44111 1/2"-20 Wheel Studs, 5-Pack **ALL44117** 5/8"-18 Wheel Studs, 5-Pack

Ford 9" Housing Ends

Housing ends are welded into 3/16" wall x 3" O.D. axle tubes when building a custom width



housing or converting to larger axles. Ends feature a stepped design with a beveled welding flange to help position flange in tube for easier installation.

ALL68308 Late/Torino Style **ALL68309** Early Style

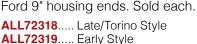
Ford 9" Axle Bearing Assembly

ALL72315

Replacement rear axle bearing used in many Ford car and truck rear ends. Bearing measures 3.150" O.D. to fit into Big Ford housing ends and has an I.D. of 1.565". A seal and press-on retaining sleeve are included.

Ford 9" Axle Spacer Plates

Spacer plate takes the place of drum brake backing plate and properly preloads the tapered style axle bearing. Spacers fit large bearing Ford 9" housing ends. Sold each.





Ford 9" Axle Retainers

Retainer bolts to the housing end to retain the axle/bearing into large bearing Ford 9" housings. Steel

retainer is 3/16" thick and designed to fit over axles, eliminating the need to remove bearing from axle.

ALL72316..... Late Torino Style (3/8" Fasteners) **ALL72317**..... Early Style (1/2" Fasteners)

Ford 9" Backing Plate T-Bolts

Unique T-head bolts are required to fasten backing plates or brake brackets to Ford 9" housing ends. Kits include bolts, lock washers and nuts.Pack of 8.

ALL72042 3/8"-24 x 1-1/4" (Late/Torino Style) **ALL72043** 1/2"-20 x 1-1/8" (Early Style)

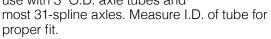


David Kruk



Ford 9" Axle Housing Seals

Internal seals prevent gear lube from leaking into axle tube to eliminate premature rear end failure. Seal housings are O-ring type with spring-loaded seals. For use with 3" O.D. axle tubes and



ALL72100*... 2.625" O.D. Fits 3/16" Wall, 3" Tube, Red ALL72102..... 2.562" O.D. Fits 7/32" Wall, 3" Tube, Blue ALL72104 2.500" O.D. Fits 1/4" Wall, 3" Tube, Gold

Universal Ford 9" Axle Housing Seal

ALL72099

Place seal inside the axle tube near the center section to keep rear end lube in the center section area of most floating axle style rear end housings. Universal seal works with most 3" O.D. axle tubes, regardless of wall thickness. Internal seal diameter of .975" works with most 28- and 31-spline axles.

Axle Snout Seal

Seal is pressed into the outer end of a 5x5 axle tube snout with a 2-1/2" pin to help prevent differential lube from entering the outer wheel bearing area and contaminating the wheel



bearing grease. Seal has an outer diameter of 1.875".

ALL72141 Seal with 1.250" I.D. ALL72142..... Seal with 1.325" I.D.

Runout Checker

ALL96440

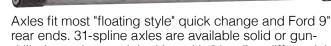
Fixture provides an easy way to check for bent axles, torque tubes, drive shafts, torsion bars or radius rods. Fixture measures 16-1/2" overall.

and a paint marker, draw a straight



line down the length of a new axle before installation. Periodically inspect axle for twist using the painted line as a reference.

Axles



drilled to reduce weight. Use with 31-spline differential or spool and 24-spline drive flanges.

Length	31-Spline Gun-Drilled	31-Spline Solid
26-1/2"	ALL66265	ALL66266
27-1/2"	ALL66275	ALL66276
28"	ALL66280	ALL66281
28-1/2"	ALL66285	ALL66286
29"	ALL66290	ALL66291
29-1/2"	ALL66295	ALL66296
30"	ALL66300	ALL66301
30-1/2"	ALL66305	ALL66306
31"	ALL66310	ALL66311
31-1/2"	ALL66315	ALL66316
32"	ALL66320	ALL66321
32-1/2"	ALL66325	ALL66326
33"	ALL66330	ALL66331
33-1/2"	ALL66335	ALL66336
34"	ALL66340	ALL66341
34-1/2"	ALL66345	ALL66346
35"	ALL66350	ALL66351
35-1/2"	ALL66355	ALL66356
36"	ALL66360	ALL66361
36-1/2"	ALL66365	ALL66366
37"	ALL66370	ALL66371
37-1/2"	_	ALL66376

T-Handle Axle Puller

ALL66115

All-in-one T-handle puller threads into axle for easy installation or removal. Tool includes adapters to fit 3/8"-16 coarse or 3/8"-24 fine

thread solid axles, and 3/4"-16 fine thread gun-drilled.

Aluminum Axle Plug

ALL66100

Axle plug threads into the end of a gun-drilled Allstar, Ford 9", or guick change axle to keep rear end lube

out of the axles. 3/8"-24 internal thread for correct axle spacing.

Extreme Pressure Lube

ALL78246

Originally used throughout the tool and die industry, this lube provides supe-



rior durability and wear protection, taking the place of anti-seize in many applications. Recommended for spline-to-spline contact, threaded adjusters, and engine fasteners. 4-ounce tube.

^{*}Use with Allstar steel and aluminum axle tubes.



Steel Axle Tubes

Steel axle tubes have a 3" O.D., a 2-5/8" I.D., and may be shortened. Constructed from 3/16" wall tubing.

Part No. Length Inner Bearing Length Wide-5 ALL68218 26" 20-1/2" 21-1/2" ALL68220 27" 21-1/2" 21-1/2" ALL68222 28" 22-1/2" ALL68224 29" 23-1/2" ALL68226 30" 24-1/2" ALL68230 32" 25-1/2" ALL68231 32-1/2" 27" 36 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin 36 ALL68244 24" 21-1/2" 36			
ALL68218 26" 20-1/2" ALL68220 27" 21-1/2" ALL68222 28" 22-1/2" ALL68224 29" 23-1/2" ALL68228 31" 25-1/2" ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" ALL68232 33" 27-1/2" ALL68235 35" 29-1/2" Sx5, 2-1/2" Pin ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 36	Axle ength		
ALL68220 27" 21-1/2" ALL68222 28" 22-1/2" ALL68224 29" 23-1/2" ALL68226 30" 24-1/2" ALL68228 31" 25-1/2" ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 36			
ALL68222 28" 22-1/2" ALL68224 29" 23-1/2" ALL68226 30" 24-1/2" ALL68228 31" 25-1/2" ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin ALL68240 22" 19-1/2" 26 ALL68244 24" 21-1/2" 36	32"		
ALL68224 29" 23-1/2" ALL68226 30" 24-1/2" ALL68228 31" 25-1/2" ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 36	33"		
ALL68226 30" 24-1/2" ALL68228 31" 25-1/2" ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" 38 ALL68234 34" 28-1/2" 29-1/2" 5x5, 2-1/2" Pin 20 19-1/2" 26 ALL68240 22" 19-1/2" 26 ALL68244 24" 21-1/2" 36	34"		
ALL68228 31" 25-1/2" ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 36 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin ALL68240 22" 19-1/2" 26 ALL68244 24" 21-1/2" 36	35"		
ALL68230 32" 26-1/2" ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin 34 34 ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 36	36"		
ALL68231 32-1/2" 27" 38 ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 36	37"		
ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin 22" 19-1/2" 28 ALL68240 22" 19-1/2" 30 ALL68244 24" 21-1/2" 30	38"		
ALL68232 33" 27-1/2" ALL68234 34" 28-1/2" ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin 22" 19-1/2" 28 ALL68240 22" 19-1/2" 30 ALL68244 24" 21-1/2" 30	3-1/2"		
ALL68235 35" 29-1/2" 5x5, 2-1/2" Pin 22" 19-1/2" 28 ALL68240 22" 19-1/2" 30 ALL68244 24" 21-1/2" 30	39"		
5x5, 2-1/2" Pin ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 30	40"		
ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 30	41"		
ALL68240 22" 19-1/2" 28 ALL68244 24" 21-1/2" 30			
ALL68244 24" 21-1/2" 30	3-1/2"		
	0-1/2"		
ALL68246 25" 22-1/2" 3 ⁻¹	1-1/2"		
ALL68248 26" 23-1/2" 32	2-1/2"		
ALL68252 28" 25-1/2" 34	4-1/2"		
ALL68256 30" 27-1/2" 36	3-1/2"		
ALL68258 31" 28-1/2" 37	7-1/2"		
ALL68260 32" 29-1/2" 38	3-1/2"		
5x5, 2" Pin			
ALL68264 24" 20-1/2"	30"		
	31"		
ALL68268 26" 22-1/2"	32"		
ALL68270 27" 23-1/2"	33"		
ALL68272 28" 24-1/2"	34"		
ALL68274 29" 25-1/2"	35"		
ALL68276 30" 26-1/2" 36	6-1/2"		
	7-1/2"		
ALL68280 32" 28.75" 38	3-1/2"		

Heavy Wall Steel Axle Tubes

Heavy wall steel tubes for 5x5 Hubs with 2-1/2" pins are constructed of heavy 5/8" wall tubing.



Part No.	Overall Tube Length	Tube Length to Inner Bearing	Axle Length
ALL68262-24	24"	21-1/2"	30-1/2"
ALL68262-26	26"	23-1/2"	32-1/2"

Wide 5 Aluminum Axle Tubes

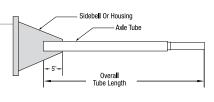
3" O.D. x 2.500" I.D. axle tubes are built from 7075-T6 aluminum and are machined for spool seal ALL72140. Constructed from 1/4" wall tubing.

Part No.	Overall Tube Length	Tube Length to Inner Bearing	Axle Length
ALL68202	26"	20-1/2"	32"
ALL68203	26-5/8"	21-1/8"	32-1/2"
ALL68204	27"	21-1/2"	33"
ALL68206	28"	22-1/2"	34"
ALL68208	29"	23-1/2"	35"
ALL68210	30"	24-1/2"	36"
ALL68211	31"	25-1/2"	37"
ALL68212	32"	26-1/2"	38"
ALL68213	35"	29-1/2"	41"

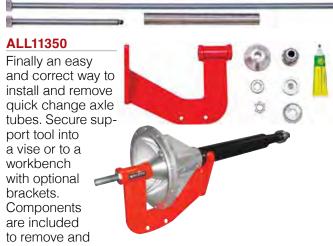
TECH TIP

How to Measure Axle Tube Length

Tube should extend 5" into side bell or aluminum housing.



Quick Change Tube Install/Removal Tool



install tubes with the turn of a wrench.

An adapter for tubes with Wide 5 or 5 on 5" hubs is also included.

Related Components

ALL11355 Installation End Cap for Bolt-On and 2-7/8" Pin

Wide 5 Tubes

ALL11351 Mounting Bracket Kit for Quick Change Tube Install/Removal Tool

ALL11355

ALL68300

Weld-On Snouts

Weld-on snouts may be used for repairing existing axle tubes or custom building new tubes. Three hub styles

are available.

ALL68300 Wide 5 2" Pin ALL68302 5x5 2" Pin ALL68304 5x5 2-1/2" Pin



Phil Bozell



Pre-drilled Quick Change Cover Nut Kit ALL72060

Aluminum nuts are pre-drilled for safety wire to prevent nuts from working loose and causing leaks. Nuts have 3/8"-16 threads. Pack of 10.

Quick Change Cover Nut Kits

Aluminum anodized nuts have 3/8"-16 threads and captured washers. Pack of 10.



ALL72058 Black Short - 7/8" OAL **ALL72059** Red Short - 7/8" OAL **ALL72061** Red Long - 1-1/4" OAL

Quick Change Cover Stud Kit ALL72056

Fully threaded 3/8"-16 studs are 1-3/4" long and are direct replacements for many quick change cover studs.



Quick Change Cover Stud Ball Kit

ALL26961-10

These hardened steel balls are inserted into the stud holes before the cover studs are threaded in to keep the studs from galling the housing and help disperse any stress created when installing the cover studs.

Quick Change Cover Gaskets

ALL72050 Paper, Single
ALL72050-10 Paper, 10-Pack
ALL72052 Thick w/ Steel Core, Single
ALL72052-10 Thick w/ Steel Core, 10-Pack



Quick Change Side Bell O-Ring ALL72054

Replacement O-ring for Winters quick change.



Axle Tube Oil Seal ALL72140

Also called a spool seal, it fits Frankland, Winters, and other quick change rear ends. Seal is pressed into side bell or axle tube and seats against the bearing flange of the spool to prevent lube from leaking into axle tubes. Seal has a 1-15/16" I.D. and a 2-5/8" O.D.



Drive Flange Gaskets

Steel core gaskets help prevent leaking issues commonly found with standard paper gaskets. Pack of 2.

ALL72074..... 8-Bolt **ALL72075** 5-Bolt

Quick Change Gear Case

ALL14355

Sturdy composite storage case protects and holds up to 8 sets of quick change gears.
Case has molded in carrying handles and metal hinges. 5" x 8" x 15-1/2" overall when closed.



Quick Change Drain Pan Plastic ALL14356

Tapered top drain pan, combined with an open flow corner, allows quick change gear changes to happen even faster. Low-profile, 2-piece plastic pan includes a stainless steel filter screen molded into the top tray. 4-qt. capacity.

Aluminum Quick Change Drain Pan

ALL14166

Aluminum drain pan is handy when changing quick change gears. Built-in perforated shelf holds gears and allows lube to drain into pan. Pan is 10-1/4" wide, 12" long, and 3-3/4" deep.

Quick Change Jack Post Brackets

Brackets bolt to quick change rear end, providing a location to jack the car.

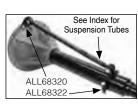
ALL68346 Steel Bracket
ALL68347 Aluminum Bracket



QC Axle Tube Support Brackets







ALL68322

Brackets provide mounting points for a strut rod assembly to help eliminate flex found in quick change rear ends. ALL68320 attaches to the side bell bolts on most quick change rear ends. ALL68322 has tabs with 5/8" holes and mounts directly onto a 3" axle tube.

ALL68320 Center Section Mount **ALL68322** Axle Tube Mount



Quick Change Gear Totes

Durable plastic quick change gear tote organizes extra gear sets and keeps them clean. Lid snaps shut to hold gears in place. 8"L x 5"W x 2"H.



Gear Sets Not Included

Description	Single	10-Pack
White	ALL14350	ALL14350-10
Black	ALL14351	ALL14351-10
Yellow, 6-Spline (Midget) Gear Set	ALL14352	ALL14352-10

Gear Tote Tray

ALL12269

Neatly organize up to 10 quick change gear tote boxes vertically. Tray is 21" long x 5-1/2" deep with a 4" tall front edge making them perfectly sized for Allstar gear tote boxes.





Ring and Pinion Installation Kits

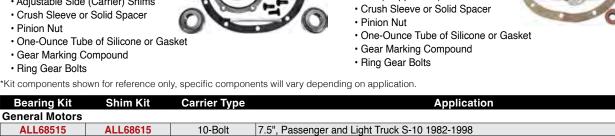
Allstar ring and pinion installation kits are available with or without bearings. Kits contain all the hard-to-find individual parts for a quick, trouble-free installation.

Bearing Kits Include:*

- · Pinion and Side (Carrier) Bearings
- · Pinion Seal
- · Pinion Depth Shims
- · Adjustable Side (Carrier) Shims



- Pinion Seal
- Pinion Depth Shims
- · Adjustable Side (Carrier) Shims, Two (If Applicable)



Gonoral motoro			
ALL68515	ALL68615	10-Bolt	7.5", Passenger and Light Truck S-10 1982-1998
_	ALL68622	10-Bolt	8.2", Chevy Passenger and G-10 Van, 30-Spline Pinion
ALL68521	ALL68621	10-Bolt	8.5", 30-Spline Pinion Passenger and Light Truck 1964-72
ALL68518	ALL68618	12-Bolt	8.875", Chevy and GMC Truck and Blazer, 1.438" Pinion 1970-98
ALL68519	ALL68619	12-Bolt	8.875", Chevy High-Performance Passenger Axle, 1.625" Pinion
Chrysler			
ALL68532	ALL68631	8-3/4"	489 Casting with 2.000" I.D. Carrier Bearings (Large #9 on Side of Casting)
ALL68531	ALL68631	8-3/4"	489 Casting with 1.796" I.D. Carrier Bearings (Large #9 on Side of Casting)
ALL68537	ALL68637	8-3/4"	742 Casting with 1.796" I.D. Carrier Bearings (Large #2 on Side of Casting)
Ford Motor Com	pany		
_	ALL68639	8"	"Pig" Type, 25-Spline Pinion
ALL68513	ALL68613	8.8"	Salisbury Type with 10-Bolt Cover, 30-Spline Pinion
ALL68510	ALL68610	9"	2.893" Carrier Bearing, Stock 28-Spline Pinion Support, Solid Spacer
ALL68511	ALL68611	9"	2.893" Carrier Bearing, Stock 28-Spline Pinion Support, Crush Sleeve
ALL68509	ALL68610	9"	3.062" Carrier Bearing, Stock 28-Spline Pinion Support, Solid Spacer
ALL68512	ALL68611	9"	3.062" Carrier Bearing, Stock 28-Spline Pinion Support, Crush Sleeve
ALL68539	ALL68610	9"	3.062" Carrier Bearing, Daytona 28-Spline Pinion Support, Solid Spacer
ALL68538	ALL68611	9"	3.062" Carrier Bearing, Daytona 28-Spline Pinion Support, Crush Sleeve
ALL68543	ALL68610	9"	3.250" Carrier Bearing, Daytona 28-Spline Pinion Support, Solid Spacer
ALL68542	ALL68611	9"	3.250" Carrier Bearing, Daytona 28-Spline Pinion Support, Crush Sleeve
ALL68540	_	9"	3.250" Carrier Bearing, MW or Strange 28-Spline Pinion Support, No Spacer or Crush Sleeve
ALL68541	_	9"	3.250" Carrier Bearing, MW or Strange 35-Spline Pinion Support, No Spacer or Crush Sleeve
Dana			
ALL68533	ALL68633	_	Model 44/1967-1997
ALL68534	ALL68634	_	Model 60 and 61/1966-1998



Dial Indicator with Magnetic Base

ALL96414

Dial indicator with magnetic base is a necessity when degreeing a camshaft, checking crankshaft end play, deck heights, dome heights, transmission end play, or ring and pinion backlash. Universal magnetic base may be mounted anywhere. Shockproof dial indicator has 1" of travel in .001" increments. Base and dial indicator may also be purchased separately.

ALL96415 Dial Indicator Only ALL96416 Magnetic Base Only



ALL96411

Measure inside, outside and depth dimensions with easy-to-read Metric or SAE LCD display, in .001" increments up to 6". On/off switch conserves battery and zero setting assures accurate readings.

Plastic case provides additional battery storage.

Dial Caliper

ALL96410

Quality hardened stainless steel dial caliper is shockproof and capable of measuring items from .001" to 6" in increments of .001". Includes protective carrying case.





Greg Greene

Ring and Pinion Gear Sets

Quality differential components are suitable for race, street, and off-road use. Lapped in matched sets for quiet operation.



GM 7.5"

Sets fit 10-bolt with 7.5" ring gear, 1.438" diameter pinion stem and 27-spline pinion.

Part No.	Ratio	Tooth	Part No.	Ratio	Tooth
ALL70110*	3.23	42-13	ALL70115 [†]	3.73	41-11
ALL70112*	3.42	41-12	ALL70116*	4.10	41-10
ALL70113 [†]	3.42	41-12	ALL70117 [†]	4.10	41-10
ALL70114*	3.73	41-11	ALL70118*	4.56	41-9

*Set includes standard width ring gear for use with 3.23 and numerically higher ratio carriers or when using 3.08 and numerically lower ratio carriers and ALL70100 spacer

+Set includes thick ring gear for use with 3.08 and numerically lower ratio carri-

GM 8.5"

Sets fit 10-bolt with 8.5" ring gear, 1.625" diameter pinion stem and 30-spline pinion.

Part No.	Ratio	Tooth	Part No.	Ratio	Tooth
ALL70120	3.08	40-13	ALL70126	4.10	41-10
ALL70122	3.42	41-12	ALL70128	4.56	41-9
ALL70124	3.73	41-11			

Ford 9"

Sets fit 10-bolt with 9" ring gear, 1.313" diameter pinion stem and 28-spline pinion.

Part No.	Ratio	Tooth	Part No.	Ratio	Tooth
ALL70010	3.50	35-10	ALL70028	5.14	36-7
ALL70012	3.70	37-10	ALL70030	5.29	37-7
ALL70014	3.89	35-9	ALL70032	5.43	38-7
ALL70016	4.11	37-9	ALL70034	5.67	34-6
ALL70018	4.33	39-9	ALL70036	5.83	35-6
ALL70020	4.56	41-9	ALL70038	6.00	30-5
ALL70022	4.71	33-7	ALL70040	6.20	31-5
ALL70024	4.86	34-7	ALL70042	6.33	38-6
ALL70026	5.00	30-6	ALL70044	6.50	39-6

GM 7.5" Ring Gear Spacer

ALL70100

Spacer allows installation of 3.23 and numerically higher ratio gear sets with standard thickness ring gears into 3.08 and numerically

lower carriers. Steel spacer is .3125" thick and includes ten 7/16"-20 x 1-1/4" UHL LH bolts.

Gear Marking Compound Kit

ALL78250

Gear marking compound kit is a good way to identify correct gear contact area when installing or adjusting ring and pinion gear sets. Kit includes gear marking compound and application brush.





Spools

Spools are substantially lighter than conventional cast iron carriers, and lock booth rear axles together to deliver equal power to both rear wheels. Ultra-lite steel spools have more lightening holes and a narrower ring gear flange than standard units to help reduce rotating weight.



Ford 9" Steel Spools

ALL68060 28-Spline, Scalloped, 7.5 lbs. ALL68062 28-Spline, Ultra-Lite, 6.3 lbs. ALL68064 31-Spline, Scalloped, 7.6 lbs. ALL68066 31-Spline, Ultra-Lite, 6.1 lbs.

ALL68067 31-Spline, Ultra-Lite Scalloped, 5.8 lbs. ALL68070 35-Spline, for 3.250" Case, 7.6 lbs. ALL68072 35-Spline, for 2.893" or 3.062" Case, 7.9 lbs.

ALL68074 40-Spline, for 3.250" Case, 6.7 lbs.

Quick Change Aluminum Spools

ALL68114..... Winters, Winters and DMI 31-Spline, 2.030" Bearings

ALL68115..... Frankland, Tiger and Richmond, 31-Spline, 2" Bearings

Mini Spools

Mini spool assemblies replace the OE side and spider gears in open style carriers to provide





equal traction to both axles. Mini spools are precisely machined for proper fit and heat treated for durability.

- 1957-87 Ford 9" Rear Ends with 3/4" Cross Pin
- 1981-94 Ford 8.8" Rear Ends with 28-Spline Axles
- 1976-88 GM 7.5" with 7.5" or 7.625" Ring Gear, 26-Spline Axles
- 1964-72 GM 10-Bolt with 8.2" Dia. Ring Gear, 28-Spline Axles
- 1970-76 GM 10-Bolt with 8.5" Dia. Ring Gear, 28-Spline Axles
- 1965-76 GM 12-Bolt with 8.875" Dia. Ring Gear, 30-Spline Axles

ALL68121 Ford 9", (Lightweight) 28-Spline ALL68122 Ford 9", (Lightweight) 31-Spline

ALL68166[‡] ... GM (7.5" Ring Gear), 26-Spline **ALL68162** GM 10-Bolt (8.2" Ring Gear), 28-Spline

ALL68160 GM 10-Bolt (8.5" Ring Gear), 28-Spline **ALL68164** GM 12-Bolt (8.875" Ring Gear), 30-Spline

‡There are at least three different 7.5" GM cases available, shimming may be required between the case and side gear of the spool to eliminate space between

Cross Pins

ALL68120 Ford 8.8" and 9" (3/4") **ALL68167** GM 10-Bolt (7.5" Ring Gear) ALL68163 GM 10-Bolt (8.2" Ring Gear) **ALL68161** GM 10-Bolt (8.5" Ring Gear) **ALL68165** GM 12-Bolt (8.875" Ring Gear)

GM Axle C-Clips

Replacement C-clips for popular GM 10- and 12-bolt axles. Pack of 2.

ALL66120 10-Bolt (7.5")

ALL66121 10-Bolt (8.5") and 12-Bolt (8.875")

Ford 9" Housing Studs

ALL72040

Studs secure the center section to the housing and are installed by pulling through with a nut for a press fit. 3/8"-24 threads. Pack of 10.



Ford 9" Gaskets

Gaskets are precision die-cut to ensure a leak free seal.

ALL72044 Paper

ALL72045 Composite with Steel Core



ALL72044

Absorbent Mats

A must for the work shop and trailer. These handy absorbent mats have bonded layers, allowing fluid to spread quickly through material.



ALL12031..... 15" x 60" Roll (Perforated Every 10") for Oil Only

ALL12032.... 100-Pack (15" x 10" Individual Sheets) Universal for All Fluid Types

(Oil, Coolant, Water)

ALL12033..... 100-Pack (15" x 10" Individual Sheets) for Oil Only



Adam Terry



Ford 9" Pinion Support

ALL68396

"Daytona" forged aluminum pinion support replaces original equipment cast iron support. Support is furnished with races installed and is for use with 28-spline pinion gears.



Pinion Seals

Replace leaking or damaged seals in most popular differentials.

ALL72145.... Quick Change 5/16" Wide ALL72144.... Quick Change 1/2" Wide ALL72143.... Quick Change 3/4" Wide

ALL72146..... Ford 9" Standard, 28-Spline, 3" O.D.

ALL72147..... 7.5" GM **ALL72148**..... 8.5" GM

Pinion Yokes





Part No.	Spline	U-Joint	Width	Can Dia	Material	Length	
Ford 9" Yol	Longan						
ALL68375	28	1310	3-1/4"	1.062"	Cast Steel	Standard	
ALL68376	28	1330	3-5/8"	1.125"	Cast Steel	Standard	
ALL68377	28	1330	3-5/8"	1.125"	Cast Steel	1" Longer	
ALL68380	28	1350	3-5/8"	1.187"	Forged Steel	Standard	
ALL68382	35	1350	3-5/8"	1.187"	Forged Steel	Standard	
Quick Change Yokes							
ALL68385	10	1310	3-1/4"	1.062"	Cast Steel	Standard	
ALL68386	10	1310	3-1/4"	1.062"	Cast Steel	1" Longer	

Pinion Nuts

Replace original worn or damaged nuts each time a gear set is changed. Nut secures driveshaft yoke to pinion gear.

ALL72155..... Ford 8.8" and Standard 9" **ALL72156.....** GM 7.5 And 8.5

Pinion Yoke Wrench

ALL68372

Wrench fastens to most popular pinion flanges and companion flanges to hold when setting bearing pre-load and tightening retaining bolt or nut.



U-Joints

Performance U-joints are greasable and fit a variety of driveshaft combinations.

1310 Series: 3.218" Wide with 1.062" Diameter Caps 1330 Series: 3.622" Wide with 1.062" Diameter Caps 1350 Series: 3.622" Wide with 1.187" Diameter Caps

U-Joints with Same Cross Width

ALL69030 1310 Series **ALL69031** 1330 Series **ALL69032** 1350 Series

U-Joints with Different Cross Widths

ALL69034 1310 to 1330 ALL69037*... 1310 to 1330 ALL69035 1310 to 1350 ALL69036 1330 to 1350

*Standard 1330 spread with larger 1.125" diameter caps.



Width = B, Caps = A

U-Bolt Kits

U-bolt kits for 1310, 1330 and 1350 series U-joints secure drive-shaft to pinion yoke. Sold in pairs with nuts and lock washers.



	U-Bolt	U-Joint Series	Сар	Thread	"A"	Stud CTC "B"
Std.	ALL69015	1310/1330	1-1/16"	5/16"-24	1-3/4"	1.400"
X-Long	ALL69017	1310/1330	1-1/16"	5/16"-24	2"	1.400"
Std.	ALL69018	1330 [†]	1-1/8"	5/16"-24	1-7/8"	1.575"
Std.	ALL69016	1350	1-3/16"	3/8"-24	2"	1.625"

†1330 with big caps (1.125")

GM U-Joint Strap Kit

ALL69014

Replacement O.E. style U-joint strap kit fits popular GM pinion yokes including 7.5", 8.2", and 8.5" 10-bolt and other popular rear ends. Kit is designed for 1-1/8" (1.125") diameter caps and includes (2) 5/8" wide steel straps with 1-7/8" CTC holes and (4) 1-1/2" long 5/16"-24 grade 8 bolts.

Ford 9" U-Joint Girdle Kit

ALL69025

Aluminum U-joint girdles replace standard steel U-bolts and provide more surface clamping area for 1310 and 1330 (1-1/16") U-joint caps. Girdle



design helps prevent over-tightening and includes mounting hardware.



Slip Yokes

Slip yokes provide an important link in today's driveline and chassis combinations. Yokes are available in standard lengths for most street applications with minimal suspension travel to extra-long for racing suspensions that have a radical amount of travel. 27-spline yokes

accept 1310 style U-joints and are for use in many popular transmissions including TH350, TH700R4, Muncie and Saginaw 3 and 4 speeds, Bert, and Brinn non-ball spline.

ALL69040 6" ALL69042 6-3/4" ALL69044 7-1/2" ALL69046 8"

ALL69048 8" (Extra Clearance)

Hardened

ALL69043 6-3/4" **ALL69045** 7-1/2" **ALL69047** 8"

Tailshaft Seal and Bushing

The tailshaft bushing is a regular wear item, located inside the transmission tailshaft housing. It should be replaced when replacing the tailshaft seal or when a driveshaft failure has occurred. A worn bushing will cause excessive side-to-side movement of the slip yoke and create a vibration or leak. Replacement bushing and seal fits GM Powerglide, Turbo 350, Saginaw, Muncie, Bert, and Brinn transmissions.

ALL72150..... Seal ALL72152..... Seal with Bushing



Cody Swanson

Universal Driveshaft Loop

ALL69000

Universal driveshaft loop contains the driveshaft if a yoke or U-joint fails. Loop is 1/4" thick x 2" wide mild steel and fully adjustable to fit most cars.

Driveshaft Loop for 1979-2004 Mustangs

ALL69006

Driveshaft safety loop bolts-on to help retain the front of the driveshaft in the event of a U-joint or other drivetrain component breakage. Black epoxy coated, all steel loop includes mounting hardware and complete instructions. Loop is designed to fit inside factory tunnel and work with most driveshafts up to 4" in diameter.

Unwelded Driveshaft Loop

ALL69004

4-3/4"

Made from 3/16" flat steel, loop is 9-1/2" tall, 5-1/2" wide with a 16" wide mounting strap that can be cut and welded for each installation.

180° Driveshaft Loop

ALL69002

Pre-bent 1" diameter x .083" wall mild steel tubing is designed for chassis style cars to help retain the driveshaft in the event of a U-joint failure. Loop is 10" tall overall and has a 5" I.D.

Torque Tube Belt

ALL10181

Universal strap keeps torque tube stabilized and centered in case of coupler or tube failure. Black 3" wide belt fits all torque tube and chassis combinations.

Torque Ball Safety Blanket

ALL55220

Fire-resistant safety blanket designed by Jason Meyers Racing protects drivers legs and feet in the event of a U-joint failure. Ballistic nylon covered blanket weighs just

U-joint failure. Ballistic nylon covered blanket weighs just 1-1/2 lbs. and has quick release adjustable straps that allow blanket to be removed easily for servicing torque ball and U-joint. Blanket includes two mounting brackets, mounting studs, nuts and installation instruc-

Replacement Components

ALL55224 3/8" Mounting Stud Kit ALL55226 Mounting Tabs, 1-Pair





Drain Pan ALL40112

Round drain pan has molded-in handles and pour spout. Made from chemical and solvent-resistant plastic. 13-1/2" x 11" x 4", 7-quart capacity.



Aluminum Quick Change Drain Pan ALL14166

Aluminum drain pan is handy when changing quick change gears. Built-in perforated shelf holds gears and allows lube to drain into pan. Pan is 10-1/4" wide, 12" long, and 3-3/4" deep.

Drain Plug Kits

Drain plug kits include a machined weld-on bung that has a step added to fit inside a drilled hole for easy installation. Kits are perfect when adding drain plugs to oil pans, rear end housings, dry sump tanks, etc.



4	

Size	Aluminum Bung	Steel Bung
3/8"NPT	ALL50732	ALL50733
1/2"NPT	ALL50734	ALL50735

Combo Remote Fill Tank

ALL36134

Aluminum fill tank features a predrilled 4-1/2" square mounting flange for securing tank to the underside of deck panel providing an easy access fill location for rear end/differential, transmission, power steering or dry sump tank. Tank has a raised non-vented cap and a -10AN male lower hose fitting. Tank also has a 3/8" NPT side port for a return or vent and a separate 1/4" NPT fitting with an integrated foam filter for an additional vent.

Fill Line Kit for Transmissions and Rear Ends ALL36148

Kit includes the components to build a fill hose for attaching remote fill tanks with a -10AN outlet to transmission or rear end. Kit includes a 3-ft. length of flexible braided fabric hose and two -10AN hose ends, one straight -10AN fitting for connecting hose to breather tank and a 90° -10AN fitting with a -10AN to 1/2" NPT adapter for

attaching to rear end or transmission. Additional adapter fittings may be required and are sold separately.

Remote Fill Tanks

Aluminum tanks feature a 5-3/8" mounting flange to mount in a deck panel or other flat horizontal panel, providing an easy access fill location for rear end/differentials, transmissions or dry sump tanks. Tanks have a raised, vented twist on cap and a -10AN male hose connection. Overall tank height is 9" x 3" in diameter.



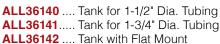
ALL36111

ALL36110..... Fill Tank

ALL36111 Fill Tank with 3/8"NPT Bung ALL36124 Replacement Cap

Mini Breather Tanks

Small capacity, aluminum tank will vent dry sump tank, transmission, or rear end. Tank measures 6-3/4" overall, features a 1/4" NPT bung on bottom for connecting a vent hose and includes a washable breather element. Tanks are offered with a clamp style bracket for mounting to chassis tubing, or a flat mount for mounting to a panel or firewall.



Mini Breather

ALL36145

Compact breather mounts in a deck or bracket with a 7/16" hole and has a -4AN male end making it ideal for venting transmissions or rear ends.

Clamp-On Mini Breathers

Breathers mount easily to either 1-1/2" or 1-3/4" tubing. Breathers are 1" tall and 1-3/8" in diameter. Great for use on transmissions, differentials, etc. Bottom fitting is 1/4"NPT. Black anodized finish.

ALL36106 Breather for 1-1/2" Tubing ALL36107 Breather for 1-3/4" Tubing ALL36103 Replacement Filter Only



Breather elements work well for venting components including transmissions and differentials and feature a fitting for attaching hose. Breathers are 2" in diameter and feature a pre-oiled cotton inner material that may be washed and re-oiled. Size listed is O.D. of hose fitting.



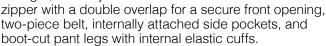
ALL36212	3/8"
ALL36213	1/2"

ALL36216 3/8" w/ Mounting Stud **ALL36217** 1/2" w/ Mounting Stud



Single-Layer Driving Suits

Suits are constructed of a single layer of Pyrovatex flame-retardant cotton material which offers a high level of heat and flame protection along with durability and comfort to meet the requirements of the SFI 3.2A/1 rating. Suits have many features including multi-needle overlock stitching design for exceptional seam strength, two-way brass Nomex-backed



Size	Black	Blue	Red
Small	ALL931011	ALL931021	ALL931071
Medium	ALL931012	ALL931022	ALL931072
Medium Tall	ALL931013	ALL931023	ALL931073
Large	ALL931014	ALL931024	ALL931074
X-Large	ALL931015	ALL931025	ALL931075
XX-Large	ALL931016	ALL931026	ALL931076
XXX-Large	ALL931017	ALL931027	ALL931077

Single-Layer Driving Jackets

Jackets are constructed of a single layer of Pyrovatex flame-retardant cotton material which offers a high level of heat and flame protection along with durability and comfort to meet the requirements of the SFI 3.2A/1 rating. Jackets

have many features including multi-needle overlock stitching design for exceptional seam strength and a two-way brass Nomex-backed zipper with a double overlap for a secure front opening.

Size	Black	Blue	Red
Small	ALL931111	ALL931121	ALL931171
Medium	ALL931112	ALL931122	ALL931172
Medium Tall	ALL931113	_	_
Large	ALL931114	ALL931124	ALL931174
X-Large	ALL931115	ALL931125	ALL931175
XX-Large	ALL931116	ALL931126	ALL931176
XXX-Large	ALL931117	ALL931127	ALL931177

Single-Layer Driving Pants

Pants are constructed of a single layer of Pyrovatex flame-retardant cotton material which offers a high level of heat and flame protection along with durability and comfort to meet the requirements of the SFI 3.2A/1 rating. Pants feature multi-needle overlock stitching design for exceptional seam strength, a button style closure, a brass Nomex-backed zipper with a double overlap for

a secure front opening, elastic waistband, internally attached side pockets, and boot-cut pant legs with internal elastic cuffs.

Size

Black

Size	Black
Small	ALL931211
Medium	ALL931212
Medium Tall	ALL931213
Large	ALL931214
X-Large	ALL931215
XX-Large	ALL931216
XXX-Large	ALL931217

Multi-Layer Driving Suits

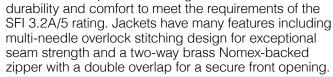
Suits are constructed of a Pyrovatex outer layer backed by a layer of flame-retardant Aramid material then lined with an additional layer of Pyrovatex flame-retardant cotton material which offers a high level of heat and flame protoction along with durability and comfort to

flame protection along with durability and comfort to meet the requirements of the SFI 3.2A/5 rating. Suits have many features including multi-needle overlock stitching design for exceptional seam strength, two-way brass Nomex-backed zipper with a double overlap for a secure front opening, two-piece belt, internally attached side pockets, and boot-cut pant legs with internal elastic cuffs.

Size	Black	Blue	Red
Small	ALL935011	_	_
Medium	ALL935012	ALL935022	ALL935072
Medium Tall	ALL935013	ALL935023	ALL935073
Large	ALL935014	ALL935024	ALL935074
X-Large	ALL935015	ALL935025	ALL935075
XX-Large	ALL935016	ALL935026	ALL935076
XXX-Large	ALL935017	_	_

Multi-Layer Driving Jackets

Jackets are constructed of a
Pyrovatex outer layer backed by a
layer of flame-retardant Aramid material then lined with an additional layer
of Pyrovatex flame-retardant cotton
material which offers a high level of
heat and flame protection along with



Size	Black	Blue	Red
Small	ALL935111	ALL935121	ALL935171
Medium	ALL935112	ALL935122	ALL935172
Medium Tall	ALL935113	_	_
Large	ALL935114	ALL935124	ALL935174
X-Large	ALL935115	ALL935125	ALL935175
XX-Large	ALL935116	ALL935126	ALL935176
XXX-Large	ALL935117	ALL935127	ALL935177

Multi-Layer Driving Pants

Pants are constructed of a Pyrovatex outer layer backed by a layer of flame-retardant Aramid material then lined with an additional layer of Pyrovatex flame-retardant cotton material which offers a high level of heat and flame protection along with durability and comfort to meet the requirements of the SFI 3.2A/5 rating. Pants feature multi-needle overlock stitching design for exceptional seam strength, a button style closure, a brass Nomex-backed zipper with a double overlap for a secure front opening, elastic waistband, internally attached side pockets, and boot-cut pant legs with internal elastic cuffs.

Size	Black	Size	Black
Small	ALL935211	X-Large	ALL935215
Medium	ALL935212	XX-Large	ALL935216
Medium Tall	ALL935213	XXX-Large	ALL935217
Large	ALL935214		



Suit Sizing Chart

Suit Sizing Shart					
Medium	Medium Tall	Large	X Large	2X Large	3X Large
			J		
5'8"-5'10"	5'10"-6"	5'10"-6"	6'-6'2"	6'2"-6'4"	6'4"- 6'6"
	,				
140-165	150-175	165-195	200- 225	225-250	250+
34-36"	34-36"	36-38"	40-42"	44-46"	48-52"
38-40"	38-40"	42-44"	46-48"	50-52"	54-56"
29"	30"	31"	32"	33"	33"
S					
18"	18"	19"	20"	21"	23"
33-34"	33-34"	34-35"	36"	37"	38"
14.5"	14.5"	15.16"	16"	17-18"	18"
	Medium 5'8"-5'10" 140-165 34-36" 38-40" 29" 18" 33-34"	Medium Medium Tall 5'8"-5'10" 5'10"-6" 140-165 150-175 34-36" 34-36" 38-40" 38-40" 29" 30" 38-34" 18" 33-34" 33-34"	Medium Tall Large 5'8"-5'10" 5'10"-6" 5'10"-6" 140-165 150-175 165-195 34-36" 34-36" 36-38" 38-40" 38-40" 42-44" 29" 30" 31" 38-34" 18" 19" 33-34" 33-34" 34-35"	Medium Tall X Large X Large 5'8"-5'10" 5'10"-6" 5'10"-6" 6'-6'2" 140-165 150-175 165-195 200-225 34-36" 34-36" 36-38" 40-42" 38-40" 38-40" 42-44" 46-48" 29" 30" 31" 32" 38-34" 19" 20" 33-34" 33-34" 34-35" 36"	Medium Medium Medium X Large X Large Large 5'8"-5'10" 5'10"-6" 5'10"-6" 6'-6'2" 6'2"-6'4" 140-165 150-175 165-195 200-225 225-250 34-36" 34-36" 36-38" 40-42" 44-46" 38-40" 38-40" 42-44" 46-48" 50-52" 29" 30" 31" 32" 33" 38-40" 18" 19" 20" 21" 33-34" 33-34" 34-35" 36" 37"

Waist: At natural waist at navel (not hips where your jeans ride)

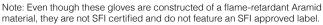
Chest: Circumference at the widest part Inseam: Crotch seam to ankle bone

Shoulder to Shoulder: Shirt shoulder seam to shirt shoulder seam

Sleeve: Back base of neck to wrist, elbow bent

Single-Layer Non-SFI Outseam Driving Gloves

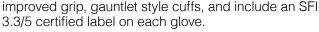
Reverse seam style gloves are created from a single layer of flame-retardant Aramid material blend that features the seam located on the outer portion of the glove for improved driver feel and comfort. The palm and finger pads feature an anti-slip silicone material for improved grip.



Size	Black	Orange	Yellow
Small	ALL913011	ALL913041	ALL913091
Medium	ALL913012	ALL913042	ALL913092
Large	ALL913014	ALL913044	ALL913094
X-Large	ALL913015	ALL913045	ALL913095

Double-Layer SFI 3.3/5 Outseam Driving Gloves

Reverse seam style gloves are created from two layers of flame-retardant Aramid material blend that features the seam located on the outer portion of the glove for improved driver feel and comfort. These gloves also feature an anti-slip silicone material located on the palm and finger pads for



Size	Black	Orange	Yellow
Small	ALL916011	ALL916041	ALL916091
Medium	ALL916012	ALL916042	ALL916092
Large	ALL916014	ALL916044	ALL916094
X-Large	ALL916015	ALL916045	ALL916095
XX-Large	ALL916016	_	_

Single-Layer Non-SFI Driving Gloves

Traditional style gloves are created from a single layer of flame-retardant Aramid material blend that features a white leather reinforced palm and finger area for improved grip that meets the requirements of many racing organizations.

Note: Even though these gloves are constructed of a flame-retardant Aramid material, they are not SFI certified and do not feature an SFI approved label.



Size	Part No.
Small	ALL910011
Medium	ALL910012
Large	ALL910014
X-Large	ALL910015

Single-Layer SFI 3.3/1 Driving Gloves

Traditional style gloves are created from a single layer of flame-retardant Aramid material blend that features a gray suede leather palm and finger area for improved grip. These gloves also feature gauntlet style cuffs, adjustable wrist straps and includes an SFI 3.3/1 certified label on each glove.



Size	Part No.
Small	ALL911011
Medium	ALL911012
Large	ALL911014
X-Large	ALL911015

Double-Layer SFI 3.3/5 Driving Gloves

Traditional style gloves are created from two layers of flame-retardant Aramid material blend that features a black suede leather palm and finger area for improved grip. These gloves also feature gauntlet style cuffs, adjustable wrist straps and include an SFI 3.3/5 certified label on each glove.



Size	Black	Blue	Red
Small	ALL915011	ALL915021	ALL915071
Medium	ALL915012	ALL915022	ALL915072
Large	ALL915014	ALL915024	ALL915074
X-Large	ALL915015	ALL915025	ALL915075
XX-Large	ALL915016	_	_



SFI 3.3 Underwear

Underwear is knit from a blend of lightweight Aramid and flame-retardant cotton material to achieve a durable, comfortable flame-retardant garment. SFI 3.3 rated underwear is machine washable and will maintain shape with washing.

Tops

Tops feature a long sleeve design with an elastic cuff and a taller "mock turtle neck" style collar.

ALL926110	X-Small		
ALL926111	Small		
ALL926112	Medium		
ALL926114	Large		
ALL926115	X-Large		
ALL926116	XX-Large		
ALL926117	XXX-Large		
ALL926118	XXXX-Large		
ALL926119	XXXXX-Large		



Bottoms

Bottoms feature an elastic waistband and cuff style leg bottoms to keep them in place.

ALL926210	X-Small	
ALL926211	Small	
ALL926212	Medium	
ALL926214	Large	
ALL926215	X-Large	
ALL926216	XX-Large	
ALL926217	XXX-Large	
ALL926218	XXXX-Large	
ALL926219	XXXXX-Large	



SFI 3.3 Driving Socks

Socks are a knit blend of flame-retardant cotton and Aramid material to offer outstanding moisture wicking properties. Socks are sold in pairs and include an SFI 3.3 certified label on each sock.

Size	Part No.
6-7	ALL926011
8-9	ALL926012
10-11	ALL926014
12-14	ALL926015

SFI 3.3 Thick Driving Socks

These socks are an extra thick version of our standard driving socks for added comfort. Socks are a knit blend of flame-retardant cotton and Aramid material to offer outstanding moisture wicking properties. Socks are sold in pairs and include an SFI 3.3 certified label on each sock.

Size	Part No.
6-7	ALL926411
8-9	ALL926412
10-11	ALL926414
12-14	ALL926415

sock.

Single-Eyeport SFI 3.3 Head Socks

Head socks or hoods are a knit blend of flame-retardant cotton and Aramid material to offer outstanding moisture wicking properties for comfort and safety to be SFI 3.3 certified. These hoods are designed with reverse seams that are flat sewn on the outside and arranged to avoid pressure points and promote comfort.

ALL923114... Single-Layer ALL923214... Double-Layer



Mid-Top SFI 3.3/5 Driving Shoes

Mid-top driving shoes feature a suede outer layer with a Pyrovatex flame-retardant cotton material inner liner which offers a high level of heat and flame protection. Shoes have many features including reinforced lace, toe and



heel area, soft molded rubber sole that wraps up the back of the shoe and an internal arch support not found in many other driving shoes. Shoes are SFI 3.3/5 certified, and sizes listed are men's sizes.

Size	Part No.
7	ALL919070
8	ALL919080
9	ALL919090
9-1/2	ALL919095
10	ALL919100
10-1/2	ALL919105

Size	Part No.
11	ALL919110
11-1/2	ALL919115
12	ALL919120
13	ALL919130
14	ALL919140

Pro-Series Mid-Top SFI 3.3/5 Driving Shoes

The Pro-Series shoes have the same outstanding features as our standard driving shoes with a thinner sole to offer a better pedal feel. Additional features include a mid-top design with a suede outer layer and a Pyrovatex flame-retardant cotton material inner liner which offers a high level of heat and flame protection. Shoes also include a reinforced lace, toe and heel area, soft molded rubber sole that wraps up the back of the shoe and an internal arch support not found in many other driving shoes. Shoes are SFI 3.3/5 certified, and sizes listed are men's sizes.

01200 11010	a are morre or	50.	
Size	Black	Black/Blue	Black/Red
7	ALL918122	ALL918222	ALL918722
8	ALL918124	ALL918224	ALL918724
8.5	ALL918125	_	_
9	ALL918126	ALL918226	ALL918726
9-1/2	ALL918127	ALL918227	ALL918727
10	ALL918128	ALL918228	ALL918728
10-1/2	ALL918129	ALL918229	ALL918729
11	ALL918130	ALL918230	ALL918730
11-1/2	ALL918131	ALL918231	ALL918731
12	ALL918132	ALL918232	ALL918732
12-1/2	ALL918133	-	_
13	ALL918134	ALL918234	ALL918734



Full-Face Helmets WEW

Snell SA2025 rated full-face auto racing helmets have a classic design featuring a fiber-reinforced polymer composite shell consisting of a fiberglass and Kevlar blend to achieve a balance between light weight and strength. Helmets feature reinforced M6-1.0 HANS/ HNR inserts molded into the shell for installation of the proper anchors for the device used and an expanded polystyrene (EPS) liner. The SA2025 rated helmets feature fire-retardant paint, a replaceable Nomex® inner liner and cheek pads, a Kevlar chin strap, and a clear 3mm anti-fog shield with adjustable tear-off posts.

Series 40 Full-Face Helmets

The Series 40 line features multiple upper and lower vents to provide increased ventilation and a duckbill style lower chin spoiler.

Size	Flat Black	Black	White
X-Small	ALL942000	ALL942010	ALL942030
Small	ALL942001	ALL942011	ALL942031
Medium	ALL942002	ALL942012	ALL942032
Large	ALL942004	ALL942014	ALL942034
X-Large	ALL942005	ALL942015	ALL942035
XX-Large	ALL942006	ALL942016	ALL942036
XXX-Large	ALL942007	ALL942017	ALL942037



Flat Black





Black

White

Series 60 Full-Face Helmets

The Series 60 line features two smaller front vents to reduce dirt and dust entry while still providing adequate ventilation, a unique chin character detail and a dropped neckline for more protection in the neck area.









Flat Black

Black

White

Gray

Size	Flat Black	Black	White	Gray
X-Small	ALL943000	_	ALL943030	_
Small	ALL943001	ALL943011	ALL943031	ALL943081
Medium	ALL943002	ALL943012	ALL943032	ALL943082
Large	ALL943004	ALL943014	ALL943034	ALL943084
X-Large	ALL943005	ALL943015	ALL943035	ALL943085
XX-Large	ALL943006	ALL943016	ALL943036	ALL943086
XXX-Large	ALL943007	_	ALL943037	_

Helmet Shields

Polycarbonate wraparound shields feature an anti-fog coating to improve visibility and increase safety for the driver. Shields are con-



structed from 3mm thick material and have pre-drilled mounting points for our unique tear-off buttons with ramp style adjusters which keep tear-offs tight. Shields accept tear-offs with 12.375" center-to-center mounting points.

Note: Use Racing Optics 10205 or Ultra-Shield 01202 Series Tear-Offs

ALL940601	Clear
ALL940603	Dark Smoke
ALL940604	Amber
ALL940605	Silver Chrome

Helmet Speaker Kit

Speaker kit specifically designed for our Series 40 and 60 helmets includes cup style speakers with a 36" cord and popular 3.5mm plug end to work with most popular track communication devices.Kit also includes special inner



cheek pads which allows for proper placement of the speaker cups within the helmet.

ALL940712	Kit for X-Small Helmet
ALL940713	Kit for Small Helmet
ALL940714.	Kit for Medium Helmet
ALL940715	Kit for Large Helmet
ALL940716	Kit for X-Large Helmet
ALL940717	Kit for XX-Large Helmet
ALL940718	Kit for XXX-Large Helmet



Helmet Supports

Helmet Supports or neck collars are designed to reduce the impact of the helmet contacting your shoulders, collar bones and chest. Supports have a



woven flame-retardant covering over a flame-retardant tapered high-density foam material which offers a full 360° support.

Non SFI		SFI
Size	Part No.	
Large 17"	ALL920014	JR/\
-		Lar

SFI	
Size	Part No.
JR/Youth14"	ALL921011
Large 17"	ALL921014
X-Large 19"	ALL921015

Helmet Skirts

Helmet skirts fasten to the outside of the helmet and drape over the neck and shoulder area to protect the open area under the helmet.



Skirts are made of a knit blend of flame-retardant cotton and Aramid material and include a hook-and-loop tape to attach along the bottom of the helmet.

ALL929010 .. Single-Layer Non-SFI ALL929313 .. Multi-Layer SFI 3.3/5

Deluxe Helmet Bag Will

ALL940820

Soft-sided nylon helmet bag features a soft fleece-lined interior, a double zippered side panel for easy access to helmet and webbed nylon handles for easy carrying.



Helmet Holder WW

ALL12230

White powder coated holder measures 13"x13" and fastens to the wall of vour trailer to keep helmet up out of the way.





Helmet Dryer

ALL13018

Dryer is a tabletop unit that circulates air throughout the inside of a helmet to remove moisture that commonly leads to dangerous mold and bacteria growth. Dryer base mea-



sures 11" x 13" and includes a removable clip to fasten a dryer sheet to help freshen the inside of the helmet. Unit connects to a 110V power source and features a cord-mounted on/off switch.

Helmet Hooks

Aluminum hook clamps on roll cage tubing and provides an anchor for attaching helmet strap.

ALL10228..... 1-1/2" ALL10229..... 1-3/4"

ALL10445..... Reducer Bushing 1-3/4" to 1-5/8"

Composite Helmet Hooks

Lightweight long design 2-piece clamp mounts to roll cage tubing for attaching helmet strap to hang helmet out of the way.

ALL10351..... 1-5/8" **ALL10352**..... 1-3/4"

Universal Helmet Hook

ALL10223

Universal steel helmet hook is 1/8" thick and has a radius mount for attaching to round tubing. Hook may be welded on or clamped to tube with a standard hose clamp.





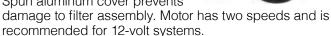
Mike Spatola



Inside Air Blower Motor

ALL13000

Inside air unit is commonly mounted inside the cockpit or decking to provide forced, filtered air to the driver for cooling and to help prevent shield fogging. Spun aluminum cover prevents



Replacement Components

ALL13014..... Filter **ALL99023**.... Top

Outside Air Blower Motor

ALL13001

Outside air unit is commonly mounted inside the driver compartment on vehicles with windows or closed compartment to provide forced, filtered air to the driver for cooling and to help

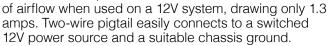


prevent shield fogging. Intake top can be used with 1-1/4" helmet hose or trimmed to accept larger 3" hose, such as ALL42150, routed to the motor from outside of the car or fastened to a plastic duct, such as ALL42143, for fresh air. Motor has two speeds and is recommended for 12-volt systems.

Helmet Fan

ALL13011

Compact inline blower fan connects to 1-1/4" helmet hose and forces air inside driver's helmets equipped with an air inlet to help prevent shield fogging and provide air movement. Fan produces 20+ CFM of airflow when used on a 12V system, dragen and the strength of the system of airflow when used on a 12V system, dragen and the system of the system o



Helmet Vent

ALL13025

High-impact, screened ABS vent minimizes the chance of rocks and other debris from entering helmet hose. Vent has a 1/2" wide mounting flange and a centered outlet that accepts most 1-1/4" helmet hoses.



Helmet Blower System

ALL13022

Remote mount breather system directs filtered, forced air to the driver's helmet for added comfort and safety. Motor assembly has a mounting bracket for easy mounting to chassis or seat back. 4' helmet hose connects to most helmet fresh air intakes with standard 1-1/4" connector. The 9' extension lead can be easily con-

nected to a switched 12-16 volt source. This system weighs 2-1/4 lbs, draws 3.5 amps at 13.6 volts, and produces about 90 CFM of air to the driver, providing more than enough air to keep the driver cool and shield clear.

Mini Helmet Air System

ALL13012

Self-contained, 12-volt fan with reusable filter moves approximately 40-60 CFM of air depending on system voltage. An RF connector allows easy, unrestricted



helmet removal. A 14" wire is permanently attached to the fan and accepts the 24" pigtail (included). Pigtail has simple red (+) and black (-) wire hook-ups.

Hose Adapter

ALL13007

Adapter fits most helmet hoses with 1-1/4" ends and has a 2-3/4" O.D. to fit inside 3" duct style hose or inside some NACA ducts. Adapter may also be mounted in a window opening to funnel air directly to the driver via helmet hose.



Helmet Vent Hose

Hose is 4' long and used to complete the connection between a driver air system and helmets equipped with a 1-1/4" barbed intake port. Two styles are available: ALL13004 is gray and constructed from a denser material to resist crushing and abrasions from rocks and debris; ALL13021 is black and constructed of a thinner more pliable material which is less restrictive to the driver.





ALLSTAR' PERFORMANCE

Tear-Off Machine



Electric Tear-Off machine will quickly provide clear vision with the simple push of a button. Lightweight unit mounts to your shield and includes two 50-foot rolls of clear film (equal to 65 standard tear offs), sealed aluminum motor housing, quick disconnects, and velcro. Works with 12- and 16-volt systems. Choose installation kit with steering wheel- or dash-mount button, sold separately.

ALL13104..... Electric Tear Off Machine

ALL13106..... Install Kit, Vehicle Harness & Steering Wheel Button

ALL13107..... Install Kit, Vehicle Harness & Dash Mount Button ALL13108..... Replacement Rolls of Film (2-Pack)

ALL13109..... Replacement Vehicle Harness

Locking Tear Off Post Kit

ALL13100

Unique aluminum tear off posts have a second set-screw locking the posts to the shield so they don't continually come loose. No need to remove shield just to tighten the tear off post! Pack of 2.



Safety Glasses

ALL10258

Comfortable, lightweight, general purpose safety glasses have a clear wrap around lens for maximum visibility. ANSI-Z87.1 rated.



Reusable Corded Earplugs

ALL12000

Corded earplugs fit instantly without rolling or squeezing. Made of a soft material that cleans up easily in warm, soapy water.



Radio Boxes

Aluminum radio boxes have a removable padded insert to absorb vibration and measures 5" tall x 3-3/4" wide x 2-1/2" deep.





ALL10439..... Flat Mount **ALL10441**..... 1-3/4" Mount

Drink Bottle Kit

Mount the drink bottle within driver's reach for a convenient spot to keep a drink. Great for circle track drivers during pit stops or yellow flags. Lightweight aluminum holder comes with replaceable insulated bottle.

ALL10475..... 1-1/2" **ALL10480**..... 1-3/4"

ALL10445..... Reducer Bushing

1-3/4" to 1-5/8"

ALL10482..... Replacement Bottle



Reducer Bushing 1-3/4" to 1-5/8"

ALL10445

Reducer works with most clampon style brackets or accessories with 1/4" thick mounts including Allstar radio boxes, drink bottle kits, helmet hooks, and universal brackets.

Side View Mirror

ALL76409

Aerodynamic 3" diameter mirror quickly and easily mounts to roll cage tubing and includes a 1-1/2" stainless clamp. High strength ABS plastic housing with a scratch resistant polycarbonate lens makes this mirror suitable for a variety of motorsports, but most commonly used on Asphalt Late Models. Adjustable mirror lens pivots in the housing for optimum driver visibility.



Convex Mirrors

Convex mirrors have a curved face to view a wider area which is ideal for keeping an eye on the competition. Mirrors have built-in mounting tabs with 1/4"-20 threaded inserts for convenient mounting. Universal brackets ALL10452-10454 are commonly used when mounting mirrors to round tubing such as roll cages.

ALL76406 14" × 2-1/2" **ALL76407** 17" × 3"

Panel Mirrors



ALL76404 Four Panel, 27-3/4" Long **ALL76405** Five Panel, 34-3/4" Long

Swan Neck Mirrors

ALL76400

Beautiful exterior rear view mirrors have a 4" diameter stainless steel head and a 5" long chrome arm. Mounting is blind with one bolt. Sold in pairs.



4" Peep Mirrors

ALL76401

Chrome Peep mirrors have a 4" stainless steel head and can be slipped over the top edge of driver and passenger side doors and secured with Allen head screws. Arm pivots 360° to any position and has a



crowned end to lock in the desired position. Includes protective rubber pads. Sold in pairs.

Molded Steering Wheel Pad

ALL52322

Molded pad fits flat or dished 3-spoke steering wheels. Velcro straps are permanently secured to pad for quick installation.



Steering Wheel Pad

ALL52320

Black vinyl-covered pad fastens to most three spoke racing steering wheels with three hook/loop straps. 5-3/4" diameter foam pad is 2" thick.



Steering Wheel Hook

ALL10227

Aluminum hook clamps to 1-3/4" roll cage tubing and provides an anchor for hanging your steering wheel when not in use.



Reducer Bushing 1-3/4" to 1-5/8"

ALL10445

Reducer works with most clampon style brackets or accessories with 1/4" thick mounts including Allstar radio boxes, drink bottle kits, helmet hooks, and universal brackets.

Composite Steering Wheel Hooks

Lightweight long design 2-piece clamp mounts to roll cage tubing for hanging steering wheel out of the way.

ALL10354......1-5/8" ALL10355......1-3/4"



NEN



Trevor Neville



Fire Extinguishers

Disposable fire extinguishers are perfect for keeping on hand in the home, shop or trailer for keeping small fires contained with minimal mess. A B style extinguishers are suitable for ordinary non-metal combustibles including wood, paper and plastics as well as flammable combustible liquids including gasoline, oil and other oil based products.

ALL10503Small 12.69 oz. **ALL10504**Large 23.8 oz.



Quick-Release Fire Extinguisher Bracket

ALL10510 Bracket keeps fire and allows quick access by pulling pin. Bracket mounts most 2-1/2 lb. extinguishers with an O.D.



round tubing with supplied clamps or fastens to a flat panel including trailer or shop walls.

Quick-Release NHRA Fire Extinguisher Brackets

NHRA approved bracket keeps fire extinguisher secure and allows quick access by pulling pin. Bracket mounts most 2-1/2 lb. extinguishers

to 1-1/2"- 1-3/4" round tubing with supplied 3/4" wide stainless T-bolt bands or fastens to a flat panel.

ALL10512..... Bracket for 3" O.D. Extinguisher

ALL10513 Bracket for 3-3/8" O.D. Extinguisher

AL10513

Camera Mount

ALL10446

Clamp-on camera mount for securely mounting Go Pro style cameras. Mount includes inserts for 1" and 1-1/2" round tubing and includes foam inserts for use with 1-1/4" round tubing. High-density thermoplastic construc-



tion features an aluminum base and stainless-steel pivot ball that rotates 360° to provide an infinite number of mounting options and a knurled thumbscrew for easy camera removal.

Shifter Boot with Aluminum Frame W:W

ALL982011

Shifter boot mounts to the transmission tunnel and helps reduce noise and heat from entering the passenger compartment. The removable 6" tall cover features a hook and loop closure and two layers of flame retardant cotton material that snaps over a



5-1/2" x 7-1/2" aluminum mounting framework.

Shifter Boot

ALL54130

Fire-resistant, black, thermal boot helps prevent fire from entering driver compartment. Boot is 7" tall with Velcro strap closure at top. Base is 6" x 7". Used by many top Cup, xfinity, Truck, CRA, and Late Model teams.



Seat Track Assembly

ALL98100

Mount aftermarket seats quickly and easily. Includes two seat tracks, adjustment handle and hardware.



Bolt-In Lower Seat Mount Brackets

ALL98130

Seat brackets are constructed of 3/16" aluminum and designed to fasten an aluminum racing seat to a reinforced stock style floor pan. Additional floor reinforcements recommended as required per sanctioning body rules.



Two-Point Non-Retractable Seat Belts

Two-point, non-retractable lap belt is manually tightened and mounts to two points on the vehicle floor. Belts feature an easy push-button release and are sold individually. Installation hardware kits sold separately.

ALL98110..... Black ALL98111..... Gray ALL98112..... Charcoal ALL98113..... Tan



Related Components

ALL98120 Anchor Plates, 1-Pair **ALL98121** Installation Hardware Kit

Three-Point Retractable Seat Belts

Three-point retractable system has three anchoring points, two on the vehicle floor and one on the B-pillar. Belts feature an easy push-button release and are sold each. Installation hardware kits sold separately.



Related Component

ALL98120 Anchor Plates, 1-Pair ALL98121 Installation Hardware Kit

Seat Belt Anchors

ALL98120

Anchor plates reinforce stock type floor pan when mounting seat belts. Plates are 1/8" thick and have a 9/16" mounting hole. Pack of 2.



ALL98121

Arm Restraints

Arm restraints are often used by racers of open cockpit cars or when running topless specials. The SFI 3.3 rated arm restraints are manufactured using high quality steel hardware and premium webbing. The

2" wide cuffs have adjustable hook and loop closures to secure around the arms with attachment points for the removable snap hooks. The 1" wide Y-tether features a 2" steel ring on the end designed to slide over the shoulder harness belt end-link to secure and release with your belts.

ALL991212.... Youth **ALL991312....** Adult

5-Point Seat Belt Harnesses

NEW

16.1 SFI certified harnesses are built using black finished bolt-in hardware, pull-down style tension adjusters, a 1-3/4" wide sub-belt and an easy to pull tether for releasing latch and link style release. Harnesses equipped with 2" shoulder belts are recommended for use with head and neck restraint devices.

Pull-Down Latch and Link

Traditional pull-down style tension to secure driver and tighten belts.

ALL9511212" Belts **ALL951131**3" Belts **ALL951151**3" Belts, 3" to 2" Shoulder



Pull-Down Latch and Link w/Ratchet Adjuster

Built-in ratchet adjuster for cinching down left-side lap belt to secure driver and traditional pull-down style shoulder harnesses.

ALL9511712" Belts **ALL951181**3" Belts, 3" to 2" Shoulder





Roll Bar Padding

Padding is made of a closedcell foam material that does not absorb moisture and progressively absorbs shock by becoming denser as it compresses. 36" long padding features a 3" O.D. with an offset inside diameter that



is designed to install with the thicker side of padding toward the driver and a perforated seam to make installation easier.

Color	Single	Box of 3pcs NEW	Case (48pcs)
Black	ALL14100	ALL14100-3	ALL14100-48
Red	ALL14101	ALL14101-3	ALL14101-48
Blue	ALL14102	ALL14102-3	ALL14102-48
Orange	ALL14103	ALL14103-3	ALL14103-48
Yellow	ALL14104	ALL14104-3	ALL14104-48
Gray	ALL14105	ALL14105-3	ALL14105-48
Purple	ALL14106	ALL14106-3	ALL14106-48

SFI Mini Roll Bar Padding

ALL14112

Mini roll bar padding is ideal for

tight areas in a race car when standard padding is too large. Unique, compact design provides driver protection to a specific area. Peel- and-stick backing for easy installation on 1-1/4" to 1-3/4" tubing. Meets SFI 45.1 specifications. Sold in 3' lengths, black only.



Provides 180° coverage where space concerns are not a problem. Peel-and-stick backing



for easy installation. Meets SFI 45.1 specifications. Choose from two sizes, each 3' long, black only.

ALL14110 1-1/8" to 1-1/2" O.D. Tubing **ALL14111** 1-5/8" to 2" O.D. Tubing

Door Bar Padding

ALL14115

Closed cell padding adds protection from hard surfaces inside a race car. Cover door bars, seat supports, or increase padding in seat for comfort. Sold in 36" x 48" sheets, 3/4" thick.

Door Bar Clamp

ALL14198

Clamp fastens around a 1-1/2" door bar, allowing a steel door plate to be mounted to the outside of the door bar area. Clamp eliminates the need to weld mounting tabs or door plate directly to a finished chassis. Sold each and includes 1/2" mounting hardware.

Related Components

ALL54070 18" x 26" Steel Plate **ALL54071** ... 24" x 24" Steel Plate **ALL54072** ... 24" x 36" Steel Plate





Lever latch release has a 3/8" round upper support rod for use with border and loop style nets. Mounting brackets are included.

Latch Type Flat Bar



Lever latch release has a 1" x 1/8" x 29" flat steel bar to securely anchor the window net, and mounting brackets. Use with loop style nets. Will not work with most border type nets.

Replacement Component ALL99070 Mounting Tabs

Spring Loaded Round Tube

ALL10219



Spring-loaded tube eliminates the latch release and provides easy entry and exit. Pushing against the handle allows the spring loaded rod to compress approximately 3/4" to release or fasten window net. Kit includes a 26-1/2" long x 9/16" diameter spring loaded top tube, 3/4" flat aluminum strap for securing the bottom of the net, mounting hardware, handle and instructions. Designed for most border and loop style nets.

Replacement Component

ALL99071 Mounting Tabs

Clamp-On Kits

Clamp-on kit eliminates welding tabs

to chassis. Clamps have .600" holes designed to install ALL10219 window net installation kit to chassis tubing.





ALL10221..... 1-1/2" Kit

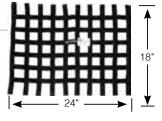
ALL10222..... 1-3/4" Kit Individual Components

ALL99160 1-1/2" Clamp-On Bracket, Fixed ALL99161 1-1/2" Clamp-On Bracket, Swivel ALL99162 1-3/4" Clamp-On Bracket, Fixed ALL99163 1-3/4" Clamp-On Bracket, Swivel



Loop Style Ribbon Window Nets

Durable polypropylene nets are ideal for a variety of full bodied cars. Webbing is double stitched with heavy nvlon thread. All nets meet SFI 27.1 specifications and

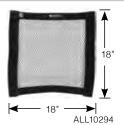


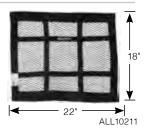
are appropriately tagged. Loop design net has loops sewn in top and bottom of net to accept most round tube and flat bar window net installation kits.

ALL10290..... 18" x 18" Black ALL10295..... 18" x 24" Black

Mesh Window Nets

Durable, lightweight. black polyester mesh nets increase driver vision and





stop smaller debris better than conventional ribbon or string nets. Mesh style net has large built-in sleeves in top and bottom of net to accept most round tube and flat bar window net installation kits. SFI Rated (27.1)

Non-SFI

ALL10294..... 18"H x 18"W **ALL10298**..... 18"H x 22"W

ALL10299.... 18"H x 27"W x 22"W (Angled)

SFI Rated (27.1)

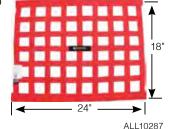
ALL10211 18"H x 22"W

ALL10214 18"H x 27"W X 22"W (Angled)

Border Style Ribbon Window Nets

Durable polypropylene nets are available in a variety of sizes and offer additional safety to the driver. Webbing is double stitched with heavy nylon thread. Border style

net has built-in sleeves in top and bottom of net to accept most round tube window net installation kits including ALL10217 and ALL10219. SFI certified nets meet SFI 27.1 specifications and are appropriately tagged.



Non-SFI

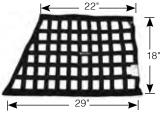
ALL10248..... 10"H x 18"W Black ALL10249..... 14"H x 18"W Black **ALL10283** 18"H x 18"W Black ALL10284 18"H x 24"W Black

SFI Rated (27.1)

ALL10280..... 18"H x 18"W Black **ALL10285....** 18"H x 24"W Black **ALL10286....** 18"H x 24"W Blue ALL10287..... 18"H x 24"W Red

Angled Window Nets

Angled net with border style mounting encloses more of the driver side window opening for additional protection. Net has built-in top and bottom sleeves to



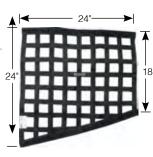
accept most round tube window net installation kits including ALL10217 and ALL10219. SFI certified net meets SFI 27.1 specification and is appropriately tagged.

ALL10293..... Non-SFI Black ALL10288..... SFI Rated (27.1) Black

Drag Window Net

ALL10289

Drag window net with border style mounting attaches to the diagonal door bar of most drag cars. Net meets SFI 27.1 specification and is appropriately tagged. Net has top and bottom built-in sleeves

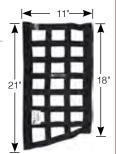


to accept most round tube window net installation kits including ALL10217 and ALL10219.

Funny Car Style Window Net

ALL10291

Border style window net has builtin vertical sleeves for installing mounting rods to attach net to the chassis. Net is ideal for cages that have been fitted with or updated to funny car style bars around the driver. Net is SFI 27.1 certified.



Triangle Window Net

ALL10246 -Triangle net originally designed for Sprints and Midgets also works well on Dirt Late Models and Modifieds when wraparound ends are needed. Net includes quick release buckle and meets SFI 37.1 specs.

Border Style Triangle Window Net

ALL10247

Triangle window net has a border style top for use with most round tube installation kits. Lower portion of net secures around a lower bar.



Radiator ALL30028

Aluminum radiator with furnace brazed tanks provides superior cooling in sprint applications. Features machined filler neck, 1-1/2" RH bottom outlet and (4) female top outlet ports for use with -10AN O-ring fittings. Radiator uses a smaller diameter cap (not included) such as ALL30124 or ALL30125. 20" wide x 22" tall x 2" thick. 9.7 lbs.



Cross Flow Radiator (Chassis Mount) ALL30030

Aluminum radiator with a unique black thermal coating provides superior cooling! Built-in mounting brackets enable the radiator to be quick-turn fastened directly to frame tabs. Radiator with -10AN O-Ring inlets and 1-1/2" outlet is 20-1/2" wide x 18-1/2" tall (including outlet neck) x 2-3/8" thick core. Recommended radiator cap is ALL30126 (28-32 lbs.) sold separately. Approximate weight 8.5 lbs.

Wall Mount Radiator Holder Kit

ALL12216

Brackets fasten to trailer wall and hold radiator safely in place during transport to avoid damage. Kit includes two 29" long aluminum brackets with adjustment holes at 2" increments and arms to fit radiator cores up to 2-1/4" wide. Adjustable arms are slotted for quick adjustment with included thumbscrew knobs to fit a variety of radiator heights.



Radiator Air Scoop for Sprint Car

Scoop fastens around a tube or the front crossmember of most chassis to maximize airflow through the radiator, increase cooling efficiency and at the same time, create downforce. Black plastic scoop is a universal design that will fit a variety of cars and the aluminum scoop is designed for most raised rail cars. Scoop is commonly fastened to the chassis with quick turn fasteners.

ALL23224 Plastic 22" x 11" **ALL23225** Aluminum 22" x 13"

Flat Front Air Box ALL23226

Box fits most sprint cars with 1" raised rail and is fabricated from .080" aluminum. Box measures 9-3/4" left side to 10-3/4" right side, with a total weight of 2.13 lbs.



Radiator Honeycomb

ALL30158

Honeycomb screen mounts to front of radiator to protect fins/core from rocks and debris. Secure directly to radiator



using ALL30085 mounting kit, sold separately. 19" x 26" x 1/2" thick.

Sprint Car Radiator Rock Screen

ALL30163

Aluminum rock screen helps to protect radiators from heavy rocks and mud. Mounting tabs are integrated into the frame for quick and easy installation



to a front air box. Measures 20-1/2" wide x 12" tall and weighs just under 1 lb. Quick turn springs are included.

Sprint Front Engine Plates



Aluminum front engine plates for SB Chevy are offered in one- and two-piece designs. One-piece versions mount using the lower front mounting holes. Two-piece sets use the lower front mount



ALL3814

holes and the water pump mounting holes. All plates have 19-1/2" center-to-center chassis mounting holes. ALL38128 and ALL38145 plates come with bushings to allow for engine flex and help with weight transfer.

Part No.	Description	Finish	Thickness
ALL38119	1-Piece Solid Plate*	Black	3/8"
ALL38145	2-Piece Plate with Bushings [†]	Black	3/8"
ALL38130	Universal Mount	Plain	1/4"

*Features mounting holes for Saldana tank mount bracket OTMB1†Designed to work with ALL36092 and ALL36093 tank mounts.

Sprint Car Dry Sump Tank Mounting Brackets

Mounting brackets are designed to mount 6" diameter tank to the left front corner of standard small block Chevy engine. Commonly mounted with ALL38145 sprint engine plate, the upper bracket utilizes the water pump mounting holes and the lower bracket fastens to the early front engine mount mounting hole.



ALL36092.... Upper Tank Mount ALL36093.... Lower Tank Mount



Sprint Rear Engine Plate

ALL38126

CNC-machined aluminum rear engine plate fits standard and raised cam engines, standard



and raised rail cars as well as most lightweight blocks. Multiple holes are drilled and tapped for mounting pumps and torque ball shield directly to engine plate instead of the housing. The top trailing edge of engine plate is grooved to eliminate obstruction with dash. 3/8" thick plate weighs 7.25 lbs.

Torque Ball Safety Blanket

ALL55220

Fire-resistant safety blanket designed by Jason Meyers Racing protects drivers legs and feet in the

event of a U-joint failure. Ballistic nylon covered blanket weighs just 1-1/2 lbs. and has quick release adjustable straps that allow blanket to be removed easily for servicing torque ball and U-joint. Blanket includes two mounting brackets, mounting studs, nuts, and installation instructions. Replacement Components

ALL55224 3/8" Mounting Stud Kit ALL55226 Mounting Tabs, 1-Pair

Torque Tube Belt

ALL10181

Universal strap keeps torque tube stabilized and centered in case of coupler or tube failure. Black, 3" wide belt fits all torque tube and chassis combinations.

Titanium Stud Kit for Torque Tubes

ALL17030

Kit includes six 3/8"-24 x 3/8"-16 studs with 12 point steel nuts to secure torque tube to rear end housing. Kit weighs about 100 grams.



Titanium Stud Kit for Headers

ALL17010

Kit includes fourteen studs with 3/8"-24 thread on one end, 3/8"-16 thread on the opposite end and 12-point steel shoulder nuts to work with most headers. Overall stud length is approx. 1-1/4". Kit weighs a total of 185 grams.

Titanium Fastener Kit for Fuel Pump

ALL17006

Kit includes three 1/4"-20 x 1/2"
mounting fasteners and one
1/4"-20 x 1" long pinch bolt with
an extended head for easy adjustments. Fastener kit fits most Waterman or Kinsler style
pumps and weighs less than 15 grams.

SB Chevy Gear Drive Assembly

Aluminum gear drive provides accurate cam timing and the ability to adjust valve timing without removing the oil pan. Aluminum frame features a built-in front oil pan gasket retainer and an



idler gear cradle for accurate cam timing throughout the RPM range. Gear drive are complete with cam, crankshaft and idler gears, needle bearing thrust kits, offset degree bushing kit, extra-long dowel pins and installation instructions. Gear drives are commonly used with ALL90080 and ALL90081 Billet Timing Covers or may be used with most stock-type covers such as the ALL90010 with slight modification.

ALL90000 Standard Cam Gear Drive
ALL90100 Raised Cam Gear Drive (+.391")

Replacement Components

ALL90001...Cam Gear
ALL90002..Crank Gear
ALL90003..Idler Gear
ALL90007..Thrust Washer Set

Billet Timing Covers

Machined billet aluminum timing cover is lightweight, durable and weighs over 1 lb. less than cast aluminum covers. Fits major brand oil pumps. Mounting hardware included.

ALL90080 Standard Cam ALL90081 Raised Cam



Aluminum Cam Seal Plates

Aluminum cam seal plate provides a reliable seal and tight fit.



Size	Color	Application
2.103"	Black	GM Small Block
0.050"	Cold	Rodeck Block w/ 1.875" Roller
2.233	Gold	Cam Bearing
2.310"	Blue	Most Blocks w/ 50mm Roller Cam Bearing
2.382"	Silver	Dart Small Block, Aluminum
_	_	Replacement Cam Plate Seal
	2.103" 2.253" 2.310"	2.253" Gold 2.310" Blue 2.382" Silver

Down Nozzle Filters with Breather Ring ALL40325

Filters allow excess fuel to evacuate the injection lines once engine is shut down to help prevent fuel from entering the cylinders. Low-profile filter design reduces the chance of damage. Pack of 8.

Nozzle Plugs ALL40327

Nozzle plugs take the place of the fuel nozzles when only run-



ning one set of injectors. Plugs feature 1/2"-20 threads and include a sealing O-ring. Pack of 8.

ALLSTAR' PERFORMANCE

Throttle Pedals



Pedals fit most sprint chassis with pivot spud welded on frame rail.

ALL54094 Titanium **ALL54095** 4130 Chrome Moly

Heel Riser

Aluminum heel risers are pre-drilled for easy mounting and include a non-skid pad. 4-1/2" wide.

ALL54090 1" Tall Riser **ALL54091** 1-1/2" Tall Riser



ALL54092

Aluminum bracket is 1" tall and rivets to heel risers to help keep foot in place on the riser.



Throttle Bell Cranks

Designed for Sprint car applications, each bell crank is fitted with a pressed .250" I.D. ALL54150 bearing for smooth throttle operation and has optional locations for connecting push rods of various lengths. Typically two are required to complete an application. Option holes on each crank are .188" and spaced 3/8" apart.

ALL54150 Arms Set 75° Apart, 35 Grams **ALL54152**..... Arms Set 70° Apart, 40 Grams

Quick Release Throttle Cable Ends

Quick release ends are used when a throttle connection needs to be removed and installed often. Steel housing has a spring loaded release to keep housing secure to pivot ball.



ALL54147..... #10-32 with #10-32 and 1/4"-28 Studs **ALL54149**..... 1/4"-28 with 1/4"-28 Stud

Positive Cam Lock Shifter

ALL54135

CNC-machined billet aluminum shifter clamps to the frame on driver's right. Designed for use with live axle shifter quick change. Shifter includes all steel hardware, heavyduty cable, and quick release end.

Replacement Components ALL54142..... 43" Long Cable

Brake Pedals

Lightweight brake pedal is fabricated from 1" O.D. tubing and features a knurled pattern machined into the foot pad which helps keep foot in place. Universal fit pedal works with most raised rail chassis. A heel riser is recommended for proper heel to pedal spacing.

ALL41032Titanium ALL41033Chrome Moly

Tel-Tac Mount

ALL81332

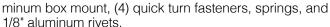
Aluminum mount accepts Tel-Tac digital tachometers and recesses into a dash for clean, finished

look. Mount attaches to backside of dash with quick turn fasteners (buttons sold separately) for simple tachometer removal and installation.

MSD/FAST Ignition Box Mount

ALL81330

Box mount provides a quick release method for replacing MSD or FAST ignition boxes with 7-1/2" x 3-1/2" or 4-1/8" x 6-1/2" center to center mounting dimensions. Kit includes alu-





Andrew Bogusz



Aluminum Steering Box Mounts

Steering mounts are manufactured from 2024 aluminum. Black anodized finished, steering mounts are offered in three versions. Rigid design keeps



steering gear in place.

ALL52114.... Mount with Fuel Shut Off for MPD Valves
ALL52115.... Mount with Fuel Shut Off for Waterman Valves
ALL52116.... Long Mount

Half Box Steering Gear Mount

ALL52113

Mount is designed for quick installation and removal of the steering gear box. Three hex-cut



slots eliminate the need to remove snap ring and end cap and allow the steering box to slide easily into place. CNC-machined from 3/8" thick 2024 aluminum for strength, yet only weighs .60 lbs.

Power Steering Lines



Assembled lines for power steering have -6AN ends and are compatible with high-pressure pumps found in today's sprint cars where standard hose and fittings cannot be used. Lines are lightweight yet strong, weighing less than a standard high-pressure hose assembly. Plumbing is perfect for connection of KSE steering gear to pump. 13-1/2" long.

ALL48260 Line with Steel Ends and Protective Wrap **ALL48261** Line with Aluminum Ends

Power Steering Supply Line for KSE Gen2 Steering Gear

Gen2 supply line has -10AN aluminum fitting and built specifically for use with KSE Gen2 steering gear. New style hose is very flexible, and will not collapse under suction. Total overall length of hose including fittings is 9".

ALL48262 Hose with 90° End **ALL48263** Hose with 45° End

Knee Guard

ALL55230

Ultra-light aluminum knee guard designed by Jason Meyers Racing works great for protecting knees from banging against half box steering gears and provides a

nee guard eyers

comfortable leg support when throttling through corners. Fire-retardant, high-impact, dense rubber padding is covered with self-extinguishing cloth for added safety. Guard fastens to the half box mount (not the box) by drilling and bolting or riveting and is held in place with safety wire or a wire tie.

Knee Guard Mount

ALL55232

Aluminum mount with 2" I.D. fastens around KSE sprint steering box tube to help secure most popular knee guards. Sold each.

Adjustable Fuel Cell Mounts

ALL55112

Slotted mounts replace fixed weld-on brackets and clamp directly to 1-3/8" cross tube. Mounts have 1-1/4" long slots, allowing adjustment often needed to reach insert locations of flexed, ever changing fuel cell shapes and can be rotated for easy fuel cell mounting. Machined alu-



minum, black anodized mounts weigh .35 lbs. each. Pack of 2.

Titanium Fastener Kit for Beadlock

ALL17000

Kit includes 16 pieces of 5/16"-18 x 1" long bolts to reduce rotating weight over standard fasteners. These fasteners work with most beadlock wheels and weigh a total of 114 grams.

Note: Kit will not work with Sander Engineering beadlock wheels.

Titanium Fastener Kit for Fuel Tank Top Plate

ALL17008

Kit includes twelve 1/4"-28 x 7/8" button style socket head fasteners to replace the standard bolts securing the top plate to the bladder on most Fuel Safe and ATL sprint fuel cells. Kit weighs less than 45 grams.



Stacked Front Bumper

ALL22300

Stacked front bumper for improved front end protection is precision bent from 1" O.D. steel tubing, 6" tall x 8" long overall x 19-1/4" wide on center. Weighs less than 4 lbs.

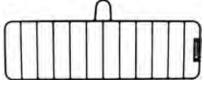
Titanium Bolt Kit for Nerf Bars and Bumpers ALL17016

Kit includes twelve 10-32 x 1-1/2" bolts with nylon locking half nuts. Kit includes enough fasteners for bumpers and side nerf bars. Kit weighs less than 50 grams.



Rock Screens

Steel screen mounts to chassis, providing driver added protection from rocks and



debris. Black powder coated screen is 7-1/2" tall with 2" wide slots. Approximately 1.60 lbs.

ALL30165 Sprint Car, 25" Long ALL30166 Mini Sprint, 23-3/4" Long

Nose Wing **Wall Mount Brackets**

ALL12214

Brackets attach to the side of trailer wall to hold a spare sprint

car front nose wing safely in place. Powdercoated aluminum brackets feature slotted arms that are fully adjustable to accom-



modate a variety of nose wing shapes and sizes. Sold in pairs with retention straps to keep wing secure.

Tool Tray

ALL14170

Tool tray measures 12" x 18" x 3", with hooks on one side to fasten to race car nose or sprint/midget front wing and 6" stands on the opposite side so tray will sit level. Tray has 16 holes for spark plug and nozzle holder use.

Adjustable Nose Wing Posts

Clamp-on style angled aluminum mounts fasten around 1-1/2" torsion bar tubes, providing adjustability to front wing posts.



ALI 55100

ALL55101

ALI 55102

ALL55103

Part No. Description Material ALL55100 | Aero Post LH Steel ALL55101 Aero Post RH Steel ALL55102 | Mount for ALL55100 Aero Post LH Aluminum ALL55103 Mount for ALL 55101 Aero Post RH Aluminum

Nose Wing Posts

Wing Posts have a 1" O.D. to fit into the pinch clamp spuds commonly welded to torsion bar tubes on most chassis. Bent tubes are angled forward to mount the front wing forward, adding increased down force.



ALL55105 ALL55106

Part No.	Description	Material
ALL55108	Bent, Aero With Round Tube	Steel
ALL55105	Bent	Aluminum
ALL55106	Straight	Aluminum
ALL55110	LH Sideboard Mount	Stainless Steel
ALL55111	RH Sideboard Mount	Stainless Steel

Wing Caps



Prevent rock and debris from damaging the leading edge of many popular sprint car wings with a protective cap.

ALL23220 Top Wing Cap, 60" Long, High-Impact Plastic ALL23222 Front Wing Cap, 36" Long, High-Impact Plastic ALL23221 Top Wing, 60" Long, Carbon Fiber

ALL23223 Front Wing, 36" Long, Carbon Fiber



Daison Pursley



Top Wing Trees

Wing trees have an "X" design for lateral and horizontal strength. Available in 16" and 18" tall versions, each tree is adjustable and will extend up to 6" with adjustment holes located at 1" increments. 16" trees are ideal for X wedge cars to keep the back of the top wing lower while providing optimal top wing tilt at high-speed tracks. 4130 chrome moly 3/4" x .060" tube construction. Wing trees are 26" wide at the top and have a min/max bottom width of 25-3/4" to 26-1/2". Adjuster pins not included.

Part No.	Height	Finish
ALL55130	16" (Extends to 22")	Black
ALL55132	18" (Extends to 24")	Black

Related Components

ALL17028..... Titanium Adjuster Pins, (1-Pair) ALL55134 Top Wing Tree Slider, Black

Titanium Top Wing Pin Kit

ALL17028

Kit includes two pins with locking clips for adjusting wing tree height.

Manual Wing Adjuster

ALL48004



Manual wing adjuster is for sprint car top wings when rules do not permit the use of hydraulic cylinders. Aluminum slider includes 3/8"-24 steel rod ends and is adjustable from 20" to 32" center-to-center in 1" increments with included 1/4" locking pin. Weighs less than 1 lb.

Hydraulic Wing Cylinders



Strong hydraulic wing cylinders have an aluminum body which houses a steel piston and pushrod assembly. Available in 10" and 12" lengths.

ALL48000 10" ALL48002 12"

Titanium Studs for Wing Cylinders

Single stud used to mount the wing cylinder to the chassis or wing tree. Stud has 3/8"-24 threads for mounting most cylinders. Mounting nuts not included. Sold each.



ALL17036..... 5/16"-24 x 3/8"-24 x 1.640" Stud ALL17038..... 3/8"-24 x 3/8"-24 x 1.600" Stud

Wing Line Kit

ALL48006

Kit includes lightweight, coated stainless steel braided lines and aluminum fittings to help simplify plumbing of KSE Gen2 steering gear and wing cylinder. Kit



includes (2) #4 slider lines (22" long and 36" long), (2) #4 pressure and return lines (18" long), (4) 45° 4AN to 1/8"NPT valve fittings, (2) 90° 4AN to 1/8"NPT cylinder fittings, and (2) high-flow -3 ORB to -4AN fittings.

Mud-X Cleaner

ALL78232

Cleans and shines plastic, polycarbonate, chrome, fiberglass, paint, vinyl and leather and leaves an invisible coating that protects surfaces and repels dirt, dust, fingerprints, smudges and bugs. Spray it on and wipe it off. Excellent anti-fog coating for helmet shields. 14-oz. can.



Mud-X Concentrate

ALL78230

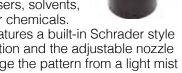
Mix concentrate with up to ten quarts of water to produce a coating that prevents mud, dirt, oil, rubber, and exhaust residue from sticking to body panels. Safe for metal, plastic, rubber, and painted surfaces. One-quart container.



Pressurized Sprayer

ALL10516

Sprayer features a refillable canister that can be recharged after each use with compressed air making this great for applying bulk degreasers, solvents, penetrating oils and other chemicals.



The removable fill cap features a built-in Schrader style air fill port for easy operation and the adjustable nozzle can be adjusted to change the pattern from a light mist to a fine stream.

Mud Scraper ALL44165



Remove the stickiest mud and clay without damaging paint or decals. Lightweight and 32" long to reach wings, deck lids, and undercarriage. Use the convenient hole in end to hang scraper.



Front Axles

Lightweight .095" wall 4130 chrome molv front axles



shipped factory reamed for easy installation and also feature threaded Panhard bar stud and shock mounts. Available in black powder coat or chrome plated.

ALL55170 Black **ALL55171** Chrome

Aluminum Steering Arms







ALL 55060 Arms are strong and solid for rough tracks and fit 3-1/4" spindles. Combo arm has a 1" lead.

ALL55062 Steering Arm RH

ALL55060 Combo Steering Arm LH, Solid ALL55058 Combo Steering Arm LH

Titanium Steering Stud Kit

ALL17026

Kit includes four studs with nylon locking half nuts that thread into steering and pitman arms with 1/2"-20 threads for properly mounting steering links.



Left Front Caliper Mount

Machined aluminum mount keeps the caliper true and straight for maximum braking power. Bolts included.



ALL55071 Mount for 10-7/8" Rotor, Black ALL55073 Mount for 10-1/8" Rotor, Black

Titanium Fastener Kit for Front Hub

ALL17004

Kit includes five 3/8"-16 x 1-1/4" smooth head fasteners with a built-in hex for securing into hub and five shoulder nuts. Fasteners weigh a total of 90 grams.



Pitman Arms

Pitman arms for popular 48-spline boxes are manufactured from 2024 aluminum and feature two drag link mounting points with 1/2"-20 threads. Angle broached arms provide the extra offset needed on today's short steering boxes for header clearance.

ALL55030 Angle Broach, 15° ALL55032 Straight

ALL55030

Drag Link/Tie Rod

1-1/8" sprint car steering rods are made from 4130 chrome molv .065" wall tubing. Rods have 5/8" threads and a tapered threaded end.

Length	Black Powder Coated	Plated
46"	ALL55932-46	ALL55933-46
47"	ALL55932-47	ALL55933-47
48"	ALL55932-48	ALL55933-48
49"	ALL55932-49	ALL55933-49
50"	ALL55932-50	ALL55933-50
51"	ALL55932-51	_

Drag Link Tether

ALL10252

Keeps drag link tethered to the chassis if it becomes disconnected. Tethering of drag link is required by most sanctioning bodies. 22" L x 1" W, woven nylon.



Titanium Pinch Bolt Kit for Torsion Arms and Pitman Arms ALL17032

Kit includes five bolts to replace standard 3/8"-24 x 1-7/8" hardware found in most torsion and Pitman arms. Bolt kit weighs less than 90 grams.



Shock stud kits include four studs and nylon locking half nuts to mount shock to chassis or front axle. Studs

have 1/2"-20 threads that thread directly into pre-threaded bungs.

ALL17022 Stud Kit for 1/2"-20 Threaded Bungs **ALL17048**..... Black Half Nuts 1/2"-20, 10-Pack





Aluminum Torsion Arms

Manufactured from 2024 aluminum. Arms are exceptionally strong and will not flex.



ALL55000 Front Left

ALL55002 Front Left S-Bend*

ALL55004 Right Clear

ALL55005 Right Angle Broach ALL55010 Left

ALL55012 Right ALL55034 XP Left** ALL55036 XP Right**

* S-Bend Provides Added LF Tire Clearance

HD Billet Rear Torsion Arms



Heavy-duty, billet aluminum arms have a high resistance to twisting, ensuring a straight rear end while eliminating inconsistent spring rates. LR arms are approx. 3.05 lbs. RR arms are approx. 2.90 lbs. Pinch bolt included.

ALL55014 Left **ALL55016** Right

Titanium Shock Studs for Rear Torsion Arms ALL17024

Shock stud kits include two studs with large support cones and four nylon locking half nuts to mount shock to most rear torsion arms. Studs and nuts weigh less than 50 grams.



Black Half Nuts

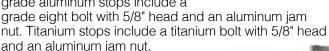
ALL17048

Black plated steel 1/2"-20 nylon lock nuts are grade 8 and a lightweight option to keep fasteners in place. Pack of 10.



Torsion Arm Stops

Stops are available in 1-3/4" or 2" split and are offered in aluminum, 4340 steel or titanium. Steel stops include a 9/16" bolt and nut. 2024 grade aluminum stops include a



1-3/4" Split Stops

ALL55020 Aluminum, Black ALL55024 Titanium ALL55028 Steel, Black

2" Split Stops

ALL55022 Aluminum, Black

Related Parts

Titanium Torsion Arm Stop Bolts With Nut

ALL55027 7/16"-20 with 9/16" Head

Titanium Torsion Arm Stop Adjuster Bolt Kit ALL17034

Kit includes four 7/16"-20 stop adjuster bolts with 9/16" heads to replace or upgrade standard hardware found in torsion arm stops. Kit weighs less than 80 grams.

Titanium Pinch Bolt Kit for Torsion Arms and Pitman Arms ALL17032

Kit includes five bolts to replace standard 3/8"-24 x 1-7/8" hardware found in most torsion and pitman arms. Bolt kit weighs less than 90 grams.

Torsion Arm Stop Kit

Kits hold torsion arm and stop in place if pinch bolts loosen or breakage occurs.

ALL10730..... Clear **ALL10731**..... Black



Torsion Bar Bushings

Performance tested anti-friction nylon bushings are stepped to minimize binding of the torsion bar. Durable, lightweight material offers increased wear-resistance allowing for longer part life, decreased mating component wear and less down time!

ALL55140 Sprint 1-1/8" I.D. for .095" Wall Tubes, Each ALL55140-10. Sprint 1-1/8" I.D. for .095" Wall Tubes, 10-Pack

ALL55150 Midget, Each **ALL55150-10**. Midget, 10-Pack ALL55160 Mini Sprint, Each ALL55160-10. Mini Sprint, 10-Pack

^{**} For Use with XP Birdcages Only



Aluminum Birdcages

Single bearing design birdcages have replaceable components and are fitted with grade 8 hardware.





XP Aluminum Birdcages

Center pull birdcages are one of the most innovative cages. XP cages eliminate

bind on the bearing and reduce drag, allowing for better weight and horsepower transfer. Must be used with XP rear torsion arms.

ALL55038 Left **ALL55039** Right

Related Components

ALL55034 XP Torsion Arm Left Black ALL55036 XP Torsion Arm Right Black

Non-Wing Aluminum Birdcages

Non-wing single bearing birdcages have lowered rear arm connection points, replaceable components, and are fitted with grade 8 hardware.



Replacement Components

ALL55050 Brake Mount RR Steel

ALL55051 Flag **ALL55052** Spud

ALL72336 28mm Bearing

ALL55054 Spirolox **ALL55055** Arm Bolt ALL55056 XP Arm Bolt

Birdcage Bearings

Replacement bearings for Allstar birdcages and many other brands.

ALL72336 28mm Wide



Runout Checker

ALL96440

Fixture provides an easy way to check for bent torque tubes, drive shafts, torsion bars, or radius rods, and measures 16-1/2" overall.



Rod Ends

Two-piece spherical rod ends have a pivoting steel ball and are sold each.

Bore x Thread	RH Male	LH Male	Strength		
Pro Series Steel	Pro Series Steel (Moly) – Black				
5/8" x 5/8"-18	ALL58060	ALL58070	18,000 Lbs		
Aluminum – Black					
1/2" x 5/8"-18	ALL58089	ALL58099	15,000 Lbs		

Thin O.D. Jam Nuts

Specialty iam nuts have smaller outside diameters, allowing smaller wrenches to be used when changing radius rod lengths. Pack of 4.



Steel Radius Rods

7/8" O.D. steel radius rods are .083" wall tubing and have 5/8"-18 threads.

ALL57188 22" ALL57190 23"

Aluminum Radius Rods

1-1/8" diameter aluminum radius rods are built from .156" wall tubing and have

ALL55052

ALL55051

5/8" threads to fit most sprint cars and midgets.



Titanium Radius Rod Stud Kit ALL17020

Kit includes six 1/2-20 x 3-1/4" long (2" and 1" UHL) double-sided studs 00000000000

ALL17020

that install into the chassis providing a secure mounting point for radius rods in most chassis. Kit includes black plated steel nylon locking half nuts for securing studs and radius rods to chassis.

Individual Components

ALL17048..... Black Half Nuts 10-Pack 1/2"-20



Chrome Moly Jacobs Ladders

A Jacobs Ladder is similiar to a panhard bar by keeping the rearend centered in the chassis through the travel of the suspension. Jacobs ladder is constructed of 4130 chrome moly tubing, works with 1/2" birdcage rod ends and include aluminum mounting straps with grade 8 hardware.

ALL55080 13-1/4" ALL55081 13-5/8" ALL55082 14"

ALL55085 13-1/4" Adjustable **ALL55086** 13-5/8" Adjustable **ALL55087** 14" Adjustable

Replacement Component

ALL55090 Strap

Carbon Fiber Jacobs Ladder Cover

Protect the rear axle from rock chips and other debris. Real carbon fiber cover is strong yet lightweight and attaches to all Jacobs Ladders with existing bolt or pin (not included).



Jacobs Ladder Pin Kits

Steel pin kit offers a quick option for changing out a Jacobs ladder. Kit include a 1-1/2" long birdcage rod end pin, two 3/8" x 3-3/4" long strap pins, three locking retainer clips and two strap pin springs to allow movement and keep the ladder free.

ALL55093 Kit with 3/8" Rod End Pin **ALL55094***... Kit with 1/2" Rod End Pin

Replacement Components

ALL55097 3/8" Clip **ALL55098** 1/2" Clip **ALL55099** Spring

*Used with Allstar Jacobs Ladders

Jacobs Ladder Installation Kit

ALL17012

Installation kit includes a titanium pin kit and strap mounting hardware for quickly changing out a Jacobs Ladder. A 1/2" birdcage rod end pin for use with most popular Jacobs Ladders is also included.



Shock Protectors

Shock protectors add extra protection from rocks and debris to your shock body. 11" tall plastic protector simply snaps onto your shock body. May need to be cut to length. Sold each.

ALL64202 2" Standard Body Shocks ALL64203 1-5/8" Small Body Shocks

Shock Bump Rubbers

Conical shaped bump rubbers fit on most shock shafts up to 16mm to limit shock travel. Bump rubbers are 2-3/8" tall and have a 2" O.D. base. A letter designation is molded in the bottom to identify compound.

ALL64500 Soft (40 grams) **ALL64501** Medium (50 grams) **ALL64502** Hard (55 grams)

Ride Height Blocks

Chassis set-up blocks are adjustable in 1/4" increments. A quick-release pin holds block at desired height. Bottom surfaces of blocks are contoured to



fit steel tubing or any flat surface and have magnets for holding block to chassis. Short blocks adjust 1.75"-4". Tall blocks adjust 3"-6". Pack of 2.

ALL10720..... Short **ALL10721**..... Tall

Adapters Cups for Ride Height Blocks

ALL10722

Adapters replace the standard flat pad on set up blocks and are machined to cradle axle tubes during chassis set-up. Pack of 2.

Cradle Rollers for Ride Height Blocks

ALL10723

Built-in rollers allow live axle rear-ends to rotate while on the cradles or when using the rear axle to rotate the engine to check or adjust the valve train. Pack of 2.





SB Chevy Power Steering Kits

Kits include all the major components of a power steering system: power steering pump fitted with a lightweight aluminum pulley, power steering tank, tank mounting bracket, and choice of head or block mounted pump bracket.



ALL48240 Head Mount Kit ALL48242 Block Mount Kit

Notes: Additional pulley or bracket shimming may be required on some applications. Head mount bracket may need to be modified to clear some water pumps.

Power Steering Pump with Pulley

Steel Type II style power steering pump with 6" diameter pulley provides smooth, consistent steering. Pump is rated at 3 gallons per minute and produces up to 1300 PSI at a recommended pump RPM range of 1500-6500. Pump features a -6AN pressure fitting and a -10AN return fitting.



ALL48250 Pump with Pulley

ALL48252*... Pump with Pulley for 1/2" Belt

Replacement Components

ALL99252 Pump only with AN Fittings (.665" Shaft)

ALL48251 Pulley For ALL48250

ALL48253 Pulley For ALL48252

ALL99286 Return Fitting -10AN with 3/4"-16 Thread

ALL99287 Return Fitting -10AN with 7/8"-32 Thread

ALL99288 Pressure Fitting -6AN

*Designed for use with 1/2" wide industrial grade belt used with ALL31094 and ALL31095 Premium Reduction Pulley kits.

Power Steering Pump with Pulley and Reservoir

ALL48245

Aluminum Type II style power steering pump with 6" diameter pulley and integral fluid reservoir

provides smooth, consistent steering. Pump is rated at 3 gallons per minute and produces up to 1300 PSI at a recommended pump RPM range of 1500-6500. Pump features a -6AN pressure fitting and a -6AN return fitting.

Replacement Parts

ALL48246 Cap

ALL48247 Tank and Clips **ALL48251** Pulley for ALL48245

V-Belts

Premium quality V-belts are perfect replacements for worn or cracked belts.



SB Chevy Power Steering Pump Bracket Kits

Power steering bracket kit provides proper installation of the Type II style power steering pump to most SB Chevy applications with a short style water pump. Bracket kit also includes bracket-to-engine and pump-to-bracket mounting hardware. Head mount locates the pump to the driver's side cylinder head and the block mount locates the



ALL48502

head and the block mount locates the pump to the lower driver's side of the block.

ALL48500 Head Mount Kit ALL48502 Block Mount Kit

Notes: Additional pulley or bracket shimming may be required on some applications. Head mount bracket may need to be modified to clear some water pumps.

Replacement Components

ALL48505 Bracket-to-Head Bolt Kit ALL48507 Pump-to-Bracket Bolt Kit

ALL48508 Adjuster T-Nut

Economy SB Chevy Power Steering Pump Bracket Kits

Power steering bracket kit provides proper installation of the Type II style power steering pump to most SB Chevy applications with a short style water pump. Bracket kit also includes bracket-to-engine and pump-to-bracket mounting hardware. Head mount locates the pump to the driver's side cylinder head and the block mount locates the pump to the lower driver's side of the block.



ALL48501 Head Mount Kit ALL48503 Block Mount Kit

Replacement Components

ALL48505 Bracket-to-Head Bolt Kit

Notes: Additional pulley or bracket shimming may be required on some applications. Head mount bracket may need to be modified to clear some water pumps.

Pulley Shim Kits

Use shim kits to properly align pulleys. Water pump shims have dual bolt hole pattern to fit most GM and Ford water pumps. Crank pulley spacers are for small block Chevys. Kits include three shims.



ALL 31066

ALL31064 Water Pump Shims, 1/16", 1/16", 1/8" **ALL31066** Crankshaft Shims, 1/16", 5/64", 1/8"



Firewall Mount Power Steering Tanks

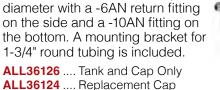
Aluminum tank measures 8" tall by 3" wide with mounting tabs spaced 4-1/4" apart. Tank features an internal baffle between the -6AN return and the -10AN supply to help prevent cavitation and includes a twist-off filler cap.



ALL36136 LH Inlet **ALL36137** RH Inlet

Economy Power Steering Tank with Bracket ALL36130

Aluminum tank has no internal baffles and is 8" tall overall by 3" in diameter with a -6AN return fitting on the side and a -10AN fitting on 1-3/4" round tubing is included.



ALL36122 Round Tube Mounting Bracket

Power Steering Tank with Bracket

Aluminum tank is 8-1/2" tall overall by 3-1/2" in diameter with a -6AN return fitting on the side and a -10AN fitting on the bottom. A baffle in the return fitting prevents foaming and cavitation. A steel bracket for mounting tank is included.



ALL36120 Tank with 1-3/4" Round **Tubing Bracket**

ALL36132 Tank with 2-1/4" x 3-1/2" Flat Mount Bracket

ALL36121 Tank and Cap Only ALL36124 Replacement Cap Only ALL36122 Round Tube Mounting Bracket

ALL36125 Flat Mounting Bracket

Power Steering Tank Brackets







Brackets secure 3" or 3-1/2" diameter power steering tanks to round tubing, or flat surfaces such as firewalls. Tanks fasten to brackets with hose clamps or band clamps (not included).

ALL36122 Horizontal Mount (1-3/4" Tubing) ALL36123*... Horizontal Mount (Alum. Angle) ALL36125 Flat Mount

*Bracket may be clamped to round tubing or bolted to the firewall.

Power Steering Hose Kits

Kits include hose and fittings to properly install a remote reservoir style power steering pump to most cars. Steering box fittings are sold separately.



Front Mount Kits - O.E. Style Location with Pump Mounted to Front of Engine

ALL48204 Kit for Stock Type Gear Box (Modified, Street Stock) ALL48200 Kit for Rack and Pinion Steering

Rear Mount Kits - Pump Mounted to Bellhousing Mounted Dry Sump Pumps, Fuel Pumps, etc.

ALL48201 Kit for Rack and Pinion ALL48205 Kit for Steering Box

Power Steering Hose

The same quality hose included in Allstar's power steering hose kits available in a variety of lengths for building custom power steering lines or making repairs. Hose is suitable for most steering applications.

-6AN Power Steering Hose

ALL48270-3...... 3' Long ALL48270-6...... 6' Long ALL48270-10 10' Long ALL48270-15 15' Long ALL48270-20..... 20' Long





Power Steering Hose Ends

The same quality hose ends included in Allstar's power steering hose kits for building custom power steering lines or making repairs. Fittings are suitable for most steering applications.



ALL48271 Straight ALL48272 45° ALL48273 90°



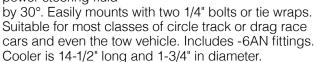
ALL48276 Straight ALL48277 45° ALL48278 90° **ALL48279** 120°



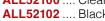
ALI 4827

In-Line Oil Cooler

Cool transmission or power steering fluid



ALL52100 Clear ALL52102 Black





ALL52102



Power Steering Box Fittings

Allstar fittings convert most power steering boxes and racks to -6AN fitting.











ALL48210 ALL48211

ALL48212

ALL48214

ALL48215

O-Ring Style Fittings

ALL48210*...-6AN Male to M16-1.50 Fitting with O-Ring ALL48211 -6AN Male to M14-1.50 Fitting with O-Ring ALL48212*...-6AN Male to M18-1.50 Fitting with O-Ring **ALL48214** -6AN Male to 9/16"-18 Fitting with O-Ring

Non O-Ring Style Fittings

ALL48215 -6AN Male to 5/8"-18 Fitting ALL48217 -6AN Male to 11/16"-18 Fitting

*These are the two most common fittings when O-rings are needed.

Molded Steering Wheel Pad

ALL52322

Molded pad fits flat or dished 3-spoke steering wheels. Velcro straps are permanently secured to pad for quick installation.



Steering Wheel Pad

ALL52320

Black vinyl-covered pad fastens to most three-spoke racing steering wheels with three hook/loop straps. 5-3/4" diameter foam pad is 2" thick.



Steering Wheel Hook

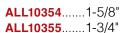
ALL10227

Aluminum hook clamps to 1-3/4" roll cage tubing and provides an anchor for hanging your steering wheel when not in use.



Composite Steering Wheel Hooks

Lightweight long design 2-piece clamp mounts to roll cage tubing for hanging steering wheel out of the way.





Steering Wheel Disconnects

Disconnects allow easy installation and removal of three bolt style steering wheels, often used to ease the entering and exiting of vehicles. Quick-release aluminum steering wheel hub mates to a steel coupler, which is welded to a standard 3/4" steering shaft.

ALL52302 Hex Style (Pin Type)

ALL52318 Spline Style (360° Flange)Economy

ALL52308 Spline Style (360° Flange) ALL52304 Spline Style (360° Flange) SFI



Replacement Components

ATTENTION: Do not mix components with other manufacturers' disconnects!

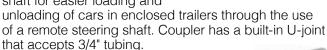
ALL52303 Hex Coupler for ALL52302 ALL52309 Spline Coupler for ALL52308 ALL52319 Spline Coupler for ALL52318

ALL52305 Spline Coupler for ALL52304 (2" of Spline Area)



Loading Couplers

Loading coupler is a combination U-joint and a non-locking steering coupler that slips over the splined end of the steering shaft for easier loading and



ALL52306 19-Spline for Allstar/Sweet ALL52307 20-Spline for Woodward



ALL52306

Related Component

ALL52305 19-Spline End for Allstar/Sweet Disconnect

Steering Wheel Extensions

Aluminum steering wheel extensions fit between steering wheel and quick disconnect so the distance between driver and steering wheel can be adjusted. Includes fasteners.



ALL52310 1/2" ALL52312 1" ALL52314 1-1/2" ALL52316 2"



Steering Shaft Tubing

Seamless D.O.M. tubing is 3/4" O.D. with .120" wall thickness, making this an excellent choice when building a steering assembly to connect steering wheel to steering box or rack and pinion. ALL52132 oversized rod end is commonly used to support steering shaft. Consult sanctioning rules to verify proper installation when building a steering assembly.

ALL22190 5' Steering Shaft ALL22191 6' Steering Shaft

"Double D" Steering Shafts

Solid steel shaft has the appearance of two D's stacked back to back when viewed from the end or simply a 3/4" round shaft with flats on opposite sides. Often used with stock type couplers, this shaft can be used in assemblies without welding. Commonly connected to U-joints using a set screw, the shaft should be dimple drilled to help pilot set screws and help prevent the assembly from sliding apart. ALL52132 oversized rod end is commonly used to support steering shaft. Consult sanctioning rules to verify proper installation when building a steering assembly.

ALL52175.... 24" Shaft **ALL52176**... 30" Shaft **ALL52177**... 36" Shaft **ALL52178**... 60" Shaft **ALL52179**... 72" Shaft

Shaft Collars

Aluminum, 2-piece shaft collars are used on sway bars and steering column assemblies.

ALL52140 3/4" I.D. **ALL52145** 1-1/16" I.D. **ALL52142** 7/8" I.D. **ALL52146** 1-1/8" I.D. **ALL52148** 1-1/4" I.D.

Flange Bearing ALL52130

Self-aligning flange bearing has a .757" I.D. and installs in the firewall to accept the steering shaft. Includes locking collar. Bearing allows shaft to angle up to 40°.



Oversize Rod End Kit

ALL52132

Mounts to steering column bracket to hold steering shaft in place. Kit includes one rod end and two steel

3/4" RH jam nuts. Rod end is .757" I.D. (.007" oversized) to slide over a 3/4" O.D. shaft.

Steering Shaft Rod End Mounting Tab

ALL52133

Gusseted weld-on tab provides an excellent mounting point for the 3/4" oversized rod end (ALL52132) when building custom steering shaft assemblies. Tab is designed to cradle into round chassis tubing with built-in gussets, adding strength and reducing flex.



Collapsible Steering Shafts



Collapsible shaft is designed to be used in-line near the rack and pinion or steering box, allowing steering shaft compression. For proper installation, shaft should be extended when installed. The heavy-wall, 1.140" diameter tubular steel shaft has 3/4"-20 splines on both ends. The durable rubber boot keeps the sliding mechanism free of dirt and debris.

Note: This shaft is NOT designed for directly attaching a steering wheel disconnect.

ALL52170 Long Assembly 24-1/2", Collapses 7" **ALL52171** Short Assembly 13-1/2", Collapses 3"

Replacement Component

ALL52172 Rubber Boot

Steering Column Brackets

Stamped-steel brackets weld to dash bars to create a mounting point for steering shaft when using a 3/4" oversized rod end. Brackets

are 3-1/8" wide and available in a variety of lengths to fit most applications. 4" and longer brackets are prenotched for 1-1/2" dash bars but are easily modified to fit other size bars.

ALL52120 2-1/2" Long ALL52122 4" Long ALL52124 8" Long ALL52126 10" Long

Clamp-On Steering Column Bracket

ALL52128

Aluminum bracket clamps to 1-3/4" tubing and is 7-1/2" center-to-center. Mounting bolts face the seat, so the driver can easily adjust the column up and down while sitting in the seat. An oversize rod end (sold separately, ALL52132) mounts horizontally through a 3/4" hole, allowing some left to right adjustment without moving the bracket or notching the interior panel.

Steering Quickener Bracket

ALL60028

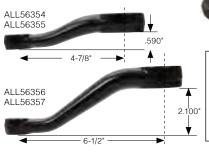
Mounts all popular steering quickeners including AFCO, Coleman and Howe. Bracket has two holes spaced 1-3/4" apart, and may be welded to 1-1/2" or 1-3/4" diameter tubing.





Pitman Arms

Replacement GM Pitman arms.





A-Body (Chevelle)

ALL56354 '68-72, Use w/ 800 Series Power Box **ALL56355** '68-72, Use w/ Manual and 605 Small Power Box

G-Body Intermediate Metric (Monte Carlo)

ALL56357 '78-88, Use w/ 800 Series Power Box **ALL56356** '78-88, Use w/ Manual and 605 Small Power Box

Pitman Arm Nut Kit



Kit includes 7/8"-14 steel nut and lock washer.

Centerlinks



Centerlinks fit GM applications. Mounting hardware included.

Allstar	Moog	Description	Year
		Buick Special, Skylark, Grand Sport	
ALL56310	DS749	Chevrolet Chevelle, El Camino, Monte Carlo	'68-72
		Oldsmobile Cutlass, Hurst, 442	
		Buick Century, Regal	
ALL56311	DS808	Chevrolet Chevelle, El Camino	'73-77
		Oldsmobile Cutlass, Hurst, 442	
		Buick Century, Regal, GN, GNX	'78-81
ALL56312	DS909	Chevrolet Malibu, El Camino, Monte Carlo	'78-88
ALL30312		Pontiac Bonneville	'82-86
		Pontiac Grand Prix	'78-87
		Cadillac Fleetwood, Brougham, Deville	'77-84
		Chevrolet Caprice, Impala, Impala SS	'77-96
ALL56313	DS899	Oldsmobile Delta 88	'77-85
		Pontiac Bonneville, Catalina	'77-81
		Pontiac Parisienne	'83-86
ALL56314	DS829	Chevrolet Camaro (1970-73 with Power Steering, All 1974-79, 1980-81 V8)	'70-81
		Pontiac Firebird And Trans Am (V8)	'80-81
ALL56316*	DS1049	Chevrolet Camaro	'82-92

^{*}Commonly used on INT GM metric chassis to correct bump steer

Adjustable Centerlinks



Centerlinks add strength and adjustability. Correct bump steer with specially designed inserts (available separately or in kits). Insert kits include one each of four different offsets. Lower center design adds engine oil pan clearance. OEM frame cross member must be modified.

ALL56330 Centerlink, Metric GM '78-88 ALL56331 Centerlink, Camaro '70-81

Note: some applications may require early style (shorter) Pitman arms.

Replacement Components

ALL99084 Stud for ALL56330 Pitman End (Long)
ALL99085 Stud for ALL56330 Idler End (Short)
ALL99086 Stud for ALL56331 Pitman End (Long)
ALL99087 Stud for ALL56331 Idler End (Short)
ALL99088 Centerlink Shims, 12-Pack (6 each .030"/.060")

Inserts For Adjustable Centerlinks

Adjustable centerlink inserts have tapered or straight-through designs. Tapered inserts have a 1-1/2" per foot taper and are com-



monly used with stock type inner tie rods, while straight-through design are for use with a 5/8" bolt and rod end.

Description	Tapered Inserts	Straight-Through Inserts
Insert Kit (Centered, 1/8", 1/4", and 3/8")	ALL56334	ALL57334
Centered	ALL56335	ALL57335
1/8" Offset	ALL56336	ALL57336
1/4" Offset	ALL56337	ALL57337
3/8" Offset	ALL56338	ALL57338

Idler Arms

OE replacement parts.

Allstar	Moog	Application
ALL56344	K5143	'68-72 Chevelle, '70-72 Monte Carlo
ALL56345	K6187	1978-88 Monte Carlo
ALL56347	K6186	1970-81 Camaro, 1975-79 Nova



GM Metric Adjustable Idler Arm

ALL56341

Adjustable arm for 1978-88 GM Metric G-body cars features a threaded assembly which aids in correcting bump steer problems by lowering the arm up to 3/4" compared to OE style arm. Arm is constructed of forged steel components so there are no plastic parts or springs to wear out like OEM style arms. Not legal in all sanction bodies.





Tie Rod Ends

OE replacement parts.



Allstar	Moog	Description	Size (Thread and Length)	Application
ALL55900	ES323R	Inner Tie Rod	5/8"-18 RH Thread x 4" Long	1963-82 Corvette, 1963-64 GMC Truck
ALL55901	ES323L	Inner Tie Rod	5/8"-18 LH Thread x 4" Long	1963-82 Corvette, 1963-64 GMC Truck
ALL55902	ES370R	Inner Tie Rod	5/8"-18 RH Thread x 7-1/4" Long	1965-68 Impala, 1965-70 Chevrolet P/U
ALL55903	ES2034RLT	Inner Tie Rod	5/8"-18 LH Thread x 8-1/2" Long	1978-88 Monte Carlo (G-Body)
ALL55920	ES2033RLT	Outer Tie Rod	5/8"-18 RH Thread x 8-1/2" Long	1978-88 Monte Carlo (G-Body)
ALL55921	ES333RL	Outer Tie Rod	5/8"-18 RH Thread x 8-1/2" Long	1964-70 Chevelle
ALL55904	ES681N	Inner Tie Rod	5/8"-18 LH Thread x 9" Long	1968-70 Chevelle/Malibu
ALL55910	ES2020RLT	Inner Tie Rod	11/16"-18 LH Thread x 9" Long	1973-77 Chevelle, 1977-96 Impala
ALL55911	ES442L	Inner Tie Rod	11/16"-18 LH Thread x 9" Long	1975-81 Camaro, Left
ALL55912	ES443L	Inner Tie Rod	11/16"-18 LH Thread x 9" Long	1975-81 Camaro, Right
ALL55922	ES2019RLT	Outer Tie Rod	11/16"-18 RH Thread x 9" Long	1977-96 Impala

Crown Vic Tie Rod Ends



ALL55925	1995-02, Inner Tie Rod End
ALL55926	1995-02, Outer Tie Rod End
ALL55927	2003-12, Outer Tie Rod End RH
ALL55928	2003-12. Outer Tie Rod End LH

Tie Rod Adjusting Sleeves

O.E. style replacement sleeves fit many applications and have LH



and RH threads for easily adjusting the toe setting.

Allstar	Moog	Size (Thread and Length)
ALL55930	ES2032S	5/8"-18 x 4-1/2" Long
ALL55931	ES2004S	11/16"-18 x 4-3/4" Long

Dropped Steel Tie Rod Tubes

Dropped steel tie rod tubes are popular on modifieds and street stocks providing additional



clearance on the right front tie rod assembly. Tube is .156" wall. 7/8" OD. with 5/8"-18RH threads located on the inside/ center link end and 5/8"-18LH threads on the outer/spindle end. Length stated is overall length of tube.

ALL57040-10	10"
ALL57040-11	11"
ALL57040-15	15"
ALL57040-16	16"
ALL57040-17	17"

Steel Tie Rod Tubes, with 5/8" RH and 11/16" LH

Swaged D.O.M. steel tube has a 1" O.D. and is commonly used with an O.E. style 11/16"-18 LH inner tie rod end and a 5/8" RH rod end.





Steel Tie Rod Tubes

Steel tubes are built from 7/8" O.D., .083" wall D.O.M tubing and swaged to

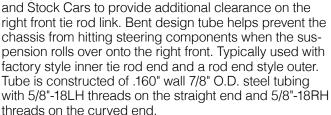
accept 5/8" rod ends or O.E. style tie rod ends with 5/8-18 threads. Tubes are threaded LH on one end and RH on the other end for easy adjustments.

ALL57160 8"	ALL57172 14"
ALL57162 9"	ALL57173 14-1/2"
ALL57164 10"	ALL57174 15"
ALL57166 11"	ALL57175 15-1/2"
ALL57167 11-1/2"	ALL57176 16"
ALL57168 12"	ALL57178 17"
ALL57169 12-1/2"	ALL57180 18"
ALL57170 13"	ALL57182 19"
ALL57171 13-1/2"	ALL57184 20"

See Pages 195-196 for Additional Steering/Suspension Tubes.

5/8" Bent Steel Tie Rod Tubes

Bent tie rod tube or adjusting sleeve is commonly used on Modifieds



ALL57008 10"	ALL57018 15"
ALL57010 11"	ALL57019 15-1/2"
ALL57012 12"	ALL57020 16"
ALL57013 12-1/2"	ALL57021 16-1/2"
ALL57014 13"	ALL57022 17"
ALL57015 13-1/2"	ALL57024 18"
ALL57016 14"	ALL57026 19"
ALL57017 14-1/2'	ALL57028 20"



Taper Reamers

Repair or enlarge tapered holes to accept tie rod ends or ball joints. Reamer may be used in a drill with a 1/2" chuck by removing the T-handle.

ALL11170 1-1/2" Per Ft. 7.15° **ALL11172** 2" Per Ft. 9.56°



Inner Tie Rod Stud

ALL56278

Stud replaces the stock inner tie rod end, allowing a 5/8" rod end to be used on both ends of the steering link. Inner tie rod stud and rod end combination also provides additional steering clearance com-



pared to O.E. style inner tie rod and crossmember.

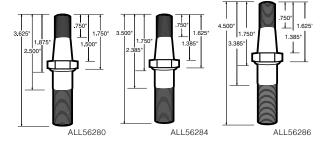
Bump Steer Studs

Studs replace the OE style outer tie rod end when converting to a 5/8" spherical rod end with a suspension/steering tube and features a 1-1/2" per foot taper to work with most popular spindles or rack eye. Kits include a stud,

ALL56280

self-locking nuts, one .100"spacerm and three .300" spacers to simplify setting bump steer; the ALL56286 also includes a .500" spacer.

ALL56280 Bump Steer Kit, Rack Eye Taper ALL56284 Bump Steer Kit Mustang II ALL56286 Bump Steer Kit 1" Longer Shank Than ALL56284



Set-Up Plates

Set-up plates are used for squaring and stringing chassis to ensure



accurate chassis set-up by eliminating wheel and tire differences. Plates are 1/2" thick and can also be used when setting bump steer or checking axle tubes for straightness. Sold each.

ALL10660..... 5x5, 7" x 28" ALL10662..... Wide 5, 12" x 28"

Bump Steer Kit

ALL18600

Kit includes a 5/8"-18 x 3" bolt and 4 spacers (.100", .200", .300", and .500").



Bump Steer Spacer Kit

ALL18601

Steel spacers have a 5/8" I.D. and are commonly used to and are commonly used to space a steering rod end when correcting bump steer. Kit includes 7 spacers, one of each size: .030", .060",

.100", .200", .300", .400", and .500".



Steel spacers have a 5/8" I.D. and are commonly used to space a steering rod end when correcting bump steer.



Size	2-Pack	10-Pack
.030"	ALL18602	ALL18602-10
.060"	ALL18603	ALL18603-10
.100"	ALL18604	ALL18604-10
.200"	ALL18605	ALL18605-10
.300"	ALL18606	ALL18606-10
.400"	ALL18607	ALL18607-10
.500"	ALL18608	ALL18608-10

Tie Rod Spacer

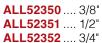
ALL56288

Spacer corrects bump steer on vehicles that use a rod end as an outer tie rod end. Spacer is used between the spindle arm and the rod end. Steel spacer is 2" tall and has a 5/8" hole.



Rack and Pinion Spacers

Place aluminum spacers between chassis and rack assembly to help achieve proper front end geometry.



Steering Rack Boot Cover

ALL52345

Neoprene cover fits most steering racks and helps protect against rocks and debris. Hookand-loop closure makes installation and removal simple.





Mustang II Spindles

Mustang II/Pinto spindles are direct replacements for stock O.E. spindles featuring the stock 10° pin inclination and upper and lower ball joint tapers. Spindles accept Granada or Hybrid style rotors with corresponding caliper brackets, calipers and brake pads. IMCA-approved spindles features the official IMCA stamp of approval cast into the spindle.

Stock Height Spindles

ALL56307 Spindles, Pair ALL56308 Spindle LH ALL56309 Spindle RH

ALL56303 Spindle LH IMCA Approved ALL56304 Spindle RH IMCA Approved

2" Dropped Spindles

ALL56305 Spindles, Pair

Related Components

ALL42110..... LH Caliper Bracket for Granada Rotor ALL42111 RH Caliper Bracket for Granada Rotor ALL42118..... LH Caliper Bracket for Hybrid Rotor ALL42119..... RH Caliper Bracket for Hybrid Rotor

ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper

ALL72308 Granada Master Bearing and Seal Kit ALL72309 Hybrid Master Bearing and Seal Kit

Mustang II Spindles with Reamed Lower Ball Joint Hole

Mustang II/Pinto spindles are stock appearing and available with 10° (ÖE) or 8° pin inclination and 1-1/2" or 2" per foot lower ball joint taper. Spindles accept Granada or Hybrid style rotors with corresponding caliper brackets, cali-

pers and brake pads. Spindle arms have been reamed to a straight hole to accept a 5/8" bolt and rod end.

10° (OE) Pin Inclination

Part No.		Lower B/J Taper	Lower B/J Major Dia.	Common Lower B/J	B/J
ALL55996	LH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55997	RH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55998	LH	2"	.830"	ALL56212 (K6117)	Press-In
ALL55999	RH	2"	.830"	ALL56212 (K6117)	Press-In

8° Pin Inclination

Part No.		Lower B/J Taper	Lower B/J Major Dia.	Common Lower B/J	B/J
ALL55990*	LH	1-1/2"	.710"	_	_
ALL55991*	RH	1-1/2"	.710"	-	-
ALL55994	LH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55995	RH	1-1/2"	.830"	ALL56216 (K727)	Screw-In
ALL55992	LH	2"	.830"	ALL56212 (K6117)	Press-In
ALL55993	RH	2"	.830"	ALL56212 (K6117)	Press-In

^{*}This spindle features a steering arm with an OE style taper.

Related Components

ALL42110 LH Caliper Bracket for Granada Rotor **ALL42111** RH Caliper Bracket for Granada Rotor ALL42118..... LH Caliper Bracket for Hybrid Rotor ALL42119..... RH Caliper Bracket for Hybrid Rotor ALL42084 LH GM Metric Caliper

ALL42083 RH GM Metric Caliper

ALL72308 Granada Master Bearing and Seal Kit ALL72309 Hybrid Master Bearing and Seal Kit

Mustang II 3-Piece Spindles

Modular design 3-piece Mustang Il style spindle features a separate spindle body with bolt-on caliper bracket and steering arm for easy and affordable repairs. Spindle uses a GM metric brake



rotor, bearings and brake caliper while combining the features of a typical Mustang II spindle including an 8° pin inclination and a short steering arm with a straight hole for using a 5/8" rod end. Spindle accepts popular ALL56204 (K6024) bolt-in or ALL56214 (K772) screw-in style upper ball joint and a stock 1979-88 G-body lower ball joint. IMCA approved for IMCA modifieds and sport mod divisions.

ALL55970 LH ALL55971 RH

Individual Components

ALL55974 Spindle Body ALL55972 LH Steering Arm ALL55973 RH Steering Arm ALL55981 LH Brake Bracket

ALL55982 RH Brake Bracket ALL55981 ALL55983 Hardware Kit





ALL55983

Related Components

ALL42083 GM Metric Caliper, RH ALL42084 GM Metric Caliper, LH ALL72305 + ... Bearing and Seal Kit 1979-81 ALL72306‡... Bearing and Seal Kit 1982-88

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

AMC Pacer Spindles

The Pacer spindle is a modular design which allows the spindle to interchange from left to right by flipping the steering arm. Spindle features a 7° pin inclination with a 1-1/2" per foot upper ball joint taper. Spindle also uses the same spindle pin as the Mustang II/Pinto which accepts

Hybrid style 10-1/8" rotors. Caliper bracket for GM metric caliper/Hybrid 10-1/8" rotor is sold separately. Steering arm has been reamed to a straight hole to accept a 5/8" bolt and rod end.

ALL55960 Spindle w/ 1-1/2" (.750" Maj. Dia.) Lower B/J Taper ALL55961 Spindle w/ 2" (.830" Maj. Dia.) Lower B/J Taper

Individual Components

ALL55963 Bolt Kit ALL55964 Steering Arm ALL55965 Spindle Pin

ALL55966 Spindle Body 1-1/2" B/J ALL55967 Spindle Body 2" B/J

Related Components

ALL55962 Caliper Bracket Kit (1 side) ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper

ALL72309 Hybrid Master Bearing and Seal Kit



Master Wheel Bearing and Seal Kits

Kits contain all components to install one brake rotor/hub assembly including hub seal, inner bearing, outer bearing, locknut kit, and dust cap.



ALL72305⁺... GM Metric, 1979-81 ALL72306 ... GM Metric, 1982-88

ALL72308 Granada Rotor with Mustang II Spindle **ALL72309** Hybrid Rotor with Mustang II Spindle

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

Metric Spindles

Replacement spindles for 1979-88 GM cars. Sold each.

ALL56318 LH ALL56319 RH

Related Components

ALL42084 LH GM Metric Caliper ALL42083 RH GM Metric Caliper ALL72305[†] ... Master Bearing Kit, 1979-81 ALL72306[‡] ... Master Bearing Kit, 1982-88

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

Brake Rotor 1979-81

Outer bearing race has a 1.97" O.D.

ALL42086 Rotor with 5/8"-11 Wheel Studs, 5 on 5" B.C.

Brake Rotors 1982-88

Outer bearing race has a 1.78" O.D.

ALL42087 Rotor with M12-1.50 Studs, 5 on 4-3/4" B.C. ALL42088 Rotor with 5/8"-11 Wheel Studs, 5 on 5" B.C.

Metric Spindle Savers

ALL42130

Stamped steel spindle savers strengthen GM Metric spindles. reinforcing the steering arm por-

tion of the spindle and making them suitable for wheelto-wheel racing. IMCA legal and easily installed, spindle savers are retained by the lower ball joint and tie rod end retaining nuts. Sold in pairs.

Individual Component

ALL42135 Left Only ALL42136 Right Only

Spindle Slug Tool

ALL11182

Tool easily removes spindle slugs that are pressed into fabricated spindles with a standard wrench or socket.



GM Metric 3-Piece Spindles

Three-piece GM metric G-Body spindle is a forged and heat-treated direct replacement for a factory spindle with the added benefit of a stronger, replaceable steering arm and brake caliper bracket.

Complete spindle includes a spindle body, bolt-on steering

arm, bolt-on brake bracket, and a hardware kit. Spindle accepts stock 1979-88 G-body upper and lower ball joints, tie rod end, rotor, caliper, and bearing kit. IMCA approved. Replacement components are also available for quick, easy and affordable repairs.

ALL55976 LH ALL55977 RH



ALL55976

ALL55981

Individual Components

ALL55980 Spindle Body ALL55978 LH Steering Arm ALL55979 RH Steering Arm ALL55981 LH Brake Bracket ALL55982 RH Brake Bracket ALL55983 Hardware Kit

Related Components

ALL42083 GM Metric Caliper, RH ALL42084 GM Metric Caliper, LH **ALL72305**†... Bearing and Seal Kit 1979-81 ALL72306‡... Bearing and Seal Kit 1982-88

†Bearing for Race or Cup with a 1.97" O.D. ‡Bearing for Race or Cup with a 1.78" O.D.

Impala Spindles

Direct replacement OE spindle for the #2 1977-96 Impalas, which is a popular choice on asphalt sportsman and modifieds requiring more brake. Spindle accepts the larger 11-7/8" x .970 rotor with the 5x5 bolt pattern and large GM brake calipers. Spindle also

features a 12° pin inclination and 2" per foot taper upper (K5208) and lower (K6145 or 10277) ball joints.

ALL55988 LH ALL55989 RH

Related Components

ALL42081 Brake Caliper Big GM RH ALL42082 Brake Caliper Big GM LH





Upper Ball Joints

Screw-In

ALL56214 (K772)

Most popular upper ball joint used. Originally used in Dodge, Chrysler, and Plymouth cars. Fits Allstar ball joint holders and Lefthander chassis style upper control arm or where a screw-in type ball joint is required. (Replaces Moog K772 or AFCO 20034.) 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

Bolt-In

ALL56204 (K6024)

Fits UB Machine style upper control arm where a bolt-in style ball joint is required. (Replaces Moog K6024, TRW 10185, or AFCO 20031.) Outer mounting bolt holes are 2.82" CTC. 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56208 (K6136)

Bolt-in type joint fits Impala spindle. Can be used to raise roll center on street stock and modified cars. Fits Impala, Camaro, and Chevelle spindles. (Replaces Moog K6136, TRW 10269, or AFCO 20032-1). Outer mounting bolt holes are 2.82" CTC. 2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56220 (K5208)

Fits full-size 1971-94 Impala spindles. Also fits 1971-81 Camaro and 1973-88 Chevelle/ Monte Carlo. Replaces Moog K5208, TRW 10268, or AFCO 20032. Outer mounting bolt holes are 2-1/2" CTC. 2" taper per foot.

Note: Actual product may appear different than product pictured.

Steel Upper Ball Joint Wrench

ALL11190

Easily remove and install small body (ALL56214) Chrysler ball joints.





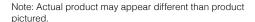
Bubba Pollard

Lower Ball Joints

Screw-In

ALL56216 (K727)

Fits Lefthander chassis style lower control arm or where a large screw-in type ball joint is required. (Replaces - Moog K727 or AFCO 20036). 1-1/2" taper per foot.



ALL56217 (K719)

Compatible with stock lower control arms modified with UB Machine UBM40-3303 or Allstar ALL56250 weld-in threaded sleeve. (Replaces - Moog K719). 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

Press-In

ALL56206 (K6141)

Ball joint fits most tubular lower CT control arms and 1971-76 Impala. Taper fits most fabricated and Impala spindles. Base O.D. is 2.190". Replaces AFCO 20038. 2" taper per foot.

ALL56210 (K5103)

Weld-in lower joint fits 1964-72 Chevelle and 1967-69 Camaro, control arms and spindle. Base O.D. is 2.015" (replaces Moog K5103, TRW 10197, or AFCO 20033). 1-1/2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56212 (K6117)

Weld-in joint fits Impala spindle. Can be used to raise the roll center on street stock or modified cars. Base O.D. is 1.975". (Replaces - Moog K6117, TRW 10264, or AFCO 20038-1). 2" taper per foot.

Note: Actual product may appear different than product pictured.

ALL56218 (K6145) (10277)

Fits popular full-size 1977-96 Impala spindles. Also fits 1971-81 Camaro and 1973-88 Chevelle/G-Body. Base O.D. is 2.090" (replaces - Moog K6145, TRW 10277, or AFCO 20039). 2" taper per foot.

Note: Actual product may appear different than product pictured.















Non-Take-Apart Low-Friction Ball Joints

Low-friction, economical OEM ball joints are high-performance units designed for smooth suspension travel. Some ball joints are available with longer-than-stock pin length for correcting roll centers. Ball joints have hardened pins with stock type housings and are not rebuildable. Legal for classes that require non-take apart ball joints as these are non-serviceable. For off-road use only.



Upper Ball Joints

Part No.	Style	Size	Pin Length	Taper	Reference	Repl. Pin Only	Take-Apart Style
ALL56010	Screw-In	Small	Standard	1-1/2"	K772	_	ALL56810
ALL56011	Screw-In	Small	1/2" Longer	1-1/2"	K772	_	ALL56811
ALL56012	Screw-In	Small	1" Longer	1-1/2"	K772	_	ALL56812
ALL56008	Screw-In	Small	1-1/2" Longer	1-1/2"	K772	_	_
ALL56009	Screw-In	Small	2" Longer	1-1/2"	K772	_	_
ALL56015	Bolt-In	Large	3/8" Longer	2"	K6136	_	_
ALL56018	Bolt-In	Small	Standard	2"	K5208	_	_
ALL56019	Bolt-In	Small	1/2" Longer	2"	K5208	_	_
ALL56020	Bolt-In	Small	1" Longer	2"	K5208	_	_

Lower Ball Joints

						Repl. Pin	
Part No.	Style	Size	Pin Length	Taper	Reference	Only	Take-Apart Style
ALL56030	Screw-In	Large	Standard	1-1/2"	K727	_	ALL56815
ALL56031	Screw-In	Large	1/2" Longer	1-1/2"	K727	_	ALL56816
ALL56034	Screw-In	Large	Standard	2"	K727 w/ K6141 Pin	_	ALL56820
ALL56035	Screw-In	Large	1/2" Longer	2"	K727 w/ K6141 Pin	_	ALL56821
ALL56049†	Screw-In	Small	Standard	2"	K772 w/ K6141 Pin	_	ALL56825†
ALL56050†	Screw-In	Small	1/2" Longer	2"	K772 w/ K6141 Pin	_	ALL56826†
ALL56051†	Screw-In	Small	1" Longer	2"	K772 w/ K6141 Pin	_	ALL56827†
ALL56042	Press-In	Chevelle	Standard	1-1/2"	K5103	_	_
ALL56027	Press-In	Chevelle	Standard	2"	K5103 w/ K6141 Pin	_	ALL56830
ALL56028	Press-In	Chevelle	1/2" Longer	2"	K5103 w/ K6141 Pin	_	ALL56831
ALL56029	Press-In	Chevelle	1" Longer	2"	K5103 w/ K6141 Pin	_	ALL56832
ALL56044	Press-In	_	Standard	2"	K6117	_	_
ALL56046	Press-In	_	Standard	2"	K6145	_	_
ALL56047	Press-In	_	1/2" Longer	2"	K6145	_	_
ALL56048	Press-In	_	1" Longer	2"	K6145	_	_

†Commonly used with ALL56256 ball joint adapter sleeve.





UNOH



Take-Apart Low-Friction Ball Joints

Low-friction serviceable ball joints are the same great quality you have come to expect from our original low friction ball joints with the ability to exchange pins to adjust roll center or make repairs. For off-road use only.

Ball Joint Reference Guide

Reference			
Part #	Description	Application	Pin Taper Per Foot
K772	Small Upper Screw-In	Dodge, Chrysler, Plymouth	1-1/2" (.730"600")
K727	Large Lower Screw-In	Dodge, Chrysler, Plymouth	1-1/2" (.880"755")
K5103	Press-In Lower	1964-72 Chevelle, 1967-69 Camaro	1-1/2" (.775"670")
K6141	Press-In Lower	1971-76 Impala	2" (.825"675")
K6145	Press-In Lower	1973-88 Chevelle, GM Metric/G Body 1970-81 Camaro, 1977-96 Impala	2" (.775"625")



Upper Ball Joints

Part No.	Style	Size	Pin Length	Pin TPF	Reference	Repl. Pin Only	Non-Take-Apart Style
ALL56810	Screw-In	Small	Std	1-1/2"	K772	ALL56915	ALL56010
ALL56811	Screw-In	Small	+1/2"	1-1/2"	K772	ALL56920	ALL56011
ALL56812	Screw-In	Small	+1"	1-1/2"	K772	ALL56925	ALL56012

Lower Ball Joints

Part No.	Style	Size	Pin Length	Pin TPF	Reference	Repl. Pin Only	Non-Take-Apart Style
ALL56815	Screw-In	Large	Std	1-1/2"	K727	ALL56935	ALL56030
ALL56816	Screw-In	Large	+1/2"	1-1/2"	K727	ALL56940	ALL56031
ALL56820	Screw-In	Large	Std	2"	K727 w/ K6141 Pin	ALL56955	ALL56034
ALL56821	Screw-In	Large	+1/2"	2"	K727 w/ K6141 Pin	ALL56960	ALL56035
ALL56822	Screw-In	Large	+1"	2"	K727 w/ K6141 Pin	ALL56965	_
ALL56825†	Screw-In	Small	Std	2"	K772 w/ K6141 Pin	ALL56955	ALL56049†
ALL56826†	Screw-In	Small	+1/2"	2"	K772 w/ K6141 Pin	ALL56960	ALL56050†
ALL56827†	Screw-In	Small	+1"	2"	K772 w/ K6141 Pin	ALL56965	ALL56051†
ALL56830	Press-In	Chevelle	Std	2"	K5103 w/ K6141 Pin	ALL56955	ALL56027
ALL56831	Press-In	Chevelle	+1/2"	2"	K5103 w/ K6141 Pin	ALL56960	ALL56028
ALL56832	Press-In	Chevelle	+1"	2"	K5103 w/ K6141 Pin	ALL56965	ALL56029

[†]Commonly used with ALL56256 ball joint adapter sleeve.

Build Your Own Ball Joints

Step #1-Select Ball Joint Housing – Includes housing, housing cap and lock screws

отор и с отгост	gg,g				
Part #	Description				
ALL56900	K772 Housing (Small Screw-In Upper)				
ALL56904	K727 Housing (Large Screw-In Lower)				
ALL56905	K5103 Housing (Press-In Lower 1964-72 Chevelle)				
ALL56906	K6145 Housing (Press-In Lower GM Metric/G-Body)				



Step #2-Select Ball Joint Pin-Includes pin, nut and locking pin.

	K772 Pin	K727 Pin	K6141 PIN	K6145 PIN
	1-1/2" TPF	1-1/2" TPF	2" TPF	2" TPF
Pin Length	Part #	Part #	Part #	Part #
500"	ALL56910	_	_	_
Standard	ALL56915	ALL56935	ALL56955	ALL56975
+.100"	ALL56916	ALL56936	ALL56956	_
+.200"	ALL56917	ALL56937	ALL56957	_
+.300"	ALL56918	ALL56938	ALL56958	_
+.400"	ALL56919	ALL56939	ALL56959	_
+.500"	ALL56920	ALL56940	ALL56960	ALL56980
+1"	ALL56925	_	ALL56965	ALL56985
+1-1/2"	ALL56926	_	_	_
+2"	ALL56927	_	_	_





Straight Pin Take-Apart Low-Friction Ball Joints

Low-friction straight pin ball joints are designed to fit spindles with straight-through 3/4" mounting holes. Straight pin design allows height adjustment by relocating the shim stack for more accurate and precise changes versus changing out entire pin. For off-road use only.



Note: Machining of most standard spindles from tapered to straight through mounting holes is required for use with this style ball joint.

Part No.	Style	Size	Housing Ref.	Adj Range
ALL56871	Screw-In	Small	K772	Std to 1" Pin
ALL56872	Screw-In	Small	K772	1" to 2" Pin
ALL56875	Screw-In	Large	K727	Std to 1" Pin
ALL56876	Screw-In	Large	K727	1" to 2" Pin
ALL56878	Press-In	Chevelle	K5103	Std to 1" Pin
ALL56879	Press-In	Chevelle	K5103	1" to 2" Pin

Adjustable Upper Ball Joints



With mono-ball joints, upper control arm angles can be adjusted. Joints include plate, ball, tapered shaft, adjuster bushings, and nut.

ALL56260 LH Large GM (K6024 Style)
ALL56261 RH Large GM (K6024 Style)
ALL56264 LH Mid-Size GM (K5208 Style)
ALL56265 RH Mid-Size GM (K5208 Style)
ALL56267 Small Adjustable Screw-In (K772 Style)

Adjustable Lower Ball Joints

Replace standard ball joint with an adjustable mono-ball style lower ball joint. Includes adapter sleeve, ball, adjuster bushings, stud, and nut.

ALL56270 Screw-In Chrysler Stud (K727 Style)

ALL56276..... Screw-In GM Impala Stud

(K727 Style w/K6141 Pin)

ALL56272 Press-In Large GM Impala Stud (K6141 Style) **ALL56274** Press-In Mid-Size GM Stud (K6145 Style)

Ball Joint Sleeves

Steel sleeves allow custom fabrication of control arms.

ALL56250 Small Screw-In ALL56214/ALL56217 (K772/K719)

ALL56251 Large Screw-In ALL56216 (K727) **ALL56252** Large Press-In ALL56206 (K6141) **ALL56253** Med. Press-In ALL56212 (K6117)

Ball Joint Adapter Sleeve

ALL56256

Adapter sleeve is ideal for modifying stock style Chevelle lower control arms to accept a screw-in style ball joint. Adapter sleeve has an O.D. of 2.010" to take the place of a press-in style ball joint (ALL56210/K5103), allowing for installation of a screw in style ALL56214 with a 1-1/2" taper/ft. pin or ALL56049 with a 2" taper/ft. pin ball joint.

Note: Modifications to control arms may be necessary for proper fit of sleeve. Sleeve must be welded to the control arm after installation.

Adapter Bushing

ALL56225

Convert a 2" taper per foot hole to accept a ball joint with a 1-1/2" taper per foot. For lower ball joints only.



ALL11172

ALL11170

Taper Reamers

Repair or enlarge tapered holes to accept tie rod ends or ball joints. Reamers may be used in a drill with a 1/2" chuck by removing the T-handle.



Taper Reamer Specifications for Ball Joints

Taper Per Ft.	Reference Part No.
1-1/2"	K6024
2"	K6141
2"	K6136
1-1/2"	K5103
2"	K6117
1-1/2"	K772
1-1/2"	K727
1-1/2"	K719
2"	K6145
2"	K5208



ALL56270



Upper Control Arms

Powder-coated, bushing style A-arms are available with steel or aluminum cross shaft and a straight or 10° ball joint position. Shaft bolt holes are 1/2" diameter, spaced 6" on center. Tig-welded



.095" D.O.M. tube construction. Bolt-in style arms accept ALL56204 or Moog K6024 ball joints. Screw-in style arms accept ALL56214 or Moog K772 ball joints.

Size	Bolt-In Alum. Shaft	Bolt-In Steel Shaft	Screw-In 10° Alum. Shaft	Screw-In 10° Steel Shaft
7"	ı	_	ALL57940	_
7-1/4"	_	_	ALL57941	_
7-1/2"	ALL57902	ALL57922	ALL57942	ALL57962
7-3/4"	ALL57903	-	ALL57943	-
8"	ALL57904	ALL57924	ALL57944	ALL57964
8-1/4"	ALL57905	-	ALL57945	-
8-1/2"	ALL57906	ALL57926	ALL57946	ALL57966
8-3/4"	ALL57907	-	ALL57947	-
9"	ALL57908	ALL57928	ALL57948	ALL57968
9-1/4"	ALL57909	-	ALL57949	-
9-1/2"	ALL57910	ALL57930	ALL57950	ALL57970
9-3/4"	ALL57911	_	ALL57951	_
10"	ALL57912	ALL57932	ALL57952	ALL57972
10-1/4"	ALL57913	_	ALL57953	_
10-1/2"	ALL57914	ALL57934	ALL57954	ALL57974
11"	ALL57916	ALL57936	ALL57956	ALL57976

Metric Upper Control Arms

Tubular style upper control arms replace OE stamped style arms found on Mid-size GM metric chassis with mounts spaced 6-7/8" on center and accept bolt-in style ball joints. Arms feature steel cross shafts, a durable



ALL57831

powder-coated finish, and greaseable pivot points for easy maintenance.

Control Arms for ALL56220 (K5208) Ball Joint

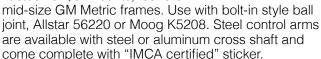
ALL57990 RH, 8" ALL57992 LH, 8-1/2" ALL57994 LH, 9" ALL57995 LH, 9-1/2" ALL57996 LH, 10"

Control Arms for ALL56204 (K6024) Ball Joint

ALL57980 RH, 8" ALL57982 LH, 8-1/2" ALL57984 LH, 9" ALL57985 LH, 9-1/2" ALL57986 LH, 10"



IMCA legal upper control arms fit stock 6-7/8" mounts, found on



ALL57830 RH, 8" with Steel Cross Shaft ALL57831 LH, 8-1/2" with Steel Cross Shaft ALL57832 RH, 8" with Aluminum Cross Shaft ALL57833 LH, 8-1/2" with Aluminum Cross Shaft

Universal Ball Joint Holder

ALL56296

Universal style holder can be used in LH or RH applications and works well for builders that fabricate their own upper control arms. Holder features a straight stud with 5/8"-18 threads, a straight tab with a 3/8" hole to mount a clevis and accepts the ALL56214 or Moog K772 style screw-in style ball joint.

Female Double Adjusters

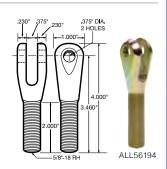
Steel double adjusters increase adjustment capability of control arms, trailing arms, Panhard bars, tie rod ends, and other items using threaded tube.

Adjuster includes two jam nuts, one LH and one RH.

ALL56198 5/8"-18 RH Male/LH Female, 4" Long **ALL56199** 5/8"-18 LH Male/RH Female, 4" Long

Steel Clevises





Clevises are commonly used with a ball joint holder when building upper control arm or with strut style lower control arm when attaching suspension tube for a strut rod.

ALL56192 3/4"-16 RH Thread Clevis with 1/2" Holes **ALL56194** 5/8"-18 RH Thread Clevis with 3/8" Holes



David Stremme



Upper Control Arm Mounting Bracket

ALL60190

Bracket is flame cut from 1/2" thick steel, with 6" bolt spacing. Welds to frame and accepts upper A-arm.



Upper Control Arm Shims

Individual steel shims fit between the upper control arm and chassis mount to adjust caster and camber. Shims have 9/16"

ALL60201 wide slots and easy-to-grasp tabs for installation and removal. Pack of 10.

ALL60200 1/16" (0.062") **ALL60201** 1/8" (0.125")

1-Piece Upper Control Arm Shims

Dual mount shims fit between the upper control arm and chassis mount to adjust camber. One-piece design works with most mounts/control arms with 6" bolt spacing using 1/2" mounting hardware. Sold each.

ALL60203 ... 1/8" (0.125") ALL60204 ... 3/16" (0.185") ALL60205 ... 1/4" (0.250") ALL60206 ... 3/8" (0.375") ALL60207 ... 1/2" (0.500")



ALL60208 3/4" (0.750") **ALL60209** 1" (1.00")

ALL60210 7-Piece Kit, Includes ALL60203-60209 (1 of each)

Slotted Upper Control Arm Bracket Kit ALL60077

Kits contain (2) slotted brackets, (2) centered bushings, (2) reducer spacers for 5/8" rod end and a 1/2" bolt and nyloc nut. Offset aluminum bushings (sold separately) allow for plenty of adjustment options.



ALL60080	Centered Bushings (Pair)
ALL60081	1/8" Offset Bushings (Pair)
ALL60082	1/4" Offset Bushings (Pair)
ALL60083	3/8" Offset Bushings (Pair)
ALI 60084	1/2" Offset Bushings (Pair)

Individual Components

ALL60078	Slotted Upper Brackets (Pair)
ALL18612	Reducer Spacers for 5/8" Rod End
ALL16490	Hex Head Bolts 1/2"-20 x 3", Grade 5,
	5-Pack

ALL16074-10..... Thin Nyloc Insert Nuts 1/2"-20, 10-Pack

Upper Control Arm Brackets

ALL60025

Stamped 3/16" mild steel brackets weld to chassis as a mounting point for upper control arm. Brackets have two 5/8" holes, spaced 7/8" apart for adjust-



Lightweight, Low-Friction Lower Control Arm Bushings

Designed specifically for racing these bushings feature a lightweight housing with 2 steel inner bushings, machined so they can be tightened without binding. O-rings on each side help keep the bushings in place while installing and also help keep dirt out. Bushings should be disassembled and reassembled with a good quality wheel bearing grease prior to installation.

Chevelle 1964 - 1974 ALL56227 Front ALL56229 Rear Metric 1978 - 1988 ALL56228 Front ALL56229 Rear



Steel Control Arm Bushings

Allstar Steel Control Arm Bushings replace stock rubber bushings and eliminate deflection, a common problem with original equipment bushings.



Lower Control Arm Bushing Applications

Part No.	rt No. Application Bushing Position		O.D.	UHL	Hole Size			
Chevelle,	Chevelle, Monte Carlo, GM Intermediates							
ALL56230	1964-66	Front (2nd Design)	1.345"	2.100"	.500"			
ALLJUZJU	1967-74	Front	1.345"	2.100"	.500"			
	1964-66	Front (1st Design)	1.645"	2.100"	.500"			
ALL56232	1975-77	Front	1.645"	2.100"	.500"			
ALL30232	1964-72	Rear	1.645"	2.100"	.500"			
	1978-88	Rear	1.645"	2.100"	.500"			
ALL56233	_	-	1.645"	2.100"	.562"			
ALL56234	1973-77	Rear	1.900"	2.100"	.500"			
ALL56235	_	-	1.900"	2.100"	.562"			
ALL56236	1978-88	Front	1.440"	2.750"	.500"			
Camaro, I	Firebird							
ALL56230	1967-74	Front	1.345"	2.100"	.500"			
ALL56232	1975-81	Front	1.645"	2.100"	.500"			
ALL30232	1967-72	Rear	1.645"	2.100"	.500"			
ALL56234	1973-88	Rear	1.900"	2.100"	.500"			
ALL56236	1982-92	Front	1.440"	2.750"	.500"			

Upper Control Arm Bushing Applications

Part No.	Application	Bushing Position	O.D.	UHL	Hole Size
Chevelle,	Monte Carlo	, GM Intermedia	tes		
ALL56238	1967-72	All	1.275"	1.250"	.675"
ALL56240	1978-88	All	1.530"	1.500"	.695"
ALL56242	1973-77	Front	1.394"	1.500"	.690"
ALL56244	1973-77	Rear	1.311"	1.425"	.690"
Camaro, F	irebird				
ALL56238	1967-69	All	1.275"	1.250"	.675"
ALL56242	1974-79	Front	1.394"	1.500"	.690"
ALL56244	1974-79	Rear	1.311"	1.425"	.690"



Roller Bearing Lower Control Arm Bushings

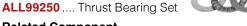
Free up stock front suspensions and help prevent binding commonly found with stock rubber and steel insert bushings. Steel bodied bushings are complete with needle roller bearings and hardened inserts that are ready to install and do not require special mounting hardware. All bushings have 1/2" I.D. mounting holes.





Part No.	Application	Bushing Position	O.D.	UHL	Hole Size
Chevelle, I	Monte Carlo,	GM Intermediate	es		
ALL56221	1964-66	Front (2nd Design)	1.345"	2.100"	.500"
ALL30221	1967-74	Front	1.345"	2.100"	.500"
	1964-66	Front (1st Design)	1.645"	2.100"	.500"
ALL56222	1975-77	Front	1.645"	2.100"	.500"
ALL36222	1964-72	Rear	1.645"	2.100"	.500"
	1978-88	Rear	1.645"	2.100"	.500"
ALL56223	1973-77	Rear	1.900"	2.100"	.500"
ALL56224	1978-88	Front	1.440"	2.750"	.500"
Camaro, F	irebird				
ALL56221	1967-74	Front	1.345"	2.100"	.500"
ALL56222	1975-81	Front	1.645"	2.100"	.500"
ALL30222	1967-72	Rear	1.645"	2.100"	.500"
ALL56223	1973-88	Rear	1.900"	2.100"	.500"
ALL56224	1982-92	Front	1.440"	2.750"	.500"

Replacement Component



Related Component

ALL56226 Nylon Bushing Kit

(Optional bushings to replace roller bearings when conforming to some sanctioning body rules.)



1978-88 Metric Front Lower Control Arms

Reproduction of the originals, these arms are a direct replacement for 1978-88 metric chassis and accept stock ball joints.

ALL57804 RH ALL57805 LH



Precision Lower Control Arm Kits

Precision lower control arms have the same appearance and function as the original factory arms but feature a precision stamping process over traditional reproduction arms providing a true bushing centerline axis. These arms



include our popular lightweight steel bushings preinstalled with an alignment rod and include a spacer kit to accurately position each arm to the specific chassis. We recommend tack welding control arm bushings into the arm once the arm has been fitted to the chassis.

1978-88 GM Metric G-Body

ALL57806 RH ALL57807 LH

1964-72 Chevelle ALL57808 RH ALL57809 ... LH

Ball Joint Adapter Sleeve

ALL56256

Adapter sleeve is ideal for modifying stock style Chevelle lower control arms to accept a screw-in style ball joint. Adapter sleeve has an O.D. of 2.010" to take the place of a press-in style ball joint (ALL56210/ K5103) allowing for installation of a screw in style ALL56214 with a 1-1/2" taper/ft. pin or ALL56049 with a 2" taper/ft. pin ball joint. Note: Modifications to control arms may be necessary for proper fit of sleeve. Sleeve must be welded to the control arm after installation.

TECH TIP

To minimize distortion of sleeve during press-in, it is recommended that the ball joint be threaded into sleeve during press-in procedure.

1964-72 Chevelle Lower Control Arms

Reproduction 1964-72 A-body lower control arms are coated and have the same fit and appearance as the factory arms. Both versions are made to meet the same tolerance as the original. The deluxe arms



have a more precise spring pocket for more consistent suspension geometry. They also accept the larger wire diameter of heavier rated racing springs.

ALL57800 RH ALL57801 LH

ALL57802 RH Deluxe **ALL57803** LH Deluxe



Kvle Brown



Tubular Lower Control Arms

Tubular Lower Control Arms are made with 1-1/4" D.O.M. tubing. Black powder coated arms feature high quality rod ends and separate shock bracket which will require welding or bolting onto arm. Rod end spacer kit is required to adapt rod end to fit in the stock frame mount (sold separately). These lower control arms are intended for racing and will not accept stock style lower ball joints.

Note: Ball joints should be tack welded into lower control arm after assembly.

Helix Bottom

Helix bottom correctly positions 5" or 5-1/2" conventional spring for proper performance.

Screw-In Ball Joint Control Arms (Use ALL56216/K727)

ALL57812RH, '64-72 Chevelle ALL57814RH, '64-72 Chevelle 1" Longer

ALL57813LH, '64-72 Chevelle

Related Components:

ALL56322 '68-72 Chevelle Spacer Kit, 4-Pieces **ALL56325** '68-74 Nova Spacer Kit, 5-Pieces

Lower Control Arm Kits

Universal kits are 2" longer than standard arms and must be cut to length before welding slug

into place. Ball joint sold separately.

ALL56186 LH Kit, Use with Screw-In Ball Joint (ALL56216)

ALL56187 RH Kit, Use with Screw-In Ball Joint (ALL56216)

Double Adjusters

Steel double adjusters increase adjustment capability of control arms, trailing arms, Panhard bars, tie rod ends and other items using threaded tube. Adjuster includes one LH and one RH jam nut.

ALL56196 5/8"-18 RH Male/LH Male, 4-1/4" Long ALL56196 ALL56197 3/4"-16 RH Male/LH Male, 5" Long

ALL56198 5/8"-18 RH Male/LH Female, 4" Long ALL56199 5/8"-18 LH Male/RH Female, 4" Long

Lower Control Arm Limit Clamps

Clamps fasten around tubular lower control arms providing a lower mounting point for a suspension limit chain. Aluminum Clamps are double shear style and accept 5/16" hardware.

ALL68340 1" ALL68341 1-1/8" ALL68342 1-1/4"



ALL56187

Coarse Thread Weight Jack Bolts

Weight jack bolts have 1"-8 threads for quick adjustment. Use with ALL56113, ALL56114, and ALL56115 style spring plates.

ALL56106 8" Steel ALL56107 11" Steel

Weight Jack Bolts with Internal Thread

Bolts have a 7/16"-20 internal thread on one end for use with bolt-on

and swiveler spring cups. Coarse thread bolts have 1"-8 outer threads while fine thread bolts are 1-1/8"-12.

Coarse Thread 1"-8 with 3/4" Hex

ALL56094 4" Steel ALL56095 6" Steel ALL56066 8" Steel ALL56067 11" Steel

Fine Thread 1-1/8"-12 with 1/2" Square Drive

ALL56090 6" Aluminum ALL56091 8" Aluminum ALL56092 6" Steel ALL56093 8" Steel

Jam Nuts **For Jack Bolts**

Steel jam nuts for jack bolts

ALL56068 ALL56110 ALL99052

ALL56068 1"-8 (Coarse) 1-1/8" Wrench **ALL56110**..... 1"-8 (Coarse) 1-1/2" Wrench ALL99052 1-1/8"-12 (Fine) 1-3/8" Wrench

Weight Jack Bolt Collars

Steel collar typically welds on to frame or chassis for installation of a threaded jack bolt. Collar includes grease fitting.

ALL56099.... 1"-8 ALL56098 1-1/8"-12

Weight Jack Bolt Sleeves

Weld-in mild steel sleeve provides a mounting point for jack bolts or adjustable shock mounts. Sleeves are 2" long and have a 1-3/8" O.D. for welding onto chassis tubing.

ALL56109 1"-8, Coarse Thread ALL56073 1-1/8"-12. Fine Thread

Weight Jack Plate

ALL56112

Heavy-duty steel plate has a threaded boss welded to the center to accept jack bolts with 1"-8 coarse threads, O.D. is 5".

Coarse Thread Nut with Sleeve

ALL56111

Steel coarse thread nut with sleeve has 1"-8 coarse threads.





ALL56106

ALL56095







Coil-Over Load Bolt Assembly

ALL56074

Threaded aluminum bolt is 6" long with 1-1/8"-12 fine threads and is commonly used on big bar, soft spring cars. Load bolt offers the ability to easily change corner weights, change the center-to-center distance of the shock, adjust bump stop distances without adding shims and adjust ride height without running out of shock travel. Commonly used with ALL56098 threaded sleeve.

Replacement Component

ALL56075 Shock Mount

Upper Spring Cups

Steel cup fits in the top of a coil spring and when used with a weight jack bolt it allows adjustment of the spring load in a chassis. Cup will accept a 1" or 1-1/8" weight jack bolt.



ALL56114

ALL56114..... 5" O.D. Spring ALL56115 5-1/2" O.D. Spring

Lightweight Upper Spring Cup

ALL56113

Lightweight steel cup works with most 5" and 5-1/2" O.D. springs and either 1" or 1-1/8" jack bolts.

Bolt-On Upper Spring Cup

ALL56097

Steel cup bolts to internal thread jack bolt with 7/16" fastener and keeps a 5" spring centered to the jack bolt.



Bolt-On Spring Cup

ALL56117

Aluminum cup for 5" spring features a 1/2" mounting hole for use with internal threaded jack bolts, used as a rear lower cup or modified to fit shock shafts.



Extended Length Upper Spring Cup

ALL56125

Commonly used in rear suspensions, cup connects to jack bolt with a 7/16"-20 bolt to help maintain spring location. Extension sits 5" into the spring.



Extended Length "Swiveler" Spring Cup ALL56079

Extended length cup helps keep spring centered and also keeps the spring from falling out on long drop suspension packages.

"Swiveler" Spring Cups

Swiveler cup is used in place of a standard upper spring plate and weight jack bolt on vehicles using conventional style coil springs. Mono-ball stud mount allows cup to pivot as needed to prevent binding during suspension travel and requires a weight jack bolt with a 7/16"-20 internal threaded end for proper installation.

Welded Style

ALL56080

The sleeve and top are welded together on this unit to fit most applications using a 5" conventional spring.

Pro-Series

Components bolt together to select the desired spring top plate and sleeve separately to build custom size cups.





ALL56086

Coil Spring Spacer

ALL56089 4" Spring Sleeve

ALL56116

Spacer for 5" racing spring welds into spring pocket enabling chassis adjustments to Street Stock and other race cars that are not allowed to use weight jack bolts or threaded adjusters. 3" tall spacer may be cut to desired height before installation. Use coil shim spacers ALL56120 and ALL56121 to make chassis adjustments.

Coil Spring Shims

Used with ALL56116, or whenever weight jack bolts are not allowed, to raise car height for set-up purposes. 5" diameter, 3-5/8" I.D.



ALL56120 3/16" Shim ALL56121 1/8" Shim

Adjustable Coil Spring Spacers

Adjustable spacers for





5" racing springs weld into spring pockets enabling chassis adjustments to street stock and other race cars that are not allowed to use weight jack bolts.

ALL56118..... All Steel Adjuster

ALL56119..... Steel Sleeve with Alum. Adj. Nut



Sway Bar Bolts

Bolts have 7/8"-9 threads and are available in a fixed or swivel end design. Swivel end bolts have a 1/2" square drive end for quick and easy adjustments.

Non-Swivel Eye Center to Eye Width **End of Threads** Part No. O.D. Description ALL56070 Steel Swivel 1-5/8" 2" 1-1/8" 11-1/2' ALL56071 Steel Swivel 11-3/4" 2" 2-1/2" 1-1/8"

1-5/8"

2"

Related Components

ALL56100

ALL18266 Lock Nut for ALL56100-56102 ALL56072 Weld Nut for ALL56070-56071

Steel Non-Swivel



11"

ALL56072

Adjustable Sway Bar Bolt Kit

ALL56103

Kit includes a 3-5/8" long sleeve that welds into frame rail with a locking collar to prevent movement. Adjustment bolt has 4" of travel and adjusts with a 1/2" square drive ratchet. Inside eye diameter 1-1/2".

Replacement Component

ALL99020 Adjuster Bolt with End



Adjustable Sway Bar Arms

Kit includes a CNC-machined aluminum adjuster and a 17-1/2" long steel arm. Adjuster is available in 30° or zero drop with 1-1/4" x 49 -spline or 1-1/2" x 48-spline. On cars with limited ground clearance, the zero drop kit positions the arm at the center line of the adjuster for additional ground clearance. Adjustment bolt has detents to lock at each half turn.

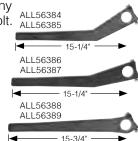
		Complete	Adjuster	Side Plate
Description	Spline	Assemebly	Assembly	Only
RH 30° Drop	1-1/4" x 49	ALL56380	ALL99470	ALL99471
RH 30° Drop	1-1/2" x 48	ALL56381	ALL99472	ALL99473
RH Zero Drop	1-1/4" x 49	ALL56382	ALL99474	ALL99475
RH Zero Drop	1-1/2" x 48	ALL56383	ALL99476	ALL99477

Sway Bar Arms

Splined sway bar arms are made from 3/4" thick mild steel. Arms are available straight or in 15° or 30° drop. Arms can

be cut to length and bent to fit any width chassis. Includes pinch bolt. ALL56384 ALL56385

Part No.	Description	Spline
ALL56384	30° Drop	1-1/4" x 49
ALL56385	30 ° Drop	1-1/2" x 48
ALL56386	15° Drop	1-1/4" x 49
ALL56387	15° Drop	1-1/2" x 48
ALL56388	Straight	1-1/4" x 49
ALL56389	Straight	1-1/2" x 48



Sway Bar Collars

Aluminum, 2-piece sway bar collars are used on sway bars and steering column assemblies.

ALL52140 3/4" I.D. ALL52142 7/8" I.D. ALL52144 1" I.D. ALL52145 1-1/16" I.D. ALL52146 1-1/8" I.D. ALL52148 1-1/4" I.D.



Check compression and rebound travel of coil-over shocks at a glance. Clamp aluminum bracket portion of the kit directly to the coil-over sleeve or shock body and attach the other end to the existing shock eye bolt or under spring cup. May be used with most coil-over and non-coil-over shocks, Clamp is included.

ALL60094 Kit for Use with 2-1/2" Spring **ALL60095** Kit for Use with 3" Barrel or 5" Springs



Ground Clearance Indicator

ALL10725

Determine how close the frame is to the ground on the race track. This unique kit features an aluminum bracket that rivets to the frame with an adjustable 4" plastic wear rod.







Quick Adjust External Bump Stop Kit

External bump stop allows adjustment of suspension travel separate from the coil-over unit. The detented adjuster nut can be turned on the rod end for quick engagement adjustment. Each half turn equals 1/16" eliminating the need for packer shims. Bump stop bolts to the outside of lower control arm and to an upper chassis location (may need to drill a hole or use a clamp on bracket). Fine tune vehicle set-up by adjusting the upper bushing plate. Includes built-in travel indicator and two yellow 75 durometer bushings. Will also accept bump springs with 5/8" I.D. retainers (not included)

ALL56361 Bump Stop w/ Bushings ALL56360 Bump Stop w/o Bushings

Ride Height Set-Up Stick

ALL10658

Stick replaces the coil-over shock and spring assembly during maintenance. Stick has many uses and may be adjusted to check settings at normal ride height, in race attitude or on the bump stops to evaluate suspension travel. Adjusts from 15" to 24", measured at the center of rod ends.

Shock Racks

Shock rack holds four shocks with 2-1/2" springs and easily mounts to trailer, shop wall or pit cart. Rack is designed to hold shocks in place by pushing shock rod end or eye over the outer O-ring or alternatively, the outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

ALL12212..... Standard Rack
ALL12211..... Adjustable Base Rack

Extended Length Shock Rack Pin

ALL12215

Extended length pin replaces the pin used on our standard and adjustable shock racks allowing a shock or eliminator with a 5" spring to be mounted to the rack.

Pins are also ideal for creating custom mounting for use on toolboxes or pit carts. The outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

Shock Eye Socket

ALL64255

The ideal tool for shock rebuilders or anyone that disassembles shocks on a regular basis! Unique socket safely removes and installs the shock rod end without risk of damage to the



spherical ball. Steel socket contacts the outer housing of 1/2" rod ends up to .640" wide and has a 1/2" drive for ratchet or impact use.

Shock Inflation Tool

ALL64260

Shock inflation tool threads onto shock Schrader valves. Fill valve and 0-300 PSI gauge head independently rotates a full 360°, for easy filling and reading. Complete with built-in bleeder and includes a protective storage case.

Shock Workstation

ALL64264

The all-in-one shock workstation holds most shock bodies in the upright position for ease of shaft removal or assembly and holds shock shafts vertical or horizontal for easier repairs and re-valving. Aluminum workstation can be placed in a vise, bench mounted using optional mounting bracket or custom mounted using 1/4" fasteners.

Shock Workstation Base

LL64267

Steel base is helpful when mounting Allstar shock workstation (ALL64264) in a trailer or to a shop workbench. Mounting hardware included.



Shock Canister Mounts

At last, a shock canister mount that fits all common shock canisters. Aluminum construction mount is rubber padded to protect shock canister and increase holding strength. Adjustable quick-release nylon strap will secure any shock canister from 1-1/2" to 3" in diameter.

ALL64270 1-1/4" Tubing **ALL64271** 1-1/2" Tubing **ALL64272** 1-3/4" Tubing **ALL64273** Flat Panel

Replacement Components ALL99295 Release Pin ALL99296 Retainer Strap





Bump Stop Kits

Kit makes it easy to start using bump stops. Includes a selection of 20 bump stop pucks ranging from 50 to 75 durometer, 8 backing washers, and 16 packer shims in a simple plastic carrying case.

ALL64360 ... 1/2" Kit **ALL64320** ... 16mm Kit



Bump Stop Pucks - 1/2"

Pucks are replacement components found in ALL64360 bump stop kit, in addition to other durometer ratings for even more adjustability. ALL64374 2" O.D. pucks have a 1/2" I.D. hole suitable for 1/2" shocks as well as many other uses, including suspension limiters.

Bump Stop Pucks	1/2" Tall	3/4" Tall	1" Tall
40dr Brown	ALL64367	ALL64368	ALL64369
50dr Green	ALL64370	ALL64371	ALL64372
55dr Orange	ALL64373	ALL64374	ALL64375
60dr Purple	ALL64376	ALL64377	ALL64378
65dr Black	ALL64379	ALL64380	ALL64381
75dr Yellow	ALL64384	ALL64385	ALL64386

Bump Stop Pucks - 16mm

Pucks are replacement components found in ALL64320 Bump Stop Kit, in addition to other durometer ratings for even more adjustability. 2.10" O.D. pucks have a 5/8" I.D. hole suitable for 16mm shocks as well as many other uses, including suspension limiters.

Bump Stop Pucks	1/2" Tall	3/4" Tall	1" Tall
40dr Brown	ALL64327	ALL64328	ALL64329
50dr Green	ALL64330	ALL64331	ALL64332
55dr Orange	ALL64333	ALL64334	ALL64335
60dr Purple	ALL64336	ALL64337	ALL64338
65dr Black	ALL64339	ALL64340	ALL64341
75dr Yellow	ALL64344	ALL64345	ALL64346

Aluminum Backing Washers

Aluminum washers are designed for use with bump stop pucks, as a backer washer or many other uses. Washer has a 2-1/4" O.D. and is 3/16" thick.

ALL64366 Washer with 1/2" I.D. ALL64326 Washer with 5/8" I.D.

Bump Stop Shims

Place within the bump stop stack to limit suspension travel. 2" O.D. shims work with most shocks.

Thickness	1/2"	16mm
1/32" Shim	_	ALL64323
1/16" Shim	ALL64364	ALL64324
1/8"	ALL64365	ALL64325



Shock Bump Covers

These neoprene covers are perfect for protecting shock shafts and covering bump set ups. Fit 2" O.D. shocks. Not for use with coil-over springs.

ALL64215 8" Tall Cover ALL64216 12" Tall Cover ALL64218 16" Tall Cover

Bump Stop Components for Bilstein Shocks

Specifically designed for use with Bilstein shocks when using RSW or Christmas tree style bump stops. Lower support and cup rest directly on the shock rod end.

ALL64276... Rod Guide Protector Puts the Bump Stop Forces into the Shock Body, Not the Rod Guide

ALL64277... Splitter Washer Used to Separate Stops on Stacked Stop Setups

ALL64274 ... Bump Stop Support 2-1/4" OD **ALL64275** ... Bump Stop Cup 2.100" ID



Threaded Bump Washers

Washer threads onto the end of the shock shaft with the shock end to create a solid foundation for bump stop bushings.

ALL64291 Bilstein M12-1.0 Thread **ALL64292** Fox 7/16"-20 Thread **ALL64293** Penske 1/2"-20 Thread

ALL64290 Spanner Wrench for Threaded Bump

Bump Washer Dividers

Dividers fit over the shock shaft between bump stop bushings.

ALL64296 Divider for 14mm Shock Shaft ALL64297 Divider for 16mm Shock Shaft

Shock Extensions

Steel extensions fasten directly to shock shaft for added suspension travel. Sold each.

M12-1.0 Thread (Bilstein) ALL60096 ... 1" Extension ALL60097 ... 2" Extension

7/16"-20 Thread (Fox)
ALL60098 ... 1" Extension
ALL60099 ... 2" Extension





Roller Skate Wheel Bump Stops

Poly bump stops are 1" tall with a 5/8" diameter hole.



ALL64510 50 Durometer **ALL64511** 55 Durometer **ALL64512** 60 Durometer **ALL64514** 70 Durometer

Adjustable Poly Bump Stop Kit

ALL64505

Polyurethane bump stop is weather resistant and easily adjustable by adding packers to the inner ring. Five 1/16" thick packer shims included in the kit.



Shock Bump Rubbers

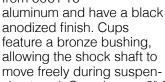
Conical bump rubbers fit on most shock shafts up to 16mm to limit shock travel. Bump rubbers are 2-3/8" tall and have a 2" O.D. base. A letter designation is molded in the bottom to identify compound.

ALL64500 Soft (40 grams) **ALL64501** Medium (50 grams) **ALL64502** Hard (55 grams)

Bump Spring Cups

Lightweight bump spring cups are made from 6061-T6





sion travel. Cups have a 2" O.D. sized for Hypercoil and most Landrum bump

springs. Two are required and should closely match bump spring I.D. size to appropriate bump spring cup step O.D. size from chart. Sold each.

	Cup Step O.D. "B"				
Shaft Sz. "A"	1.160"	1.200"	1.280"		
14mm	ALL64348	ALL64349	ALL64350		
1/2"	ALL64352	ALL64353	ALL64354		
16mm, 5/8"	ALL64356	ALL64357	ALL64358		

Shock Shims

Uniquely designed shock shims are placed directly onto the shock shaft to simplify fine tuning of the chassis without disassembling the shock or even removing the shock from the chassis. Kits include a variety of shim designs and sizes for convenient tuning and set-up.

Size	Starter Kit	Standard Kit	Deluxe Kit
14mm	ALL64400	ALL64402	ALL64404
16mm	ALL64440	ALL64442	ALL64444

Starter Kit

Includes: U-Shaped Shims 1/16" (4 pcs), 1/8" (4 pcs) and 3/8" (2 pcs); Semi-Solid Shims 1/16" (4 pcs)m and 1/8" (4 pcs).

Standard Kit

Includes: U-Shaped Shims 1/16" (12 pcs), 1/8" (12 pcs) and 3/8" (6 pcs); Semi-Solid Shims 1/16" (12 pcs) and 1/8" (12 pcs); 2-Piece Collar Shims 1/2" (2 pcs), 3/4" (2 pcs), and 1" (2 pcs); Storage Case.

Deluxe Kit

Includes: U-Shaped Shims 1/16" (12 pcs), 1/8" (24 pcs), and 3/8" (10 pcs); Semi-Solid Shims 1/16" (12 pcs) and 1/8" (24 pcs); 2-Piece Collar Shims 1/2" (6 pcs), 3/4" (6 pcs), and 1" (6 pcs); Storage Case.

Shock Shim Components

U-Shaped Shims - Designed for quick removal and installation into tight stacks and locations where twisting the shim into the stack is not an option or when the car is on the ground. Commonly used for fine tuning the suspension.

Semi-Solid Shims -

Designed for quick removal, providing a secure installation that will not fall out yet requires 3/4" of space to install or remove.

Typically installed when the vehicle is off the ground. Commonly used for fine tuning the suspension.

2-Piece Collar Shims -

Designed to attach around the shaft of the shock and secure in place with a zip tie. Commonly used during initial set-up or to take up a large amount of travel.



ALL64412

Description	2-Pack	10-Pack	25-Pack
14mm (.550")	Z-I dCK	10-1 ack	25-1 ack
U-Shaped Shim 1/16"	_	ALL64410	ALL64410-25
U-Shaped Shim 1/8"	_	ALL64412	ALL64412-25
U-Shaped Shim 3/8"	_	ALL64414	ALL64414-25
Semi-Solid Shim 1/16"	_	ALL64416	ALL64416-25
Semi-Solid Shim 1/8"	-	ALL64418	ALL64418-25
2-Piece Collar Shim Kit 1/2"	ALL64420	ALL64420-10	-
2-Piece Collar Shim Kit 3/4"	ALL64422	ALL64422-10	-
2-Piece Collar Shim Kit 1"	ALL64424	ALL64424-10	-
16mm (.630")			
U-Shaped Shim 1/16"	_	ALL64450	ALL64450-25
U-Shaped Shim 1/8"	-	ALL64452	ALL64452-25
U-Shaped Shim 3/8"	_	ALL64454	ALL64454-25
Semi-Solid Shim 1/16"	-	ALL64456	ALL64456-25
Semi-Solid Shim 1/8"	-	ALL64458	ALL64458-25
2-Piece Collar Shim Kit 1/2"	ALL64460	ALL64460-10	_
2-Piece Collar Shim Kit 3/4"	ALL64462	ALL64462-10	_
2-Piece Collar Shim Kit 1"	ALL64464	ALL64464-10	_



2.5" Coil-Over Kits

Kits include everything to assemble one complete shock. Slotted tops allow quick and easy spring changes. Kits are for 2-1/2" coil-over springs and are designed for use with 2" steel bodied shocks unless specified.



Shock	Kit Number	Replacement Top	Replacement 5" Sleeve	Replacement 7" Sleeve	Replacement Adjuster Nut
AFCO		•			•
Kit with 7" Sleeve	ALL64141	ALL64170	ALL64160	ALL64161	ALL64180
Bilstein					
Kit with 7" Sleeve	ALL64143	ALL64171	ALL64162	ALL64163	ALL64180
Fox					
Kit with 7" Sleeve	ALL64130	ALL64177	_	ALL64164	ALL64180
Integra					
(Avenger) Kit with 7" Sleeve	ALL64158	-	-	-	ALL64180
Kit for Aluminum Threaded Body	ALL64157	_	_	-	-
JRI					
Kit with 7" Sleeve	ALL64136	ALL64178	-	ALL64169	ALL64180
Koni					
Kit with 5" Sleeve	ALL64146	ALL64173	ALL64162	ALL64163	ALL64180
Kit with 7" Sleeve	ALL64147	ALL64173	ALL64162	ALL64163	ALL64180
Penske					
Kit with 7" Sleeve	ALL64149	ALL64174	ALL64162	ALL64163	ALL64180
Pro					
Kit with 7" Sleeve	ALL64151	ALL64175	-	ALL64165	ALL64180
QA1					
(50 Series) Kit with 7" Sleeve	ALL64145	ALL64172	_	ALL64165	ALL64180
Kit for Aluminum Smooth Body w/7" Sleeve	ALL64154	ALL64172	_	ALL64167	ALL64180

Replacement /Related Components

ALL64182..... 2-7/8" C/O Diaper Pin ALL64183 Snap Ring Flat (Koni) ALL64184 Snap Ring Round ALL64186 Snap Ring (Fox) ALL11155 C/O Spanner Wrench









Universal Coil-Over Components

Universal components are an option for builders to convert OE style struts to a 2-1/2" spring with an adjustable height adjustment. These are not vehicle specific and will likely require modifications to strut body for installation.

ALL64188C/O Top with 5/8" (16mm) Hole **ALL64189**C/O Top with 7/8"(22mm) Hole

ALL64180C/O Adjuster Nut



5" Coil-Over Adapter

ALL64185

Aluminum adapter converts existing coil-over kit from a 2-1/2" spring to a 5" spring. Adapter inner hole I.D. is 2-1/2" to work with most coil-over sleeves. Sold each, two are typically required.



ALL64188

ALL64190

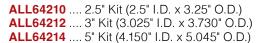
Spring Spacers

Spring Spacers can be used with 2-1/2" coil-over springs or with coil-over kits and 5" adapter when extra spacing is needed. Spacers have a 3.5 O.D.

ALL64195 1" Spacer ALL64196 2" Spacer ALL64197..... 3" Spacer

Thrust Bearing Kits

Bearing kits are placed between the coil spring and the adjuster nut to reduce friction when making adjustments. Kits are recommended for preloaded spring assemblies or when springs require adjustment while they are under pressure. Kits include one bearing and two races.







Spring Pre-Loader

Pre-loader allows use of a softer spring rate that is "pre-loaded" at ride height. The pre-loaded spring will have less rate increase as the suspension travels. For example, a 150 lb./in. spring can be preloaded to 400 lbs. at ride height, but still only increases at a rate of 150 lb./in. as suspension travels. The entire unit may also be exchanged with another unit with a different rate spring pre-installed to

allow spring rate changes without affecting ride height. Commonly used on the rear coil-overs, pre-loader requires 3" I.D. spring, includes a thrust bearing set and fits most shocks. Note: Unit is typically installed with slotted inner half towards the shock body. Always check components for possible interference.

ALL64230 Pre-Loader for 10" Tall Spring ALL64232 Pre-Loader for 12" Tall Spring ALL64234 Pre-Loader for 14" Tall Spring ALL64212 Replacement 3" Bearing Set

Related Component

ALL11187 Pre-Loader Body Wrench ALL11188 Pre-Loader Nut Wrench



Rubber bellows style boot is 10" long, one

5" Coil Over Adapter for Spring Pre-Loader



Aluminum adapter converts existing spring Pre-Loader from a 3" spring to a 5" spring. Adapter inner hole I.D. is 3" to work with spring Pre-Loader. Sold each, two are typically required.

Hydraulic 2-1/2" Coil-Over Spring Adjuster

ALL64220

Weight jack assembly allows driver to adjust car handling while driving. Turning the adjustment knob will extend spring cup up to 7/8" to increase or decrease spring pressure. Assembly includes hydraulic ram, hydraulic pump with adjustment knob. 9' braided hose, and two washers for use with standard or threaded body shocks. Black anodized finish.

Replacement Component

ALL64222 ... O-Ring Kit for ALL64220

Coil-Over Shock Protector

ALL64201

Plastic shock protectors slide over aluminum threaded body shock to protect against wear from spring. Protector measures 6" from spring seat to end, has an I.D. that measures 2-1/4" and works with all 2-1/2" I.D. springs. Unit should just cover shock body and may need to be cut to specific length.

Shock Protectors

Shock Protectors add extra protection from rocks and debris to your shock body. Plastic protector simply snaps onto your shock body. May need to be cut to length. Sold each.

ALL64202 ... 2" Standard Body Shocks **ALL64203** ... 1-5/8" Small Body Shocks

Shock Shaft Boot

ALL64198

end has an 1-1/4" opening while the other is 2". Boot fits most non-coil-over shocks.

Shock and Pull Bar Covers

Neoprene covers help protect from rock damage and to keep components clean while preventing the competition from knowing your secrets. Hook-and-loop material allows easy cover removal for adjustments. 3" covers are often used for 2-1/2" and 3" coil-over shocks and small diameter upper links. 6" covers work well on 5" springs and pull bar applications.

ALL64204 ... 3" × 14" ALL64205 ... 3" × 16" **ALL64206** ... 6" × 7" ALL64207 ... 6" x 14" ALL64208 ... 6" x 16" ALL64209 ... 6" x 20"



Coil-Over Eliminators

Steel body coil-over eliminator is designed for use with 5" springs and features a removeable spring cup for easy spring changes, a large fine thread adjustment nut with a built-in detent and two 1/2" rod ends for mounting. Length listed is fully extended length with 10" of travel.

ALL64112.... Standard Length 26" ALL64113.... Extended Length 28"





Weld-On Shock Brackets

Weld-on shock brackets mount standard and coil-over shocks with 1/2" I.D. inner bushing or 1/2" rod end to chassis as well as many other uses. 1/8" thick mild steel brackets include 1/2" bolt, spacer and locknut.

Notched Tube Mount

Bracket is notched for 1-1/2" - 1-3/4" round tubing to create a gusset style mount that welds on three sides. Notched design positions the bracket perpendicular to the tubing at a 90° angle for straight mount and approximately a 75° angle for angled mounts.

Straight Mount









ALL60103 Short **ALL60104** Long

ALL60112..... Long Two Position **ALL60113**..... Extra Long Three Position

Angle Mount







ALL60100 Left Hand ALL60101 Right Hand

Round Tube Mount

Bracket welds parallel onto tubing. Typically mounted above or below tubing and includes 1/2" shock mounting hardware. Mounting positions are on 1" centers.

ALL60107 One Position ALL60114..... Two Position ALL60115..... Three Position







Flat Mount

ALL60106

Bracket mounts to a flat surface or square tubing.



Shock Bracket Replacement Parts

ALL99100 Bolt, locknut, and bushing **ALL99101** Bushing only

Shock Spacers

Steel spacers have a 1/2" I.D. and 3/4" O.D. and can be used in a variety of other locations.



Length	2-Pack	10-Pack	25-Pack
1/4"	ALL64280	ALL64280-10	ALL64280-25
1/2"	ALL64282	ALL64282-10	ALL64282-25
5/8"	ALL64283	ALL64283-10	ALL64283-25
3/4"	ALL64284	ALL64284-10	ALL64284-25



Clamp-On Shock Brackets

Clamp-on shock brackets mount standard and coilover shocks with 1/2" I.D. inner bushings to round tubing without welding. Easily add additional mount or pivot mount



when experimenting or trying different set-ups. Standard brackets position the shock approximately 1" below the chassis

tubing. Drop mount brackets position the shock approximately 2-1/2" below the chassis tubing. Brackets include mounting hardware with nyloc locking nuts.

Clamp-On ALL60220 ... 1-3/4" ALL60221 ... 1-1/2" ALL60222 ... 1-1/4" **Drop Mount Clamp-On ALL60225** 1-1/2"

Upper Coil-Over Shock Mount Kit

ALL60230

Weld-in kit provides a mounting point for rear coil-over shock mounts in tube, boxed or stock frames with up to 48"



between frame rails. Great for drag racing and street applications, kit includes a 48" long, .120" wall x 1-1/2" mild steel tube, reinforced mounting tabs, 2" x 3" end plates, and 1/2" hardware.

1/2" Rod End Mount ALL60073

3/16" thick steel mount with 1/2" holes accepts rod ends up to 5/8" wide. Mount is 1-5/8" tall overall.

Track Bar Locator Brackets

Track bar locator brackets are an ideal bolton mounting point for rod ends commonly found on Panhard bars, track bars or rear axle housing track locators. For use with 1/2" diameter rod ends. Available with a 5/8" or 3/4" bracket mounting hole.

ALL60079 5/8" Hole, 1" Gap **ALL60089** 3/4" Hole, 1-3/16" Gap

Smart Tool ALL10113

Ensure that chassis tubing is level and plumb when building roll cages or checking driveshaft angles. A "hold" button freezes



and unfreezes readings which can be displayed as degrees, percentages, or in./ft. at the push of a button. Plus and minus signs indicate when pitch is more or less than that shown on the display. Pitch reads in 1/8 in./ft. increments. Level emits a "beep" at level and plumb. The tool shuts off automatically if idle for more than six minutes. Powered by a standard 9-volt battery.

Steel Shock Quick Pin

ALL60108

Steel shock quick pins allow coilover shocks to be quickly serviced or changed. Works with Allstar coil-over brackets, eliminating the need for a separate bushing. Shock quick pins are 2-1/2" long and include a hairpin. Sold each.

Titanium Shock Quick Pins

Titanium shock quick pins allow coil-over shocks to be quickly serviced or changed.

ALL17120 has a long shoulder and will work with Allstar coil-over brackets, eliminating the need for a separate bushing.

ALL17121 is commonly used on non-bushing type brackets, but can be used with Allstar brackets along with bushing. Shock quick pins are 2-1/2" long and include a hairpin.

ALL17120 Quick Pin with Shoulder ALL17121 Quick Pin without Shoulder

Quick-Release T-Handle Pins

Positive lock quick-release pins hold tightly in place until the handle button is depressed, allowing the pin to be inserted or removed into or out of a hole with ease. Handles are made from 380 die-cast aluminum.



shanks are made from 4130 steel. Each pin is equipped with a stainless steel split ring, allowing the option to attach a cable assembly.

ALL60300 ... 1/4" x 1" ALL60301 ... 1/4" x 1-1/2" ALL60302 ... 1/4" x 2" ALL60304 ... 5/16" x 1" ALL60306 ... 5/16" x 2" ALL60308 ... 5/16" x 3" ALL60310 ... 3/8" x 1"

ALL60312 ... 3/8" x 2"

ALL60314 ... 3/8" × 3" ALL60318 ... 1/2" × 2" ALL60320 ... 1/2" × 2-1/2" ALL60322 ... 1/2" × 3" ALL60324 ... 1/2" × 3-1/2"



Tyler Roahring



Standard Rod End

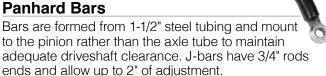
Rod End

Cut-to-Fit J-Bar Style Panhard Bars

Cut-to-fit bar is an unwelded kit that allows building a custom length J-Bar with up to a 27" long center-to-center distance, enough to work with most chassis. Bar is formed from .250" wall, 1-1/2" diameter steel tubing, has a 4" drop, includes a threaded insert and rod ends.

ALL56141..... Bar with Standard Rod Ends ALL56142 Bar with Aircraft Rod Ends ALL56143 Replacement 3/4"-16 Insert

Adjustable J-Bar Style



Part No.	Drop	Description
ALL56155	4"	17-1/2"-19-1/2", 6.2 lbs.
ALL56156	4"	19-1/2"-21-1/2", 6.2 lbs.
ALL56153	6"	17-1/2"-19-1/2", 6.7 lbs.
ΔΙΙ56154	6"	19-1/2"-21-1/2" 7 0 lbs

Replacement Components

ALL99050 Replacement Threaded Adjuster

ALL99052 Adjuster Nut

ALL58072 3/4" Male Moly Rod End

Climbing Style Frame Mount Panhard Bar Bracket ALL60247

Easily adjust your Panhard bar with only one wrench! Climbing style adjuster allows any amount of adjustment without having to remove or re-align any spacer/tabs. Radiused slot so you don't have to re-square the rear end after adjustments. Aluminum bracket fits 2" x 2" tubing, center/inside mounting.



Nick Hoffman

Remote Adjustable **Panhard Bar Mounts**

Easily adjusted on frame side

of Panhard bar, mount has a threaded shaft and fastens to 1-3/4" diameter tubing. Standard mount kit has 2" of adjustment, drop mount kit has 5" of adjustment. Each turn of the shaft moves mount .100". Extension rod may be mounted in rear window or decking for quick, easy adjustments from outside of the car. Mounting hardware and a 3/4"

ALL60270 Standard Mount Kit ALL60273 Drop Mount Kit

Panhard bar bolt are included.

Replacement Components:

ALL60272 ... Extension Rod with Bushing

ALL60274 Flange Bushing

Clamp-On Panhard Bar Brackets

Adjustable steel or aluminum brackets clamp to square tubing. providing multiple Panhard bar mounting locations. Brackets are tapped for 3/4"-10 bolts. Steel brackets have outer holes 5" apart. Aluminum brackets have outer holes 5.5" apart. Hole measurements are center-to-center.



ALL60240

ALL60240 For 2" x 2" Tubing **ALL60244** For 1-1/2" x 1-1/2" Tubing

ALL60243 For 2" x 2" Tubing

Mini Panhard Bar Clevis

Aluminum clevis clamps to mini sprint and midget chassis providing an adjustable mounting point for a panhard bar. Clevis includes

mounting panhard bars with 1/2" rod ends.

ALL60183 3/8" mounting hardware with a reducer bushing for

ALL60232 1-1/8" I.D. ALL60233 1-1/4" I.D.

Panhard Bar Clevis

Black anodized aluminum clevis clamps around a chassis tube and connects to the 3/4" rod end on the long end of a J-bar

style Panhard bar. After loosening the two Allen bolts, the clamp may be slid up or down on the chassis tube to adjust the bar and change roll center.

ALL60182 1-1/2" I.D. ALL60183 1-3/4" I.D.



Quick Change Pinion Mount Panhard Bar Brackets





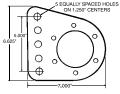
Pinion mounted brackets have a cam style adjuster for quick and easy setup of the Panhard or J-bar. Single cam adjuster features a cog style adjuster nut and threaded back nut that slides with adjuster for easy single wrench adjustment. Aluminum mounts replace the front pinion plate on most quick change rear ends. Radiused mounting slots eliminate the need to adjust J-bar or Panhard bar length.

ALL60285 Single Sided Bracket
ALL60286 Double Sided Bracket

Quick Change 5-Hole Panhard Bar Bracket ALL60170

Bracket mounts to all standard quick change rear ends with six bolts. Made of 1/2" thick steel, bracket has

five 3/4" Panhard





bar mounting holes for up to 5" of adjustment.

Ford 9" Panhard Bar Bracket

ALL60176

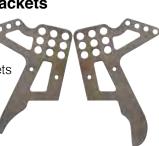
Ford center section bracket is 1/2" thick steel with four 3/4"-16 mounting holes to provide 3-3/8" of adjustment.



Ford 9" Upper Link Brackets

ALL60157

Brackets are designed to weld to most Ford 9" style center sections. Steel brackets are 3/16" thick and provide multiple mounting locations for 90/10 shock, upper link, third link, or pull bar. Sold as a set.



Ford 9" Upper Link Brackets

Ford 9" housing brackets provide a mounting point for upper link. Weld-on brackets fit stan-

brackets fit stan- ALL60160 dard steel Ford housings.

ALL60160 1" Dia. Holes, Sold in Pairs **ALL60166** 3/4" Dia. Holes, Set of 2

Quick Change Upper Link Brackets ALL60150

Bracket attaches to top of quick change and accepts upper link. Steel bracket has three 3/4" holes, 3" to the rear for forward traction. Sold in pairs.



ALL60166

Quick Change Upper Link Brackets ALL60156

Bracket attaches to top of most quick change rear end center section. Steel bracket is 3/16" thick and provides multiple mounting locations for 90/10 shock, upper link, third link, or pull bar. Sold in pairs.



Panhard Bar/Third Link Brackets

Brackets have a built-in arch for adjustment of the Panhard bar or third link angle without changing the length of the arm. Brackets are 1/8" thick. Sold as a pair.

ALL60162.6-Hole Brackets with 1/2" Holes ALL60163.6-Hole Brackets with 5/8" Holes ALL60165.6-Hole Brackets with 3/4" Holes ALL60167.5-Hole Brackets with 3/4" Holes



Shock And Pull Bar Covers

Neoprene covers help protect from rock damage and keep components clean while preventing the competition from knowing your secrets. Hook-and-loop material allows easy cover removal for adjustments. 3" covers are often used for 2.5" and 3" coil-over shocks and small diameter upper links. 6" covers work well on 5" springs and pull bar applications.

ALL64204 3" × 14" ALL64205 3" × 16" ALL64206 6" × 7" ALL64207 6" × 14" ALL64208 6" × 16" ALL64209 6" × 20"





Third Link Assembly without Bushings ALL56390

Designed to increase traction to rear tires, third link assembly uses interchangeable polyurethane bush-

ings (sold separately, two required) to absorb energy under acceleration and braking. Bushings can be quickly changed to adjust to changing track conditions. Assembly is 2-1/4" wide x 3" tall and has a 3/4"-16 RH chrome moly stud for attaching a suspension tube. 3/4" I.D. inner steel bushings are stepped to keep link centered in poly bushings. A good starting point is a 70 durometer acceleration bushing and 90 durometer brake bushing.

ALL56391 Half Bushing Green, 50 Durometer ALL56392 Half Bushing Orange, 60 Durometer ALL56393 Half Bushing Yellow, 70 Durometer ALL56394 Half Bushing Blue, 80 Durometer ALL56395 Half Bushing Red, 90 Durometer

Bushing Style Pull Bar (Dual Shaft)

ALL56365

Torque link uses energy absorbing polyurethane



bushings to absorb engine torque and increase traction to rear tires. Includes one blue (80 durometer) and one yellow (75 durometer) poly bushings on the engine torque side and a single red (87 durometer) poly brake bushing. These durometers work well for a majority of racers, especially those running open class mods such as UMP and USMTS cars. Other bushings are available for unlimited tuning options. Unit is 19-1/2" long overall and most commonly used with two 3/4"-16 rod ends (1-RH Female and 1-LH Male) and a 3/4" suspension tube. Subtract 22-1/2" from center to center of the chassis mounting distance to determine required tube length. 11 lbs.

Bushing Style Pull Bar (Single Shaft)

ALL56364

Torque link uses energy absorbing polyurethane bushings to absorb engine torque and



increase traction to rear tires. Includes two blue (80 durometer) poly bushings on the engine torque side and a single red (87 durometer) poly brake bushing. These durometers work well for a majority of racers, especially those running open class mods such as UMP and USMTS cars. Other bushings are available for unlimited tuning options. Unit is 15-1/2" long overall and most commonly used with two 3/4"-16 rod ends (1-RH Male and 1-LH Male) and a 3/4" suspension tube. Subtract 18-1/2" from center-to-center of the chassis mounting distance to determine required tube length. 9.23 lbs.

Spring Style Pull Bar (Dual Shaft)

ALL56367

Torque link uses a coil spring to



and increase traction to rear tires. The dual-shaft design allows engine torque and brake bushings to be adjusted separately. A single red (87 durometer) poly bushing is included. Other bushings are available for additional tuning options. Unit requires a 5" O.D. x 6-5/8" or 7" tall coil spring, sold separately. Unit is 18-1/2" long overall and most commonly used with two 3/4"-16 rods ends (1-RH Female and 1-LH Male) and a 3/4" suspension tube. Subtract 21-1/2" from center-tocenter of the chassis mounting distance to determine required tube length. 8.5 lbs. without spring.

Poly Bushings

Poly bushings are designed for racing and work great in pull bars (torque links) and ALL56374 bump stops. Bushings' progressive rate start softly and quickly "ramp up." Bushings provide excellent performance when loaded, offering good abrasion and solvent resistance. Sold each.

Part No.	Color	Hardness	O.D.	I.D.	Height
ALL56369	Green	50	2.25"	.75"	1.06"
ALL56370	Purple	60	2.25"	.75"	1.06"
ALL56372	Yellow	75	2.25"	.75"	1.06"
ALL56373	Blue	80	2.25"	.75"	1.06"
ALL56374	Red	87	2.25"	.75"	1.06"
ALL56375	Orange	55	3.375"	.75"	2.50"
ALL56376	Yellow	75	3.375"	.75"	2.50"
ALL56378	Blue	80	3.375"	.75"	2.50"
ALL56379	Red	87	3.375"	.75"	2.50"

Bushing Washers

Required between poly bushings when stacking for optimum performance.

ALL99178 Steel Washer for 2-1/4" Bushings ALL99179 Aluminum Washer for 2-1/4" Bushings

Rubber Bushings

Bushings absorb torque from rear end and may also be used as replacement in other applications. Sold each.





ALL56162

ALL56161 3" O.D., 1-1/2" Tall, 5/16" Shoulder ALL56162 3" O.D., 1-1/2" Tall, No Shoulder



Upper Link Spacer Kits

Kits with multiple spacers allow the top link to be positioned wherever needed between brackets. Spacers have a 3/4" I.D. hole. Kits include bolt, nut, and spacers.

ALL60148 Spacer Kit with Steel Spacers
ALL60158 Spacer Kit with Aluminum Spacers

90/10 Spacer Kits

Kits with multiple spacers allow positioning of the 90/10 shock wherever needed between brackets. Spacers have a .500" I.D. hole. Kits include bolt, nut, and spacers.

ALL60149 Spacer Kit with Steel Spacers
ALL60159 Spacer Kit with Aluminum Spacers

Upper Link Adjustable Spacer Kit

ALL60178

Kit includes two adjustable spacers to place on each side of your top link, pull bar, or third link. Aluminum spacers feature





a threaded body that may be adjusted as needed to locate top link between mounting brackets. Spacers are designed for 3/4" hardware and adjust from 1-3/4" to 2-1/2" wide.

5/8" Rod End Socket WEW

ALL64256

Socket works with most 5/8" rod ends to ease installation and removal of rod end without risk of damage to the spherical ball. Steel Socket





contacts the outer housing of rod end up to .755" wide and has a ½" square drive for ratchet or impact use.

Aluminum Hex Suspension Tubes



Used in steering and suspension systems, hex tubes are easy to install and easy to adjust. Available in 7/8" hex with 5/8" threads tapped RH and LH, and 1-1/8" hex with 3/4" threads tapped RH and LH, tubes are black anodized for appearance and corrosion resistance. 6061-T6 material.

Length	5/8" Thread	3/4" Thread	Length	5/8" Thread	3/4" Thread
3"	-	ALL56703	21"	ALL56621	ALL56721
4"	_	ALL56704	22"	ALL56622	ALL56722
5"	_	ALL56705	23"	_	ALL56723
6"	_	ALL56706	24"	_	ALL56724
7"	ALL56607	ALL56707	25"	-	ALL56725
8"	ALL56608	ALL56708	26"	_	ALL56726
9"	ALL56609	ALL56709	27"	_	ALL56727
10"	ALL56610	ALL56710	28"	-	ALL56728
11"	ALL56611	ALL56711	29"	_	ALL56729
12"	ALL56612	ALL56712	30"	-	ALL56730
13"	ALL56613	ALL56713	32"	_	ALL56732
14"	ALL56614	ALL56714	34"	_	ALL56734
15"	ALL56615	ALL56715	36"	_	ALL56736
16"	ALL56616	ALL56716	38"	_	ALL56738
17"	ALL56617	ALL56717	40"	_	ALL56740
18"	ALL56618	ALL56718	42"	_	ALL56742
19"	ALL56619	ALL56719	44"	_	ALL56744
20"	ALL56620	ALL56720			

Unthreaded 72" Hex Suspension Tubes

ALL56672 72" x 7/8" Hex for 5/8" Rod Ends **ALL56772** 72" x 1-1/8" Hex for 3/4" Rod Ends

Aluminum Suspension Tubes



	5/8" Thread	5/8" Thread
Length	Black Anodized	Polished Aluminum
10"	ALL56806-10	ALL56807-10
11"	ALL56806-11	ALL56807-11
12"	ALL56806-12	ALL56807-12
12-1/2"	ALL56806-125	ALL56807-125
13"	ALL56806-13	ALL56807-13
13-1/2"	ALL56806-135	ALL56807-135
14"	ALL56806-14	ALL56807-14
14-1/2"	ALL56806-145	ALL56807-145
15"	ALL56806-15	ALL56807-15
16"	ALL56806-16	ALL56807-16
17"	ALL56806-17	ALL56807-17
18"	ALL56806-18	ALL56807-18
18-1/2"	ALL56806-185	ALL56807-185
19"	ALL56806-19	ALL56807-19
19-1/2"	ALL56806-195	ALL56807-195
20"	ALL56806-20	ALL56807-20
20-1/2"	ALL56806-205	ALL56807-205
21"	ALL56806-21	ALL56807-21
21-1/2"	ALL56806-215	ALL56807-215
22"	ALL56806-22	ALL56807-22
22-1/2"	ALL56806-225	ALL56807-225
23"	ALL56806-23	ALL56807-23
23-1/2"	ALL56806-235	ALL56807-235
24"	ALL56806-24	ALL56807-24
24-1/2"	ALL56806-245	ALL56807-245



Steel Suspension Tubes

Swaged D.O.M. tubes are black zinc coated.3/4"

O.D. tubes are .065" thick. 7/8"

O.D. tubes are .083" thick. 1" O.D. tubes are .095" thick.

O.B. tabe	יייי בייייי		are loss triion.
Length	1/2" Thread 3/4" O.D.	5/8" Thread 7/8" O.D.	3/4" Thread 1" O.D.
4"	ALL57052	ALL57152	_
4-1/2"	_	ALL57153	_
5"	ALL57054	ALL57154	ALL57254
5-1/2"	-	ALL57155	-
6"	ALL57056	ALL57156	ALL57256
6-1/2"	_	ALL57157	_
7"	ALL57058	ALL57158	ALL57258
7-1/2"	_	ALL57159	_
8"	ALL57060	ALL57160	ALL57260
9"	ALL57062	ALL57162	ALL57262
10"	ALL57064	ALL57164	ALL57264
11"	ALL57066	ALL57166	ALL57266
11-1/2"	-	ALL57167	-
12"	ALL57068	ALL57168	ALL57268
12-1/2"	_	ALL57169	_
13"	ALL57070	ALL57170	ALL57270
13-1/2"	_	ALL57171	_
14"	ALL57072	ALL57172	ALL57272
14-1/2"	-	ALL57173	_
15"	ALL57074	ALL57174	ALL57274
15-1/2"	-	ALL57175	-
16"	ALL57076	ALL57176	ALL57276
17"	ALL57078	ALL57178	ALL57278
18"	ALL57080	ALL57180	ALL57280
19"	ALL57082	ALL57182	ALL57282
20"	ALL57084	ALL57184	ALL57284
21"	ALL57086	ALL57186	ALL57286
22"	ALL57088	ALL57188	ALL57288
23"	ALL57090	ALL57190	ALL57290
24"	ALL57092	ALL57192	ALL57292
25"	ALL57094	_	ALL57294
26"	ALL57096	-	-
27"	ALL57098	_	_
28"	ALL57099	-	_

Bent Steel Suspension Tubes

Bent tubes work



standard suspension tubes for additional clearance around suspension components. Tubes are constructed of .160" wall tubing with 5/8"-18LH threads on the straight 7/8" O.D. steel end and 5/8"-18RH threads on the curved end.

ALL57008 10"	ALL57018 15"
ALL57010 11"	ALL57019 15-1/2"
ALL57012 12"	ALL57020 16"
ALL57013 12-1/2"	ALL57021 16-1/2"
ALL57014 13"	ALL57022 17"
ALL57015 13-1/2"	ALL57024 18"
ALL57016 14"	ALL57026 19"
ALL57017 14-1/2"	ALL57028 20"

Heavy-Duty Steel Suspension Tubes

Heavy-duty tubes are built from .160" wall 1026 DOM mild steel tubing for increased durability over standard steel suspension tubes and feature RH and LH threaded ends

with a black powder-coated finish.

	5/8"-18	3/4"-16		5/8"-18	3/4"-16
	Thread	Thread		Thread	Thread
Length	7/8" O.D.	1" O.D.	Length	7/8" O.D.	1" O.D.
4"	ALL57342	-	15"	ALL57364	ALL57464
5"	ALL57344	ALL57444	15-1/2"	ALL57365	_
6"	ALL57346	ALL57446	16"	ALL57366	ALL57466
7"	ALL57348	ALL57448	16-1/2"	ALL57367	_
8"	ALL57350	ALL57450	17"	ALL57368	ALL57468
9"	ALL57352	ALL57452	18"	ALL57370	ALL57470
10"	ALL57354	ALL57454	19"	ALL57372	ALL57472
11"	ALL57356	ALL57456	20"	ALL57374	ALL57474
12"	ALL57358	ALL57458	21"	ALL57376	ALL57476
12-1/2"	ALL57359	_	22"	ALL57378	ALL57478
13"	ALL57360	ALL57460	23"	ALL57380	ALL57480
13-1/2"	ALL57361	_	24"	ALL57382	ALL57482
14"	ALL57362	ALL57462	25"	ALL57384	ALL57484
14-1/2"	ALL57363	_			

Threaded Tubing Ends

Chrome moly 4130 steel tubing ends are ideal for building custom length suspension tubes. Available in RH and LH threads.





Thread		Tube End		
Size	Tubing Size	Insert O.D.	RH Part No.	LH Part No.
10-32	3/8" x .058"	.259"	ALL22500	_
5/16"-24	1/2" x .058"	.384"	ALL22504	_
3/8"-24	5/8" x. 058"	.509"	ALL22508	ALL22509
3/8"-24	3/4" x .058"	.634"	ALL22512	ALL22513
1/2"-20	7/8" x .058"	.759"	ALL22518	ALL22519
1/2"-20	1" x .058"	.884"	ALL22522	ALL22523
1/2"-20	1" x .065"	.870"	ALL22526	ALL22527
1/2"-20	1-1/8" x .058"	1.00"	ALL22530	ALL22531
5/8"-18	1" x .058"	.884"	ALL22534	ALL22535
5/8"-18	1" x .095"	.810"	ALL22538	ALL22539
5/8"-18	1-1/4" x .095"	1.060"	ALL22542	ALL22543 [†]
5/8"-18	1-1/4" x .120"	1.010"	ALL22546	ALL22547 [†]
3/4"-16	1-1/4" x .065"	1.120"	ALL22548	ALL22549 [†]
3/4"-16	1-1/4" x .095"	1.060"	ALL22550	ALL22551 [†]
3/4"-16	1-1/4" x .120"	1.010"	ALL22554	ALL22555†
3/4"-16	1-3/8" x .095"	1.185"	ALL22558	ALL22559†

[†] Tube end has built-in hex for adjusting.

Smart Tool ALL10113

Ensure that chassis tubing is level and plumb when building roll cages or checking driveshaft angles. Powered by a standard 9-volt battery.





Rod Ends

Two-piece spherical rod ends have a pivoting steel ball and are sold each.

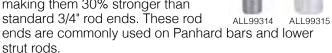


RH Male	LH Male	RH Female	Strength
Steel			
ALL58004	ALL58014	ALL58034	2,835 lbs
ALL58005	ALL58015	ALL58035	4,517 lbs
ALL58006	ALL58016	ALL58036	6,323 lbs
ALL58008	ALL58018	ALL58038	10,046 lbs
ALL58010	ALL58020	ALL58040	15,488 lbs
ALL58012	ALL58022	ALL58042	15,894 lbs
ALL58013*	_	_	15,894 lbs
(Moly) – Bla	ack		
ALL58058	ALL58068	_	17,000 lbs
ALL58059	ALL58069	_	19,300 lbs
ALL58060	ALL58070	_	18,000 lbs
ALL58062	ALL58072	_	25,000 lbs
(Moly) – Bla	ack (PTFE L	ined)	
ALL58078	ALL58083	_	_
ALL58079	ALL58084	_	17,650 lbs
ALL58080	ALL58085	_	15,200 lbs
ALL58082	ALL58086	_	21,400 lbs
ck			
ALL58088	ALL58098	-	7,700 lbs
ALL58089	ALL58099	_	15,000 lbs
	Steel ALL58004 ALL58005 ALL58006 ALL58010 ALL58012 ALL58013* (Moly) - Bla ALL58059 ALL58060 ALL58062 (Moly) - Bla ALL58079 ALL58079 ALL58080 ALL58088	Steel ALL58004 ALL58014 ALL58006 ALL58016 ALL58008 ALL58018 ALL58010 ALL58020 ALL58012 ALL58022 ALL58013* - (Moly) - Black ALL58058 ALL58069 ALL58060 ALL58070 ALL58062 ALL58072 (Moly) - Black (PTFE L ALL58078 ALL58083 ALL58079 ALL58084 ALL58080 ALL58086 ALL58088 ALL58086 ALL58088 ALL58088	RH Male LH Male Female Steel ALL58004 ALL58014 ALL58034 ALL58005 ALL58015 ALL58035 ALL58006 ALL58016 ALL58036 ALL58008 ALL58018 ALL58038 ALL58010 ALL58020 ALL58040 ALL58012 ALL58022 ALL58042 ALL58013* - - (Moly) - Black - - ALL58059 ALL58069 - ALL58060 ALL58070 - ALL58062 ALL58072 - (Moly) - Black (PTFE Lined) ALL58078 ALL58083 - ALL58079 ALL58084 - ALL58080 ALL58085 - ALL58082 ALL58086 - Ck ALL58088 ALL58098 -

^{*}ALL58013 has an oversized hole and is for use with steering shaft tubing.

Heavy-Duty 3/4" Chrome Moly Rod Ends

Heavy-duty or often referred to as "Aircraft Style", these 4130 chrome moly rod ends have larger bodies, making them 30% stronger than standard 3/4" rod ends. These rod



ALL99314 RH Male, 3/4" x 3/4"-16 **ALL99315** RH Female, 3/4" x 3/4"-16

3/4" Solid Rod End

ALL58112

Solid rod ends are built using 1045 steel and are then chrome plated for added wear resistance. End has a body width of 7/8" to match the width of standard rod ends.

Bolt Center Caps

ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed suspension tube assemblies. Machined step secures the end of a standard tape measure for easy reading of the length to the center of the opposite cap. Caps feature a built-in O-ring that allows the cap to swivel on the bolt head and keeps it from falling off. Pack of 2.

Jam Nuts - Standard Hex

Allstar jam nuts have many uses. Great for locking rod ends tightly on suspension tubes or rack and pinion steering units. Pack of 4, unless noted.

Size	Steel	Aluminum
1/4"-28 RH	ALL18250	_
1/4"-28 LH	ALL18251	_
5/16"-24 RH	ALL18252	_
5/16"-24 LH	ALL18253	_
3/8"-24RH	ALL18254	ALL18274
3/8"-24 LH	ALL18255	ALL18275
7/16"-20 RH	ALL18256	ALL18276
7/16"-20 LH	ALL18257	ALL18277
1/2"-20 RH	ALL18258	ALL18278
1/2"-20 LH	ALL18259	ALL18279
5/8"-18 RH	ALL18260	ALL18280
5/8"-18 LH	ALL18261	ALL18281
3/4"-16 RH	ALL18262	ALL18282
3/4"-16 LH	ALL18263	ALL18283
3/4"-10 RH	ALL18264 [†]	-
7/8"-9 RH	ALL18266†	_
1"-8 RH	ALL56110 [†]	_

[†]Sold Each.

Steel Jam Nut Assortments

Assortments contain five each of 1/4"-28, 5/16"-24,

3/8"-24, 7/16"-20, 1/2"-20, 5/8"-18, and 3/4"-16.

ALL18290..... 35 Asst. RH Jam Nuts **ALL18291**..... 35 Asst. LH Jam Nuts

Jam Nuts - Small Hex

Specialty jam nuts have smaller outside diameters, allowing smaller wrenches to be used when changing radius rod lengths. Example: With 1/2" bolts, the same 3/4" wrench can be used to adjust radius rod or mounting hole locations. Pack of 4.

Thread Size	Wrench Size	Steel	Alum.	Black Alum.
5/8"-18 RH	3/4"	ALL18292	ALL18296	ALL18286
5/8"-18 LH	3/4"	ALL18293	ALL18297	ALL18287
3/4"-16 RH	15/16"	ALL18294	ALL18298	ALL18288
3/4"-16 LH	15/16"	ALL18295	ALL18299	ALL18289

Mono Ball Bearings

Mono balls are commonly used in fabrication of products including J-bars, control arms and trailing arms. Bearings have an external grease ring and orifice which allows the bearing to be installed in custom applications that can be externally lubricated.

ALL58001 5/8" **ALL58002** 3/4"





High Misalignment Reducer Spacers

Dual-purpose spacers reduce fastener size mounting hole and allow the rod end to rotate more than 30° in each direction, which is 25% more than most standard spacers. Stainless steel spacers resist rust and corrosion. Pack of 2.



Rod End		O.D.	Length	Overall	
Size	I.D.	"A"	"B"	Width "C"	Part No.
5/8"	1/2"	.750"	.465"	1.68"	ALL18785
3/4"	1/2"	.890"	.475"	1.825"	ALL18786
3/4"	5/8"	.890"	.475"	1.825"	ALL18787

5/8" Rod End Reducer Spacers

Reducer spacers fit into 5/8" rod ends, reducing the hole size for 1/2" hardware while also spacing the rod end away from chassis brackets.





ALL18615

Standard spacers are 3/4" O.D.

and flanged spacers have 1" O.D. flanges to help support rod end. Size referenced indicates the amount of space between rod end pivot ball and chassis bracket. Pack of 2.

Standard Spacers

ALL18615 Aluminum, 1/2" ALL18617 Aluminum, 1" ALL18618 Aluminum, 1-1/4" ALL18619 Aluminum, 1-3/4"



Flanged Spacers

ALL18611 Aluminum, 1/4" ALL18613 Aluminum, 1/2" ALL18610 Steel, 1/4"

ALL18612 Steel, 1/2"



Rod End Reducer Bushings

Steel bushings reduce the rod end pivot ball I.D. to accept a smaller bolt size.



O.D. To I.D.	2-Pack	10-Pack
1/2" To 3/8"	ALL18565	ALL18565-10
5/8" To 1/2"	ALL18566	ALL18566-10
3/4" To 1/2"	ALL18567	ALL18567-10
3/4" To 5/8"	ALI 18568	ALI 18568-10

Shock Spacers

Steel spacers have a 1/2" I.D. and 3/4" O.D. and can be used in a variety of other locations.



Length	2-Pack	10-Pack	25-Pack
1/4"	ALL64280	ALL64280-10	ALL64280-25
1/2"	ALL64282	ALL64282-10	ALL64282-25
5/8"	ALL64283	ALL64283-10	ALL64283-25
3/4"	ALL64284	ALL64284-10	ALL64284-25

Aluminum Flat Spacers

Flat spacers are great for shimming and adding additional clearance to brackets for brake calipers, power steering, alternators, dry sump pumps or just about anything to help with alignment issues. Pack of 2.

Length	3/8" I.D. (11/16" O.D.)	1/2" I.D. (1" O.D.)
1/8"	ALL18740	ALL18760
1/4"	ALL18742	ALL18762
3/8"	ALL18744	ALL18764
1/2"	ALL18746	ALL18766

Tapered Spacers

Universal spacers have many uses including spacing rod ends on linkages to prevent binding or just to provide clearance. Spacers provide a finished look when fitting body panels or spacing components away from floors and firewalls. Pack of 2.

I.D.	Small O.D.	Large O.D.	Length	Steel	Aluminum
1/4"	.345	.500	1/4"	-	ALL18700
1/4	.545	.500	1/2"	_	ALL18702
E /4 CII	475	COF	1/4"	_	ALL18706
5/16"	.475	.625	1/2"	-	ALL18708
			1/4"	-	ALL18712
3/8"	.525	.680	1/2"	-	ALL18714
			1"	-	ALL18716
			1/4"	ALL18570	ALL18590
	.740		3/8"	ALL18571	_
4 /011		005	1/2"	ALL18572	ALL18592
1/2"		.740 .995	3/4"	ALL18574	ALL18594
			1"	ALL18576	ALL18596
			1-1/2"	ALL18578	ALL18595
			1/4"	ALL18580	ALL18597
			1/2"	ALL18582	ALL18598
5/8"	.825	.995	3/4"	ALL18584	ALL18599
			1"	ALL18586	-
			1-1/2"	ALL18585	-
			1/2"	ALL18587	-
3/4"	.950	.950 1.125	3/4"	ALL18588	-
			1"	ALL18589	-

GM Trailing Arm Rod End **Reducer Bushings**

Reducer bushings are used with spherical rod ends to take the place of the OE style trailing arm bushing when building custom or adjustable

lower trailing arms on popular GM cars. Bushing size listed is for size of rod end being used and both bushings accept 1/2" mounting hardware.

ALL18790..... 5/8" ALL18792..... 3/4"



6th Coil Assembly

ALL64315

6th Coil Assembly Unit bolts in the center of the chassis to 1-1/2" tubing and the bottom connects to the front of a lift bar using the supplied 18" long chain which accepts 3/8" hardware and can be easily cut to required length. Accepts a 4" tall by 2-1/2" I.D. coil over spring (sold separately).



Limit Chain Clamp, 2-Piece

Two-piece clamp bolts around most 3" O.D. axle tubes to provide a lower mounting point for a suspension limit chain. Two-piece design features a nylon liner allowing clamp to be installed without removing existing brake brackets and hubs.



ALL68336 Steel ALL68337 Aluminum

5th Coil Mount

ALL60218

1-1/2" aluminum bracket bolts in the center of the chassis to mount a 5th coil shock assembly.



QC Lift Bar Brackets

Brackets mount to guick change rearends and accept most popular lift bars. Pack of 2.



ALL68313 Steel Lowers with 5/8" Hole

ALL68314 Steel Lowers with 5/8" Hole (3/4" Drop)

ALL68317 Aluminum Uppers with 5/8" Hole ALL68318 Aluminum Uppers with 3/4" Hole

Lift Bar Retainer Clamp

ALL68325

Bracket clamps around 3" axle tubes to provide a mounting point for a lift bar support rod. 1" wide bracket has angled tabs with 1/2" holes for mounting a strut rod with 1/2" rod ends.



Top View

Limit Chain Clamps 1-Piece

1-piece bearing style clamp slides over the end of most 3" O.D. axle tubes to provide a lower mounting point for a suspension limit chain.

ALL68332 Steel ALL68333 Aluminum



Retainer Clamps, 2-Piece

Retainer clamp bolts around most 3" O.D. axle tubes to keep birdcages. floater brackets, limit chain clamps in position. 2-piece design allows clamp to be installed without removing existing brake bracket and hub.

ALL68338 Steel ALL68339 Aluminum

Retainer Clamps, 1-Piece

Steel retainer clamp slides over the end of most 3" O.D. axle tubes to keep birdcages, floater brackets, and limit chain clamps in position. Powder-coated black finish.

Part No.

ALL68327

ALL68326 Lightweight

Heavy-Duty



Mounting **Description Width Thickness** Hardware

1/4"

3/8"

1/8"

1/4"

5/8"

Birdcage Bearings

Bearings replace damaged or binding bearings in most popular birdcages. Bearing O.D. is 3.625", inner race is .875" wide and outer shell is .745" wide.







Clamp-On Rings for 3" Axle Tubes

Clamp-on rings fasten around most 3" axle tubes to use as a starting point for building custom trailing arms, shock and spring mounts and



many other uses. Ring are constructed using 3/16" wall material and feature a two-piece design for easy installation and removal.

ALL60144 2-Bolt, 1" Wide **ALL60145** 2-Bolt, 1-3/4" Wide **ALL60146** 2-Bolt, 2" Wide **ALL60147** 4-Bolt, 3" Wide

Axle Tube Bracket

Bracket clamps around 3" wide axle tubes to provide a mounting point for a suspension limiter such as a limiting strap or chain. 1" wide bracket with double shear tabs.



ALL68323 Bracket with 3/8" Holes ALL68324 Bracket with 1/2" Holes

Coil-Over Load Bolt Assembly

ALL56074

Threaded aluminum bolt is 6" long with 1-1/8"-12 fine threads and is commonly used as an adjustable travel limiter. Also used with ALL56098 threaded sleeve.



ALL56075 Replacement Shock End

Ride Height Set-Up Stick

ALL10658

Stick replaces the coil-over shock and spring assembly during maintenance. Stick has many uses and may be adjusted to check settings at normal ride height, in race attitude, or on the bump stops to evaluate suspension travel. Adjusts from 15"

to 24", measured at the center of 1/2" rod ends.



Cade Dillard

Suspension Limiters

Single-bushing suspension limiter is commonly used on the chassis LR or RR to limit travel during acceleration "hike up" and control roll steer. Dual-bushing limiter is often used on the lift bar to control lift bar travel on deceleration. Bushing design reduces or absorbs shock when suspension is limited and

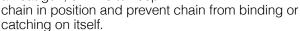
helps reduce tire unloading. Top plate is drilled to attach a 1/2" rod end when used in a shock mount or for attaching to a weight jack bolt with 7/16"-20 internal threads using optional chrome moly stud ALL64304. Clevis has a 3/8" hole for simple attachment to a chain or cable.

ALL64300 Single Bushing Limiter ALL64302 Dual Bushing Limiter ALL64346 Bushing for ALL64300 ALL56372 Bushing for ALL64302

ALL64305 Clevis 1/2"-20 Thread w/ 3/8" Hole **ALL64304** Chrome Moly Stud w/ Jam Nut 7/16"-20

Limiter Chain Kit

Commonly used to limit rear suspension or lift bar travel. Chain is 18" long and can be easily cut to required length. Shrink sleeve installs over chain, and when heated with a heat gun, shrinks to keep



ALL64312 3/16" Diameter Accepts 3/8" Pin or Bolt ALL64314 5/16" Diameter Accepts 1/2" Pin or Bolt

QC Axle Tube Support Brackets

Brackets provide mounting points for a strut rod assembly to help eliminate flex found in quick change rear ends.



ALL68320 attaches to the side bell bolts on most quick change rear ends. ALL68322 has tabs with 5/8" holes and mounts directly onto a 3" axle tube.

ALL68320 Center Section Mount ALL68322 Axle Tube Mount



Center-Pull Birdcage

ALL60410

Birdcage clamps around most 3" O.D. machined axle tubes to provide a lower mounting point for a suspension. The two-piece design features a nylon liner allowing clamp to be installed without removing existing brake brackets and hubs. Clamp measures 3-1/4" wide including retaining clamps and accepts a 3/4" suspension tube.

Clamp-On **Trailing Arm Bracket**

ALL60138

Aluminum bracket clamps to a 3" diameter axle tube, has three 3/4"-10 mounting holes for trailing arm location and a 1/2"-13 socket head bolt with two 1/4" spacers for mounting a coil-over shock. An addi-



tional locking bolt installs into the axle tube to help prevent the bracket from turning. May be used on the right or left hand side of housing. 3.4 lbs.

Clamp-On **Trailing Arm Bracket**

ALL60134

Steel bracket clamps on a 3" axle tube for attachment of coil-over shock and trailing arm. Bracket has two 3/4" trailing arm mount holes spaced 4-1/2" and 5-1/2" down from axle tube centerline. Grade 5 hard ware and nyloc nuts included.



Folding Track Mat

ALL10126

Mat folds for easy storage and are ideal for use on asphalt, dirt, in the pits, or on the garage floor. Vinyl covered pad



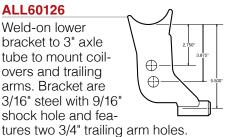
measures 52" x 24" unfolded, 12" x 24" folded.



Weld-On Trailing Arm Bracket

ALL60126

Weld-on lower bracket to 3" axle tube to mount coilovers and trailing arms. Bracket are 3/16" steel with 9/16" shock hole and fea-





Weld-On Trailing Arm/ **Shock Brackets**

Flame-cut 1/2" thick steel brackets weld to 3" diameter axle tube, providing mounting points for trailing arm and shock. Brackets have two 3/4"-10 threaded



eter hole with spacer for mounting a shock.

ALL60110

ALL60110..... LH Bracket ALL60111 RH Bracket

Suspension Tube Set-Up Tool

ALL10676



Slide rule device quickly measures and duplicates suspension or steering tube distances with 1/2", 5/8", and 3/4" rod ends. Set-up tool has an engraved scale with 1/16" increments for durability and accuracy.

Bolt Center Caps

ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed suspension tube assemblies. Machined step secures the end of a standard tape measure for easy reading of the length to the center of the opposite cap. Caps feature a built-in O-ring that allows the cap to swivel on the bolt head and keeps it from falling off. Pack of 2.

Rod End Centering Kit **ALL10672**

Compact inserts are placed into rod ends of suspension,

steering or other tube assemblies to quickly measure and adjust on the workbench or other flat surface with any standard tape measure. Inserts can be used on assemblies with 1/4", 3/8", 1/2", 5/8", and 3/4" rod ends.





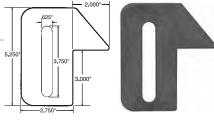
Trailing Arm Brackets

Steel brackets can be used as front mount for leaf spring or trailing arm. Assorted styles are available.

Sold each.

ALL60043

5/8" slot, 3/16" thick, 3-3/4" long.





3/4" slot. 3/16" thick, 3-3/4" long.



ALL60045

5/8" holes. 1/8" thick.



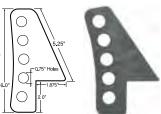
ALL60046

5/8" holes. 3/16" thick.



ALL60048

3/4" holes, 1/8" thick.



 \oplus

Trailing Arm Bracket ALL60042

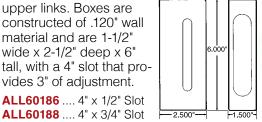
Weld-on bracket has a curved 3/4" slot so rear end remains square as the trailing arm is raised or lowered. Notched for 2" x 3" square tubing. 1/4" thick.



Slider Boxes

Slider boxes weld to the chassis and provide an adjustable mount for trailing

arms. Panhard bars and upper links. Boxes are constructed of .120" wall material and are 1-1/2" wide x 2-1/2" deep x 6" tall, with a 4" slot that provides 3" of adjustment.



Slider Box Quick Adjust Kit

ALL60198

Weld-on kit adds an adjustable feature to standard 3/4" slider boxes. Slider boxes commonly used for trailing arms, Panhard bars and upper

links can now be quickly adjusted with a wrench, socket or possibly a remote adjuster. 3/4"-16 threaded adjuster block features a reference indicator.





Slider Box T-Nuts

T-nuts have slot built in to keep them from turning. No second wrench is needed to tighten or loosen. Use with ALL60186 and ALL60188 slider box. Sold each.



ALL60194 1/2"-13 (Coarse Thread) ALL60195 1/2"-20 (Fine Thread) ALL60196 5/8"-11 (Coarse Thread) **ALL60197** 5/8"-18 (Fine Thread) **ALL60192** 3/4"-10 (Coarse Thread) **ALL60193** 3/4"-16 (Fine Thread)

Slider Box Rod End Spacers

Steel spacers are machined to work with ALL60186 and ALL60188 slider boxes fitting between bracket and rod end to properly space rod end and prevent binding. May also be used as standard rod end spacers.







ALL60187 Spacers for 1/2" Slider Box, 2-Pack ALL60187-10..... Spacers for 1/2" Slider Box, 10-Pack ALL60189 Spacers for 3/4" Slider Box, 2-Pack ALL60189-10 Spacers for 3/4" Slider Box, 10-Pack

Swing Arms

Lower rear suspension link with a 3/4" rod end on one



end and threads in the other end to accept a 3/4" RH male rod end. Used on Dirt Late Models and Modifieds.

ALL56052 13-1/2" ALL56053 15-1/2"



ALL57826

GM Metric Trailing Arms

New, stamped steel C-channel arms are strong and sturdy. Improve handling of the rear suspension on 1978-88 GM metric chassis by replacing twisted or worn out rear control arms.

ALL57820 Upper **ALL57822** Lower



Adjustable steel 1978-88
G-body Metric upper and lower rear end trailing arms are complete with left and right 3/4" rod ends, step spacers reducing to a 1/2" hole and cut to fit stock GM

type mounts. Upper arm aids in adjusting pinion angle and centering rear end. Lower arm will adjust wheel base.

ALL57824 Upper **ALL57826** Lower

GM Trailing Arm Rod End Reducer Bushings

Reducer bushings are used with spherical rod ends to take the place of the OE style trailing arm bushing when building custom or adjustable lower trailing arms on popular GM cars. Bushing size listed is for size of rod end being used and both bushings accept 1/2" mounting hardware.

ALL18790..... 5/8" **ALL18792**..... 3/4"

Universal Trailing Arm Brackets

Brackets have three 1/2" mounting holes spaced 1-1/4" apart and may be welded to 3" axle tubes to provide three trailing arm mount locations. ALL60058 is made of 3/16" steel and



welds to the top of the rear end housing, providing an attachment point for upper trailing arms.

ALL60050 Lower Bracket

ALL60051 Shock Bracket for Lower Bracket

ALL60058 Upper Bracket

Metric Upper Trailing Arm Mounts ALL60059

Mounts weld to the top of Ford 9" housing creating a mounting point for GM Metric chassis upper trailing arms. Bushings not included.



GM Metric Chassis Trailing Arm Bracket Kits

Includes rear upper and lower trailing arm mounts. Upper mount must be cut to desired height depending on where housing is located in the chassis.



ALL60052 Kit with Single Hole Lower in Stock Location

ALL99282 Brackets Only, 1 Pair
ALL60053 Kit with Single Hole Lower,
Lowered to Increase Traction

ALL99283 Brackets Only, 1-Pair ALL60054 Kit with Multi-Hole Lower ALL99284 Brackets Only, 1-Pair

GM Trailing Arm Bushing

ALL56245

Direct replacement, heavy duty polyurethane bushing improves handling and traction. Fits most '65-88 Chevy Chevelle/Malibu, Buick Skylark/GS, Olds Cutlass/442 and Pontiac LeMans/GTO. Accepts 1/2" hardware.

GM Trailing Arm Bushing

ALL56247

GM bushing with an elastomer bearing insert improves handling and traction while eliminating bind.

Use with stock trailing arms for race or street. Fits most 1965-88 Chevy Chevelle/Malibu, Buick Skylark/GS, Olds Cutlass/442 and Pontiac LeMans/GTO. Accepts 1/2" hardware.

GM Trailing Arm Bushing with Insert

ALL56248

Popular GM bushing features an interchangeable polyurethane insert which can be exchanged to increase or decrease rear steer for maximum traction. Bushing

includes a 40 durometer insert. Use with stock or adjustable trailing arms. Fits most 1965-88 Chevy Chevelle/Malibu, Buick Skylark/GS, Olds Cutlass/442 and Pontiac LeMans/GTO. Accepts 1/2" hardware.

Related Components

ALL99400 Black Insert 50 Durometer (Soft)
ALL99401 Yellow Insert 60 Durometer (Medium)
ALL99402 Red Insert 80 Durometer (Hard)





Bolt-On Spring Cup ALL56117

Aluminum cup for 5" spring features a 1/2" mounting hole for use with internal threaded jack bolts, used as a rear lower cup or modified to fit shock shafts.



ALL56124

ALL56123

Lower Spring Cups

Steel spring cup has a 7" wide curved base that welds to the top of a 3" diameter rear end axle tube creating a flat mounting surface for 5" O.D. racing springs. Commonly used to replace OE style "pigtail" lower spring mount. Sold each.



Leaf Spring Pad ALL56126

Steel pad welds to 3" diameter rear end axle tube when mounting rear end to most leaf springs. Pad is 2-1/2"W by 5-3/4"L and has a 5/8" center pilot hole. Sold each.



Steel clamp-on leaf spring pad fits 3" diameter axle tubes. Pad measurements are the same as ALL56126. Sold each.

ALL56065

ALL56131

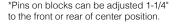
ALI 56136

Aluminum Lowering Blocks

Easily adjust ride height on leaf spring cars. Standard and adjustable styles are available in extruded or billet aluminum. Blocks are 2-1/2"W x 5"L.

Sold each.

Oola caoli.					
Part No.	Height	Pin Dia.			
Extruded Aluminum					
ALL56130	1"	9/16"			
ALL56131	1-1/2"	9/16"			
ALL56132	2"	9/16"			
ALL56133	2-1/2"	9/16"			
ALL56134	3"	9/16"			
Billet Alumir	Billet Aluminum				
ALL56060	3/4"	5/8"			
ALL56061	1"	5/8"			
ALL56062	1-1/2"	5/8"			
ALL56063	2"	5/8"			
ALL56064	2-1/2"	5/8"			
ALL56065	3"	5/8"			
ALL56136*	1-1/2" Adj.	5/8"			
ALL56138*	2-1/2" Adj.	5/8"			



Leaf Spring U-Bolt

ALL68344

Leaf spring u-bolt fits 3" axle tubes, has a 1/2" diameter and is 10" long. Heat treated steel bolt is sold each.

U-Bolt Pads

Universal style U-bolt pads fit 3" diameter







ALL60036 axle tubes and leaf springs up to 2-1/2" wide using 1/2" U-bolt fasteners. Center alignment hole is 5/8" to accept most lowering blocks or spring bolts. 1/4" thick formed steel pads have a gusseted shock mount with a welded bung to accept 1/2" mounting hardware.

ALL60036 RH Pad **ALL60037** LH Pad

ALL60038 Dual Mount Pad

Leaf Spring Slider Box

ALL60034

Leaf spring slider box replaces conventional leaf spring shackles to enable effortless suspension movement and prevent binding. Box may be welded or bolted directly to chassis, and includes two nylon bushings with spring mounting hardware. Fits 2-1/2" wide Chrysler type leaf springs.

Replacement Components

ALL99055 Bushings, 2-Pack

Leaf Spring Slider Box

ALL60035

Replace rear leaf spring shackles with Allstar's leaf spring slider box. Bolt-in slider box with roller bearing design eliminates leaf spring binding, freeing up car. Fits 2-1/2" wide Chrysler type leaf springs.

Leaf Spring Shackles

6-hole brackets for mounting leaf springs are 9" L x 2" W and have 1/2" diameter holes spaced 1" on center. Pack of 2.

ALL60055 Steel 1/4" Thick ALL60056 Aluminum 3/8" Thick



ALL60055 ALL60056

Wheelie Bar Wheels

Billet 6061-T6 aluminum wheels are molded with a durable 4" O.D. polyurethane







tire that will not dent or give like a rubber tire. Wheels are available with or without bearings and accept 3/8" mounting hardware. Mounting width: non-bearing wheel is 1-5/8", bearing style wheel is 1-1/4".

Without Bearings (1.625" Wide Mount)

ALL60510 5-Spoke ALL60512 5-Hole ALL60514 10-Spoke

With Bearings (1.250" Wide Mount)

ALL60511..... 5-Spoke ALL60513 5-Hole ALL60515 10-Spoke







Cordless Rivet Gun

ALL18212

Quickly set steel and aluminum mandrel rivets anywhere without the need of an air compressor. Kit includes 3/32". 1/8". 5/32", and 3/16" nose pieces, 3-in-1 spanner wrench, (2) 14.4-volt

Li-ion batteries, charger, and plastic carrying case.

Air Rivet Gun

ALL18210

Durable air riveter speeds up assembly and quickly fastens steel or aluminum rivets into various materials. Includes nose pieces for 3/32", 1/8", 5/32", and 3/16" rivets.



Deluxe Air Rivet Gun

ALL18207

Heavy-duty air rivet gun can be used with steel or aluminum rivets from 3/32" to 3/16".

Replacement Components

ALL18209.... Jaw Set

ALL99255 Nosepiece Set 3pcs

ALL99256 Mandrel Cup

Hand Rivet Gun

ALL18206

Includes interchangeable nosepieces for 3/32", 1/8", 5/32", and 3/16" diameter rivets.



Sharpie Markers

Fine-point permanent markers work great

for many uses around the shop or track which includes layout and fabricating, marking tire sizes, gear set ratios, jet sizes, etc. Sold each.

ALL12072..... Black **ALL12073**..... Silver

Cleco Pin Fastener Kits

Cleco pins are reusable and easily make a temporary connection between pieces of sheet metal during fitting. Pins will work with thicknesses up to 1/4", kits include pliers and 10 pins.

ALL18221 Kit with 1/8" Pins ALL18225 Kit with 3/16" Pins

Cleco Pliers

ALL18220

Unique tool readily installs and removes Cleco fasteners.



Pin Type Cleco Fasteners

Cleco pins permit quick, easy installation and removal of sheet metal during fitting. Pins work with thicknesses up to 1/4".

1/8" Dia. Pins

ALL18222..... 10-Pack **ALL18223**..... 25-Pack **ALL18224**..... 100-Pack 3/16" Dia. Pins **ALL18226** 10-Pack **ALL18227** 25-Pack ALL18228 100-Pack

TECH TIP: Drill holes one drill size smaller than the Cleco pin size to assure a

1/4" Pin Type Cleco Fastener

ALL18234

Cleco Pins are temporary fasteners that can easily be installed or removed in 1/4" holes when fitting sheet metal or chassis tabs using the ALL18220 Cleco Pliers. 1/4" size pin is ideal to use in place of body bolts or other 1/4" fasteners. Pack of 10.

Clamp Type Cleco Fastener

ALL18230

Use when drilling is not an option. Smooth throat prevents paint damage, and spring exerts strong clamping pressure. Throat depth is 1" with a maximum clamping range of 1/2".



Threaded Insert Tool Kit

ALL19450

Tool works with a cordless drill to install a threaded insert into a panel

or bracket. Inserts are helpful when the backside of the panel is not easily accessible. Simply drill the correct size hole, install the threaded insert onto the mandrel, then place the insert into the hole and tighten using any cordless drill. Once the insert is compressed, reverse the drill and remove the mandrel from the insert. Kit includes mandrel and nosepiece for 1/4"-20, 5/16"-18, and 3/8"-16 inserts, other sizes available separately. Threaded inserts sold separately.

Replacement Components

ALL19452..... Mandrel and Nosepiece for 8-32 ALL19453..... Mandrel and Nosepiece for 10-24 ALL19454..... Mandrel and Nosepiece for 10-32 ALL19455..... Mandrel and Nosepiece for 1/4"-20

ALL19456..... Mandrel and Nosepiece for 5/16"-18 ALL19457..... Mandrel and Nosepiece for 3/8"-16

Threaded Inserts

Steel inserts are helpful when the backside of the panel is not easily accessible. Inserts work great for frequently removed items including gauge panels, switch panels, access panels, and body panels or when mounting items to trailer walls. Inserts are designed for installation using insert tool ALL19450 with coordinating mandrel and nosepiece. Pack of



ALL19454

	Thread	Pilot Hole		Body Length
Part No.	Size	Size	Grip Range	(Before Comp.)
ALL19460	8-32	17/64"	Up to .080"	.420"
ALL19461	10-24	5/16"	Up to .130"	.475"
ALL19462	10-32	5/16"	Up to .130"	.475"
ALL19463	1/4"-20	13/32"	Up to .165"	.580"
ALL19465	5/16"-18	17/32"	Up to .150"	.690"
ALL19467	3/8"-16	17/32"	Up to .150"	.690"

Flexible Magnetic Pickup Tool

ALL14172

Flexible tool bends to multiple positions, extends up to 24" and has a magnetic end to quickly retrieve parts.



Telescoping Magnet

ALL14173

A strong (3 pound

pull), telescoping magnet that will retrieve dropped tools or fasteners. Tool extends over 2', and retracts to just 5" to fit in a shirt pocket.

Quick Turn Fastener Tools

The guick turn fastener tool reduces the risk of body panel or fastener damage.

ALL19398..... Composite Tool with 3/16" Hex ALL19399..... Composite Tool with Slot Head

ALL19400..... Tool with Flat Handle

ALL19401..... Tool with Screwdriver Handle



Quick Turn Spring Adjuster ALL19405

This tool is a must when adjusting tension of quick turn springs. Simply turn knob on adjuster to evenly pull or push spring without kinking or breaking spring.

Transfer Punches

Used to mark quick turn fastener locations, place transfer punch in the initial hole in weld plate or body panel. Position the panel to be marked over top of punch and lightly tap with a hammer.

ALL19402..... For 5/16" Fasteners ALL19403..... For 7/16" Fasteners

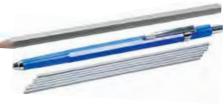
Quick Turn Spring Fixture

Accurately drill panels when installing quick turn fastener springs. Start with a 1/4" center hole and use the fixture to locate and drill 1/8" holes for mounting the springs. Size listed is spring center-to-center distance.

ALL19406..... Fixture for 3/4" Spring ALL19407..... Fixture for 1" Spring ALL19408..... Fixture for 1-3/8" Spring

Fabrication Pencils

Pencil works well for marking lines durina metal layout and fabrication. Multiple uses include marking steel tubing for



ALL19407

cutting or notching and marking patterns on painted aluminum or steel sheet metal. Silver reflective marks work best against darker surfaces during cutting or welding for high visibility. Pencil marks are resistant to torch flames and will not burn or rub off.

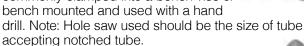
ALL12064..... Pencil, 3-Pack

ALL12066..... Mechanical Pencil, with Six Refills



Tubing Notcher ALL10411

Notcher works with most standard hole saws to create a notch on end of round tubing for properly attaching round tubing to round tubing, often used when building roll cages, bumpers, or custom chassis. Notcher features an adjustable holding fixture which automatically centers tubing to create a notch from 90-45 degrees in tubing up to 2". Notcher is commonly clamped into a bench vise or bench mounted and used with a hand





ALL10402..... 5/8"-18 Thread Adapter

Tubing notcher includes a 1/2"-20 arbor thread and 5/8"-18 adapter. Most hole saws up to 1-1/8" diameter use 1/2"-20, larger hole saws use 5/8"-18 thread.

Hole Saw Set

ALL10412

Use with tubing notchers. Does not include an arbor for a hand drill. Set includes one of each size: 3/4", 1", 1-1/4", 1-1/2" 1-5/8", and 1-3/4". Hole saws up to 1" diameter use 1/2"-20 thread; larger hole saws use 5/8"-18 thread.



ALL10402

Individual Hole Saws

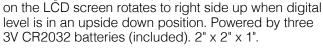
ALL10413 3/4" ALL10414 1" ALL10416 1-1/4" ALL10417 1-1/2" **ALL10418**..... 1-5/8" ALL10419 1-3/4"

Note: Hole saws up to 1" diameter use 1/2"-20 thread; larger hole saws use 5/8"-18 thread

Compact Digital Level

ALL10742

Digital level with magnetic base measures the angle of a single straight surface or the angle of a joint between two straight surfaces. Displayed value



Smart Tool

ALL10113

Ensure that chassis tubing is level and plumb when building roll cages or checking driveshaft angles. Powered by a standard 9-volt battery.



Punch and Flare Tools

Add strength and a smooth finish to hole edges. Unique tools can be used to punch and flare new holes, or to flare existing holes. Starting with a small center hole, the punch halves bolt together to cut and flare at the same time.

ALL11070 1-1/2" ALL11072 1-3/4" **ALL11074** 2" ALL11075 2-1/2" ALL11076 2-5/8" ALL11078 3"





Sample Punch and Flare

Tin Snips

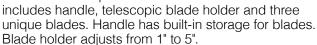
Durable tin snips have offset blades to keep hands clear of metal while cutting. Non-slip jaws cut through sheet aluminum and up to 18-gauge low carbon steel. Blade length 1-1/4", total tool length 9-1/4".

ALL11030 Red Grips, Straight and LH Cut ALL11031 Green Grips, Straight and RH Cut

Deburring Tool

ALL11036

A fast and easy way to remove burrs from the edges of machined or cut metals. Five-piece kit



Replacement Component

ALL99328 Blades 3-pk

Graphic Trim Tool

ALL23101

Unique tool allows you to easily trim your

graphics around wheel openings and other body panel edges. Adjustable width allows you to choose how far you want your material from the edge and the adjustable head gives you a wide range of options in tight or open areas.

Body Roller

ALL23102

This handy "highside"

body roller will allow you to straighten body and deck panels while still on your car! Must have item for at track repairs.





Body Radius Tool ALL23100

Solid oak tool can be used to flare edges of wheel openings when fabricating fenders and quarter panels out of aluminum. Tool has two different radiuses to create the correct flare for your needs.

Sheet Metal Shrinker/Stretcher Combo

Make smooth radius curves and contours with Allstar's shrinker/ stretcher combo. Shrinker creates inside curves and stretcher expands for outside curves. Each completely assembled tool includes a handle and mounting hardware for securing to a workbench. Tools are capable of forming 18-gauge mild steel, 16-gauge aluminum and 20-gauge stainless. Kit is great for forming fenders, radiator shrouds, or any item needing a smooth radius curve.

ALL11023..... 1 Base with Two Jaws ALL11024..... 2 Bases with Two Jaws



Specially hardened drill bit is required for drilling spring steel. The 17/64" size simplifies installation of 1/4" hardware. Sold each.

Hammer Type Spring Steel Punch ALL23116

Hammer type punch places a 1/4" diameter hole 1/2" from the end of most 1" x .062" thick spring steel material. Punch features a built-in stop which positions the material for accurate hole placement. Punch needs to be placed on a hard surface (i.e. concrete floor, steel anvil, etc.) and struck lightly with a 3- to 4-lb. hammer.

Replacement Component

ALL99013 Mandrel for ALL23116

Impact Gun Spring Steel Punch ALL23117

Impact gun style punch places a 1/4" diameter hole 1/2" from the end of most 1" x .062" thick spring steel material. Punch features a built-in stop which positions the material for accurate hole placement. Punch may be placed in a vise or handheld and impact gun driven using a 3/4" socket.

Replacement Component

ALL99014 Mandrel for ALL23117

ALL99173 Mandrel Bolt

43/64" Wheel Stud Drill Bit ALL11045

43/64" bit is correct for drilling hubs or axle flanges to accept most 5/8" wheel studs with .690" knurl diameter.
1/2" shank.

Fabrication Pencils

Pencil works well for marking lines during metal layout and fabrica-

tion. Multiple uses include marking steel tubing for cutting or notching and marking patterns on painted aluminum or steel sheet metal. Silver reflective marks work best against darker surfaces during cutting or welding for high visibility. Pencil marks are resistant to torch flames and will not burn or rub off.

ALL12064..... Pencil, 3-Pack
ALL12066..... Mechanical Pencil, with Six Refills

Step Drill Sets

Drill multiple size holes with one bit. Drill sheet metal and aluminum without deforming or distorting. Bits start on contact, deburr and chamfer while drilling, and do not require a center punch. Titanium nitride-coated high-speed steel. 1/4" shank.



ALL11040 (3-Piece Set)

Drill Bit	Sizes
Six Step	3/16", 1/4", 5/16", 3/8", 7/16", 1/2"
Nine Step	1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4"
Thirteen Step	1/8", 5/32", 3/16", 7/32", 1/4", 9/32", 5/16", 11/32", 3/8", 13/32", 7/16", 15/32", 1/2"

ALL11041 (2-Piece Set)

Drill Bit	Sizes
Eleven Step	1/4", 25/64", 35/64", 11/16", 13/16", 7/8", 1", 1-1/8", 1-7/32", 1-1/4", 1-3/8"
Twelve Step	3/16", 1/4", 5/16", 3/8", 7/16", 1/2", 9/16", 5/8", 11/16", 3/4", 13/16", 7/8"

Double-Ended Drill Bits

Double-ended bits are basically two bits in one. Convenient bit can be flipped around for a fresh sharp bit when drilling panels for Cleco fasteners or rivets. Pack of 6.

ALL18201..... 1/8" **ALL18204**..... 3/16"

Drill Bit for Flange Rivets 13/64" ALL18203

A common size bit for working with 3/16" flange type rivets. High-speed steel bits have black oxide

finishes and self-centering tips. Flute length: 1-3/16", overall length: 2-1/4". Pack of 2.





Wall Mount Brackets



Universal aluminum brackets are powder coated white and perfect for hanging many items in your shop or trailer.

ALL12195 1-1/2" ALL12196..... 3"



Shock Racks

Shock rack holds four shocks with 2-1/2" springs and 3 easily mounts to trailer, shop wall or pit cart. Rack is designed to hold shocks in place by pushing shock rod end or eye over the outer O-ring or alternatively, the outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

ALL12212 Standard Rack ALL12211 Adjustable Base Rack

Replacement Component

ALL12213 Shock Pin, O-Ring, and Bolt

Extended Length Shock Rack Pin

ALL12215

Extended length pin replaces the pin used on our standard and adjustable shock racks allowing a shock or eliminator



with a $5^{"}$ spring to be mounted to the rack. Pins are also ideal for creating custom mounting for use on toolboxes or pit carts. The outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

Quick Change Gear Tote Tray

ALL12269

Neatly organize up to 10 quick change gear tote boxes vertically. Tray is 21" long x 5-1/2" deep with a 4" tall front edge, making them perfectly sized for Allstar gear tote boxes.



ALL19450

Tool works with a cordless drill to install a threaded insert into a panel or bracket. Inserts are helpful when the backside of the panel is not easily



accessible. Simply drill the correct size hole, install the threaded insert onto the mandrel, then place the insert into the hole and tighten using any cordless drill. Once the insert is compressed, reverse the drill and remove the mandrel from the insert. Kit includes mandrel and nosepiece for 1/4"-20, 5/16"-18, and 3/8"-16 inserts, other sizes available separately. Threaded inserts sold separately.

Threaded Inserts

Steel inserts are helpful when the backside of the panel is not easily accessible. Inserts work great for frequently removed items including gauge panels, switch panels, access panels, and body panels or when mounting items to trailer walls. Inserts are designed for installation using insert tool ALL19450 with coordinating mandrel and nosepiece. Pack of 10.



	Thread	Pilot Hole		Body Length
Part No.	Size	Size	Grip Range	(Before Comp.)
ALL19460	8-32	17/64"	Up to .080"	.420"
ALL19461	10-24	5/16"	Up to .130"	.475"
ALL19462	10-32	5/16"	Up to .130"	.475"
ALL19463	1/4"-20	13/32"	Up to .165"	.580"
ALL19465	5/16"-18	17/32"	Up to .150"	.690"
ALL19467	3/8"-16	17/32"	Up to .150"	.690"

Double-Sided Tape

ALL14288

Double-sided tape is a suitable alternative for attaching panels or trim when standard mechanical fasteners are not an option. Tape is ideal for mounting items on trailer walls or attaching aluminum panels in enclosed trailers. Roll is 3/4"W x 15' L.







Ratcheting Tie-Down Straps

Tie-downs are great for securing vehicles and pit equipment during transport. 2" x 8' long straps have heavy-duty plated hardware and a ratchet designed to hold excess strap material as it is pulled through and wrapped up during tightening. ALL10196 has a built-in axle strap with protective sleeve for wrapping around a rear end housing or chassis and then back to itself. The working load limit is the maximum load a strap should be subjected to during normal use.

Part No.	Width	Length	Hook Type	Working Load Limit
ALL10184	2"	8'	Flat	1,660 lbs.
ALL10188	2"	8'	Direct	1,660 lbs.
ALL10192	2"	8'	Twist	1,660 lbs.
ALL10196	2"	8'	Twist	1,660 lbs.





Race Car Tie-Down Package ALL10209

Includes two ALL10196 axle combo ratchet straps and two ALL10200 axle tie back straps. Enough tie-downs to secure a car to any trailer.



Axle Straps

Axle straps or winch straps work great for wrapping around the chassis or axle tubes when securing a vehicle to the trailer or when winching a vehicle. Adjustable protective sleeve can be positioned as needed to help prevent strap damage from sharp edges. The working load limit is the maximum load a strap should be subjected to during normal use.

Part No.	Width	Length	Hook Type	Working Load Limit
ALL10200	2"	24"-40" Adj.	Twist	1,660 lbs.
ALL10203	2"	21"	Delta Ring	3,300 lbs.
ALL10204	2"	21"	D-Ring	1,660 lbs.
ALL10207	2"	33"	Delta Ring	3,300 lbs.
ALL10208	2"	33"	D-Ring	1,660 lbs.



Chassis Tie-Down Brackets

ALL60075

Steel brackets weld to chassis and provide a secure mounting location to hook a tie-down strap or winch cable. Set of 2.



Recessed D-Ring

ALL10210

Heavy-duty recessed D-Ring.

D-Ring Backing Plate

ALL60074

Backing plate strengthens and reinforces the mounting area of Allstar recessed D-rings. Plate may also be used as a template when installing D-rings and is bare steel, allowing plate to be welded in place. 1/4" thick.

Ratchet Straps





Secure extra equipment in the trailer with these 1" wide straps made of heavy-duty nylon webbing. Easy, one-hand operation. Ratchet straps have a 1,000-lb. rating.

ALL10180..... Standard 8' Length ALL10182..... Heavy-Duty 16' Length

ALLSTAR

Notched

Cup With

able Rub-

ber Insert

Remov-

Aluminum Pit Jack

Lightweight, 3,000-lb. capacity floor jack has a low profile to roll under the lowest slung race chassis with a 3-5/8" pad height. Made of high-quality aluminum, jack incorporates a patented hydraulic

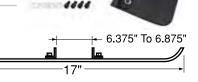
system to reach maximum height of 17-1/2". Large, two-piece handle has a spring detent to lock handle halves

together. Built-in stops on the jack prevent the handle from falling forward past the 12 o'clock position. Rolls easily on heavy-duty rear caster wheels. Optional dirt wing adapts jack for use in unpaved pits. 3-Pump and 6-Pump refers to the amount of pumps of the handle to lift the tires off the ground of a typical stock car.

ALL10422..... 3-Pump, Red **ALL10425**..... 6-Pump, Silver

Dirt Wing for Pit Jack ALL10426

Provides a sturdy base when using the pit jack on a dirt surface.



Jack Stands

ALL10124

Jack stands with unitized frame will support three tons. The ratchet locking mechanism assures safe, positive height control. Adjustable from 12-1/2" to 17-1/2". Sold in pairs.



Stack Stands

Steel support stands can be stacked together to conserve valuable space in the trailer or shop.

in the trailer or shop.

Stands are rated up to 3000lbs each and feature a sturdy 12" x 15" base.

Sold in pairs.

ALL10253..... 11" Tall **ALL10254**..... 14" Tall

Stack Stand Pads

ALL10256

Steel reinforced rubber pads bolt to the top of

our Stack Stands to help eliminate vehicle movement when located on stands. Pads measure 8-1/2" W x 3/4" H wide and include two molded-in studs with hardware for easy installation. Drilling is required to Stack Stands for installation. Sold in pairs.

Pit Cart Chassis

ALL10600

Universal kit is a good starting point for building your own custom pit cart. Welding is required and the kit includes all the necessary components to get you off the ground with a rolling platform. Includes a pre-welded front cross member, spindles, steering components, 1" x 2" steel frame tubing with main rails drilled for rear axle, pre-welded rear axle assembly, wheels, tires, and a handle. Frame width is designed to be 14" and a maximum frame length of 60" with a 53" wheelbase. Frame may be shortened as needed.

Track Mat

High-density foam rubber mat provides added comfort when kneeling or laying on the ground. Mat is oil resistant and can be easily washed without absorbing water.

ALL10610..... 20" x 30" **ALL10612**..... 28" x 45"



Folding Track Mat

ALL10126

Mat folds for easy storage and are ideal for use on asphalt, dirt, in the pits, or on the garage floor. Vinyl covered pad mea-

sures 52" x 24" unfolded, 12" x 24" folded.



Moving Blanket

ALL12013

All-purpose padded moving blanket is an ideal ground cover at the track, fender/seat cover, or moving/storage pad. Quilted with bound edges. 72"x 80".



Pit Mat

ALL10605

Large 10' x 20' black pit mat is made from heavy-duty 18-oz. vinyl and includes securing grommets.





Air Jack Kits with Dirt Foot

The air jack system fastens directly to your chassis and uses air pressure supplied by a nitrogen tank to raise your entire car in seconds! Kits



include air jack cylinders with a 15.25" stroke length, cylinder mounting rings, air coupling with receiver, installation kit, safety stands, and detailed instructions. Lift cylinders feature a large 5" diameter base designed for use in dirt or soft pit areas. Air jack kit for complete car has a lifting capacity of 3000 lbs and kit with two air jack cylinders has a lifting capacity of 1500 lbs.



Dirt Foot

Note: A nitrogen tank, high-pressure regulator, and an air hose rated at a minimum of 400 PSI is required for operation.

ALL11301 Kit with 4 Lift Cylinders for Complete Car ALL11303 Kit with 2 Lift Cylinders for Rear of Car Only

Air Jack Mounting Rings

Mounting rings secure around the lift cylinders found in the Allstar Air Jack Kits providing a mounting point to secure the lift cylinder to the chassis. The steel



mounting rings are 3/4" tall and are direct replacement for the rings included in the Air Jack Kits. The 2-pc aluminum mounting rings are 3/4" tall and feature a 1/2"-13 socket head cap screw recessed into the clamp enabling the mounting ring to be secured to a weight bracket or a chassis tab.

ALL11319 Steel Mounting Ring Set 8 pcs ALL11305 Aluminum Mounting Ring Set 8 pcs **ALL11313** Aluminum Mounting Ring Each

Regulator

ALL11310

Nitrogen tank regulator is adjustable from 10-500 PSI and is designed for use with the Allstar Performance Air Jack Kits.



Premium Hose Kit for Air Jack System

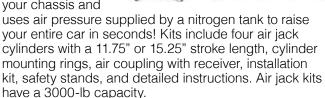
ALL11312

Premium hose kit includes 35' of 500 PSI hose and fittings to connect air jack systems to ALL11310 regulator.



Air Jack Kits

The air jack system fastens directly to your chassis and



Note: A nitrogen tank, high-pressure regulator, and an air hose rated at a minimum of 400 PSI is required for operation.

ALL11302 Kit with 11.75" Stroke Cylinders ALL11300 Kit with 15.25" Stroke Cylinders

Nitrogen Air Tank Kit ALL10630

A portable nitrogen tank is ideal for making last minute adjustments to shock and tire pressures or raise air jack equipped vehicles. The kit includes a 21" x 5.25" diameter aluminum tank, aluminum



bottle stand/handle, adjustable pressure regulator, air hose with a guick disconnect and a transfer filling hose.

Note: Tank is sold empty and will require filling before use.

Individual/Related Components

ALL10632..... Nitrogen Air Tank 5.25" x 21" Tall 2200 lbs * ALL10633..... Nitrogen Air Tank 6.90" x 21" Tall 2200 lbs * ALL10634..... Stand/Handle for 5.25" Nitrogen Bottle ALL10635..... High Pressure Regulator 0-600 psi ALL10636..... 30" Air Hose with Coupling ALL10638..... Transfer Fill Hose

Air Jack Lance ALL10637

60" long hose assembly connects to a portable nitrogen air tank with regulator to operate air jacks on equipped vehicles. Assembly includes lance with main fill control valve and bleed valve for lowering vehicle.

Chassis Dollies

Steel chassis dollies allow a car or chassis to be moved around the shop easily and safely. Each dolly measures 30" across the top with highdensity rubber pads and a single wheel brake to help

prevent rolling. Dollies adjust from

13" to 19" high with a removable 1" block on one side for use on sprint cars with a raised rail chassis. Stands also collapse flat for storage in shop or trailer. Dollies are rated up to 2000 lbs. per set and sold as a pair.

ALL10625..... Standard Dollies

ALL10626..... Black Dollies with Support Tabs*

*Dollies feature mounting tabs to mount a custom tie rod (not included) between the dollies for added support.



^{*} Tank is sold empty and will require filling before use.



Air Hose

3/8" rubber hose with durable outer coating is weather, oil and solvent resistant. Maximum operating pressure is 200 PSI, burst pressure is 800 PSI. Solid brass 1/4"NPT end fittings.



ALL10526 Air Hose 25' ALL10527..... Air Hose 50'

Nitrogen Bottle Holder

ALL12210

Attach to trailer or shop wall to secure 9-1/4" diameter nitrogen bottle in upright position. Heavy steel bracket has a 1-1/2" wide hinged strap that pivots for easy bottle replacements. Overall bracket length is 17-1/2" with mounting holes 16" on center. Set of 2.

Pit Sockets

The same pit sockets used by many top race teams. Steel sockets have a 1/2" drive to work with most impact guns and a machined lug nut end (not hex), for use with 1" lugnuts.





Hex Pit Sockets with Extension

Hex style pit sockets with a built-in extension prevent extension and socket from separating during wheel changes.

3/8" Drive	
ALL10234	6"
ALL10235	12"
1/2" Drive	

ALL10239..... 6" ALL10240..... 12"

Super Sockets with Extension

Pit sockets are available with 5" or 11"

extensions and include our Super Socket for fast wheel changes without jamming lug nuts. Sockets are not the traditional hex shape, these feature a unique inner shape to contact the edges of a 1" lug nut and a 1/2" drive for use with impact guns.

ALL10242..... 5" ALL10241 11"

Wheel Stud Thread Chaser ALL11048

Designed to clean up damaged threads on wheel studs with 5/8"-11 threads. Thread chaser will not repair threads on bent wheel studs.

Note: We recommend using a lubricant such as WD-40 with thread chaser.

Economy Quick Spin Lug Wrench

ALL10108

Lug wrench is a 1" diameter tube with a shallow 1" socket welded to one end and rotating piece of plastic pipe attached to the other. The 10" handles are angled

with rubber grips and the overall length is 23".

Wheel Wrench

ALL10655

Sprint car wheel wrench features a removable sleeve adapter to fit heavy-duty and lightweight axles. Six-point socket fits 3" axle hex nuts. Black powder-coated aluminum construction.

Aluminum Air Tanks

Portable lightweight aluminum tanks provide an easy way to air up tires. Welded tanks will not rust or corrode and are pressure tested to military specifications up to 300 PSI. Tanks feature a 125psi pressure relief valve to prevent overfilling.



ALL10531.... 7" x 10" Horizontal Tank. 1-1/2 Gallon ALL10532..... 7" x 24" Vertical Tank. 2-3/4 Gallon ALL10530..... 9" x 11" Horizontal Tank. 2-3/4 Gallon **ALL10534**..... 9" x 20" Horizontal Tank, 5 Gallon

Valve Stem Puller

ALL44032

Puller threads onto valve

stem and properly pulls rubber valve stems into place. Large rubber block protects expensive wheels and creates leverage when pulling.

Valve Core Tool

ALL44030

Easily remove and install new valve cores. Base of handle has a machined pattern to aid with grip. Ergonomically designed and crafted from stainless steel. Measures 3" overall length.



ALLSTAR' PERFORMANCE

Tire Pressure Gauges

2" gauge has a 12" flex hose with swivel chuck and pressure release valve. Accurate to within +/- 1%.

ALL44076 0-20 PSI **ALL44077** 0-40 PSI



Tire Pressure Gauges with Glow-in-the-Dark Face

Tire pressure gauge has a glow-in-the-dark face. Swivel chuck rotates 360° on a 14" long rubber hose for easy placement on valve stems with leak-free operation. A rubber cover surrounds the gauge for added protection against drops and has a ribbed molded pattern for increased grip. Gauge also



features a built-in pressure release valve for removing air in small amounts for precise pressure adjustments.

2-1/4" Diameter

ALL44056 0-15 PSI **ALL44057** 0-30 PSI **ALL44058** 0-60 PSI

4" Diameter

ALL44046 0-15 PSI **ALL44047** 0-30 PSI **ALL44048** 0-60 PSI

Tire Gauge Holders

Secure holder to shop or trailer wall to keep tire gauge conveniently located. Aluminum holder works with most tire gauges and has wraparound sides to hold gauge in place.



ALL12259

ALL12259..... Holds Gauges up to 3-1/2" O.D. ALL12260..... Holds Gauges up to 4" O.D. ALL12261..... Holds Gauges Up to 5" O.D. NEW

Tire Durometer

ALL44034

Easily check tire hardness. Includes storage pouch.

Tire Log Decal

Easy to write on, vinyl decal is handy when recording



important tire information at the track. 8-1/2" x 2".

ALL047 4-Pack **ALL047-40** ... 40-Pack

Stagger Gauge

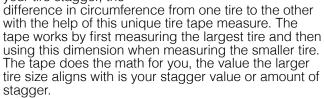
ALL10116

Measures tire diameter and automatically converts it to circumference. Strong tubular gauge will not flex and will provide accurate, consistent stagger measurements every time. Gauge measures from 65" to 115" in 1/4" increments.

Tire Tape

ALL10674

Easily figure out your tire stagger, the



Tire Tape Measures

10' long tapes are ideal for measuring tire diameters and checking stagger.

ALL10111 Economy **ALL10112** Deluxe

Tire Crayons

Ideal for temporary tire marking. 1/2" x 4-5/8".

ALL12060..... White **ALL12061**..... Yellow

Paint Markers

Long-lasting, weather, water, and UV-resistant markers work on glass, plastic, rubber, and metal. Durable fiber tip permits fine or bold lines. Perfect for indicating tire stagger. Quick dry, lead-free paint.

ALL12050..... Silver
ALL12051..... Yellow
ALL12052..... White
ALL12053..... Red
ALL12054..... Blue
ALL12055..... Light Blue
ALL12056..... Black



ALL10112

ALL12057..... Orange Sharpie Markers

Sharpie Markers
Fine-point permanent

markers work great for many uses ground the shape or

markers work great for many uses around the shop or track which includes layout and fabricating, marking tire sizes, gear set ratios, jet sizes, etc. Sold each.

ALL12072..... Black **ALL12073**..... Silver





Electric Tire Prep Stand

ALL10565

Electric tire prep stand eases grooving, siping, grinding, and even cleaning of tires. Two-way switch permits clockwise or counter-clockwise rotation. Foot-operated pedal controls the rotation of the tire. A 110V accessory outlet is included for convenient plug-in of siper or groover. Stand will accommodate 5x5 or Wide 5 wheels.



Individual Components

ALL10566..... Motor Assembly ALL10567..... Cart/Stand for ALL10566

Tire Tool Adapter

ALL10570

Tire tool adapter is designed for use as an accessory to Allstar's electric tire prep stand ALL10565. Adapter arm with cushioned handles slides left and right to allow tire tool access to the entire width of tire. Mounting hardware and tire tool head are included.



Related Components

ALL10551 Tire Tool Head (Needler)

Foot Pedal for Standard Tire Prep Stand

ALL99490

Foot pedal is a replacement for the current ALL10565 Tire Prep Stand and a retrofit pedal kit for earlier models with the small design plastic pedal.



Kit includes all wiring and instructions to convert older model tire prep stand to the current design.

Tire Perforator Tool

ALL10550

Tire tool perforates tire surface for better traction.
Steel roller is 2" wide with a series of 1/4" tall, straight pin rows. 5" wood handle. Use caution when handling and storing tool; pins are needle sharp.

High-Torque Electric Tire Prep Stand

ALL10575

Electric tire prep stand with high-torque motor is a heavy-duty version of Allstar's standard tire prep stand that provides increased reliability and power when servicing tires. Prep stand eases grooving, siping, grinding and even cleaning of tires. Two-way switch permits clockwise or counter clockwise rotation. A foot-operated pedal



controls the rotation of the tire. A 110V accessory outlet is included for convenient plug-in of siper or groover.

Stand will accommodate 5x5 or Wide 5 wheels.

Individual Components

ALL10576..... Motor Assembly ALL10577..... Cart/Stand for ALL10576

Related Components

ALL10572..... Tire Tool Adapter **ALL10574**..... Tire Wrapper Attachment

ALL10571..... Tire Siper Holder



Tire Tool Adapter for High-Torque Tire Prep Stand

ALL10572

Tire tool adapter is designed for use as an accessory to Allstar's hightorque electric tire prep stand ALL10575. The adapter's arm features cushioned handles

and slides side-to-side, allowing perforator tool access to the entire width of tire. A retractable leg helps support and stabilize the tire tool adapter and unit. Adapter also has mounting holes to accept the ALL10574 Tire Wrapper Attachment (sold separately) to wrap tires after prepping.

Tire Wrapper Attachment

ALL10574

Tire wrapper attachment mounts directly to tool perforator adapter ALL10572 to easily wrap tires after prepping. Attachment accepts tire wrap tubes up to 18" wide with

wrap tubes up to 18" wide with a core I.D. of 3".

Related Components

ALL44221 Black Stretch Wrap 1500'
ALL44224 Clear Stretch Wrap 1500'





Tire Prep Stand

ALL10555

Steel tire prep stand is a must when grooving, siping, grinding, or even cleaning tires.
Bolts together, and the pivoting head eases initial tire mount. A locking T-handle secures the head assembly. Can be used with 5x5 or Wide 5 wheels.



Tire Prep Mount ALL10561

Manual steel tire prep mount eases grooving, siping, grinding, or even cleaning tires. Special one-way bearings prevent "roll back" when grooving or siping. Bolt to a wall stud or other solid surface. Can be used with 5x5 or Wide 5 wheels. ALL10562 wall swivel (sold separately) allows use at various angles.



ALL10562..... Swivel Wall Mount Bracket

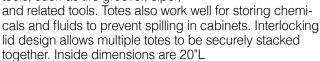
Tire Siper ALL10265

Hand held 6-blade push or pull style siper quickly and precisely sipes tires for better traction. Unit has adjustable sipe depth and uses standard utility blades.



Storage Tote ALL059

Durable storage tote has many uses around the shop or in the trailer. Store extra parts or keep parts from being damaged during storage. Great for organizing ratcheting tie downs, specialty tools, such as tire groover, siper, and related tools. Total also work



Heated Tire Siper

ALL10266

Sipe tires quickly and effortlessly while maintaining precise control. Siping can greatly improve traction by allowing the tire to reach and maintain optimum

temperature. A locking lever and blade clamping screw secures up to 13 blades in the head assembly. Blades can be easily positioned up or down to desired cutting depth. A built-in blade rail



holds blade strips in place while individual blades are snapped away. Tool heats in 10-15 minutes. 110V plug in operation only.

Replacement Components

ALL99104 ... Tension Lever Kit **ALL99109** Heating Element



ALL99109

Extra-Hot Tire Siper Heating Element

ALL99111

Element increases the output of the ALL10266 by about 25% over the original heating element which is ideal for siping harder compound tires.

Siping Blades

ALL99108

Siping blades are designed to work in ALL10266

Heated Tire Siper and ALL10540 8-Blade Siping Head. Four strips contain six individual break-away blades that are easily removed or separated using needle nose pliers. Pack of 24 blades.

Multi-Blade Siping Head

ALL10540

Siping head converts standard two-blade pistol-grip sipers into an eight-blade siper. Head holds up to eight individual break-away style blades that can be adjusted as needed for desired cutting depth. Head works with pistol-grip and other heated sipers that accept a .400" round mandrel. Blades are sold separately.

Related Component

ALL99108 Siping Blades, 24-Pack



ALL44028

Wide Jaw



Backing Pads and Sanding Discs

Backing pads are designed to work with sanders that have a 5/8"-11 arbor. Sanding discs are specific to each backing pad and sold in packs of 5.

7" Backing Pad and Sanding Discs

Backing pad is a multi-piece unit that features a hard backing. The sanding disc is secured to the sander along with the backing pad and reinforcing disc with one spanner nut.



ALL44186 7" Backing Pad **ALL44187** 7" Sanding Discs, 36 Grit, 5 Pack

8" Backing Pad and Sanding Discs

Backing pad is a one-piece unit that features a soft foam backing and a molded-in threaded insert to mount directly to the sander. The backing pad accepts hookand-loop style sanding discs.



ALL44188 8" Backing Pad

ALL44189 8" Sanding Discs, 36 Grit, 5 Pack ALL44198 8" Sanding Discs, 24 Grit, 5 Pack ALL44197 8" Sanding Discs, 16 Grit, 5 Pack

Tire Grinding Discs



Grind off the hardened outer "skin" on used dirt track tires and create round, aggressive sipes to increase traction. Use caution when handling and storing nail head disc, pins are needle sharp.

Part No.	Description	Diameter	Arbor Hole
ALL44180	Rounded Disc, 23 Grit	4"	5/8"
ALL44181	Flat Disc, 23 Grit	4"	5/8"
ALL44182	Rounded Disc, 16 Grit	7"	7/8"
ALL44183	Nail Head Disc	7"	7/8"
ALL44196	Nail Head Disc	8"	5/8"

Safety Note: To prevent bodily injury the tire must be mounted on the car or secured in a tire holder. Eye and hand protection is required.

Bead Breakers

Convenient tool makes quick work of breaking down even the most stubborn tire beads. Durable

steel construction with rubber hand grips.
Clamp the hook and inside jaw against the rim, while maintaining slight pressure on the outside handle, then press down on the inside handle, using the outer jaws

to separate the tire from the rim, moving around the rim as needed.

ALL44026 Bead Breaker for 10" Wheels **ALL44027** Bead Breaker for 13" Wheels **ALL10105** Bead Breaker for 15" Wheels

ALL10106..... Bead Breaker for 15" Wheels Wide Jaw*
ALL44028.... Bead Breaker w/ Adjustable Arm for 10", 13",
and 15" Wheels

*Wide jaw bead breaker works well with soft sidewall tires, helping prevent damage to sidewall.

Tire Spoons

Steel tire spoons help to mount and dismount tires after bead has been broken. Various sizes are available to work with most tire/wheel combinations. Small tool works well to fit inside tire during removal while rounded ends help prevent damage to tire and wheel.



ALL10103..... 24" Straight with Round End ALL10104..... 16" Curved with Flat End ALL44037.... 16" Curved with Round End ALL44036.... 9" Curved with Round End

Dirt Tire Soap

ALL78236

Clean your tires like the Pros! Simply mix with water and spray on your tires before washing them and the mud almost falls off. Cleaner also works for pre-treating your chassis and body before cleaning to help loosen dirt and clay. 1-gallon container.





"All-In-One" Heated Tire Groovers

Self-contained groover has built-in temperature controls, eliminating the additional cord and separate control box common with other groovers. Don't let the small package fool you; this groover has the ability to cut small intricate grooves

yet still handle removing material up to 1/2". Tapered, razor-sharp blade grooves fast and easy. To operate, insert a single blade into groover, set blade height with a tire depth gauge, and set the power level. Place the cutting edge against the tire surface and obtain instant heat by simply squeezing the trigger. Groover features a Hi/Low toggle switch and a temperature control dial in the handle for setting desired heat level. "All-In-One" groover requires "All-In-One" blades; do not use standard groover blades with this groover.

ALL10770..... 110V Groover Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

10/32" Flat Blades.

ALL10772..... 220V Groover (Intended for International Use)
Power cord requires the attachment of a 220
volt, grounded, 3-prong plug (not included).
Includes 1 Each 4/32", 5/32", 6/32", 8/32", and

Replacement Components (for ALL10770 and ALL10772)

ALL99300 Head Assembly ALL99301 Head Rebuild Kit

ALL99302 Blade Clamps, 1-Pair ALL99303 Clamp Nuts, 1-Pair

ALL99304 Clamp Screws, 1-Pair ALL99305 Cradle Springs, 1-Pair

ALL99305 Cradie Springs, 1-ALL99306 Slide Pads, 3-Pair ALL99307 Hex Wrench

Work Gloves

General-purpose gloves protect hands from everyday abuse in the shop or at the racetrack. Lightweight, elastic-weave material with reinforced palm and fingers allows mobility and unrestricted use.

ALL99940 Medium **ALL99941** Large **ALL99942** X-Large

Allstar Apron

ALL99962

Black cloth apron has pockets to keep tools close at hand. Reverse apron to place pockets on the inside when grinding tires. Adjustable strap allows one size to fit all.





ALL99306



ALL99302



Heated Tire Groovers

Groovers add extra traction in minutes. Tapered, razor-sharp blade grooves fast and easy. To operate, insert a blade into groover, set blade height with a tire depth

gauge, and set the power level.

Features triggerless activation – simply place the cutting edge against the tire surface and press down for instant heat. Includes 2 each 4/32", 6/32", 8/32", and 10/32" flat blades.

ALL10260..... 110V Groover Features a 4-level dial and a hi/low switch for 8 total heat settings.

ALL10590..... 220V Groover (Intended for International Use)
Features a 4-level dial and a multi-positional dial for fine-tuned heat settings. Power cord requires the attachment of a 220-volt, grounded, 3-prong plug (not included).

Replacement Components (for ALL10260)

ALL99392 Head Assembly ALL99393 Head Rebuild Kit ALL99394 Blade Clamps, 1-Pair

ALL99303 Clamp Nuts, 1-Pair ALL99304 Clamp Screws, 1-Pair ALL99305 Cradle Springs, 1-Pair

ALL99306 Slide Pads, 3-Pair **ALL99307** Hex Wrench

Replacement Components (for ALI 10270 and ALI 10590)

(for ALL10270 and ALL10590) ALL99104 Tension Lever Kit

ALL99105 Head Assembly

ALL99106 Front Pads w/Screws, 3-Pair

ALL99107 Rear Pads w/Screws, 3-Pack **ALL99127** Head Blade Divider

Storage Cases

These handy storage cases help organize many items around the shop, trailer, or home such as electrical connectors, quick turn fasteners, tire groover and siper blades, small screws, fasteners, and many more items.

Curved bottom compartments create a smooth scoop, male at 5 items. Male ad its

the smallest of items. Molded-in dividers prevent items from slipping under dividers and accidentally mixing product.

ALL14360.... Plastic, 15 Compartment, 11" x 7" x 1-3/4" **ALL14361....** Plastic, 18 Compartment, 11" x 7" x 1-3/4" **ALL14365....** Metal, 21 Compartment, 9-1/2" x 13-1/2" x 2" **ALL14366....** Metal, 24 Compartment, 9-1/2" x 13-1/2" x 2"















"All-In-One" Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10770 and ALL10772 "All-In-One" Heated Tire Groovers. Blades are honed to a razorlike finish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packs of 12.

Note: All-In-One Groovers must use these All-In-One Blades but these blades can be used in any of our other groovers.



Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	_	ALL10790
#2	2/32"	-	ALL10791
#3	3/32"	ALL10780	ALL10792
#4	4/32"	ALL10781	ALL10793
#5	5/32"	ALL10782	ALL10794
#6	6/32"	ALL10783	ALL10795
#8	8/32"	ALL10784	ALL10796
#10	10/32"	ALL10785	ALL10797
#12	12/32"	ALL10786	ALL10798
#14	14/32"	ALL10787	-
#16	16/32"	ALL10788	_

Heated Tire Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10260, ALL10270 and ALL10590 Heated Tire Groovers. Blades are honed to a razorlike finish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packs of 12.

Note: Do not use these blades in "ALL-IN-ONE" style groovers!



Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	_	ALL10267
#2	2/32"	_	ALL10268
#3	3/32"	ALL10271	ALL10269
#4	4/32"	ALL10272	ALL10276
#6	6/32"	ALL10273	ALL10277
#8	8/32"	ALL10274	ALL10278
#10	10/32"	ALL10275	ALL10279

Heavy-Duty Flat-Bottom Groover Blades

Heavy-duty blades are twice as thick as standard blades for removing large amounts of material with less chance of blade damage. Commonly used in off-road racing. Pack of 12.

Note: Do not use these blades in "ALL-IN-ONE" style groovers!

ALL10580..... #16 Flat, 16/32" ALL10582..... #20 Flat, 20/32" ALL10584..... #24 Flat, 24/32" ALL10586..... #32 Flat, 32/32"

Tire Covers

Canvas cover is ideal for open wheel cars to keep tire out of direct sunlight. Open back design allows cover to clear most front suspension and rear axle components. Cover

fits tires up to 30" diameter (94" circumference).

ALL44255 8" Wheel/Tire ALL44256 ... 10" Wheel/Tire ALL44257 ... 12" Wheel/Tire ALL44258 ... 14" Wheel/Tire NEW

Easy Wrap Tire Covers

Cover tires quickly and easily. Elastic bands allow you to stretch the cover over your tires after washing or grinding to keep tires clean.



MALLSTAR

Description	4-Pack	12-Pack
UMP Modified Tires (85-89" Dia.)	ALL44222	ALL44222-12
Late Model Tires (93-96" Dia.)	ALL44223	ALL44223-12

Tire Wrap

Tires lose solvents and moisture over time but keeping them covered helps prevent



the amount of chemicals used during "soaking" by minimizing evaporation. Wrap is 18"W x 1500'L.

ALL44221 Black ALL44224 Clear

Tire Stack Cover

ALL44220

Easy access canvas cover features a full-length zipper. Perfect for use in the tire impound, keeping your tires out of the weather or hiding them from the eyes of your competition. 50" tall black cover will fit a set of 4 tires with a 86" maximum circumference.

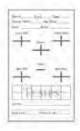


Asphalt Tire Book

ALL041

Keep track of tire settings before and after race. 4" x 5" pocket size book includes 50 carbon-copy pages, perforated for easy tear off.





Toe Plates

Aluminum plates simplify setting of toe-in and toe-out. Plates fit against the outside edges of tires and by using two tape measures (sold separately), measure the distance between plates front and rear, the difference between to two tape



readings is the toe setting. Plates have radiused edges, slots for narrow and wide tape measures, are 23" wide x 9" tall and work well for vehicles with smaller wheels and wheel openings. Set of two plates.

ALL10119 ... Toe Plates

ALL10118 ... Toe Plates Bolt-On for 5 on 4-1/2, 4-3/4" 5" Bolt Circles Wall

16' Tape Measure ALL10675

16' x 3/4" blade has fractional markings every 1/8" for quick reference.



Set-Up Plates

Set-up plates are used for squaring and stringing chassis to ensure accurate chassis set-up by eliminating wheel and tire differences. Plates are 1/2" thick and can also be used when setting bump





steer or checking axle tubes for straightness. Sold each.

ALL10660..... 5x5, 7" x 28" ALL10662..... Wide 5, 12" x 28"

5/8" Rod End Socket //////

ALL64256

Socket works with most 5/8" rod ends to ease installation and removal of rod end without risk of damage to the spherical ball. Steel Socket contacts the outer housing of rod end up to .755" wide and has a 1/2" square drive for ratchet or impact use.





Suspension Tube Set-Up Tool



Slide rule device quickly measures and duplicates suspension or steering tube distances with 1/2", 5/8", and 3/4" rod ends. Set-up tool has an engraved scale with 1/16" increments for durability and accuracy.

Bolt Center Caps

ALL10678

Caps slip over the head of standard 1/2" bolts to accurately measure the center-to-center length of installed suspension tube assemblies. Machined step secures the end of a standard tape measure for easy reading of the length to the center of the opposite cap. Caps feature a built-in O-ring that allows the cap to swivel on the bolt head and keeps it from falling off. Pack of 2.

Rod End Centering Kit

ALL10672

Compact inserts are placed into rod ends of suspension, steering or other

tube assemblies to quickly measure and adjust on the workbench or other flat surface with any standard tape measure. Inserts can be used on assemblies with 1/4", 3/8", 1/2", 5/8", and 3/4" rod ends.

Ride Height Blocks

Chassis set-up blocks are adjustable in 1/4" increments. A quickrelease pin holds block at desired height. Bottom surfaces of blocks



are contoured to fit steel tubing or any flat surface and have magnets for holding block to chassis. Short blocks adjust 1.75"-4". Tall blocks adjust 3"-6". Pack of 2.

ALL10720..... Short **ALL10721**..... Tall

Adapters Cups for Ride Height Blocks

ALL10722

Adapters replace the standard flat pad on set-up blocks and are machined to cradle axle tubes during chassis set-up. Pack of 2.



Cradle Rollers for Ride Height Blocks

ALL10723

Built-in rollers allow live axle rearends to rotate while on the cradles or when using the rear axle to rotate the engine to check or adjust the valve train. Pack of 2.





Ground Clearance Indicator

ALL10725

Determine how close the frame is to the ground on the race track. This unique kit features an aluminum bracket that rivets to the frame with an adjustable 4" plastic wear rod.



Replacement Component

ALL10726..... Wear Rods, 4-Pack

Ride Height Set-Up Stick

ALL10658

Stick replaces the coil-over shock and spring assembly during maintenance.
Stick has many uses and may be adjusted to check settings at normal ride height, in race attitude, or on the bump stops to evaluate suspension travel. Adjusts from 15" to 24", measured at the center of 1/2" rod ends.

Shock Racks

Shock rack holds four shocks with 2-1/2" springs and easily mounts to trailer, shop wall or pit cart. Rack is designed to hold shocks in place by pushing shock rod end or eye over the outer O-ring or alternatively, the outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

ALL12212.... Standard Rack
ALL12211.... Adjustable Base Rack

Replacement Component

ALL12213 Shock Pin, O-Ring, and Bolt

Extended Length Shock Rack Pin

ALL12215

Extended length pin replaces the pin used on our standard and adjustable shock racks allowing a shock or eliminator



with a 5" spring to be mounted to the rack. Pins are also ideal for creating custom mounting for use on toolboxes or pit carts. The outer O-ring may be removed to expose a predrilled hole for a hairpin clip such as ALL18442, sold separately.

Shock Eye Socket

ALL64255

The ideal tool for shock rebuilders or anyone that disassembles shocks on a regular basis! Unique socket safely removes and installs the shock rod end without risk of damage to the spherical ball. Steel socket contacts the outer





housing of 1/2" rod ends up to .640" wide and has a 1/2" drive for ratchet or impact use.

Shock Workstation

ALL64264

The all-in-one shock workstation holds most shock bodies in the upright position for ease of shaft removal or assembly and holds shock shafts vertical or horizontal for easier repairs and re-valving. Aluminum workstation can be placed in a vise, bench mounted using optional mounting bracket, or custom mounted using 1/4" fasteners.

Shock Workstation Base

ALL64267

Steel base is helpful when mounting Allstar workstation (ALL64264) in a trailer or to a shop workbench. Mounting hardware included.



Shock Inflation Tool

ALL64260

Tool threads onto shock Schrader valves. Fill valve and 0-300 PSI gauge head independently rotates a full 360°, for easy filling and reading. Complete with built-in bleeder and includes a protective storage case.

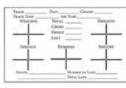


Circle Track Set-Up Book

ALL043

Track important chassis settings with this 4" x 5" pocket size spiral bound book. Each





book has 50 carbon-backed pages perforated for easy tear off.



Rear End Station Brackets

ALL10178

Stand adapter brackets fasten to adjustable arms of most engine stands. Supports full size car and light truck rear axle housings when servicing or replacing differential gear sets. Position housing onto arms and secure



into place with included retaining straps.

Pinion Centering Jig

ALL68370

Pinion centering jig fastens to the rear end housing and locates the pinion centerline when building or narrowing housings. Machined slots are designed to retain most tape measure ends for accurate measurements. Applications include GM 12 and 14-Bolt, Dana 44 and 60, Chrysler 8-3/4", and Ford 8.8" and 9" housings.

Pinion Yoke Wrench

ALL68372

Wrench fastens to most popular pinion flanges and companion flanges to hold when setting bearing pre-load and tightening retaining

bolt or nut. Wrench has provisions to work with 1/2" or 3/4" drive tool. Center hole is 2" to clear most sockets. Universal slotted bolt patterns for 1/4", 5/16", and 3/8" fasteners for most AMC, Dana, Ford, and GM yokes.

Spindle Nut Sockets

Aluminum hex style spindle nut socket features a 1/2" drive for use with a ratchet.

ALL10114 Socket for 1-Ton Wide 5 Spindle Nuts, 2-5/8" **ALL10115** Socket for 2-1/2" Pin 5x5 Spindle Nuts, 2-7/8"



Quick Change Oil Plug Socket

ALL11161

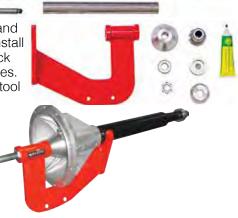
Six-point 1-7/8" socket fits on a 1/2" drive ratchet to remove or install plugs on guick change rear ends. Socket fits plug in Winters Ford 9" housings. Not recommended for high-torque applications.



Quick Change Tube Install/Removal Tool

ALL11350

Finally an easy and correct way to install and remove quick change axle tubes. Secure support tool into a vise or to a workbench with optional brackets. Components are included to remove and install tubes



a wrench. An adapter for tubes with Wide 5 or 5 on 5" hubs is also included.

Related Components

with the turn of

ALL11355 Installation End Cap for Bolt-On and

2-7/8" Pin Wide 5 Tubes

ALL11351 Mounting Bracket Kit for Quick Change Tube Install/Removal Tool

ALL11355

ALL11351

T-Handle Axle Puller

ALL66115

All-in-one T-handle puller threads into axle for easy installation or removal. Tool includes adapters to fit

3/8"-16 coarse- or 3/8"-24 fine-thread solid axles, and 3/4"-16 fine-thread gun-drilled axles.

Extreme Pressure Lube

ALL78246

Originally used throughout the tool and die industry, this lube provides superior durability and wear protection, taking the place of anti-seize in many applications. Recommended for spline-to-spline contact, threaded adjusters, and engine fasteners. 4-ounce tube.

Runout Checker

ALL96440

Fixture provides an easy way to check for bent axles, torque tubes, drive shafts, torsion bars, or radius rods.







Quick Change Gear Case

ALL14355

Sturdy composite storage case protects and holds up to 8 sets of quick change gears. Case has molded-in carrying handles and metal hinges. 5" x 8" x 15-1/2" overall when closed.



Gear sets not included

Quick Change Gear Totes

Durable plastic quick change gear tote organizes extra gear sets and keeps them clean. Lid snaps shut to hold gears in place. 8"L x 5"W x 2"H.







Gear sets not included

Description	Single	10-Pack
White	ALL14350	ALL14350-10
Black	ALL14351	ALL14351-10
Yellow 6-Spline (Midget) Gear Set	ALL14352	ALL14352-10

Quick Change Gear Tote Tray

ALL12269

Neatly organize up to 10 quick change gear tote boxes vertically. Tray is 21" long x 5-1/2" deep with a 4" tall front edge, making them perfectly sized for Allstar gear tote boxes.



Absorbent Mats

A must for the workshop and trailer. These handy, absorbent mats have bonded layers, allowing fluid to spread quickly through material.



ALL12030..... Universal for All Fluid Types (Oil, Coolant, Water)

ALL12031..... Oil Only

100-Pack (15" x 10" Individual Sheets)

ALL12032..... Universal for All Fluid Types (Oil, Coolant, Water)

ALL12033..... Oil Only

Plastic Drain Pan

ALL40112

Round drain pan has molded-in handles and pour spout. 13-1/2" x 11" x 4", 7-qt. capacity.



Aluminum Quick Change Drain Pan

ALL14166

Aluminum drain pan is handy when changing quick change gears.
Built-in perforated shelf holds gears and allows lube to drain into pan. Pan is 10-1/4" wide, 12" long, and 3-3/4" deep.



Quick Change Drain Pan Plastic

ALL14356

Tapered top drain pan, combined with an open-flow corner, allow quick change gear changes to happen even faster.

Low-profile, 2-piece plastic pan includes a stainless steel filter screen molded into the top tray. 4-qt. capacity.



ALL14171

Drain pan with built-in pump holds and refills fluids when changing rear end gears. Molded plastic basin and lid slide together to prevent



spilling of fluid. A crank handle is included for hand operation along with a length of straight hex shaft for use with an electric drill. 16" square x 7" tall. 14-qt. capacity.

Multi-Purpose Absorbent

ALL12035

Organic material is a dust free alternative when cleaning up spills. Sprinkle product on spills and sweep up. 5-lb. resealable bag.





Aluminum Shifters

Anodized lightweight shifters include 3/8" rod ends, locknuts and rods. Rods are tapped for right and left



Shifters Include:

One-Lever Shifter - one 24" shifter rod Two-Lever Shifter - two 24" shifter rods Three-Lever Shifter – one 16" and two 24" shifter rods

ALL54108 One-Lever Shifter ALL54120 Two-Lever Shifter ALL54112..... Three-Lever Shifter

Replacement Components

ALL58006 3/8" RH Male Rod End ALL58016 3/8" LH Male Rod End

ALL99015 Rod End Reducer Bushing 3/8" to 1/4"

Two-Lever Shifter with Lock

ALL54125

Black anodized shifter has a built-in lock to hold the transmission in gear when track is rough. Shifter includes two 24" long 3/8" shifter rods, 3/8" rod ends, and hardware.

Shifter for Gen II **Bert Transmission**

ALL54127

Black anodized aluminum shifter is designed specifically for the Gen II Bert transmission. Shifter features a springloaded reverse lockout gate to help prevent accidental engagement and easy-to-read engraved range positions. Shifter includes a 14" long, 3/8" shifter rod with rod ends, and an installation template.

Two-Lever Shifter with Unequal Handles ALL54124

Black anodized aluminum shifter has two unequal length handles. Shorter lever commonly used for reverse. Includes 3/8" rod ends. lock nuts, and 24" long rods.

Aluminum Shifter Rods

Black anodized shifter rods are tapped for right and left hand 3/8" rod ends and work with Allstar aluminum shifter assemblies. Rods can be used in many other applications as well.

ALL54113..... 14" ALL54114..... 16" ALL54115..... 20" ALL54116..... 24" ALL54117..... 30" ALL54119..... 40"

Related Components

ALL58006 3/8"-24 RH Male Rod End ALL18254..... 3/8"-24 RH Jam Nut, 4-Pack **ALL58016** 3/8"-24 LH Male Rod End ALL18255..... 3/8"-24 LH Jam Nut, 4-Pack ALL99015 Rod End Reducer Bushing 3/8" to 1/4"

Universal Aluminum Shifter Arm

ALL54118

Made from 1/4" thick aluminum, arm has a 3/8" wide mounting slot and a 1/4" shifter rod mounting hole. Arm works with most transmissions.

Clevis Kit For Bert Transmission

ALL54128

Aluminum clevises have 1/2" inside spacing with 3/8" mounting holes and 3/8"-24 RH threads to connect Allstar and most other shifters to Bert transmission. Two clevises per kit with jam nuts.

ALL982011

Shifter boot mounts to the transmission tunnel and helps reduce noise and heat from entering the passenger compartment. The removable 6" tall cover features a hook and loop closure and two layers of flame retardant cotton material that snaps

over a 5-1/2" x 7-1/2" aluminum mounting framework.

Shifter Boot

ALL54130

Fire-resistant, black thermal boot helps prevent fire from entering driver compartment. Boot is 7" tall with Velcro strap closure at top. Base is 6" x 7". Used by many top Cup, xfinity, Truck, CRA, and Late Model teams.





Thottle/Shifter Cables

Cables
Cables have many uses
including use as a throttle cable or as a shifter cable
in many applications. Cables have 7/16" mounting

	Overall Length	Mount to Mount Length
ALL54142	43"	29" +/- 1"
ALL54145	60"	45" +/- 1"

threads, #10-32 RH cable ends and 3" of travel.

Quick-Release Cable Ends

Quick-release ends are used when a connection needs to be removed and installed often. Steel constructed housing has a spring-loaded release to keep housing secure to pivot ball.

ALL54147..... #10-32 with #10-32 and 1/4"-28 Studs **ALL54149**..... 1/4"-28 with 1/4"-28 Stud

Morse Cable Half Clamp

ALL18325

Aluminum clamp fits over groove in non-threaded Morse style cables with a 3/8" housing to secure cable in place. Clamps feature a #10 (3/16") mounting hole. Sold each.



Positive Cam Lock Shifter

ALL54135

CNC-machined billet aluminum shifter clamps to the frame on driver's right. Designed for use with live axle shifter quick change. Shifter includes all-steel hardware, heavy-duty cable, and quick-release end.



Transmission Breather Kit

ALL36147

Breather kit provides a remote location for adding a larger breather to many popular manual transmissions. Kit relocates the breather exit location and helps prevent fluid from leaking or blowing out of standard breathers. Includes a remote breather, 15" braided line, mounting bracket, and adapter fitting with 1/8"NPT threads.

Hydraulic Throwout Bearing Remote Bleed Line Kit ALL46102

Bleed line kit connects

to most popular hydraulic bearings to allow easier bleeding of system by placing the bleeder screw outside of the bellhousing. Kit includes a 10" long line with adapter fittings for bearings with -3AN, -4AN, or 1/8" NPT bleed ports.

Locking Transmission Dipsticks

Dipsticks feature a positive lock to keep dipstick in place and seal tight to prevent fluid leaks while sealing out moisture and debris. Steel case fill tubes have a gold finish, include a welded-on mounting tab, and are fitted with a rubber grommet type seal to reduce the risk of leaks common with traditional O-ring seals. Locking dipstick tubes are required on 10.99 and faster drag cars

laster dray cars.				
Part No.	Description			
Powerglide				
ALL69100	Chevy Car			
ALL69101	LS Car			
ALL69102	Chevy Dragster			
ALL69104	Chevy Altered			
ALL69107	TSI / Reid			
ALL69108	TSI / Reid			
Turbo-Hydrar	natic 350			
ALL69110	Chevy			
ALL69111	Buick, Olds, Pontiac			
Turbo-Hydrar	natic 400			
ALL69112	Chevy			
ALL69113	Buick, Olds, Pontiac			
ALL69114	LS			
Chevy (Other)			
ALL69116	Chevy 200-4R			
ALL69117	Chevy 700R4			
ALL69115	LS 700R4			
ALL69118	Chevy/GMC 4L80-E			
ALL69119	LS 4L80-E			
Chrysler Toro	_l ueflite			
ALL69120	727 Small Block			
ALL69121	727 Big Block			
ALL69124	904			
Ford				
ALL69126	Ford C-4 Case Fill			
ALL69127	Ford C-4 Pan Fill			
ALL69128	Ford C-6 Small Block			
ALL69129	Ford C-6 Big Block			
ALL69130	Ford Automatic Overdrive			



Replacement Component

ALL99285 Sealing Grommet

Transmission Coolers

Universal coolers reduce operating temperature of the fluid, extend life of the transmission, and provide better performance.



Use as a stand-alone cooler or as an auxiliary unit to increase cooling capacity of a stock system. Increased cooling is recommended when using a high-stall converter, or if the vehicle is used for towing. Coolers have 3/8" barbed fittings and include rubber hose, clamps, and mounting kit.

Part No.	Overall Size	Core Size	GVW
ALL26700	12.5" x 5"	9" x 5"	10,000 lbs.
ALL26702	16" x 5"	12" x 5"	12,000 lbs.
ALL26704	12.5" x 7.5"	9" x 7.5"	16,000 lbs.
ALL26706	16" x 7.5"	12.25" x 7.5"	18,000 lbs.
ALL26708	16" x 10"	12.25" x 10"	20,000 lbs.



Flexplates

OE Replacement - Meet or exceed OE standards, recommended for stock and mild performance applications.

SFI Certified - SFI 29.1 certification, fabricated from chromoly steel that is 25% thicker material than stock, a starter ring gear that is welded on both sides and a yellow zinc finish to resist corrosion. Recommended for vehicles up to 1500hp and max. 10,000rpm.



ALL26840

Premium SFI Certified

- SFI 29.1 certification, fabricated from chromoly steel that is 40% thicker material than stock, precision balancing, a starter ring gear that is welded on both sides, and a black epoxy painted finish to resist corrosion. Recommended for vehicles up to 1500hp and max. 12,000rpm.

Application	Balance	Teeth	Transmission	OE Repl Part No.	SFI Part No.	Premium SFI Part No.
SB/BB Chevrolet	Laternal	153	TH350, Powerglide	ALL26835	ALL26830	_
w/2-Piece Rear Main Seal	Internal	168	TH350, TH400	ALL26805	ALL26800	_
00.01	Cutomol	153	TH350	ALL26836*	ALL26831	_
SB Chevrolet 86-Up w/1-Piece Rear Main Seal	External	168	TH350, TH400	ALL26806	ALL26801	_
	Internal	168	TH350, TH400	_	ALL26802	_
SB Chevrolet 400	External	168	TH350, TH400	ALL26815	ALL26810	_
BB Chevrolet 454	External	168	TH350, TH400	ALL26825	ALL26820	_
GM LS, 1997-Up, Dished, w/Lightening Holes	Internal	168	TH350, 700R4, 4L60E	ALL26845**	ALL26840	ALL26871
GM LS, 1997-Up, Dished, Solid	Internal	168		_	_	ALL26870
GM LS, 1999-2000, Flat, Solid Long Crank	Internal	168	TH350, 700R4, 4L60E	_	_	ALL26872
SB Ford, 289-351W 1963-82	Internal	164	C6	1	ALL26850	_
SB Ford, 289-351W 1963-82 28oz	External	164	C6	_	ALL26851	_
SB Ford 302 1982-95 50oz	External	164	C6	_	ALL26852	_
SB Ford, 289-351W 1963-82	Internal	157	C4	1	ALL26853	_
SB Ford, 289-351W 1963-82 28oz	External	157	C4	_	ALL26854	_
SB Ford 302 1982-95 50oz	External	157	C4	_	ALL26855	_
SB/BB Mopar 1962-91	Internal	N/A	A727, 904	_	ALL26860	ALL26875
BB Mopar, 383, 400, 440 1971-79	External	N/A	A727, 904	-	ALL26861	_
Pontiac, 326-455 1967-79	Internal	166	TH350, TH400	_	ALL26865	_

- * Single 10-3/4" (TH350) torque converter bolt pattern
- ** Single 11.06" (4L60E) torque converter bolt pattern

Billet Steel Flexplates

Billet steel flexplates meet requirements for SFI 29.2 certification, built from premium billet forged steel for ultimate strength, precision balanced, and a black epoxy painted finish for corrosion resistance. Recommended for vehicles up to

3500hp and max. engine RPM of 12,500r			as a few terminos ap to	ALL26880
Application	Balance	Teeth	Transmission	Part No.
SB/BB Chevrolet w/2-Piece Rear Main Seal	Zero	168	TH350, TH400, 700R4, 4L60E, 4L80E	ALL26880
GM I S. 1997-Up. Dished, 6-Rolt	Internal	168	TH350 TH400 700R4 4L60E 4L80E 6L80	VI I 36883





Flexplate Bolt Kits NEW

VEW

Flexplate bolt kits are manufactured from a custom grade 4135 alloy steel which is rated at 190,000 psi making these suit-



ALI 16170

able for most high-performance applications. Bolts feature a 12-point head for increased contact points for better torquing capabilities and to resist stripping.

Application	Thread Size x UHL	Quantity per Kit	Part No.
Small/Big Block Chevrolet	7/16"-20 x .685"	6	ALL16170
w/2-Piece Rear Main Seal, Small/Big Block Ford Oldsmobile V8	7/16"-20 x 1.00"	6	ALL16173
Small/Big Block Chevrolet w/1-Piece Rear Main Seal	7/16-20 x .685 w/5/8" Head	6	ALL16175
GM LS	M11-1.50 x .880"	6	ALL16176
GM LSX, Gen V LT-1	M11-1.50 x .880"	8	ALL16177
Small/Big Block Mopar	7/16"-20 x .500"	6	ALL16178

Flywheel Locking Tool SB/BB Chevy ALL96426

Place flywheel locking tool onto rear block dowel pins to prevent the flywheel from turning while tightening or loosening balancer bolts, flywheel bolts, clutch/pressure plate bolts, or cam gear bolts. Locking tool works with 153- or 168-tooth flywheels and flexplates.

Balancing Plate ALL26120

Plate is installed between crankshaft flange and the flywheel allowing a popular internally balanced Chevy 350 flywheel to be used with an externally balanced 400 crankshaft.



Note: These are not designed to be used with an automatic transmission flexplate.

GM LS Engine to TH350/TH400 Adapter Sleeve ALL26121

Crank adapter sleeve allows use of an early TH350/TH400 style transmission with an LS engine.

Torque Converters

Ideal for mild performance applications, including moderate drag racing, factory or street stocks. Economical converters are completely remanufactured with new pump drive hubs and thrust washers.



Exact stall speeds will vary depending upon displacement, torque, and vehicle weight.

Part No.	Description	Stall Speed
ALL26908	TH-350/400 10-3/4" B.C.	2000-2200
ALL26906	TH-350/400 10-3/4" B.C.	2200-2600
ALL26900	TH-350/400 10-3/4" B.C.	2700-3000
ALL26902	TH-350/400 10-3/4" B.C.	3200-3500
ALL26904	TH-350/400 10-3/4" B.C.	3500+

Steel Chevy Bellhousing ALL26890

Steel bellhousing is for non-SFI applications and will fit most small or big block Chevrolet engines with a 153-tooth or smaller diameter flywheel/flexplate. Bellhousing features several different options for mounting hydraulic release bearings including OE style pivot ball



mounted, and popular three or four leg bolt-in styles. Bellhousing has a black zinc finish to resist corrosion and includes a front cover, starter cover and lower inspection plate.

Bellhousing Dowel Pins

Steel dowel pins are approximately 1/2" longer than stock pins and are required when running an engine mid-plate, rear engine mounts, or an aftermarket bellhousing. These extended length pins also help with alignment when installing an engine. Pins fit most GM blocks and are sold in pairs.

ALL38150 Solid Pins ALL38152 Hollow Pins

Pilot Bushing Install Tool ALL26115

Driver simplifies installation of pilot bushings or bearings for manual transmissions including Muncie, Saginaw, BorgWarner, T-10, and many other popular transmissions with .590" pilot shafts.

Extended Length Pilot Bushings

Use these extra-long bushings when distance between engine and bellhousing has increased due to use of mid-plates, rear engine mounts, or adapters. Bushings help maintain true alignment of clutch disc to flywheel.

ALL26112..... Bronze Bushing ALL26114[‡] ... Steel Bushing with

ALL26114[‡] ... Steel Bushing with Roller Bearing ‡Bearing is shipped dry. Apply a good quality, high-temp grease upon

Clutch Alignment Tools

installation.

Splined, high-impact plastic tools are helpful when aligning the clutch disc on the flywheel for proper insertion of the transmission input shaft.

ALL14290..... 1-1/8" Dia, 10-Spline **ALL14292**..... 1-1/8" Dia, 26-Spline

Transmission Blanket ALL69010

Contains transmission explosions on high-horsepower race cars with stock firewall/floor pan or where



a transmission shield isn't practical. NHRA and IHRA approved blanket measures 12" x 47" and meets SFI 4.1 specifications. Includes straps to secure it to any transmission.



Solid Transmission Mount

ALL38070

Solid 3/16" steel mount fits most TH350, TH400, Powerglide, and all BorgWarner, Muncie, and Chrysler 4-speed transmissions. Eliminates twisting, flex, and distortion. Not recommended for use with rubber engine mounts.

Transmission Mount Bracket

ALL38072

May be welded to chassis to support manual or automatic transmissions. Steel bracket is 1/8" thick with 1" x 7/16" slots for mounting bolts.



Clutch Discs for Bert Transmission

Quality discs are a must when rebuilding the internal clutch of Bert transmissions. Friction disc and steel plate sets are sold separately.



ALL26950 ... Clutch Friction Discs 6-Pack ALL26952 ... Steel Clutches 5-Pack

Bert Clutch Assembly Tool

ALL14295

Shaft is used to help align counter shaft when replacing clutch discs and clutches. Shaft features a through hole for installing threaded rod when assembling counter gear assembly before installation, along with an internal thread to assist when removing if necessarv.

Bert/Brinn Transmission Rebuild Bracket

ALL10176

Steel bracket bolts to your workbench and transmission at a 45° angle to assist with clutch assembly when rebuilding. Secondary holes are for the tailshaft when removed.



Ball Spline Ball Kits

Hardened steel balls are direct replacements for the ball spline and roller slide tailshafts.



ALL26963-12Bert Ball Spline Pack of 12 ALL26960-15 Winters Roller Slide Pack of 15

Transmission Stand

ALL10175

Stand is designed to accept most three- and four-speed GM manual transmissions and also Bert/Brinn style transmissions with modification to rear pad mount.



Tailshaft Seal and Bushing

The tailshaft bushing is a regular wear item, located inside the transmission tailshaft housing. It should be replaced when replacing the tailshaft



seal or when a driveshaft failure has occurred. A worn bushing will cause excessive side-to-side movement of the slip yoke and create a vibration or leak. Bushing and seal fits GM Powerglide, Turbo 350, Saginaw, Muncie, Bert, and Brinn transmissions.

ALL72150... Seal

ALL72152... Seal with Bushing

Slip Yokes

Slip yokes provide an important link in today's driveline and chassis combinations. Yokes are available in standard length for most street applications with minimal suspension travel to extra-long for racing suspensions that have a radical amount of travel. 27-spline yokes accept 1310 style U-joints and are for use in many popular transmissions including TH350, TH700R4, Muncie and Saginaw 3 and 4 speeds, Bert and Brinn non-ball spline.



ALL69042 ALL69043

ALL69040 6"

ALL69042 6-3/4"

ALL69044 7-1/2" ALL69046 8"

ALL69048 8" (Extra Clearance)

Hardened

ALL69043 6-3/4" ALL69045 7-1/2"

ALL69047 8"

U-Joints

Performance U-joints are greasable and fit a variety of driveshaft combinations.



1310 Series: 3.218" Wide with 1.062" Diameter Caps 1330 Series: 3.622" Wide with 1.062" Diameter Caps 1350 Series: 3.622" Wide with 1.187" Diameter Caps

U-Joints with Same Cross Width

ALL69030 1310 Series ALL69031 1330 Series ALL69032 1350 Series

U-Joints with Different Cross Widths

ALL69034 1310 to 1330 ALL69037 1310 to 1330* ALL69035 1310 to 1350 ALL69036 1330 to 1350



Width = B, Caps = A

*Standard 1330 spread with larger 1.125" diameter caps



Universal Plastic Wheel Covers with No Hardware



High-impact plastic wheel covers feature three reinforced slots for mounting wheel cover to wheel. Covers fit a variety of 15" beadlock wheels including Weld, Bassett, and Aero. Mounting Hardware not included.

ALL44280 ... Black ALL44281 ... White ALL44282 ... Red ALL44283 ... Blue ALL44288 ... Neon Yellow ALL44289 ... Neon Green

Universal Plastic Wheel Covers with Quick Turn Fasteners



High-impact plastic wheel covers feature three quick turn fasteners located in a reinforced slot, allowing the same cover to fit a variety of 15" beadlock wheels including Weld, Bassett, and Aero.

ALL44230 ... Black **ALL44231** ... White **ALL44232** ... Red

Replacement Components

ALL99338 Cover Fasteners, 3-Pack

Bolt-On Universal Plastic Wheel Cover ALL44242

High-impact plastic wheel cover features three 1/4"-20 fasteners for secure bolt-on mounting, eliminating the struggle associated with aligning quick turn fasteners during wheel cover installation. Slotted mounting holes allow the same cover to fit a variety of wheels



including Weld, Basset, and Aero. Easily convert quick turn style beadlock wheels with quick turn fasteners to a bolt-on style using the appropriate bolt-on conversion kit. Wheel rings are also available to fit non-beadlock wheels for attaching covers.

Wheel Cover Rings

Wheel rings fit non-beadlock wheels by securing to the inside lip of most 15" racing wheels to provide a mounting point for a 3-fastener wheel cover.





Rings for Cover with Quick Turn Fasteners

ALL44228 Steel Round Style Ring **ALL44229** Steel Flat Style Ring **ALL44179**..... Aluminum Flat Style Ring

Rings for Cover with Bolt-On Fasteners

ALL44243 Steel Round Style Ring ALL44245 Aluminum Flat Style Ring

Bolt-On Wheel Cover Conversion Kit

Kit includes 1/4"-20 insert plates, wheel cover bolts, and rivets to convert a

wheel cover retainer ring with troublesome quick turn fasteners to a bolt-on style ring.





Description	3-Pack	24-Pack
Kit to Replace 1" Quick Turn Springs	ALL44225	ALL44225-24
Kit to Replace 1-3/8" Quick Turn Springs [†]	ALL44226	ALL44226-24

†Most popular size found on non-beadlock wheel cover retainer rings.

Sprint Wheel Cover Bolt Kits

Kit includes 5/16"-28 bolts, 1-3/8" spread aluminum insert plates with steel threaded inserts, e-clips to keep bolts on the wheel cover, and rivets. Pack of 3.



ALL44265 Stainless Steel **ALL44266** Titanium

ALL99420 Replacement E-Clips, 12-Pack

Wheel Cover Holder

ALL12205

Aluminum holder fastens to trailer or shop wall to keep most wheel covers for 15" wheels within easy reach and organized. Holder is



3-1/2" deep and pre-drilled for mounting.



Weld Style Plastic Wheel Cover ALL44168

High-impact plastic wheel cover secures to Weld and Bassett 15" beadlock or non-beadlock wheels equipped with a wheel cover ring. Cover includes quick turn mounting fasteners.



Aluminum Wheel Covers

Prevent mud and dirt build up in outer wheel shell. Covers fasten quickly with three quick turn fasteners. Covers fit beadlock wheels only and are sold each.

ALL44175..... Aero ALL44176..... Bassett/Weld



ALL44175

Weld Style Aluminum Wheel Covers

Aluminum wheel cover secures to Weld and Bassett 15" beadlock or non-beadlock wheels equipped with a wheel cover ring. Mounting fasteners sold separately.



Style	Polished	Black
Solid	ALL44170	ALL44171
Louvered	ALL44140	ALL44141
Multi-Holes	ALL44142	ALL44143
Large Hole	ALL44144	ALL44145

Related Component

ALL99165 Quick Turn Cover Fasteners, 3-Pack

Wheel Cover Ring

ALL44178

Mounting ring installs between the rim and the beadlock ring on beadlock wheels, allowing installation of a wheel cover with a Weld pattern.



Foam Mud Plugs

An economical way to prevent mud build-up inside racing wheels. Foam discs, in 5" and 3" widths, install quickly and easily in 15" diameter wheels. Allstar logo is imprinted on one side. Sold each.



5" Mud Plugs

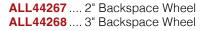
ALL44150 Black **ALL44151**.... Red **ALL44152**.... Blue **ALL44153** Orange



3" Mud Plug ALL44190 Black

Aluminum Inner Mud Shields

Aluminum shield fits over most 5x5 hubs and inside 15" wheels to help reduce mud build-up commonly found on the backside of the left rear wheel of dirt cars.





Stainless Steel Inner Mud Shields

Stainless steel shield fits over most 5x5 hubs and inside 15" wheels to help reduce mud build-up commonly found on the backside of the left rear wheel of dirt cars.





Wheel Rim Screws

ALL44045

Self-tapping 1/4" diameter screws anchor the tire to the rim to prevent spinning. For drag use. Pack of 35.



ALL44145

ALL44144



Wheel Studs

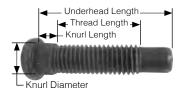
Larger-than-stock studs require redrilling of stock flanges. Check sanctioning body for wheel stud requirements. Pack of 5.



			Underhead	Thread	Knurl	Knurl
Part No.	Size	Thread	Length	Length	Length	Dia.
ALL44110	1/2"-20	Fine	2.000"	.925"	.250"*	.585"
ALL44111	1/2"-20	Fine	1.875"	1.250"	.500"*	.685"
ALL44112	1/2"-20	Fine	2.250"	1.300"	.600"*	.600"
ALL44114	5/8"-18	Fine	2.000"	1.250"	.560"	.685"
ALL44115	5/8"-11	Coarse	2.000"	1.00"	.375"	.690"
ALL44117 [†]	5/8"-11	Coarse	2.750"	1.750"	.375"	.690"
ALL44116‡	5/8"-11	Coarse	2.750"	1.450"	.725"	.690"
ALL44113 [†]	5/8"-11	Coarse	3.750"	2.750"	.375"	.690"
ALL44119‡	5/8"-11	Coarse	3.750"	2.400"	.725"	.690"

^{*}Length with shoulder.

[‡]Popular Wide 5 Hub Wheel Stud



43/64" Wheel Stud Drill Bit

ALL11045

43/64" bit is correct for drilling hubs or axle flanges to accept most 5/8" wheel studs with .690" knurl diameter. 1/2" shank.

Wheel Stud Thread Chaser

ALL11048

Designed to clean up damaged threads on wheel studs with 5/8"-11 threads. Thread chaser will not repair threads on bent wheel studs.

Note: We recommend using a lubricant such as WD-40 with thread chaser.

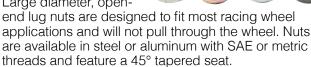
Glueless Lug Nuts

Open-end lug nuts attach to the wheel with springs for FASTER pit stops! Kits contain 5 glueless lug nuts with springs attached and self-tapping screws for mounting.

ALL44107 Complete Kit, 5/8"-18 Thread (Fine) **ALL44108** Complete Kit, 5/8"-11 Thread (Coarse) ALL44109 Replacement Spring and Screw, 5-Pack

Lug Nuts

Large diameter, open-



Description	Pack Of 10	Box Of 100	Box Of 350	Box Of 400						
Aluminum Lug Nuts										
5/8"-11 (Coarse)	ALL44096	ALL44096-100	_	_						
Double Chamfer										
5/8"-11 (Coarse)	ALL44097	ALL44097-100	_	_						
Double Chamfer§	ALL44097	ALL44097-100	_	_						
Steel Lug Nuts	(Heat Treat	ted and Zinc	Plated)							
5/8"-11 (Coarse)	ALL44098	ALL44098-100								
Double Chamfer	ALL44096	ALL44096-100	_	_						
5/8"-11 (Coarse)	ALL44106	ALL44106-100	_	ALL44106-400						
5/8"-18 (Fine)	ALL44104	ALL44104-100	_	ALL44104-400						
1/2"-20 (Fine)	ALL44102	ALL44102-100	ALL44102-350	_						
7/16"-20 (Fine)	ALL44100	ALL44100-100	_	ALL44100-400						
M12-1.25 (Metric)	ALL44103	ALL44103-100	ALL44103-350	_						
M12-1.50 (Metric) [^]	ALL44101	ALL44101-100	ALL44101-350	-						

[§]Hard coated.

Hex Pit Sockets with Extension

Hex style pit sockets with a built-in extension prevent extension and socket from separating during wheel changes.

3/8" Drive ALL10234..... 6" ALL10235..... 12"

1/2" Drive ALL10239..... 6" ALL10240..... 12"



Super Sockets with Extension

Pit sockets are available with 5" or 11" extensions and include our Super Socket for fast wheel changes without jamming lug nuts. Sockets fit 1" lug nuts and are used with 1/2" drive impact guns.

ALL10242....5" ALL10241 11"

Economy Quick Spin Lug Wrench

ALL10108

Lug wrench is a 1" diameter tube with a shallow 1" socket welded to one end and rotating piece of plastic pipe attached to the other. The 10" handles are angled with rubber grips and the overall length is 23".



[†]Popular 5x5 Hub Wheel Stud

[^]Most popular metric for GM, Ford and Chrysler.



Aluminum Wheel Spacers

Change wheel offset without changing wheels! Universal design fits 5 on 4-1/2", 5 on 4-3/4", and 5 x 5" patterns. Uses 5/8" stud slot to aid in centering.



ALL44216 1/4" ALL44217 1/2" ALL44218 3/4" ALL44219 1"

Aluminum Wheel Spacers

Spacers fit 4-1/2", 4-3/4", and 5" bolt circle patterns. Spacers increase track width, requiring less wheel offset. Sold each.



ALL44120 1/4" ALL44121 1/2" ALL44122 3/4" ALL44123 1"

Note: 4-1/2" and 4-3/4" bolt patterns machined to clear 1/2" studs; 5" bolt pattern machined to clear 5/8" studs.

4-Lug Steel Wheel Spacer

ALL44200

Steel spacer is 1/4" thick, fits 4x4-1/4" and 4x4-1/2" bolt patterns with 1/2" wheel studs.



5x5" Steel Wheel Spacers

Spacers fit 5x5" hubs with 5/8" studs and provide maximum tread width for adjustment of chassis weight distribution. Spacers are made from tough 1018 steel and have a 3-1/2" I.D. and a 7" O.D.



ALL44124 1/16" **ALL44125** 1/8" **ALL44126** 1/4"

Aluminum Wide 5 Wheel Spacers

One-piece aluminum spacer moves Wide 5 wheel outboard. Sold each.



ALL44129 1/8" Thick **ALL44127** 1/4" Thick

Aluminum Wide 5 Threaded Wheel Spacers

Aluminum spacers thread directly onto wheel studs of Wide 5 hubs with 5/8"-11 threads. Hex design is easily installed and removed. Longer studs may be required when using spacers. Pack of 5.





Aluminum Wheel Adapter

ALL44128

Adapter bolts to stock 5 x 4-1/2" or 4-3/4" bolt circle hub or axle flanges when adapting to 5 x 5" bolt circle pattern wheels. Adapter is fitted with 5/8"-11 coarse thread studs and measures 1" thick. Adapters are bolted from the backside of hub or axle using 1/2"-20 mounting hardware (not-included). Not for use with additional wheel spacers and additional machining may be required for proper installation.

Backing Pads and Sanding Discs

Backing pads are designed to work with sanders that have a 5/8"-11 arbor. Sanding discs are specific to each backing pad and sold in packs of 5.

7" Backing Pad and Sanding Discs

Backing pad is a multi-piece unit that features a hard backing. The sanding disc is secured to the sander along with the backing pad and reinforcing disc with one spanner nut.

ALL44186 7" Backing Pad ALL44187 7" Sanding Discs, 36 Grit

8" Backing Pad and Sanding Discs

Backing pad is a one-piece unit that features a soft foam backing and a molded-in threaded insert to mount directly to the sander. The backing pad accepts hook-and-loop style sanding discs.

ALL44188 8" Backing Pad **ALL44189** 8" Sanding Discs, 36 Grit **ALL44198** 8" Sanding Discs, 24 Grit

ALL44197 8" Sanding Discs, 16 Grit

Tire Grinding Discs











ALL44181 ALL44182 ALL44183

Grind off the hardened outer "skin" on used dirt track tires and create round, aggressive sipes to increase traction. Use caution when handling and storing nail head disc; pins are needle sharp.

Part No.	Description	Diameter	Arbor Hole
ALL44180	Rounded Disc, 23 Grit	4"	5/8"
ALL44181	Flat Disc, 23 Grit	4"	5/8"
ALL44182	Rounded Disc, 16 Grit	7"	7/8"
ALL44183	Nail Head Disc	7"	7/8"
ALL44196	Nail Head Disc	8"	5/8"

Safety Note: To prevent bodily injury the tire must be mounted on the car or secured in a tire holder. Eye and hand protection is required.

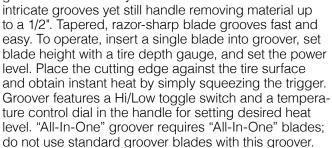
1110260



ALI 10770

"All-In-One" Heated **Tire Groovers**

Self-contained groover has built-in temperature controls, eliminating the additional cord and separate control box common with other groovers. Don't let the small package fool you; this groover has the ability to cut small



ALL10770..... 110V Groover Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

ALL10772..... 220V Groover (Intended for International Use) Power cord requires the attachment of a 220volt, grounded, 3-prong plug (not included). Includes 1 Each 4/32", 5/32", 6/32", 8/32", and 10/32" Flat Blades.

"All-In-One" Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10770 and ALL10772 "All-In-One" Heated Tire Groovers. Blades are honed to a razorlike finish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packages of 12.

Note: All-In-One Groovers must use these All-In-One Blades but these blades can be used in any of our other

groovers.

Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	-	ALL10790
#2	2/32"	-	ALL10791
#3	3/32"	ALL10780	ALL10792
#4	4/32"	ALL10781	ALL10793
#5	5/32"	ALL10782	ALL10794
#6	6/32"	ALL10783	ALL10795
#8	8/32"	ALL10784	ALL10796
#10	10/32"	ALL10785	ALL10797
#12	12/32"	ALL10786	ALL10798
#14	14/32"	ALL10787	_
#16	16/32"	ALL10788	_

Heated Tire Groovers

Groovers add extra traction in minutes. Tapered, razor-sharp blade grooves fast and

easy. To operate, insert a blade into groover, set blade height with

a tire depth gauge, and set the power level. Features triggerless activation – simply place the cutting edge against the tire surface and press down for instant heat. Includes 2 each 4/32", 6/32", 8/32" and 10/32" flat blades.

ALL10260..... 110V Groover Features a 4-level dial and a hi/ low switch for 8 total heat settings.

ALL10590..... 220V Groover (Intended for International Use) Features a 4-level dial and a multi-positional dial for fine-tuned heat settings. Power cord requires the attachment of a 220-volt, grounded, 3-prong plug (not included).

Heated Tire Groover Blades

Hard-tempered spring steel blades are designed for use with the ALL10260, ALL10270, and ALL10590 Heated Tire Groovers. Blades are honed to a razor like finish and have a tapered shape making the blade wider near the top where strength is needed and thinner at the bottom, greatly reducing drag as the blade cuts through the rubber. Blades are sold in packages of 12.

Note: Do not use these blades in "ALL-IN-ONE" style aroovers!



Blade	Size	Flat Bottom Blades	Round Bottom Blades
#1	1/32"	_	ALL10267
#2	2/32"	-	ALL10268
#3	3/32"	ALL10271	ALL10269
#4	4/32"	ALL10272	ALL10276
#6	6/32"	ALL10273	ALL10277
#8	8/32"	ALL10274	ALL10278
#10	10/32"	ALL10275	ALL10279

Heavy-Duty Flat Bottom Groover Blades

Heavy-duty blades are twice as thick as standard blades for removing large amounts of material with less chance of blade damage. Commonly used in off-road racing. Pack of 12.

ALL10580 #16 Flat, 16/32" ALL10582..... #20 Flat, 20/32" ALL10584..... #24 Flat, 24/32" ALL10586..... #32 Flat, 32/32"



Tire Covers

Canvas cover is ideal for open wheel cars to keep tire out of direct sunlight. Open back design allows cover to clear most front suspension and rear axle components. Cover fits tires up to 30" diameter (94" circumference).





Cover tires quickly and easily. Elastic bands allow you to stretch the cover over your tires after washing or grinding to keep tires clean.



Description	4-Pack	12-Pack
UMP Modified Tires (85-89" Dia.)	ALL44222	ALL44222-12
Late Model Tires (93-96" Dia.)	ALL44223	ALL44223-12

Tire Wrap

Tires lose solvents and moisture over time but keeping them covered helps prevent tires from drying out. Wrap also helps contain or reduce



the amount of chemicals used during "soaking" by minimizing evaporation. Wrap is 18"W x 1500'L.

ALL44221 Black **ALL44224** Clear

Tire Stack Cover

ALL44220

Easy access canvas cover features a full length zipper. Perfect for use in the tire impound, keeping your tires out of the weather or hiding them from the eyes of your competition. 50" tall black cover will fit a set of 4 tires with a 86" maximum circumference.





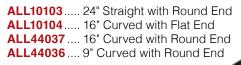
Dirt Tire Soap ALL78236

Clean your tires like the Pros! Simply mix with water and spray on your tires before washing them and the mud almost falls off. Cleaner also works for pre-treating your chassis and body before cleaning to help loosen dirt and clay. 1-gallon container.





Steel tire spoons help to mount and dismount tires after bead has been broken. Various sizes are available to work with most tire/wheel combinations. Small tool works well to fit inside tire during removal while rounded ends help prevent damage to tire and wheel.



Bead Breakers

Convenient tool makes quick work of breaking down

even the most stubborn tire beads. Durable steel construction with rubber hand grips. Clamp the hook and inside jaw against the rim, while maintaining slight pressure on the outside handle, then press down on the inside



ALL10532

ALI 1053

ALI 44028

handle, using the outer jaws to separate the tire from the rim, moving around the rim as needed.

ALL44026 Bead Breaker for 10" Wheels ALL44027 Bead Breaker for 13" Wheels ALL10105 Bead Breaker for 15" Wheels

ALL10106..... Bead Breaker for 15" Wheels Wide Jaw*
ALL44028.... Bead Breaker w/ Adjustable Arm for 10", 13",

and 15" Wheels

*Wide jaw bead breaker works well with soft sidewall tires, helping prevent

Aluminum Air Tanks

Portable lightweight aluminum tanks provide an easy way to air up tires. Welded tanks will not rust or corrode and are pressure tested to military specifications up to 300 PSI. Tanks feature a 125

PSI pressure relief valve to prevent overfilling **ALL10531**..... 7" x 10" Horizontal Tank, 1-1/2 Gallon

ALL10532..... 7" x 24" Vertical Tank, 2-3/4 Gallon **ALL10530**..... 9" x 11" Horizontal Tank, 2-3/4 Gallon **ALL10534**..... 9" x 20" Horizontal Tank, 5 Gallon



Tire Pressure Gauges, Glow In The Dark

Tire pressure gauge has a glow-in-the-dark face. Swivel chuck rotates 360° on a 14" long rubber hose for easy placement on valve stems with leak-free operation. A rubber cover surrounds the gauge for added protection against drops and has a ribbed molded pattern for increased grip. Gauge also features a built-in pressure release valve for removing air in small amounts for precise pressure adjustments.

2-1/4" Diameter

ALL44056 0-15 PSI, 2-1/4" ALL44057 0-30 PSI, 2-1/4" ALL44058 0-60 PSI, 2-1/4"

4" Diameter

ALL44046 0-15 PSI, 4" ALL44047 0-30 PSI, 4" ALL44048 0-60 PSI, 4"



Tire Gauge Holders

Secure holder to shop or trailer wall to keep tire gauge conveniently located. Aluminum holder works with most tire gauges and has wraparound sides to hold gauge in place.



ALL12259

ALL12259.... Holds Gauges up to 3-1/2" O.D. ALL12260..... Holds Gauges up to 4" O.D.

ALL12261 ... Holds Gauges Up to 5" O.D. WEW

Tire Gauges

2" gauge has a 12" flex hose with swivel chuck and pressure release valve. Accurate to within +/- 1%.





Tire Tape Measures

10' foot long tapes are ideal for measuring tire diameters and checking stagger.





Tire Tape

ALL10674

Easily figure out your tire stagger, the

difference in circumference from one tire to the other, with the help of this unique tire tape measure. The tape works by first measuring the largest tire and then using this dimension when measuring the smaller tire. The tape does the math for you, the value the larger tire size aligns with is your stagger value or amount of stagger.

In-Car Memory Tire Temp Gauge



Digital tire temp gauge with memory (maximum temp). Gauge will show real-time temp and allows you to recall max temp after your race. Align and mount the sensor within 24" of tire to monitor for best results. Designed for use with 12- and 16-volt systems. Temp Range 0-300°F. Gauge size is 2.75" wide x 1.375" tall. Sensor size is 3/4" x 3/4". Sensor mounting bracket 1.5" wide. Complete kit includes gauge, sensor, wiring and instructions.

ALL80085 Complete Kit ALL80086 Replacement Sensor

Stagger Gauge

ALL10116

Measures tire diameter and automatically converts it to circumference. Strong

tubular gauge will not flex and will provide accurate, consistent stagger measurements every time. Gauge measures from 65" to 115" in 1/4" increments.

Replacement Component ALL99044 Tape Decal

Tire Crayons

Ideal for temporary tire marking. 1/2" x 4-5/8".

ALL12060..... White ALL12061 Yellow

Paint Markers

Long-lasting, weather, water, and UV-resistant markers work on glass. plastic, rubber and metal. Durable fiber tip permits fine or bold lines. Perfect for indicating tire stagger. Quick dry, lead-free paint.

ALL12050	Silver
ALL12051	Yellow
ALL12052	White
ALL12053	Red
ALL12054	Blue
ALL12055	Light Blue
ALL12056	Black
ALL12057	Orange







Tire Durometer

ALL44034

Easily check tire hardness. Includes storage pouch.



Schrader Valves

ALL44065

Inflating tires through quick disconnects mounted in rim eliminates an extra valve stem. Valves work with Allstar Performance center reliefs and other popular plastic or aluminum quick disconnect fittings. Sold in pairs.



Wheel Disconnects

Fit 5/8" diameter valve stem hole for use with center reliefs and Schrader (Fill) valve (ALL44065).



ALI 44060

ALL44060 Plastic, 4-Pack ALL44061 Plastic, Each ALL44062 Aluminum, 4-Pack ALL44063 Aluminum, Each

Replacement Components

ALL44066 Sealing Washer, 4-Pack ALL44067 Grommet, 4-Pack





Valve Stem Puller

ALL44032

Puller threads onto valve stem and properly pulls rubber valve stems into place. Large rubber block protects expensive wheels and creates leverage when pulling.



ALL44030

Easily remove and install valve cores. Base of handle has a machined pattern to aid with grip. Ergonomically designed and crafted from stainless steel. Measures 3" overall length.



Kyle Cummins

Brass Valve Stems

Brass bolt-in valve stem resists cutting during contact. Sold each.

ALL44134 Brass Valve Stem. Fits .625" Hole ALL44135 Chrome Plated Brass Valve Stem. Fits .453" or .625" Hole



Snap-In Rubber Valve Stems

Economical rubber valve stems pull through wheel for easy installation. Large stem for 5/8" hole is the most popular size valve stem used in racing wheels. Smaller stem for .453" hole is commonly found in stock steel and utility vehicle wheels.



ALL44136 Stem for 5/8" (.625") Hole, 4-Pack ALL44136-50 Stem for 5/8" (.625") Hole, 50-Pack ALL44139 Stem for .453" Hole, 4-Pack

Flush Mount Valve Stem Kit

ALL44137

Chrome-finished steel, bolt-in valve stem mounts in standard valve stem location and provides a clean semi-flush appearance. Valve stem features an O-ring



to seal against the outside of the wheel and a rubber grommet, washer and nut that seals against the inside of the wheel. Kit includes four valve stems with dust covers and an extension filler tube. Valve stems are designed for use in wheels with .453" valve stem holes.

Replacement Components

ALL44138 Filler Tube

Valve Stem Cores

This inner portion of the valve stem is often damaged or leaking. Cores are easy to replace with ALL44030 tool when replacing tires to assure a leak-free valve stem. Universal design fits most standard valve stems.



ALL99150 10-Pack ALL99150-100 ... 100-Pack

Valve Stem Caps

An often overlooked item, caps prevent dirt and debris from entering the core portion of valve stems. Stainless steel caps have an inner seal for additional sealing.



ALL99151 10-Pack ALL99151-100 ... 100-Pack

Hex-Head Valve Stem Caps

ALL44053

Keep dirt and debris out of valve stems while providing an attractive finishing touch to wheels. Chrome plated brass hex caps fit most valve stems and have a built-in inner seal to prevent air loss. Pack of 4.





Hats

Hats have Allstar Performance logo embroidered on the front and an adjustable head band.



ALL99951 Black

ALL99957 Black with Black Mesh Back ALL99959 Black with White Mesh Back

Beanie

ALL99953



T-Shirts

T-shirts have a large Allstar Performance logo on the back and a small logo on the front left chest. Available in black, red, gray, or charcoal. Specify size when ordering (YS, YM*, YL*, S, M, L, XL, XXL, XXXL).

ALL99902 Black ALL99904 Red ALL99906 Grav ALL99907 Charcoal

*Sizes YS, YM and YL only available in Black



Ladies

Vintage T-Shirts

Available in burgundy, charcoal, or navy. Specify size when ordering (S, M, L, XL, XXL).

ALL99920 Burgundy ALL99921 Charcoal ALL99922 Navy



Full Zip Hoodie

ALL99917

Charcoal full zipper style hoodie features a small Allstar Performance logo on left chest and is made from a 50/50 blend of soft spun cotton and poly fleece. Specify size when ordering (S, M, L, XL, XXL, XXXL).



Hoodie

ALL99916

Allstar Performance hoodie features a two color design and is 100% polyester for a wrinkle-free look. Specify size when ordering (S, M, L, XL, XXL, XXXL).



Graphic T-Shirt

T-shirts have an Allstar logo with red and gray graphics on front and back. Specify size when ordering (S, M, L, XL, XXL, XXXL).

ALL99903 Black ALL99908 Charcoal



Hooded Sweatshirt

ALL99913

Black hooded sweatshirt has large Allstar Performance logo across the chest, drawstring hood and a large pocket. Specify size when ordering (YM, YL, S, M, L, XL, XXL, XXXL).



Circle Track T-Shirt

ALL99901

Dark gray T-shirts have a circle track theme and Allstar Performance logos on front and back. Specify size when



Graphic Hooded Sweatshirt

ALL99919

Black hooded sweatshirt has red and gray graphics across the chest and back, drawstring hood, and large pocket. Specify size when ordering (M, L, XL, XXL).



Lightweight Jacket

ALL99918

Black jacket has a small Allstar Performance logo on front left chest area. Specify size when ordering (M, L, XL, XXL).



Backpack

ALL99970

Quality backpack has many features including a front compartment with multiple pockets and inner padded compartments for up to a 15" laptop and tablet. Additional features include side pockets for water bottles or cups, padded shoulder straps with connecting buckle and a padded carrying handle. Overall size is 19" x 12" x 6".



Apron

ALL99962

Black cloth apron has pockets to keep tools close at hand. Reverse apron to place pockets on the inside when grinding tires. Adjustable strap allows one size to fit all.



Work Gloves

General purpose gloves protect hands from everyday abuse in the shop or at the racetrack. Lightweight, elastic weave material with reinforced palm and fingers allows mobility and unrestricted use.





Versatile umbrella is only 16" long when retracted, but opens to a full 36". Easily stored.



Can Cooler

ALL99965

Keep your hand warm and your favorite beverage cool and covered.





Merchandising Displays

Allstar Performance merchandising displays for race, street, and drag. Each 4' x 4' display features a variety of fast-selling products to satisfy customer needs. A layout diagram is supplied to simplify set up. Display packages include free bonus items such as Allstar header display, Allstar decals, Allstar hang tags, and hooks. Display rack not included.

ALL070 .. Circle Track ALL071 .. Circle Track ALL072 .. Drag Race ALL073 .. Street Performance

ALL074... Open Wheel/Sprint

Brake Fitting Displays

8" x 10" card includes an assortment (1 piece each) of popular brake line fittings. Visit website for breakdown.

ALL080	. Display #1
ALL081	. Display #2
ALL082	. Display #3
ALL083	. Display #4

Clock **ALL99968**

Silver framed 10" diameter clock features a bright white face with easy-to-read black numbers and hands. Includes AA battery.







Decals

Show support for your favorite parts supplier by placing one of these decals on your vehicle, tool box or your shop refrigerator.



ALL029 2" x 6" **ALL030** 3" × 10" **ALL031** 6" x 18" ALL032 8" x 26" ALL034 10" x 32"

Banner

ALL010

Allstar Performance banner is 30" tall x 72" wide.



Hang Tags

ALL040

Place tags behind product in showroom or parts trailer to provide part number, description, and price information for reordering. Pack of 100.



Black Plastic Bags

ALL048

ALL042

18"L x 14-1/2"W. Pack of 100.

Catalog Display Rack

Display Allstar catalogs next to

products on counter top or as

part of pegboard or slat wall display. Includes 10 Allstar

Performance catalogs.

Counter Mat

ALL062

11-1/2"W.

18"L x



ALLSTAR

Showroom Display Header

ALL038



Display header provides an excellent way to display Allstar products. Precut 6" x 48" black painted aluminum header may be trimmed to desired width.

Peq Hooks

Peg hooks fit standard 1" spaced peg board. Available in 2", 4" or 6" lengths, 1/8" diameter. Pack of 50.

ALL054 2" ALL055 4" **ALL056** 6"



Product Fix-It Tags

Clear plastic tags are used to repair or reinforce the peg hook hole of most carded and bagged product. Tags have a self-adhesive backing which provides a quick and easy option for repairing display merchandise.

ALL020 10-Pack ALL020-50... 50-Pack



Note Pads ALL044

Ruled 5-1/2" x 8-1/2" note pads are great to have in the shop or trailer to keep track of parts you need to order or keeping track of important set-up information. Pack of 6.





Clamshell with Backer Card

ALL016

Clear plastic clamshell is useful when 4"x7" carded product has been opened but is still in new condition, providing the option to return opened product back to a merchandising display for resale. Sold in pack of 10.





Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
010	255	10141	213	10242	229	10452	45	10625	228	11019	211
016	255	10142	212	10246	155	10453	45	10626	228	11020	211
020	255	10143	213	10247	155	10454	45	10630	228	11022	211
029	255	10144	212	10248	155	10455	46	10632	228	11023	208
030	255	10145	212	10249	155	10456	46	10633	228	11024	208
031	255	10147	212	10252	162	10457	46	10634	228	11026	211
032	255	10148	212	10253	227	10458	46	10635	228	11030	207
034	255	10149	212	10254	227	10459	46	10636	228	11031	207
038	255	10150	212	10256	227	10460	46	10637	228	11036	207
040	255	10151	212	10258	219	10464	46	10638	228	11037	209
041	235	10152	212	10260	234	10466	46	10644	47	11038	209
042	255	10154	212	10265	232	10468	46	10655	229	11039	209
043	237	10156	212	10266	232	10470	46	10658	237	11040	208
044	255	10157	212	10267	235	10475	150	10660	236	11040	208
047	230	10157	213	10267	235	10473	150	10662	236	11041	208
047	255	10159	212	10269	235	10480	150	10672	236	11043	229
052	211	10163	212	10203	235	10485	46	10672	230	11052	215
054	255	10164	212	10271	235	10486	46	10675	236	11056	209
055	255	10165	212	10272	235	10480	46	10676	236	11057	209
056	255	10166	212	10273	235	10487	46	10678	236	11057	209
059	232	10171	212	10274	235	10489	46	10678	219	11058	209
	_		_		_						
062	255	10172	212	10276	235	10490	46	10720	236	11060	209
070	254	10173	212	10277	235	10503	222	10721	236	11061	209
071	254	10174	213	10278	235	10504	222	10722	236	11062	209
072	254	10175	213	10279	235	10510	152	10723	236	11063	209
073	254	10176	216	10280	155	10512	152	10725	237	11064	209
074	254	10178	238	10283	155	10513	152	10726	237	11065	209
080	254	10180	226	10284	155	10516	219	10730	163	11066	209
081	254	10181	157	10285	155	10526	229	10731	163	11067	209
082	254	10182	226	10286	155	10527	229	10742	207	11068	209
083	254	10184	226	10287	155	10530	229	10770	234	11069	209
10103	233	10188	226	10288	155	10531	229	10772	234	11070	207
10104	233	10192	226	10289	155	10532	229	10780	235	11072	207
10105	233	10196	226	10290	155	10534	229	10781	235	11074	207
10106	233	10200	226	10291	155	10535	214	10782	235	11075	207
10108	229	10203	226	10293	155	10538	214	10783	235	11076	207
10110	238	10204	226	10294	155	10540	232	10784	235	11078	207
10111	230	10207	226	10295	155	10550	231	10785	235	11080	216
10112	230	10208	226	10298	155	10551	231	10786	235	11081	216
10113	207	10209	226	10299	155	10555	232	10787	235	11082	216
10114	238	10210	226	10351	148	10561	232	10788	235	11083	216
10115	238	10211	155	10352	148	10565	231	10790	235	11085	216
10116	230	10214	155	10354	168	10566	231	10791	235	11086	216
10118	236	10217	154	10355	168	10567	231	10792	235	11087	216
10119	236	10218	154	10402	207	10570	231	10793	235	11096	217
10120	209	10219	154	10411	207	10571	231	10794	235	11100	217
10121	209	10221	154	10412	207	10572	231	10795	235	11106	217
10122	209	10222	154	10413	207	10574	231	10796	235	11108	217
10123	213	10223	148	10414	207	10575	231	10797	235	11110	217
10124	227	10227	168	10416	207	10576	231	10798	235	11112	217
10125	213	10228	148	10417	207	10577	231	11000	216	11116	217
10126	227	10229	148	10418	207	10580	235	11002	216	11118	217
10130	212	10230	229	10419	207	10582	235	11003	218	11120	217
10132	212	10232	229	10422	227	10584	235	11005	218	11124	217
10133	212	10233	229	10425	227	10586	235	11008	209	11126	217
10136	213	10234	229	10426	227	10590	234	11010	211	11128	217
10137	213	10235	229	10439	150	10600	227	11011	211	11130	217
10138	212	10239	229	10441	150	10605	227	11015	211	11132	217
10139	212	10240	229	10445	150	10610	227	11017	211	11134	217
10140	213	10241	229	10446	152	10612	227	11018	211	11151	217



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.		Part No.	Page No.		Part No.	Page No.	Part No.	Page No.
11152	216	12061	230	13022	149	-	14163	220		14280	221	16002	101
11153	216	12064	206	13025	149		14165	220		14282	221	16003	101
11155	188	12066	206	13100	150		14166	239		14285	221	16004	101
11161	238	12070	215	13104	150	-	14170	223		14288	221	16005	101
11170 11172	209	12072 12073	205	13106 13107	150 150	-	14171 14172	239		14290 14292	216 216	16006 16010	101
	209	12100	210		150	-		206			216	16010	101
11176 11177	209	12100	210	13108 13109	150	-	14173 14174	214		14295 14300	211	16011	101
11177	217	12101	210	14100	154	-	14174	220		14305	211	16012	101
11179	217	12102	210	14101	154	H	14176	46		14306	211	16014	101
11180	217	12105	210	14101	154	-	14177	46		14308	223	16015	101
11181	217	12106	210	14103	154	H	14178	46		14350	239	16016	101
11182	209	12107	210	14104	154	H	14179	46		14351	239	16020	101
11184	209	12121	210	14105	154		14180	46		14352	239	16021	101
11187	189	12122	210	14106	154		14181	46		14355	239	16022	101
11188	189	12123	210	14110	154	ı	14182	46		14356	239	16023	101
11190	209	12130	210	14111	154		14183	46		14360	218	16024	101
11195	216	12131	210	14112	154	ľ	14184	46		14361	218	16025	101
11196	216	12132	210	14115	154		14185	46	- 1	14365	218	16026	101
11197	216	12135	210	14116	218	f	14186	46		14366	218	16030	101
11300	228	12136	210	14117	218		14187	46	Ì	14380	218	16031	101
11301	228	12137	210	14120	218		14188	46		14381	218	16032	101
11302	228	12195	225	14122	218		14189	46		14383	218	16033	101
11303	228	12196	225	14123	218		14190	46		14385	218	16034	101
11305	228	12200	224	14124	218		14192	46		14390	218	16036	101
11310	228	12201	224	14125	218		14193	46		14391	218	16041	101
11312	228	12202	224	14126	218		14194	46		14392	218	16042	101
11313	228	12203	224	14127	218		14195	46		14395	218	16043	101
11319	228	12204	224	14128	218		14196	46		14396	218	16044	101
11350	238	12205	224	14129	218		14197	46		14408	45	16045	101
11351	238	12210	229	14130	218	-	14198	154		14409	45	16050	101
11355	238	12211	225	14132	218		14200	59		14414	45	16051	101
12000	219	12212	225	14133	218	-	14201	59		14415	45	16052	101
12005	223	12213	225	14134	218	-	14205	46		14418	45	16053	101
12006 12008	223 221	12214 12215	224	14135 14136	218		14208 14235	46 221		14419 14422	45 45	16054 16055	101
12000	221	12216	223	14137	218	-	14235	221		14423	45	16060	101
12010	221	12219	221	14137	218		14237	221		14430	45	16061	101
12011	221	12220	221	14139	218	-	14240	220		14431	45	16062	101
12012	227	12230	148	14141	220		14242	220		14436	45	16063	101
12018	221	12259	224	14142	220		14245	220		14437	45	16064	101
12019	221	12260	224	14143	220		14246	220	-	14450	45	16065	101
12024	219	12261	224	14145	220	f	14247	220		14451	45	16066	101
12025	219	12264	224	14146	220		14248	220	- 1	14452	45	16070	101
12026	219	12265	224	14147	220		14251	220		14453	45	16071	101
12027	219	12266	224	14148	220	ľ	14252	220		14454	45	16072	101
12030	239	12268	224	14149	220		14253	220		14455	45	16073	101
12031	239	12269	225	14150	220		14254	220		14456	45	16074	101
12032	239	13000	149	14151	220		14255	220		14457	45	16075	101
12033	239	13001	149	14152	220		14261	220		14458	45	16076	101
12035	239	13004	149	14153	220		14263	220		14459	45	16080	101
12050	230	13007	149	14154	220		14265	220		14474	45	16081	101
12051	230	13008	22	14155	220		14266	220		14475	45	16082	101
12052	230	13009	22	14156	220		14267	220		14480	46	16083	101
12053	230	13010	22	14157	220		14268	220		14481	46	16084	101
12054	230	13011	149	14158	220		14270	220		14483	46	16085	101
12055	230	13012	149	14159	220	-	14272	220		14485	46	16086	101
12056	230	13014	149	14160	220		14275	220		14486	46	16100	101
12057	230	13018	148	14161	220	-	14276	220		16000	101	16101	101
12060	230	13021	149	14162	220	L	14277	220		16001	101	16102	101



Part No.	Dogo No	Dowt No.	Dogo No
	Page No.		Page No
16103	101	16263	100
16104	101	16264	100
16110	101	16265	100
16111	101	16266	100
16112	101	16268	100
16113	101	16270	100
16114	101	16281	100
16115	101	16282	100
16116	101	16283	100
16120	101	16284	100
16121	101	16285	100
16122	101	16286	100
16123	101	16287	100
16124	101	16288	100
16125	101	16289	100
16126	101	16290	100
16150	101	16291	100
16151	101	16292	100
16152	101	16293	100
16153	101	16294	100
16154	101	16296	100
16170	243	16298	100
16173	243	16316	100
16175	243	16318	100
16176	243	16320	100
16177	243	16321	100
16178	243	16322	100
16201	100	16324	100
16202	100	16336	100
16203	100	16338	100
16204	100	16340	100
16205	100	16342	100
16206	100	16344	100
16208	100	16346	100
16210	100	16347	100
16211	100	16348	100
16212	100	16350	100
16213	100	16402	100
16214	100	16404	100
16221	100	16406	100
16222	100	16422 16424	100
16223	100		100
16224 16225	100	16426 16442	100
16225	100	16446	100
		16462	
16228	100	16464	100
16241	100		100
16242 16243	100	16466	100
		16468	
16244	100	16470	100
16245	100	16472	100
16246	100	16474	100
16248	100	16476	100
16250	100	16482	100
16252	100	16484	100
16254	100	16486	100
16256	100	16488	100
16258	100	16490	100
16262	100	16492	100

Part No.	Page No.
16518	100
16520	100
16522	100
16536	100
16538	100
16540	100
16542	100
16546	100
16550	99
16552	99
16553	99
16554	99
16555	99
16731	100
16732	100
16734	100
16736	100
16741	100
16742	100
16744	100
16746	100
16751	100
16752	100
16754	100
16756	100
16762	100
16764	100
16766	100
16772	100
16774	100
16776	100
16902	100
16903	100
16905	100
16907	100
16914	100
16920	100
16922	100
16924	100
16925	100
16930	100
16936	100
16938	100
16940	100
16941	100
16944	100
16946	100
17000	159
17004	162
17006	157
17008	159
17010	157
17012	165
17016	160
17020	164
17022	162
17024	163
17026	162
17028	161

Part No.	Page No.
17030	157
17032	163
17034	163
17036	161
17038	161
17048	163
17120	191
17121	191
18000	90
18001	90
18002	90
18002	90
18004	90
18005	90
18006	90
18010	90
18011	90
18012	90
18013	90
18014	90
18015	90
18016	90
18020	90
18021	90
18022	90
18023	90
18030	90
18031	90
18032	90
18033	90
18040	90
18050	90
18050	
	90
18052	90
18053	90
18054	90
18056	90
18060	91
18061	91
18062	91
18063	91
18070	91
18071	91
18074	91
18075	91
18080	91
18081	91
18082	91
18083	91
18086	91
18087	91
18090	91
	91
18091	
18092	91
18093	91
18094	91
18095	91
18096	91
18097	91

Part No.	Page No.
18098	92
18099	92
18101	90
18103	90
18105	90
18107	90
18109	90
18110	91
18114	90
18116	90
18120	90
18122	90
18126	90
18128	90
18132	90
18134	90
18135	90
18136	90
18137	90
18138	90
18139	90
18141	90
18143	90
18145	90
18147	90
18149	90
18151	90
18153	90
18156	90
18158	90
18162	90
18164	90
18168	90
18170	90
18174	90
18175	90
18176	90
18177	90
18178	90
18180	90
18181	90
18183	91
18184	91
18185	91
18187	91
18188	91
18189	91
18190	92
18191	92
18192	92
18193	92
18194	92
18195	92
18196	92
18197	92
18198	92
	- J-
18100	92
18199	92
18199 18200 18201	92 92 208

Part No.	Page No.
18202	92
18203	208
18204	208
18206	205
18207	205
18209	205
18210	205
18212	205
18215	92
18216	98
18220	205
18221	205
18222	205
18223	205
18224	205
18225	205
18226	205
18227	205
18228	205
18230	205
18232	105
18234	205
18250	101
18251	101
18252	101
18253	101
18254	101
18255	101
18256	101
18257	101
18258	101
18259	101
18260	101
18261	101
18262	101
18263	101
18264	101
18266	101
18274	101
18275	101
18276	101
18277	101
18278	101
18279	101
18280	101
18281	101
18282	101
18283	101
18286	101
18287	101
18288	101
18289	101
18290	101
18291	101
18292	101
18293	101
18294	101
18295	101
18296	101



Part No. Page No. 18297 101 18298 101 18299 101 18300 105 18301 105 18302 105 18303 105 18304 105 18305 105 18444 105 18305 105 18444 105 18305 105 18444 105	Part No. 18996 18997 18998 18999 19000 19001 19002	94 94 94 94
18298 101 18434 15 18524 14 18603 172 18699 98 18299 101 18435 15 18525 14 18604 172 18700 102 18300 105 18437 15 18526 14 18605 172 18702 102 18302 105 18438 15 18527 14 18606 172 18706 102 18303 105 18439 15 18530 17 18608 172 18708 102 18304 105 18442 105 18532 17 18610 102 18714 102 18305 105 18444 105 18533 17 18611 102 18716 102	18997 18998 18999 19000 19001	94 94
18299 101 18435 15 18525 14 18604 172 18700 102 18301 105 18436 15 18526 14 18605 172 18702 102 18302 105 18438 15 18527 14 18606 172 18706 102 18303 105 18439 15 18530 17 18607 172 18708 102 18304 105 18442 105 18532 17 18610 102 18714 102 18305 105 18444 105 18533 17 18611 102 18716 102	18998 18999 19000 19001	94
18300 105 18301 105 18302 105 18303 105 18304 105 18305 105 18444 105 18305 105 18436 15 18526 14 18527 14 18527 14 18527 14 18506 172 18607 172 18607 172 18608 172 18608 172 18712 102 18714 102 18305 105 18444 105 18533 17 18611 102 18716 102	18999 19000 19001	
18301 105 18302 105 18303 105 18304 105 18305 105 18444 105 18437 15 18527 14 18506 172 18607 172 18608 172 18608 172 18608 172 18610 102 18714 102 18305 105 18444 105 18533 17 18611 102 18716 102	19000 19001	94
18302 105 18303 105 18304 105 18305 105 18444 105 18530 17 18531 17 18608 172 18608 172 18610 102 18714 102 18716 102	19001	0.4
18303 105 18304 105 18305 105 18442 105 18531 17 18532 17 18610 102 18714 102 18716 102		94
18304 105 18442 105 18532 17 18610 102 18714 102 18305 105 18444 105 18533 17 18611 102 18716 102	19002	94
18305 105 18444 105 18533 17 18611 102 18716 102	40000	94
	19003	94
10000 105 10440 105 10504 17 10040 100 10740 100	19004	94
18306 105 18446 105 18534 17 18612 102 18740 198	19005	94
18307 105 18448 105 18540 17 18613 102 18742 198	19006	94
18308 105 18452 105 18541 17 18615 102 18744 198	19008	94
18309 105 18454 105 18542 17 18617 102 18746 198	19010	94
18310 105 18460 15 18543 17 18618 102 18760 102	19012	94
18311 105 18461 15 18544 17 18619 102 18762 102	19046	94
18312 105 18462 15 18546 40 18620 89 18764 102	19048	94
18313 105 18463 15 18547 99 18621 89 18766 102	19050	94
18314 105 18468 15 18548 99 18622 89 18785 102	19052	94
18315 105 18470 15 18549 40 18623 89 18786 102	19056	94
18317 105 18471 15 18550 40 18624 89 18787 102	19058	94
18320 105 18472 14 18551 40 18626 89 18790 203	19060	94
18321 105 18473 14 18552 40 18628 98 18792 203	19062	94
18322 105 18476 14 18553 99 18629 98 18800 102	19064	94
18323 105 18477 14 18554 99 18630 98 18802 102	19066	94
18325 127 18478 14 18555 101 18631 98 18804 102	19068	94
18326 58 18479 14 18556 101 18632 98 18806 102	19070	94
18327 58 18480 14 18557 101 18633 98 18808 102	19071	95
18330 121 18481 14 18558 99 18634 98 18810 102	19072	95
18332 121 18482 14 18559 99 18635 98 18812 102	19073	95
18334 121 18484 14 18560 99 18638 98 18814 102	19074	95
18336 121 18487 14 18561 99 18639 98 18816 102	19075	95
18338 121 18488 14 18564 99 18654 99 18818 102	19076	95
18340 121 18489 14 18565 102 18655 99 18820 102	19077	95
18342 121 18491 14 18566 102 18656 99 18822 102	19078	95
18344 121 18496 14 18567 102 18658 98 18824 102	19098	94
18345 121 18497 14 18568 102 18659 98 18826 102	19099	94
18347 121 18498 14 18570 102 18660 98 18828 102	19100	94
18349 121 18499 14 18571 102 18661 98 18830 102	19101	94
18350 121 18500 14 18572 102 18662 98 18832 102	19102	94
18351 121 18501 14 18574 102 18663 98 18834 102	19103	94
18352 121 18502 14 18576 102 18664 98 18836 102	19110	94
18353 121 18503 14 18578 102 18665 98 18838 102	19112	94
18354 121 18504 14 18580 102 18680 98 18840 99	19113	94
18355 121 18506 15 18582 102 18681 98 18841 99	19114	94
18360 63 18507 14 18584 102 18682 98 18845 99	19115	94
18362 63 18508 14 18585 102 18683 98 18846 99	19116	94
18363 63 18509 14 18586 102 18684 98 18847 99	19117	94
18364 63 18510 14 18587 102 18685 98 18848 99	19118	94
18365 63 18511 14 18588 102 18686 98 18849 99	19128	94
18366 63 18512 14 18589 102 18687 98 18850 99	19129	94
18367 63 18513 14 18590 102 18688 98 18851 99	19130	94
18368 63 18514 14 18592 102 18689 98 18852 99	19131	94
18370 105 18515 15 18594 102 18690 98 18853 99	19132	94
18371 105 18516 15 18595 102 18691 98 18854 99	19133	94
18372 105 18517 15 18596 102 18692 98 18985 97	19134	94
18373 105 18518 15 18597 102 18693 98 18986 97	19135	94
18374 105 18519 15 18598 102 18694 98 18990 94	19136	94
18430 15 18520 14 18599 102 18695 98 18991 94	19137	94
18431 15 18521 14 18600 172 18696 98 18992 94	19138	94
18432 15 18522 15 18601 172 18697 98 18993 94	19139	94



19141 94 19252 94 19365 96 22	2046 37 2050 37 2054 37	22144 22145	36	22240	9
		22145			0
10140 04 10050 04 10000 00	2054 37		36	22242	9
19142 94 19256 94 19366 96 22		22146	36	22243	9
	2060 37	22147	36	22244	9
	2061 37	22149	36	22245	9
	2062 37	22150	38	22246	10
	2063 37	22151	38	22248	10
	2064 37	22152	38	22250	38
	2070 37	22154	38	22251	38
	2072 37	22155	38	22253	38
	2079 37	22156	38	22254	38
	2080 37	22157	38	22255	38
	2082 37	22158	38	22256	38
19165 95 19269 94 19399 206 22	2084 37	22160	36	22257	38
	2085 38	22163	36	22258	38
	2086 37	22164	36	22260	10
	2090 37	22169	36	22262	10
	2093 37	22175	36	22265	10
	2094 31	22182	36	22267	10
	2095 32	22183	36	22268	10
	2096 31	22184	36	22270	10
	2097 31	22190	169	22272	10
	2098 31	22191	169	22273	10
	2099 32	22192	40	22276	10
	2100 32	22194	40	22277	10
	2101 32	22196	40	22280	40
	2102 32	22199	40	22281	40
	2103 32	22200	9	22282	40
	2104 31	22201	9	22283	40
	2105 32	22202	9	22284	40
19200 94 19286 95 19435 97 22	2106 32	22203	9	22285	40
19202 94 19287 95 19450 206 22	2107 32	22204	9	22286	40
	2108 33	22205	9	22287	40
19211 95 19289 95 19453 206 22	2109 32	22206	9	22290	40
19212 94 19290 95 19454 206 22	2110 34	22207	9	22291	40
19213 95 19291 95 19455 206 22	2111 33	22208	9	22292	40
19214 95 19292 95 19456 206 22	2112 33	22209	9	22294	40
19215 95 19293 95 19457 206 22	2114 35	22210	9	22300	160
19216 95 19294 95 19460 206 22	2115 35	22211	9	22311	30
19218 95 19295 95 19461 206 22	2116 35	22212	9	22312	30
19220 95 19296 96 19462 206 22	2117 36	22213	9	22315	30
19221 95 19298 96 19463 206 22	2118 35	22214	9	22320	27
19222 95 19300 96 19465 206 22	2119 33	22215	9	22322	29
19223 95 19302 96 19467 206 22	2120 36	22216	9	22326	27
19224 95 19310 96 22000 37 22	2122 35	22217	9	22328	27
19225 95 19312 96 22005 37 22	2124 36	22218	9	22329	27
19226 95 19320 96 22010 37 22	2126 34	22219	9	22330	27
19227 95 19322 96 22012 37 22	2127 36	22220	10	22333	26
19228 95 19330 96 22015 37 22	2128 36	22222	10	22336	26
19229 95 19332 96 22017 37 22	2129 36	22223	10	22337	26
19230 95 19336 96 22020 37 22	2130 36	22224	10	22343	26
19231 95 19338 96 22022 37 22	2132 36	22226	10	22344	26
19232 95 19340 96 22024 37 22	2133 36	22228	10	22350	27
19233 95 19342 96 22026 37 22	2134 36	22231	10	22352	27
19236 94 19350 96 22030 37 22	2135 36	22232	10	22365	28
19238 94 19352 96 22032 37 22	2136 36	22233	9	22366	28
19240 94 19360 96 22040 37 22	2137 36	22234	9	22367	28
19241 94 19361 96 22042 37 22	2138 36	22236	9	22369	28
19242 94 19362 96 22044 37 22	2139 36	22237	9	22370	28
19243 94 19363 96 22045 37 22	2140 36	22238	9	22371	27



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
22372	27	22512	196	22999	Page No.	23138	11	25901	Page No.	26015	Page No.
22372	29	22512	196	23010	28	23138	11	25901	6	26020	8
22373	45	22518	196	23010	28	23141	11	25902	6	26020	8
22374	26	22519	196	23011	28	23141	11	25903	6	26021	8
22376	27	22522	196	23014	29	23142	12	25904	6	26022	8
22377	26	22523	196	23015	29	23167	12	25905	6	26028	8
22378	29	22526	196	23017	29	23170	16	25907	6	26029	8
22379	26	22527	196	23017	12	23170	16	25907	6	26030	8
22380	26	22530	196	23020	12	23180	16	25910	6	26040	223
22381	26	22531	196	23021	12	23181	16	25912	6	26040	223
22382	26	22534	196	23022	17	23215	16	25913	6	26042	223
22384	26	22535	196	23023	17	23220	160	25914	6	26042	223
22385	26	22538	196	23030	28	23221	160	25915	6	26044	223
22386	26	22539	196	23031	28	23222	160	25916	6	26045	7
22388	26	22542	196	23032	28	23223	160	25917	6	26046	7
22389	26	22543	196	23033	28	23224	156	25920	6	26047	7
22390	33	22546	196	23034	28	23225	156	25921	6	26048	7
22391	33	22547	196	23035	28	23226	156	25922	6	26053	7
22392	33	22548	196	23038	28	23228	78	25923	6	26054	7
22393	26	22549	196	23040	29	23229	78	25924	6	26055	7
22394	26	22550	196	23042	29	23230	13	25925	6	26056	7
22395	26	22551	196	23043	29	23232	13	25926	6	26057	7
22400	10	22554	196	23044	29	23233	13	25927	6	26058	7
22401	10	22555	196	23045	29	23235	13	25940	6	26059	126
22402	10	22558	196	23046	29	23237	13	25941	6	26060	126
22405	10	22559	196	23047	29	23240	16	25942	6	26061	126
22406	10	22600	31	23048	29	23242	16	25943	6	26062	126
22407	10	22601	31	23058	29	23243	16	25944	6	26063	126
22410	10	22602	31	23064	30	23245	16	25945	6	26064	126
22411	10	22603	31	23066	30	23246	13	25946	6	26065	126
22412	10	22604	31	23067	30	23248	13	25947	6	26066	126
22420	10	22608	31	23068	11	23249	13	25950	7	26067	126
22421	10	22610	31	23073	30	23250	17	25951	7	26068	126
22422	10	22620	31	23075	12	23251	17	25954	7	26069	126
22425	10	22621	31	23080	12	23255	17	25955	7	26077	7
22426	10	22622	31	23088	12	23256	17	25956	7	26081	6
22427	10	22623	31	23100	208	23260	15	25957	7	26084	6
22430	10	22628	31	23101	207	23266	13	25970	126	26085	6
22431	10	22630	31	23102	207	23267	13	25972	126	26086	6
22432	10	22640	31	23105	11	23268	13	25973	126	26087	6
22440	10	22641	33	23106	11	23269	13	25975	126	26088	6
22441	10	22642	31	23107	11	23270	13	25977	126	26090	6
22442	10	22643	33	23110	12	23272	13	25980	125	26091	6
22460	10	22645	33	23112	12	23274	13	25981	125	26092	6
22461	10	22650	31	23113	12	23278	30	25982	125	26094	6
22462	10	22652	33	23115	208	23280	13	25983	125	26095	6
22464	10	22653	33	23116	208	23282	13	25984	125	26097	6
22465	10	22654	33	23117	208	23284	13	25986	125	26098	6
22466 22470	10	22670 22675	35	23120 23122	12	23288	13	25990 25991	125	26099	7
22470	10	22678	32	23122	16	23291	13	25991	125 125	26100 26101	7
22471	9	22680	32		_	23292	13	25992	125	26101	7
22480	9	22682	32	23125 23126	17	23293	13	25993	125	26104	6
22484	9	22684	32	23126	17	23297	15	25994	125	26112	243
22484	9	22960	17	23127	17	23300	15	26000	8	26114	243
22488	9	22960	17	23128	11	23301	15	26000	8	26115	216
22500	196	22962	17	23131	11	23302	15	26002	8	26120	243
22504	196	22962	17	23132	11	23304	15	26004	8	26121	243
22508	196	22973	17	23134	11	23306	15	26010	8	26125	76
22509	196	22992	17	23135	11	25900	6	26014	7	26126	76
22000	100	22002		20100		20000		20017		20120	,,,



	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.		Part No.	Page No.		Part No.	Page No.	I	Part No.	Page No.
	26127	76	26236	68	27500	73		30105	54	Ī	30220	58	٦	31072	55
	26132	76	26240	76	27502	73		30106	54		30222	58		31073	55
	26133	76	26241	76	27503	73		30107	54		30224	58	ļ	31080	56
L	26134	76	26310	125	27504	73		30108	54		30226	58	ļ	31082	56
	26135	76	26311	125	27505	73		30109	54		30228	58		31083	56
L	26137	82	26313	125	30001	52		30110	54		30240	58		31084	56
	26139	82	26314	125	30002	219		30111	54		30241	58		31085	56
L	26143	82	26315	125	30005	52		30112	54		30242	58		31090	56
	26145	82	26316	125	30006	52		30114	54		30250	58		31092	56
H	26147	82	26320	82	30007	52		30115	54		30251	58		31093	56
-	26150	124	26322	82	30010	50		30116	54		30252	58	-	31094	56
-	26151	124	26324	126	30011	50		30120	51		30253	58	-	31095	56
Н	26152	124	26326	126	30012	50	-	30121	51		30254	58	-	31100	55
Н	26153	124	26700	241	30014	50		30123	51		30255	58	ł	31105	55
H	26154 26156	124 124	26702 26704	241	30016 30020	50 50	-	30124 30125	53 53		30256 30257	58 58	ł	31106 31120	55 56
H	26157	124	26704	241	30020	50		30125	53		30257	58	ł	31122	55
H	26158	124	26708	241	30021	50		30120	53		30260	58	ł	31130	57
Н	26159	124	26800	242	30022	50		30130	53		30270	57	ł	31135	57
H	26164	124	26801	242	30024	50	-	30131	53		30270	57	ł	31136	57
l h	26165	124	26802	242	30028	51		30132	53		30271	57	ł	31137	57
Ιħ	26166	124	26805	242	30030	51	ŀ	30133	53	1	30273	57	ł	31138	57
Ιħ	26167	124	26806	242	30033	50		30134	53	ł	30300	52	ł	31139	57
Ιľ	26168	124	26810	242	30035	50		30136	53		30301	52	ł	31140	57
Ιħ	26169	124	26815	242	30036	50		30138	53		30302	52	ł	31150	57
П	26170	82	26820	242	30037	50	ŀ	30139	53		30304	52	ı	31151	57
ΙÌ	26171	82	26825	242	30038	50		30142	79		30306	52	Ì	31152	57
	26172	82	26830	242	30039	50	ľ	30143	79		30308	52	İ	31153	57
	26176	82	26831	242	30040	50	Ì	30144	79		30310	52	Ì	31154	57
	26177	82	26835	242	30041	50	Ī	30145	78		30333	50	ĺ	31159	57
П	26179	126	26836	242	30042	50		30146	78		30335	50	ĺ	31160	57
	26180	126	26840	242	30043	50		30153	51		30336	50		31170	55
Ш	26181	126	26845	242	30044	51		30158	51		30337	50		34145	86
	26182	126	26850	242	30045	50		30160	51		30343	50		34146	86
Ш	26183	126	26851	242	30046	50		30163	156		30345	50		34150	86
	26184	126	26852	242	30047	50		30165	16		30346	50		34152	86
Н	26185	126	26853	242	30048	50		30166	16		30347	50		34153	86
Н	26186	126	26854	242	30060	53		30170	57		30370	57		34180	86
Н	26187	126	26855	242	30061	53		30171	57		30371	57	-	34181	86
Н	26188	126	26860	242	30062	53	ŀ	30172	57		30372	57	-	34182	86
H	26189	126	26861	242	30063	53		30173	57		30373	57	-	34183	86
H	26190	126 126	26865	242	30064 30072	53	ŀ	30174	57	-	30375	57		34212	85 85
H	26191 26200	223	26870 26871	242	30072	53	}	30178 30179	59 59	ł	30376 30377	57 57		34213 34214	85
\perp	26210	82	26871	242	30074	53		30179	59	-	30377	57		34214	85
1	26211	82	26875	242	30076	54		30182	54	}	30381	57		34217	85
ŀ	26212	75	26880	242	30085	51	ŀ	30183	54		30382	57	ł	34218	85
F	26216	75	26882	242	30091	54	ŀ	30184	54		31020	56	ł	34219	85
h	26217	75	26890	243	30092	54		30186	54		31022	56	Ì	34220	86
ı	26218	8	26900	243	30093	54	ľ	30188	54		31024	56	Ì	34230	86
t	26220	8	26902	243	30094	54		30190	54		31026	56	Ì	34231	86
ı	26221	8	26904	243	30095	54	ľ	30192	54	- 1	31028	56	Ì	34232	86
t	26222	8	26906	243	30096	54	ŀ	30200	58		31030	55	Ì	34233	86
Ī	26224	8	26908	243	30097	54	ľ	30202	58		31031	56	Ì	34238	68
	26225	8	26950	244	30099	54		30204	58	Ì	31040	55	Ì	34240	86
Ī	26227	83	26952	244	30100	54	ľ	30206	58		31050	55		34241	86
	26228	83	26960	103	30101	54	Ī	30208	58		31064	55	Ì	34242	86
	26230	8	26961	103	30102	54	Ī	30210	58		31066	55	ĺ	34244	86
	26232	83	26962	103	30103	54		30212	58		31070	55		34245	86
	26234	85	26963	103	30104	54		30214	58		31071	55	[34246	86



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
34247	86	36161	109	38122	87	40215	130	40354	118	42071	25
34250	86	36164	109	38124	87	40216	123	40356	118	42072	25
34251	86	36165	109	38126	157	40217	123	40357	118	42073	25
34252	86	36166	109	38130	156	40218	123	41005	23	42074	25
34254	86	36167	109	38132	87	40219	123	41006	23	42077	25
34255	86	36168	109	38142	87	40220	123	41009	23	42078	25
34256	86	36169	109	38143	87	40221	123	41012	111	42079	19
34257	86	36170	109	38145	156	40221	123	41012	23	42080	19
34262	86	36171	109	38150	243	40222	123	41014	23	42081	19
34264	86	36172	109	38152	243	40223	123	41015	23	42082	19
	86		109	38200	89	40224	_		23	42082	
34266 34272	74	36173					123	41026	23		19 19
		36174	109	38250	89	40226		41027		42084	
34273	74	36175	109	38251	89	40227	123	41028	23	42086	18
34274	74	36176	109	40090	222	40228	123	41032	158	42087	18
34275	74	36177	109	40091	222	40229	123	41033	158	42088	18
34280	60	36180	109	40100	222	40230	123	41040	24	42089	18
34282	60	36181	109	40102	222	40232	123	41042	24	42090	18
34284	60	36182	109	40104	222	40235	123	41043	24	42091	18
34285	60	36183	109	40107	222	40236	123	41044	24	42094	18
34286	60	36202	83	40112	239	40237	123	41045	24	42095	18
34290	60	36203	83	40114	222	40238	123	41046	24	42100	20
34292	60	36204	83	40116	222	40239	123	41048	24	42101	20
34294	60	36205	83	40117	222	40240	123	41049	24	42102	20
34295	60	36208	83	40118	222	40242	123	41050	22	42103	20
34296	60	36212	143	40119	222	40243	123	41051	22	42104	20
36092	156	36213	143	40120	222	40244	123	41060	23	42105	20
36093	156	36216	143	40121	222	40245	123	41061	23	42108	20
36103	143	36217	143	40122	222	40246	123	41062	23	42109	20
36106	143	36222	83	40123	222	40250	123	41064	23	42110	20
36107	143	36223	83	40124	222	40251	123	42000	19	42111	20
36108	79	36224	83	40126	222	40254	122	42001	19	42112	22
36109	79	36225	83	40127	222	40255	122	42004	19	42113	22
36110	143	38060	88	40128	222	40256	122	42005	19	42116	22
36111	143	38061	88	40129	222	40257	122	42010	19	42117	22
36112	59	38062	88	40133	130	40258	122	42011	18	42118	20
36115	59	38064	88	40134	130	40260	122	42019	21	42119	20
36116	59	38065	88	40136	130	40261	122	42024	21	42120	19
36117	79	38066	88	40137	130	40262	122	42025	111	42122	20
36120	167	38070	244	40160	118	40266	122	42026	19	42123	20
36121	167	38072	244	40161	118	40267	122	42027	111	42128	19
36122	167	38080	88	40162	118	40290	122	42029	21	42129	19
36123	167	38082	88	40168	118	40300	122	42030	21	42130	174
36124	167	38084	88	40170	118	40301	122	42032	111	42133	20
36125	167	38085	88	40180	118	40302	122	42033	111	42134	20
36126	167	38090	89	40185	118	40303	122	42036	19	42135	174
36132	167	38098	88	40186	118	40304	122	42039	19	42136	174
36134	143	38100	88	40190	123	40305	122	42040	19	42137	20
36136	167	38101	88	40191	123	40306	122	42041	19	42140	22
36137	167	38102	88	40192	123	40307	122	42042	19	42141	22
36140	79	38108	88	40193	123	40320	122	42043	19	42142	22
36141	79	38109	88	40196	123	40322	122	42048	111	42143	22
36142	79	38110	88	40197	123	40325	157	42052	115	42144	22
36145	143	38112	88	40197	123	40323	157	42052	115	42150	22
36147	241	38113	88	40198	123	40327	118	42054	115	42151	22
36148	143	38114	89	40199	130	40340		42054		42151	22
36150	59	38115	89		130	40341	118	42056	115	42152	22
				40201							
36151	59	38116	89	40203	130	40343	118	42058	115	42155	22
36154	59	38119	156	40208	123	40350	118	42061	115	42160	22
36155	59	38120	87	40210	123	40351	118	42062	115	42170	22
36160	109	38121	87	40213	130	40353	118	42070	25	42171	22



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
42172	22	44124	248	44226	245	48022	117	48305	116	48393	113
42173	22	44125	248	44228	245	48023	117	48306	116	48394	113
42174	22	44126	248	44229	245	48025	24	48307	116	48398	113
42175	22	44127	248	44230	245	48026	117	48308	116	48399	113
42176	22	44128	248	44231	245	48027	117	48310	116	48400	113
42177	22	44129	248	44232	245	48028	117	48311	116	48401	113
42180	20	44130	132	44242	245	48030	117	48312	116	48402	113
42181	20	44131	132	44243	245	48032	117	48313	116	48403	113
42185	20	44134	252	44245	245	48033	117	48314	116	48404	113
42186	20	44135	252	44255	235	48034	117	48315	116	48405	113
44026	233	44136	252	44256	235	48035	117	48316	116	48407	113
44027	233	44137	252	44257	235	48036	117	48317	116	48408	113
44028	233	44138	252	44258	235	48037	24	48318	116	48409	113
44030	229	44139	252	44265	245	48038	24	48322	116	48410	113
44032	229	44140	246	44266	245	48040	116	48326	116	48413	113
44034	252	44141	246	44267	246	48048	116	48327	116	48414	113
44036	233	44142	246	44268	246	48050	116	48328	116	48415	113
44037	233	44143	246	44270	246	48052	116	48330	116	48416	113
44045	246	44144	246	44271	246	48054	116	48332	116	48417	113
44046	230	44145	246	44272	246	48056	116	48349	113	48418	113
44047	230	44150	246	44280	245	48058	116	48350	113	48419	113
44048	230	44151	246	44281	245	48060	116	48351	113	48420	113
44053	252	44152	246	44282	245	48062	116	48352	113	48422	113
44056	230	44153	246	44283	245	48200	167	48353	113	48423	113
44057	230	44165	219	44288	245	48201	167	48354	113	48424	113
44058	230	44168	246	44289	245	48204	167	48355	113	48425	113
44060	252	44170	246	46100	115	48205	167	48356	113	48426	113
44061	252	44171	246	46101	115	48210	168	48358	113	48427	113
44062	252	44175	246	46102	241	48211	168	48359	113	48430	113
44063	252	44176	246	46110	115	48212	168	48360	113	48434	113
44065	252 252	44178 44179	246	46300	112 112	48214	168 168	48361	113	48435 48440	113
44066 44067	252	44179	245	46301 46302	112	48215 48217	168	48362 48363	113 113	48444	113 113
44067	232	44181	233	46302	112	48217	166	48363	113	48445	113
44070	230	44182	233	46310	114	48242	166	48365	113	48465	113
44077	247	44183	233	46312	114	48245	166	48366	113	48466	113
44097	247	44186	233	46332	114	48246	166	48367	113	48500	166
44098	247	44187	233	46340	114	48247	166	48368	113	48501	166
44100	247	44188	233	46341	114	48250	166	48369	113	48502	166
44101	247	44189	233	46400	112	48251	166	48370	113	48503	166
44102	247	44190	246	46401	112	48252	166	48371	113	48505	166
44103	247	44196	233	46402	112	48253	166	48372	113	48507	166
44104	247	44197	233	46404	112	48260	159	48373	113	48508	166
44106	247	44198	233	46420	114	48261	159	48374	113	49311	106
44107	247	44200	248	46440	114	48262	159	48375	113	49312	106
44108	247	44210	248	46441	114	48263	159	48376	113	49313	106
44109	247	44211	248	48000	161	48270	167	48378	113	49314	106
44110	247	44212	248	48002	161	48271	167	48379	113	49315	106
44111	247	44214	248	48004	161	48272	167	48380	113	49316	106
44112	247	44215	248	48006	161	48273	167	48381	113	49322	106
44113	247	44216	248	48010	25	48275	167	48382	113	49323	106
44114	247	44217	248	48011	25	48276	167	48383	113	49324	106
44115	247	44218	248	48012	25	48277	167	48384	113	49325	106
44116	247	44219	248	48013	25	48278	167	48385	113	49326	106
44117	247	44220	235	48014	25	48279	167	48386	113	49331	106
44119	247	44221	235	48017	25	48300	116	48387	113	49332	106
44120	248	44222	235	48018	117	48301	116	48388	113	49333	106
44121	248	44223	235	48019	117	48302	116	48389	113	49334	106
44122	248	44224	235	48020	117	48303	116	48390	113	49335	106
44123	248	44225	245	48021	117	48304	116	48392	113	49336	106



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
49342	106	49473	106	49582	107	49680	108	49770	108	50021	110
49343	106	49474	106	49584	107	49681	108	49771	108	50029	110
49344	106	49475	106	49585	107	49682	108	49772	108	50030	110
49345	106	49476	106	49587	107	49683	108	49773	108	50032	110
49346	106	49482	106	49588	107	49684	108	49774	108	50035	110
49351	106	49483	106	49589	107	49685	108	49775	108	50036	110
49352	106	49484	106	49590	107	49686	108	49776	108	50037	110
49353	106	49485	106	49591	107	49700	107	49777	108	50040	110
49354	106	49486	106	49592	107	49701	107	49778	108	50060	110
49355	106	49502	107	49596	107	49702	107	49780	108	50061	110
49356	106	49505	107	49599	107	49703	107	49781	108	50062	110
49362	106	49506	107	49600	107	49704	107	49785	108	50063	110
49363	106	49507	107	49601	107	49705	107	49800	108	50066	110
49364	106	49508	107	49602	107	49706	107	49801	108	50067	110
49365	106	49509	107	49603	107	49710	107	49802	108	50068	110
49366 49372	106 106	49510 49511	107	49604	107 107	49711 49712	107	49803 49804	108 108	50070 50072	110
49372	106	49511	107	49605 49606	107	49712	107	49804	108	50072	110
49373	106	49512	107	49607	107	49713	107	49805	108	50076	110
49374	106	49514	107	49610	107	49715	107	49812	108	50080	110
49382	106	49517	107	49611	107	49716	107	49813	108	50082	110
49383	106	49518	107	49612	107	49720	107	49814	108	50090	114
49384	106	49519	107	49613	107	49721	107	49820	108	50091	114
49385	106	49520	107	49614	107	49722	107	49821	108	50092	114
49386	106	49521	107	49615	107	49723	107	49822	108	50093	114
49411	106	49522	107	49616	107	49724	107	49830	109	50094	114
49412	106	49523	107	49617	107	49725	107	49831	109	50095	114
49413	106	49532	107	49620	107	49730	107	49832	109	50096	114
49414	106	49535	107	49621	107	49731	107	49833	109	50097	114
49415	106	49536	107	49622	107	49732	107	49834	109	50098	114
49416	106	49537	107	49623	107	49733	107	49836	109	50099	114
49422	106	49538	107	49624	107	49734	107	49837	109	50100	111
49423	106	49539	107	49625	107	49735	107	49838	109	50101	111
49424	106	49540	107	49626	107	49736	107	49839	109	50102	111
49425	106	49541	107	49630	108	49737	107	49841	109	50103	111
49426	106	49542	107	49631	108	49738	107	49842	109	50104	111
49431	106	49543	107	49632	108	49739	107	49843	109	50105	111
49432	106	49544	107	49633	108	49740	107	49844	109	50108	114
49433 49434	106 106	49547 49548	107	49634 49640	108 108	49741	107	49845 49847	109 109	50109	114
49434	106	49549	107	49640	108	49742 49743	107	49848	109	50110 50111	116 116
49435	106	49550	107	49642	108	49744	107	49849	109	50113	116
49442	106	49551	107	49643	108	49745	107	49850	109	50114	116
49443	106	49562	107	49644	108	49746	107	49852	109	50115	116
49444	106	49565	107	49645	108	49747	107	49853	109	50116	116
49445	106	49566	107	49646	108	49748	107	49854	109	50117	116
49446	106	49567	107	49650	108	49749	107	49855	109	50118	116
49451	106	49568	107	49651	108	49750	107	49857	109	50119	116
49452	106	49569	107	49652	108	49751	107	49858	109	50120	111
49453	106	49570	107	49653	108	49752	107	49859	109	50121	111
49454	106	49571	107	49660	108	49753	107	50000	110	50125	111
49455	106	49572	107	49661	108	49754	107	50001	110	50127	111
49456	106	49573	107	49670	108	49755	107	50004	110	50129	111
49462	106	49574	107	49671	108	49756	107	50005	77	50130	111
49463	106	49577	107	49672	108	49760	108	50010	110	50131	111
49464	106	49578	107	49673	108	49761	108	50011	110	50132	111
49465	106	49579	107	49674	108	49762	108	50018	110	50133	111
49466	106	49580	107	49675	108	49763	108	50019	110	50135	111
49472	106	49581	107	49676	108	49765	108	50020	110	50136	111



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
50137	111	50772	109	50950	124	54098	129	54210	127	55054	164
50138	110	50773	109	50951	124	54099	129	54211	127	55055	164
50139	110	50774	109	52100	167	54100	129	54214	127	55056	164
50140	116	50775	109	52102	167	54101	129	54215	127	55058	162
50142	116	50776	109	52113	159	54102	129	54218	127	55060	162
50143	116	50780	109	52114	159	54104	129	54219	127	55062	162
50150	111	50781	109	52115	159	54105	129	54222	127	55071	162
50180	110	50782	109	52116	159	54107	129	54223	127	55073	162
50182	110	50783	109	52120	169	54108	240	54224	127	55080	165
50183	111	50784	109	52122	169	54112	240	54225	127	55081	165
50184	110	50785	109	52124	169	54113	240	54226	127	55082	165
50185	110	50800	217	52126	169	54114	240	54227	127	55085	165
50199	110	50801	217	52128	169	54115	240	54230	127	55086	165
50200	110	50802	217	52130	169	54116	240	54231	127	55087	165
50201	108	50803	217	52132	169	54117	240	54234	127	55090	165
50202	108	50804	217	52133	169	54118	240	54235	127	55091	165
50203	59	50805	217	52140	169	54119	240	54238	127	55092	165
50204	59	50806	217	52142	169	54120	240	54239	127	55093	165
50206	108	50807	217	52144	169	54124	240	54240	127	55094	165
50212	115	50808	217	52145	169	54125	240	54241	127	55097	165
50213	115	50810	217	52146	169	54127	240	54276	127	55098	165
50215 50250	115 19	50811 50812	217	52148 52170	169 169	54128 54130	240	54277 54278	127 127	55099 55100	165 160
50250	19	50812	217	52170	169	54135	158	54279	127	55100	160
50300	116	50814	217	52172	169	54142	127	54280	122	55102	160
50310	116	50815	217	52175	169	54145	127	54282	122	55103	160
50320	116	50816	217	52176	169	54147	128	54284	122	55105	160
50321	116	50817	217	52177	169	54149	128	54286	122	55106	160
50322	116	50818	217	52178	169	54150	158	54288	122	55108	160
50323	116	50820	217	52179	169	54152	158	54290	122	55110	160
50324	116	50821	217	52302	168	54154	129	54292	122	55111	160
50330	116	50822	217	52303	168	54158	128	54298	122	55112	159
50331	116	50823	217	52304	168	54159	128	54302	127	55130	161
50332	116	50824	217	52305	168	54163	128	54304	127	55132	161
50333	116	50825	217	52306	168	54164	128	55000	163	55134	161
50334	116	50826	217	52307	168	54165	128	55002	163	55140	163
50732	109	50827	217	52308	168	54166	128	55004	163	55150	163
50733	109	50830	217	52309	168 168	54167	128	55005	163	55160	163
50734 50735	109	50831 50832	217 217	52310 52312	168	54168 54170	128 128	55010 55012	163 163	55170 55171	162 162
50740	109	50833	217	52314	168	54171	128	55012	163	55220	157
50740	109	50834	217	52316	168	54171	128	55014	163	55224	157
50742	109	50835	217	52318	168	54178	128	55020	163	55226	157
50743	109	50836	217	52319	168	54179	128	55022	163	55230	159
50744	109	50837	217	52320	168	54180	127	55024	163	55232	159
50745	109	50855	110	52322	168	54181	127	55027	163	55900	171
50750	109	50890	124	52345	172	54182	127	55028	163	55901	171
50751	109	50892	124	52350	172	54185	127	55030	162	55902	171
50752	109	50894	124	52351	172	54186	127	55032	162	55903	171
50753	109	50896	124	52352	172	54188	128	55034	163	55904	171
50754	109	50900	124	54050	22	54189	128	55036	163	55910	171
50760	109	50901	124	54060	22	54193	127	55038	164	55911	171
50761	109	50902	124	54070	35	54194	127	55039	164	55912	171
50762	109	50904	124	54071	35	54195	127	55040	164	55920	171
50763	109	50905	124	54072	35	54196	127	55042	164	55921	171
50764	109	50906	124	54090	129	54197	127	55044	164	55922	171
50765	109	50907	124	54091	129	54200	126	55046	164	55925	171
50766	109	50910	124	54092	129	54201	126	55050	164	55926	171
50770 50771	109	50915 50916	122 122	54094 54095	129 129	54202 54203	126 126	55051 55052	164 164	55927 55928	171 171
50771	109	20916	122	54095	129	54203	120	33052	104	55928	171



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
55930	171	56050	176	56131	204	56256	178	56378	194	56736	195
55931	171	56051	176	56132	204	56260	178	56379	194	56738	195
55932	162	56052	202	56133	204	56261	178	56380	184	56740	195
55933	162	56053	202	56134	204	56265	178	56381	184	56742	195
55960	173	56060	204	56136	204	56267	178	56382	184	56744	195
55961	173	56061	204	56138	204	56270	178	56383	184	56772	195
55962	173	56062	204	56141	192	56272	178	56390	194	56806	195
55963	173	56063	204	56142	192	56274	178	56391	194	56807	195
55964	173	56064	204	56143	192	56276	178	56392	194	56810	177
55965	173	56065	204	56153	192	56278	172	56393	194	56811	177
55966	173	56066	182	56154	192	56280	172	56394	194	56812	177
55967	173	56067	182	56155	192	56284	172	56395	194	56815	177
55970	173	56068	182	56156	192	56286	172	56607	195	56816	177
55971	173	56070	184	56161	194	56288	172	56608	195	56820	177
55972	173	56071	184	56162	194	56296	179	56609	195	56821	177
55973	173	56072	184	56186	182	56303	173	56610	195	56822	177
55974	173	56073	182	56187	182	56304	173	56611	195	56825	177
55976	174	56074	183	56192	179	56305	173	56612	195	56826	177
55977	174	56075	183	56194	179	56307	173	56613	195	56827	177
55978	174	56077	183	56196	182	56308	173	56614	195	56830	177
55979	174	56078	183	56197	182	56309	173	56615	195	56831	177
55980	174	56079	183	56198	182	56310	170	56616	195	56832	177
55981	173	56080	183	56199	182	56311	170	56617	195	56871	178
55982	173	56086	183	56204	175	56312	170	56618	195	56872	178
55983	173	56087	183	56206	175	56313	170	56619	195	56875	178
55988	174	56088	183	56208	175	56314	170	56620	195	56876	178
55989	174	56089	183	56210	175	56316	170	56621	195	56878	178
55990	173	56090	182	56212	175	56318	174	56622	195	56879	178
55991	173	56091	182	56214	175	56319	174	56672	195	56900	177
55992 55993	173 173	56092 56093	182 182	56216 56217	175 175	56322 56325	182 182	56703 56704	195 195	56904 56905	177
55993	173	56093	182	56218	175	56330	170	56705	195	56906	177
55995	173	56095	182	56220	175	56331	170	56706	195	56910	177
55996	173	56097	183	56221	181	56334	170	56707	195	56915	177
55997	173	56098	182	56222	181	56335	170	56708	195	56916	177
55998	173	56099	182	56223	181	56336	170	56709	195	56917	177
55999	173	56100	184	56224	181	56337	170	56710	195	56918	177
56008	176	56103	184	56225	178	56338	170	56711	195	56919	177
56009	176	56106	182	56226	181	56341	170	56712	195	56920	177
56010	176	56107	182	56227	180	56344	170	56713	195	56925	177
56011	176	56109	182	56228	180	56345	170	56714	195	56926	177
56012	176	56110	182	56229	180	56347	170	56715	195	56927	177
56015	176	56111	182	56230	180	56354	170	56716	195	56935	177
56018	176	56112	182	56232	180	56355	170	56717	195	56936	177
56019	176	56113	183	56233	180	56356	170	56718	195	56937	177
56020	176	56114	183	56234	180	56357	170	56719	195	56938	177
56027	176	56115	183	56235	180	56358	170	56720	195	56939	177
56028	176	56116	183	56236	180	56360	185	56721	195	56940	177
56029	176	56117	183	56238	180	56361	185	56722	195	56955	177
56030	176	56118	183	56240	180	56364	194	56723	195	56956	177
56031	176	56119	183	56242	180	56365	194	56724	195	56957	177
56034	176	56120	183	56244	180	56367	194	56725	195	56958	177
56035 56042	176 176	56121 56123	183 204	56245 56247	203	56369 56370	194 194	56726 56727	195 195	56959 56960	177
56044	176	56124	204	56248	203	56370	194	56728	195	56965	177
56046	176	56125	183	56250	178	56373	194	56729	195	56975	177
56047	176	56126	204	56251	178	56374	194	56730	195	56980	177
56048	176	56127	204	56252	178	56375	194	56732	195	56985	177
56049	176	56130	204	56253	178	56376	194	56734	195	57008	196
300.10		20.00		00200	, , ,	55575		55.51		2.300	



Part No.	Page No.	Part No.	Page No.
57010	196	57173	196
57012	196	57174	196
57013	196	57175	196
57014	196	57176	196
57015	196	57178	196
57016	196	57180	196
57017	196	57182	196
57018	196	57184	196
57019	196	57186	196
57020	196	57188	196
57021	196	57190	196
57022	196	57192	196
57024	196	57254	196
57026	196	57256	196
57028	196	57258	196
57040	171	57260	196
57052	196	57262	196
57054	196	57264	196
57056	196	57266	196
57058	196	57268	196
57060	196	57270	196
57062	196	57272	196
57064	196	57274	196
57066	196	57276	196
57068	196	57278	196
57070	196	57280	196
57070	196		196
57072	196	57282 57284	196
		57286	
57076 57078	196		196
57078	196 196	57288 57290	196 196
57082	196		196
		57292	196
57084	196	57294	
57086	196	57302	171
57088	196	57304	171
57090	196	57306	171
57092	196	57334	170
57094	196	57335	170
57096	196	57336	170
57098	196	57337	170
57099	196	57338	170
57152	196	57342	196
57153	196	57344	196
57154	196	57346	196
57155	196	57348	196
57156	196	57350	196
57157	196	57352	196
57158	196	57354	196
57159	196	57356	196
57160	196	57358	196
57162	196	57359	196
57164	196	57360	196
57166	196	57361	196
57167	196	57362	196
57168	196	57363	196
57169	196	57364	196
57170	196	57365	196
57171	196	57366	196
57172	196	57367	196

Part No.	Page No.
57368	196
57370	196
57372	196
57374	196
57376	196
57378	196
57380	196
57382	196
57384	196
57444	196
57446	196
57448	196
57450	196
57452	196
57454	196
57456	196
57458	196
57460	196
57460	196
57464	196
57466	196
57468	196
57470	196
57472	196
57474	196
57476	196
57478	196
57480	196
57482	196
57484	196
57800	181
57801	181
57802	181
57803	181
57804	181
57805	181
57806	181
57807	181
57808	181
57809	181
57812	182
57813	182
57814	182
57820	203
57822	203
57824	203
57826	203
57830	179
57831	179
57832	179
57833	179
57902	179
57903	179
57904	179
57905	179
57906	179
57907	179
57908	179
57909	179

Part No.	Page No.	
57910	179	
57911	179	L
57912	179	
57913	179	
57914	179	
57916	179	L
57922	179	
57924	179	
57926	179	
57928	179	
57930	179	
57932	179	
57934	179	
57936	179	
57940	179	
57941	179	
57942	179	
57943	179	
57944	179	
57945	179	
57946	179	
57947	179	
57948	179	
57949	179	
57950	179	
57951	179	
57952	179	
57953	179	
57954	179	
57956	179	H
	179	
57962		
57964	179	
57966	179	
57968	179	
57970	179	
57972	179	
57974	179	
57976	179	
57980	179	
57982	179	
57984	179	
57985	179	
57986	179	
57990	179	
57992	179	
57994	179	
57995	179	
57996	179	L
58001	197	
58002	197	
58004	197	
58005	197	L
58006	197	
58008	197	
58010	197	
58012	197	
58013	197	
58014	197	
58015	197	
		_

Part No.	Page No.
58016	197
58018	197
58020	197
58022	197
58034	197
58035	197
58036	197
58038	197
58040	197
58042	197
58058	197
58059	197
58060	197
58062	197
58068	197
58069	197
58070	197
58070	197
58072	197
58079	197
58080	197
58082	197
58083	197
58084	197
58085	197
58086	197
58088	197
58089	197
58098	197
58099	197
58112	197
60000	39
60001	39
60002	39
60003	39
60004	39
60005	39
60006	39
60007	39
60008	39
60009	39
60010	39
60011	39
60012	39
60013	39
60014	39
60015	39
60016	39
60017	39
60018	39
60019	39
60020	39
60021	39
60022	39
60023	40
60024	39
60025	180
60026	43
60027	39
UULI	00

Part No.	Page No.
60028	169
60029	111
60030	111
60031	34
60032	34
60033	34
60034	204
60035	_
	204
60036	204
60037	204
60038	204
60039	86
60040	86
60041	39
60042	202
60043	202
60044	202
60045	202
60046	202
60048	202
60050	203
60051	203
60052	203
60053	203
60054	203
60055	204
60056	204
60058	203
60059	203
60060	130
60061	130
60062	130
60063	130
60064	69
60065	43
60066	43
60067	14
60068	39
60072	39
60073	191
60074	226
60075	226
60076	39
60077	180
60077	180
60079	191
60080	180
60081	180
60082	180
60083	180
60084	180
60085	33
60086	39
60087	39
60088	39
60089	42
60090	39
60091	39
60092	39



80093 114 80001 180 64195 188 84200 189 64350 187 64514 187 680094 144 000030 180 64144 188 64202 189 64352 187 68115 288 600085 184 60204 180 64146 188 64255 237 64554 187 68115 288 600097 188 60205 180 64146 188 64256 286 64566 187 66120 140 60096 188 60205 180 64146 188 6426 287 6455 187 66120 140 60096 188 60206 180 64146 188 6426 287 6456 187 6625 145 60099 188 60207 180 64147 188 6426 237 64557 187 66255 135 60099 188 60207 180 64157 188 64260 237 64557 187 66255 135 60000 150 6209 180 64151 188 64267 237 64558 187 66256 135 60000 150 6215 41 64154 188 64270 185 64386 188 66276 135 60000 150 6215 41 64154 188 64270 185 64386 188 66276 135 60000 150 6215 41 64154 188 64271 185 64385 188 66280 135 60000 190 60218 199 64150 188 64271 185 64386 188 66280 135 60000 190 60221 191 64160 188 64273 185 64386 188 66280 135 60000 190 60221 191 64160 188 64273 185 64386 188 66280 135 60000 190 60221 191 64160 188 64273 185 64386 188 66280 135 60000 191 60222 191 64162 188 64273 185 64386 188 66280 135 60010 191 60222 191 64162 188 64273 186 64367 186 66285 135 60110 201 60225 191 64161 188 64273 186 64367 186 66285 135 60110 201 60222 191 64161 188 64273 186 64367 186 66280 186 66290 135 60110 201 60222 191 64161 188 64273 186 64371 186 66200 136 66200 136 66111 201 60222 191 64161 188 64273 186 64371 186 66200 136 66200 136 66111 190 60222 191 64161 188 64273 186 64371 186 66200 136 66111 190 60222 191 64161 188 64273 186 64371 186 66200 136 66111 190 60230 191 64161 188 64271 186 64371 186 66300 136 66111 190 60230 191 64161 188 64271 186 64371 186 66300 136 66300	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
BODIGN 184						_		, and the second	_		_	_
BODDS												_
BOOPY 186 BOO26 180 64146 188 64256 236 64356 187 66121 140 60036 186 60027 180 64147 188 64270 237 64357 187 66265 135 60036 180 66149 188 64267 237 64358 187 66265 135 60100 190 60028 180 64151 188 64267 237 64358 187 66265 135 60103 190 60210 180 64151 188 64270 195 64356 186 66275 135 60103 190 60215 41 64157 188 64270 195 64356 186 66276 135 60103 190 60218 199 64158 188 64273 185 64366 186 66280 135 60100 190 60221 191 64160 188 64273 185 64366 186 66281 135 60107 190 660221 191 64161 188 64275 186 64356 186 66286 135 60110 190 660221 191 64162 188 64275 186 64356 186 66286 135 60110 191 60022 191 64162 188 64275 186 64359 186 66290 135 60111 201 60225 191 64164 188 64277 186 64371 186 62591 135 60111 201 60225 192 64167 188 64276 186 64370 186 66291 135 60113 190 60223 192 64167 188 64280 138 64373 186 66300 135 60114 190 60223 192 64167 188 64280 138 64373 186 66300 135 60114 190 60243 192 64170 188 64280 138 64373 186 66300 135 60134 201 60247 192 64171 188 64280 186 64375 186 66300 135 60134 201 60247 192 64171 188 64280 186 64377 186 66301 135 60134 201 60247 192 64171 188 64230 186 64376 186 66300 135 60134 201 60247 192 64171 188 64230 186 64376 186 66301 135 60134 201 60247 192 64171 188 64230 186 64376 186 66300 135 60148 200 60243 192 64171 188 64230 186 64376 186 66301 135 60148 200 60243 192 64171 188 64230 186 64376 186 66301 135 60148 200 60243 192 64173 188 64292 186 64376 186 66301 135 60148 200 60243 192 64173 188												
80098 188 602007 180 64149 118 64200 237 64358 187 6e268 135 60100 190 60200 180 64151 188 64267 237 64388 187 6e268 135 60101 190 60215 41 64154 188 64272 185 64386 186 66226 135 60104 190 60215 41 64157 188 64271 185 64386 186 66226 135 60107 190 60221 191 64160 188 64273 186 64387 186 66281 135 60110 191 60221 191 64162 188 64273 186 64387 186 66281 135 60110 201 60222 191 64162 188 64274 186 64370 186 66281 135 60114 201 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>												
60009						_						
B01100										_		
60101 190 60221 519 64154 188 64270 185 64364 186 66220 135												
60103 190 60215 41 64157 188 64271 185 64396 186 66220 135 60104 190 60221 191 64160 188 64273 185 64396 186 66221 135 60107 190 60221 191 64161 188 64273 185 64397 186 66221 135 60108 191 60222 191 64162 188 64275 186 64396 186 66220 135 60110 201 60225 191 64162 188 64275 186 64390 186 66220 135 60110 201 60225 191 64162 188 64276 186 64370 186 66220 135 60111 201 60223 191 64163 188 64276 186 64370 186 66220 135 60111 201 60223 191 64163 188 64276 186 64370 186 66220 135 60111 201 60223 192 64165 188 64280 198 64372 186 66220 135 60111 201 60223 192 64165 188 64280 198 64372 186 66220 135 60111 190 60233 192 64167 188 64280 198 64372 186 66220 135 60111 190 60233 192 64167 188 64280 198 64374 186 66230 135 60114 190 60243 192 64167 188 64280 198 64374 186 66300 135 60114 190 60243 192 64167 188 64281 198 64374 186 66301 135 60114 190 60241 192 64171 188 64280 186 64376 186 66301 135 60134 201 60270 192 64173 188 64280 186 64376 186 66305 135 60138 201 60270 192 64173 188 64290 186 64377 186 66310 135 60144 200 60272 192 64173 188 64292 186 64377 186 66310 135 60144 200 60273 192 64173 188 64292 186 64378 186 66310 135 60144 200 60273 192 64173 188 64292 186 64398 186 66316 135 60144 200 60273 192 64177 188 64290 186 64378 186 66311 135 60144 200 60275 192 64177 188 64290 186 64398 186 66316 135 60149 195 60286 133 64180 188 64300 200 64388 186 66316 135 60149 195 60306 133 64180 188 64300 200 64386 186 66321 135 60149 195 60306 133 64180 188 64305 200 64400 187 66331 135 60150 133 60300 133 64182 188 64305 200 64400 187 66330 135 60150 133 60300 133 64182 188 64305 200 64400 187 66330 135 60150 133 60300 133 64188 188 64305 200 64400 187 66330 135 60160 133 60300 133 64188 188 64305 200 64400 187 66330 135 60160 133 60300 133 64180 188 64322 186 64400 187 66331 135 60160 133 60300 133 64180 188 64320 186 64400 187 66331 135 60160 133 60300 133 64180 188 64320 186 64400 187 66331 135 60160 133 60300 133 64180 188 64305 200 64400 187 66330 135 60160 133 60300 71 64400 189 64300 188 64300 186 64440 187 66331 13												
60104 190 60220 191 64150 188 64272 185 64366 188 66221 135 60107 190 60221 191 64161 188 64274 186 64368 186 66226 135 60108 191 60222 191 64161 188 64274 186 64368 186 66226 135 60110 201 60225 191 64162 188 64276 186 64369 186 66220 155 60111 201 60225 191 64164 188 64276 186 64369 186 66220 155 60111 201 60230 191 64164 188 64276 186 64370 186 66220 155 60112 190 60232 192 64165 188 64276 186 64371 186 66226 135 60114 190 60232 192 64165 188 64282 198 64371 186 66226 135 60114 190 60233 192 64165 188 64282 198 64373 186 66226 135 60114 190 60233 192 64167 188 64282 198 64373 186 66236 135 60114 190 60240 192 64169 188 64282 198 64373 186 66300 135 60115 190 60243 192 64170 188 64224 198 64375 186 66301 135 60134 201 60247 192 64177 188 64220 186 64376 186 66305 135 60134 201 60247 192 64177 188 64290 186 64376 186 66306 135 60134 201 60247 192 64173 188 64291 186 64376 186 66306 135 60134 200 60272 192 64173 188 64292 186 64376 186 66310 135 60144 200 60272 192 64173 188 64292 186 64378 186 66311 135 60144 200 60272 192 64173 188 64292 186 64378 186 66311 135 60144 200 60272 192 64173 188 64292 186 64378 186 66311 135 60146 200 60274 192 64177 188 64297 186 64381 186 66315 135 60146 200 60274 192 64177 188 64297 186 64381 186 66311 135 60146 200 60274 192 64177 188 64297 186 64381 186 66315 135 60146 200 60274 192 64177 188 64290 186 64378 186 66311 135 60146 200 60273 192 64177 188 64290 186 64381 186 66315 135 60146 193 60030 103 64183 188 64300 200 64385 186 66326 135 60149 195 60030 103 64180 188 64300 200 64385 186 66326 135 60160 193 60030 103 64180 188 64300 200 64400 187 66330 135 60160 193 60030 103 64180 188 64300 200 64400 187 66330 135 60160 193 60310 103 64180 188 64322 186 64411 187 66341 135 60160 193 60320 103 64180 188 64322 186 64411 187 66341 135 60160 193 60320 103 64180 188 64322 186 64411 187 66341 135 60160 193 60320 103 64180 188 64322 186 64440 187 66335 135 60160 193 60320 103 64180 188 64322 186 64441 187 66340 135 60160 193 60320 103 64180 188 64322 186 64441 187 66340 135 66361												
60116 190 60220 191 64160 188 64273 186 64367 186 66226 135												
60107 190 60221 191 64161 188 64274 186 64368 186 66286 135 60110 201 60225 191 64162 188 64275 186 64369 186 66290 135 60111 201 60225 191 64164 188 64277 186 64371 186 66291 135 60112 190 60232 192 64167 188 64280 198 64372 186 66291 135 60113 190 60233 192 64167 188 64282 198 64373 186 66296 135 60114 190 60240 192 64167 188 64282 198 64373 186 66300 135 60115 190 60244 192 64170 188 64282 198 64376 186 66301 135 60115 190 60247 192 64171 188 64294 198 64376 186 66306 135 60126 201 60247 192 64171 188 64291 186 64376 186 66306 135 60134 201 60247 192 64173 188 64292 186 64376 186 66306 135 60144 200 60272 192 64173 188 64292 186 64378 186 66311 135 60144 200 60272 192 64177 188 64299 186 64378 186 66311 135 60146 200 60273 192 64177 188 64299 186 64378 186 66316 135 60146 200 60274 192 64177 188 64297 186 64380 186 66316 135 60148 200 60278 193 64178 188 64300 200 64386 186 66325 135 60148 195 60300 103 64182 188 64300 200 64386 186 66325 135 60150 193 60301 103 64182 188 64300 200 64386 186 66325 135 60150 193 60302 103 64188 188 64304 200 64400 187 66336 135 60150 193 60302 103 64188 188 64304 200 64400 187 66336 135 60150 193 60302 103 64188 188 64304 200 64400 187 66336 135 60150 193 60302 103 64188 188 64322 186 64412 187 66330 135 60150 193 60304 103 64188 188 64322 186 64414 187 66336 135 60150 193 60304 103 64188 188 64322 186 64414 187 66336 135 60150 193 60302 103 64188 188 64322 186 64440 187 66336 135 60150 193 60302 003										_		
60108												
60110 201 60225 191 64163 188 64276 186 64370 186 66291 135 60112 190 60232 192 64167 188 64280 198 64372 186 66296 135 60113 190 60232 192 64167 188 64280 198 64373 186 66296 135 60114 190 60247 190 60241 192 64167 188 64282 198 64373 186 66300 135 60114 190 60240 192 64169 188 64282 198 64376 186 66300 135 60126 201 60247 192 64170 188 64290 186 64376 186 66306 135 60134 201 60247 192 64171 188 64291 186 64376 186 66306 135 60134 201 60247 192 64173 188 64291 186 64376 186 66310 135 60134 201 60247 192 64173 188 64291 186 64377 186 66310 135 60144 200 60272 192 64173 188 64292 186 64377 186 66311 135 60144 200 60272 192 64173 188 64292 186 64377 186 66311 135 60146 200 60274 192 64177 188 64293 186 64377 186 66311 135 60147 200 60285 193 64178 188 64290 186 64378 186 66316 135 60147 200 60285 193 64178 188 64290 200 64384 186 66320 135 60147 200 60285 193 64178 188 64300 200 64384 186 66320 135 60148 195 60300 103 64182 188 64300 200 64384 186 66321 135 60156 193 60304 103 64182 188 64302 200 64386 186 66325 135 60156 193 60304 103 64182 188 64302 200 64386 186 66325 135 60156 193 60304 103 64182 188 64302 200 64386 186 66325 135 60156 193 60304 103 64188 188 64302 200 64400 187 66330 135 60156 193 60304 103 64188 188 64314 200 64400 187 66330 135 60156 193 60304 103 64188 188 64314 200 64400 187 66330 135 60156 193 60304 103 64188 188 64314 200 64400 187 66330 135 60156 193 60304 103 64189 188 64322 186 64414 187 66341 135 60160 193 60314 103 64189 188 64322 186 64414 187 66341 135 60160 193 60314 103 64189 188 64322 186 64414 187 66341 135 60160 193 60314 103 64189 188 64322 186 64414 187 66341 135 60160 193 60314 103 64189 188 64322 186 64414 187 66341 135 60160 193 60314 103 64189 188 64322 186 64414 187 66341 135 60160 193 60314 103 64189 188 64322 186 64440 187 66335 135 60160 193 60314 103 64189 188 64322 186 64440 187 66336 135 60160 193 60314 103 64189 188 64322 186 64440 187 66336 135 60160 193 60334 103 64189 188 64322 186 64440 187 66336 135 60160 193 60334 103 64189 188 64320 186 64440 187 66336												
60111 201 60230 191 64164 188 64277 186 64371 186 66296 135 60113 190 60233 192 64165 188 64282 198 64372 186 66296 135 60114 190 60240 192 64169 188 64282 198 64373 186 66300 135 60115 190 60243 192 64170 188 64282 198 64374 186 66300 135 60126 201 60244 192 64171 188 64284 198 64376 186 66301 135 60134 201 60270 192 64173 188 64291 186 64376 186 66306 135 60134 201 60270 192 64173 188 64291 186 64377 186 66310 135 60134 201 60270 192 64173 188 64292 186 64377 186 66310 135 60134 200 60272 192 64174 188 64292 186 64377 186 66311 135 60144 200 60272 192 64177 188 64292 186 64379 186 66311 135 60146 200 60273 192 64177 188 64296 186 64379 186 66316 135 60147 200 60285 193 64178 188 64297 186 64381 186 66320 135 60148 195 60286 193 64180 188 64300 200 64384 186 66325 135 60149 195 60300 103 64182 188 64302 200 64386 186 66325 135 60150 193 60301 103 64182 188 64305 200 64400 187 66330 135 60158 195 60300 103 64188 188 64305 200 64400 187 66336 135 60159 195 60300 103 64188 188 64322 186 64410 187 66336 135 60150 193 60310 103 64188 188 64322 186 64410 187 66336 135 60150 193 60310 103 64188 188 64322 186 64410 187 66336 135 60150 193 60310 103 64188 188 64322 186 64410 187 66336 135 60150 193 60310 103 64188 188 64322 186 64410 187 66336 135 60150 193 60310 103 64188 188 64322 186 64410 187 66336 135 60160 193 60310 103 64189 188 64322 186 64410 187 66336 135 60160 193 60310 103 64189 188 64322 186 64410 187 66336 135 60160 193 60300 103												
60112 190 60232 192 64165 188 64280 198 64372 186 66296 135 60114 190 60240 192 64167 188 64282 198 64373 186 66300 135 60115 190 60240 192 64167 188 64284 198 64373 186 66301 135 60115 190 60243 192 64170 188 64284 198 64375 186 66301 135 60126 201 60244 192 64171 188 64284 198 64375 186 66301 135 60126 201 60244 192 64172 188 64284 198 64375 186 66305 135 60134 201 60247 192 64172 188 64290 186 64377 186 66301 135 60144 200 60272 192 64173 188 64291 186 64377 186 66310 135 60144 200 60272 192 64175 188 64293 186 64379 186 66315 135 60144 200 60272 192 64175 188 64296 186 64378 186 66311 135 60145 200 60274 192 64177 188 64296 186 64380 186 66315 135 60144 200 60274 192 64177 188 64297 186 64380 186 66315 135 60144 200 60274 192 64177 188 64296 186 64380 186 66315 135 60148 195 60300 103 64182 188 64300 200 6248 186 66321 135 60148 195 60300 103 64182 188 64300 200 64386 186 66322 135 60199 195 60300 103 64182 188 64302 200 64386 186 66322 135 60150 193 60301 103 64183 188 64302 200 64400 187 66330 135 60150 193 60301 103 64183 188 64312 200 64400 187 66330 135 60150 193 60301 103 64183 188 64312 200 64400 187 66335 135 60150 193 60301 103 64185 188 64314 200 64404 187 66336 135 60150 193 60310 103 64185 188 64314 200 64404 187 66336 135 60150 193 60310 103 64186 188 64312 200 64404 187 66336 135 60150 193 60310 103 64180 188 64326 186 64414 187 66340 135 60150 193 60310 103 64180 188 64326 186 64414 187 66340 135 60150 193 60310 103 64180 188 64326 186 64414 187 66340 135 60150 193 60310 103 64180 188 64326 186 64414 187 66361 135 60150 193 60310 103 64180 188 64326 186 64414 187 66361 135 60160 193 60310 103 64180 188 64326 186 64414 187 66340 135 60160 193 60310 103 64180 188 64326 186 64440 187 66356 135 60160 193 60310 103 64180 188 64326 186 64440 187 66336 135 60160 193 60310 103 64180 188 64326 186 64440 187 66361 135 60160 193 60310 103 64180 188 64326 186 64440 187 66361 135 60160 193 60310 103 64180 188 64326 186 64440 187 66361 135 60160 193 60310 103 64180 188 64326 186 64440 187 66361 135 60160 1						_						_
60113 190 60233 192 64167 188 64282 198 64373 186 66300 135												
60114 190 60240 192 64170 188 64284 198 64374 186 66301 135 60126 201 60244 192 64170 188 64290 186 64375 186 66306 135 60134 201 60247 192 64172 188 64290 186 64376 186 66306 135 60134 201 60270 192 64172 188 64291 186 64377 186 66310 135 60134 201 60270 192 64173 188 64291 186 64377 186 66310 135 60144 200 60272 192 64173 188 64296 186 64379 186 66311 135 60145 200 60274 192 64175 188 64296 186 64379 186 66315 135 60145 200 60274 192 64175 188 64296 186 64379 186 66316 135 60146 200 60274 192 64178 188 64296 186 64380 186 66316 135 60148 195 60286 193 64180 188 64300 200 64384 186 66322 135 60149 195 60300 103 64182 188 64304 200 64384 186 66326 135 60150 193 60301 103 64183 188 64304 200 64400 187 66330 135 60156 193 60302 103 64184 188 64314 200 64400 187 66330 135 60156 193 60306 103 64184 188 64314 200 64400 187 66335 135 60159 195 60306 103 64188 188 64325 199 64410 187 66335 135 60159 195 60306 103 64188 188 64325 186 64412 187 66335 135 60150 193 60310 103 64188 188 64325 186 64411 187 66340 135 60160 193 60310 103 64188 188 64325 186 64411 187 66340 135 60160 193 60310 103 64188 188 64325 186 64411 187 66341 135 60160 193 60314 103 64189 188 64325 186 64412 187 66355 135 60167 193 60324 103 64189 188 64325 186 64442 187 66355 135 60167 193 60324 103 64189 188 64325 186 64442 187 66350 135 60167 193 60324 103 64189 188 64325 186 64442 187 66350 135 60160 193 60350 69 64201 189 64330 186 64442 187 66356 135 60167 193 60350 69 64												
60115 190 60244 192 64170 188 64284 198 64375 186 66305 135												
60126 201 60247 192 64171 188 64290 186 64376 186 66306 135 60138 201 60270 192 64173 188 64291 186 64378 186 66311 135 60144 200 60272 192 64174 188 64293 186 64378 186 66315 135 60145 200 60273 192 64174 188 64293 186 64378 186 66315 135 60145 200 60274 192 64177 188 64296 186 64380 186 66316 135 60146 200 60274 192 64177 188 64296 186 64381 186 66320 135 60147 200 60285 193 64178 188 64300 200 64384 186 66321 135 60148 195 60266 193 64180 188 64300 200 64386 186 66322 135 60149 195 60300 103 64182 188 64304 200 64386 186 66322 135 60150 193 60302 103 64184 188 64302 200 64400 187 66330 135 60156 193 60302 103 64185 188 64314 200 64404 187 66335 135 60158 195 60306 103 64185 188 64314 200 64404 187 66335 135 60156 193 60310 103 64185 188 64312 200 64401 187 66336 135 60160 193 60310 103 64188 188 64323 186 64414 187 66336 135 60160 193 60310 103 64188 188 64323 186 64414 187 66341 135 60160 193 60314 103 64185 188 64324 186 64416 187 66346 135 60166 193 60314 103 64185 188 64326 186 64412 187 66346 135 60166 193 60314 103 64195 188 64326 186 64420 187 66350 135 60170 193 60320 103 64196 188 64326 186 64420 187 66355 135 60170 193 60324 103 64195 188 64326 186 64440 187 66365 135 60170 193 60324 103 64195 188 64326 186 64440 187 66365 135 60170 193 60320 103 64195 188 64326 186 64440 187 66365 135 60170 193 60322 103 64195 188 64326 186 64440 187 66365 135 60170 193 60352 69 64201 189 64330 186 64440 187 66365 135 60170 193 60360 71 64												_
60134 201 60270 192 64172 188 64291 186 64377 186 66310 135 60144 200 60272 192 64174 188 64292 186 64379 186 66311 135 60144 200 60273 192 64175 188 64296 186 64379 186 66315 135 60146 200 60273 192 64177 188 64296 186 64380 186 66316 135 60146 200 60285 193 64178 188 64297 186 64381 186 66320 135 60147 200 60286 193 64178 188 64300 200 64384 186 66322 135 60148 195 60286 193 64180 188 64300 200 64385 186 66325 135 60149 195 60300 103 64182 188 64305 200 64400 187 66330 135 60150 193 60302 103 64183 188 64305 200 64400 187 66330 135 60156 193 60302 103 64185 188 64312 200 64404 187 66335 135 60159 195 60306 103 64186 188 64315 199 64410 187 66336 135 60159 195 60306 103 64186 188 64320 186 64414 187 66336 135 60160 193 60312 103 64188 188 64320 186 64414 187 66336 135 60160 193 60312 103 64188 188 64320 186 64414 187 66334 135 60165 193 60312 103 64189 188 64324 186 64414 187 66334 135 60165 193 60314 103 64189 188 64324 186 64414 187 66334 135 60166 193 60314 103 64190 188 64326 186 64440 187 66334 135 60166 193 60314 103 64190 188 64326 186 64440 187 66336 135 60166 193 60320 103 64196 188 64327 186 64422 187 66335 135 60176 193 60322 103 64197 188 64329 186 64420 187 66336 135 60176 193 60322 103 64197 188 64329 186 64440 187 66336 135 60176 193 60320 103 64196 188 64327 186 64424 187 66336 135 60176 193 60320 103 64196 188 64329 186 64420 187 66336 135 60176 193 60320 103 64196 188 64329 186 64440 187 66336 135 60176 193 60320 103						_						
60138 201 60270 192 64173 188 64292 186 64378 186 66315 135		201				_				_		_
60144 200 60272 192 64174 188 64293 186 64379 186 66315 135		201		192								
60146 200 60274 192 64177 188 64297 186 64381 186 66320 135 60147 200 60285 193 64180 188 64300 200 64384 186 66325 135 60149 195 60300 103 64182 188 64300 200 64386 186 66325 135 60150 193 60301 103 64182 188 64305 200 64400 187 66330 135 60157 193 60304 103 64184 188 64312 200 64402 187 66331 135 60158 195 60306 103 64186 188 64315 199 64410 187 66335 135 60158 195 60306 103 64186 188 64315 199 64410 187 66336 135 60160 193 60310 103 64187 189 64320 186 64412 187 66330 135 60160 193 60312 103 64188 188 64323 186 64412 187 66330 135 60160 193 60312 103 64189 188 64324 186 64416 187 66334 135 60165 193 60314 103 64195 188 64326 186 64441 187 66346 135 60166 193 60322 103 64195 188 64326 186 64422 187 66336 135 60166 193 60322 103 64196 188 64326 186 64422 187 66350 135 60176 193 60322 103 64196 188 64329 186 64442 187 66350 135 60176 193 60352 69 64201 189 64330 186 64442 187 66336 135 60176 193 60352 69 64202 189 64331 186 64442 187 66365 135 60188 202 60361 71 64204 189 64332 186 64442 187 66365 135 60188 202 60361 71 64204 189 64332 186 64442 187 66365 135 60188 202 60511 204 64209 189 64335 186 64455 187 66370 135 60195 202 60511 204 64201 188 64335 186 64450 187 66365 135 60195 202 60511 204 64212 188 64335 186 64450 187 66365 135 60195 202 60511 204 64201 188 64335 186 64450 187 66365 135 60195 202 60511 204 64201 188 64335 186 64450 187 66365 135 60195 202 60511 204 64201 188 64335 186 64450 187 66365 135 60195 202 60511 204 6420	60144	200	60272	192	64174	188	64293			186		_
60146 200 60274 192 64177 188 64297 186 64381 186 66320 135	60145	200	60273	192	64175	188	64296	186	64380	186	66316	135
60148 195 60286 193 64180 188 64302 200 64385 186 66325 135 60149 195 60300 103 64182 188 64304 200 64386 186 66326 135 60156 193 60302 103 64184 188 64305 200 64400 187 66330 135 60157 193 60304 103 64185 188 64314 200 64404 187 66331 135 60159 195 60306 103 64186 188 64315 198 64410 187 66336 135 60169 193 60308 103 64187 189 64320 186 64411 187 66336 135 60160 193 60312 103 64189 188 64322 186 64414 187 66345 135 60165 193 <t< td=""><td>60146</td><td>200</td><td>60274</td><td>192</td><td>64177</td><td>188</td><td>64297</td><td>186</td><td>64381</td><td>186</td><td>66320</td><td>135</td></t<>	60146	200	60274	192	64177	188	64297	186	64381	186	66320	135
60149 195 60300 103 64182 188 64304 200 64386 186 66326 135 60150 193 60301 103 64183 188 64305 200 64400 187 66330 135 60157 193 60304 103 64185 188 64312 200 64404 187 66331 135 60158 195 60306 103 64186 188 64315 199 64410 187 66336 135 60159 195 60308 103 64187 189 64320 186 64411 187 66336 135 60162 193 60312 103 64189 188 64321 186 64411 187 66346 135 60163 193 60314 103 64190 188 64325 186 64418 187 66346 135 60166 193 <t< td=""><td>60147</td><td>200</td><td>60285</td><td>193</td><td>64178</td><td>188</td><td>64300</td><td>200</td><td>64384</td><td>186</td><td>66321</td><td>135</td></t<>	60147	200	60285	193	64178	188	64300	200	64384	186	66321	135
60150 193 60301 103 64183 188 64305 200 64400 187 66330 135 60156 193 60302 103 64184 188 64312 200 64402 187 66331 135 60158 195 60304 103 64186 188 64315 199 64410 187 66335 135 60159 195 60308 103 64187 189 64320 186 64412 187 66340 135 60160 193 60310 103 64188 188 64320 186 64414 187 66340 135 60162 193 60312 103 64189 188 64324 186 64416 187 66345 135 60165 193 60318 103 64195 188 64327 186 64420 187 66350 135 60166 193 <t< td=""><td>60148</td><td>195</td><td>60286</td><td>193</td><td>64180</td><td>188</td><td>64302</td><td>200</td><td>64385</td><td>186</td><td>66325</td><td>135</td></t<>	60148	195	60286	193	64180	188	64302	200	64385	186	66325	135
60156 193 60302 103 64184 188 64312 200 64402 187 66331 135 60157 193 60304 103 64185 188 64314 200 64404 187 66335 135 60159 195 60308 103 64186 188 64315 199 64410 187 66336 135 60160 193 60310 103 64188 188 64322 186 64412 187 66340 135 60162 193 60312 103 64189 188 64323 186 64414 187 66341 135 60165 193 60314 103 64190 188 64325 186 64418 187 66346 135 60166 193 60322 103 64195 188 64322 186 64420 187 66350 135 60167 193 <t< td=""><td>60149</td><td>195</td><td>60300</td><td>103</td><td>64182</td><td>188</td><td>64304</td><td>200</td><td>64386</td><td>186</td><td>66326</td><td>135</td></t<>	60149	195	60300	103	64182	188	64304	200	64386	186	66326	135
60157 193 60304 103 64185 188 64314 200 64404 187 66335 135 60158 195 60306 103 64186 188 64315 199 64410 187 66336 135 60160 193 60310 103 64188 188 64320 186 64412 187 66340 135 60162 193 60312 103 64189 188 64324 186 64416 187 66340 135 60163 193 60314 103 64189 188 64325 186 64416 187 66346 135 60165 193 60318 103 64195 188 64326 186 64412 187 66345 135 60167 193 60322 103 64197 188 64328 186 64422 187 66351 135 60167 193 <t< td=""><td>60150</td><td>193</td><td>60301</td><td>103</td><td></td><td>188</td><td>64305</td><td>200</td><td>64400</td><td>187</td><td>66330</td><td>135</td></t<>	60150	193	60301	103		188	64305	200	64400	187	66330	135
60158 195 60306 103 64186 188 64315 199 64410 187 66336 135 60159 195 60308 103 64187 189 64320 186 64412 187 66340 135 60160 193 60312 103 64188 188 64323 186 64414 187 66340 135 60162 193 60312 103 64189 188 64324 186 64416 187 66345 135 60165 193 60318 103 64195 188 64326 186 64420 187 66346 135 60166 193 60320 103 64196 188 64327 186 64420 187 66351 135 60167 193 60322 103 64197 188 64328 186 64424 187 66351 135 60176 193 <t< td=""><td>60156</td><td>193</td><td>60302</td><td>103</td><td>64184</td><td>188</td><td>64312</td><td></td><td>64402</td><td>187</td><td>66331</td><td>135</td></t<>	60156	193	60302	103	64184	188	64312		64402	187	66331	135
60159 195 60308 103 64187 189 64320 186 64412 187 66340 135 60160 193 60310 103 64188 188 64323 186 64414 187 66341 135 60162 193 60314 103 64189 188 64324 186 64416 187 66345 135 60165 193 60314 103 64195 188 64325 186 64418 187 66345 135 60166 193 60320 103 64196 188 64327 186 64422 187 66350 135 60167 193 60322 103 64197 188 64328 186 64422 187 66351 135 60167 193 60324 103 64198 189 64329 186 64440 187 66355 135 60178 195 <t< td=""><td></td><td></td><td></td><td>103</td><td>64185</td><td>188</td><td></td><td></td><td>64404</td><td>187</td><td></td><td>135</td></t<>				103	64185	188			64404	187		135
60160 193 60310 103 64188 188 64323 186 64414 187 66341 135 60162 193 60312 103 64189 188 64324 186 64416 187 66345 135 60163 193 60318 103 64190 188 64325 186 64418 187 66346 135 60166 193 60320 103 64196 188 64327 186 64420 187 66350 135 60167 193 60322 103 64198 189 64328 186 64422 187 66351 135 60170 193 60324 103 64198 189 64329 186 64424 187 66355 135 60176 193 60350 69 64201 189 64330 186 64442 187 66365 135 60178 192 <td< td=""><td>60158</td><td></td><td></td><td>103</td><td></td><td>188</td><td></td><td></td><td>64410</td><td></td><td>66336</td><td>135</td></td<>	60158			103		188			64410		66336	135
60162 193 60312 103 64189 188 64324 186 64416 187 66345 135 60163 193 60314 103 64190 188 64325 186 64416 187 66346 135 60165 193 60318 103 64195 188 64326 186 64420 187 66350 135 60166 193 60320 103 64197 188 64328 186 64422 187 66350 135 60170 193 60324 103 64198 189 64329 186 64424 187 66355 135 60176 193 60350 69 64201 189 64330 186 64440 187 66356 135 60178 195 60352 69 64202 189 64331 186 64444 187 66360 135 60182 192												
60163 193 60314 103 64190 188 64325 186 64418 187 66346 135 60165 193 60318 103 64195 188 64326 186 64420 187 66350 135 60166 193 60320 103 64196 188 64327 186 64422 187 66351 135 60170 193 60324 103 64197 188 64328 186 64422 187 66355 135 60176 193 60350 69 64201 189 64330 186 64442 187 66356 135 60178 195 60352 69 64202 189 64331 186 64442 187 66360 135 60182 192 60353 69 64202 189 64331 186 64444 187 66365 135 60182 192 6												_
60165 193 60318 103 64195 188 64326 186 64420 187 66350 135 60166 193 60320 103 64196 188 64327 186 64422 187 66351 135 60170 193 60324 103 64198 189 64329 186 64424 187 66355 135 60176 193 60350 69 64201 189 64329 186 64440 187 66355 135 60178 195 60352 69 64201 189 64330 186 64444 187 66360 135 60182 192 60353 69 64202 189 64331 186 64450 187 66365 135 60183 192 60360 71 64204 189 64333 186 64452 187 66366 135 60186 202 60						_						
60166 193 60320 103 64196 188 64327 186 64422 187 66351 135 60167 193 60322 103 64197 188 64328 186 64424 187 66355 135 60170 193 60350 69 64201 189 64329 186 64440 187 66356 135 60178 195 60352 69 64202 189 64331 186 64444 187 66360 135 60182 192 60353 69 64202 189 64331 186 64444 187 66360 135 60183 192 60360 71 64204 189 64333 186 64452 187 66361 135 60186 202 60361 71 64204 189 64333 186 64452 187 66361 135 60187 202 603						_				_		
60167 193 60322 103 64197 188 64328 186 64424 187 66355 135 60170 193 60324 103 64198 189 64329 186 64440 187 66356 135 60178 195 60352 69 64202 189 64330 186 64442 187 66360 135 60182 192 60353 69 64202 189 64331 186 64444 187 66360 135 60183 192 60360 71 64204 189 64333 186 64450 187 66365 135 60186 202 60361 71 64204 189 64333 186 64452 187 66366 135 60187 202 60365 67 64206 189 64334 186 64454 187 66370 135 60188 202 604										_		
60170 193 60324 103 64198 189 64329 186 64440 187 66356 135 60176 193 60350 69 64201 189 64330 186 64442 187 66360 135 60178 195 60353 69 64202 189 64331 186 64444 187 66361 135 60183 192 60360 71 64204 189 64332 186 64450 187 66365 135 60186 202 60361 71 64204 189 64333 186 64452 187 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66366 135 66361	-			+		_						
60176 193 60350 69 64201 189 64330 186 64442 187 66360 135 60178 195 60352 69 64202 189 64331 186 64444 187 66360 135 60182 192 60353 69 64203 189 64332 186 64444 187 66365 135 60183 192 60360 71 64204 189 64333 186 64452 187 66366 135 60186 202 60361 71 64205 189 64334 186 64454 187 66366 135 60187 202 60365 67 64206 189 64335 186 64456 187 66370 135 60188 202 60410 201 64207 189 64336 186 64458 187 66376 135 60190 180 6051												
60178 195 60352 69 64202 189 64331 186 64444 187 66361 135 60182 192 60353 69 64203 189 64332 186 64450 187 66365 135 60183 192 60360 71 64204 189 64333 186 64452 187 66366 135 60186 202 60365 67 64206 189 64335 186 64454 187 66370 135 60188 202 60410 201 64207 189 64336 186 64456 187 66371 135 60189 202 60500 42 64208 189 64337 186 64458 187 66376 135 60190 180 60510 204 64209 189 64338 186 64460 187 67500 134 60193 202 605						_						_
60182 192 60353 69 64203 189 64332 186 64450 187 66365 135 60183 192 60360 71 64204 189 64332 186 64450 187 66365 135 60186 202 60361 71 64205 189 64334 186 64454 187 66366 135 60187 202 60365 67 64206 189 64335 186 64456 187 66370 135 60188 202 60410 201 64207 189 64335 186 64456 187 66371 135 60189 202 60500 42 64208 189 64336 186 64458 187 66376 135 60190 180 60510 204 64209 189 64337 186 64460 187 67500 134 60193 202 605												_
60183 192 60360 71 64204 189 64333 186 64452 187 66366 135 60186 202 60361 71 64205 189 64334 186 64454 187 66366 135 60187 202 60365 67 64206 189 64335 186 64456 187 66371 135 60188 202 60410 201 64207 189 64336 186 64458 187 66371 135 60189 202 60500 42 64208 189 64336 186 64458 187 66376 135 60190 180 60510 204 64208 189 64337 186 64460 187 67500 134 60192 202 60511 204 64210 188 64339 186 64462 187 67502 134 60193 202 60												
60186 202 60361 71 64205 189 64334 186 64454 187 66370 135 60187 202 60365 67 64206 189 64335 186 64456 187 66371 135 60188 202 60500 42 64207 189 64336 186 64458 187 66376 135 60189 202 60500 42 64208 189 64336 186 64458 187 66376 135 60190 180 60510 204 64209 189 64338 186 64460 187 67500 134 60192 202 60511 204 64210 188 64339 186 64462 187 67501 134 60193 202 60512 204 64212 188 64340 186 64500 187 67503 134 60194 202 60												
60187 202 60365 67 64206 189 64335 186 64456 187 66371 135 60188 202 60500 42 64207 189 64336 186 64458 187 66376 135 60189 202 60500 42 64208 189 64337 186 64460 187 66376 135 60190 180 60510 204 64209 189 64338 186 64462 187 67500 134 60192 202 60511 204 64210 188 64339 186 64462 187 67501 134 60193 202 60512 204 64212 188 64340 186 64500 187 67502 134 60194 202 60513 204 64214 188 64341 186 64501 187 68060 140 60196 202 6				_								_
60188 202 60410 201 64207 189 64336 186 64458 187 66376 135 60189 202 60500 42 64208 189 64337 186 64460 187 67500 134 60190 180 60510 204 64209 189 64338 186 64462 187 67501 134 60192 202 60511 204 64210 188 64339 186 64462 187 67501 134 60193 202 60512 204 64212 188 64340 186 64500 187 67502 134 60194 202 60513 204 64214 188 64341 186 64501 187 68060 140 60195 202 60514 204 64215 186 64344 186 64502 187 68062 140 60197 202 <td< td=""><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td></td<>				_						_		
60189 202 60500 42 64208 189 64337 186 64460 187 67500 134 60190 180 60510 204 64209 189 64338 186 64462 187 67501 134 60192 202 60511 204 64210 188 64339 186 64464 187 67502 134 60193 202 60512 204 64212 188 64340 186 64500 187 67503 134 60194 202 60513 204 64214 188 64341 186 64500 187 68060 140 60195 202 60514 204 64215 186 64344 186 64502 187 68062 140 60196 202 60515 204 64216 186 64345 186 64505 187 68064 140 60198 202 <td< td=""><td></td><td></td><td></td><td></td><td></td><td>_</td><td></td><td></td><td></td><td></td><td></td><td>_</td></td<>						_						_
60190 180 60510 204 64209 189 64338 186 64462 187 67501 134 60192 202 60511 204 64210 188 64339 186 64464 187 67502 134 60193 202 60512 204 64212 188 64340 186 64500 187 67503 134 60194 202 60513 204 64214 188 64341 186 64500 187 68060 140 60195 202 60514 204 64215 186 64344 186 64502 187 68062 140 60196 202 60515 204 64216 186 64345 186 64505 187 68064 140 60197 202 64112 189 64218 186 64346 186 64510 187 68066 140 60198 202 <t< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></t<>												
60192 202 60511 204 64210 188 64339 186 64464 187 67502 134 60193 202 60512 204 64212 188 64340 186 64500 187 67502 134 60194 202 60513 204 64214 188 64341 186 64500 187 68060 140 60195 202 60514 204 64215 186 64344 186 64502 187 68062 140 60196 202 60515 204 64216 186 64345 186 64505 187 68064 140 60197 202 64112 189 64218 186 64346 186 64510 187 68066 140 60198 202 64113 189 64220 189 64348 187 64511 187 68067 140						_		_				_
60193 202 60512 204 64212 188 64340 186 64500 187 67503 134 60194 202 60513 204 64214 188 64341 186 64501 187 68060 140 60195 202 60514 204 64215 186 64344 186 64502 187 68062 140 60196 202 60515 204 64216 186 64345 186 64505 187 68064 140 60197 202 64112 189 64218 186 64346 186 64510 187 68066 140 60198 202 64113 189 64220 189 64348 187 64511 187 68067 140												
60194 202 60513 204 64214 188 64341 186 64501 187 68060 140 60195 202 60514 204 64215 186 64344 186 64502 187 68062 140 60196 202 60515 204 64216 186 64345 186 64505 187 68064 140 60197 202 64112 189 64218 186 64346 186 64510 187 68066 140 60198 202 64113 189 64220 189 64348 187 64511 187 68067 140												_
60195 202 60196 202 60197 202 60198 202 64112 189 64218 186 64344 186 64345 186 64346 186 64346 186 64502 187 68062 140 68064 140 64346 186 64510 187 68066 140 64348 187 64511 187 68067 140										_		
60196 202 60197 202 64112 189 64218 186 64345 186 64346 186 64346 186 64510 187 68064 140 640198 202 64113 189 64220 189 64348 187 64511 187 68067 140												_
60197 202 64112 189 64218 186 64346 186 64510 187 68066 140 60198 202 64113 189 64220 189 64348 187 64511 187 68067 140									64505			
	60197	202	64112	189	64218	186	64346	186	64510	187	68066	140
60200 180 64130 188 64222 189 64349 187 64512 187 68070 140	60198	202	64113	189	64220	189	64348	187	64511	187	68067	140
	60200	180	64130	188	64222	189	64349	187	64512	187	68070	140



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.		Part No.	Page No.		Part No.	Page No.		Part No.	Page No.
68072	140	68317	199	68622	138	ΙΤ	69113	241	T	72074	137	Т	72292	131
68074	140	68318	199	68631	138	1 [69114	241		72075	137		72293	131
68114	140	68320	200	68633	138		69115	241		72099	135		72294	131
68115	140	68322	200	68634	138	1	69116	241		72100	135		72300	131
68120	140	68323	200	68637	138		69117	241		72102	135		72301	131
68121	140	68324	200	68639	138	1	69118	241		72104	135		72302	131
68122	140	68325	199	68700	133		69119	241		72114	132		72303	131
68160	140	68326	199	68704	133	1	69120	241		72115	132		72305	132
68161	140	68327	199	68708	133		69121	241		72120	132		72306	132
68162	140	68330	133	68710	133	1	69124	241		72121	132		72308	132
68163	140	68332	199	68711	133		69126	241		72122	132		72309	132
68164	140	68333	199	68756	134		69127	241		72123	132		72310	131
68165	140	68336	199	68757	134		69128	241		72124	132		72311	131
68166	140	68337	199	68758	134		69129	241		72125	132		72313	131
68167	140	68338	199	68759	134	i	69130	241		72126	132		72314	131
68202	136	68339	199	68806	131		70010	139		72128	132		72315	134
68203	136	68340	181	68807	131	i	70012	139		72130	132		72316	134
68204	136	68341	181	68820	133	1	70014	139		72140	137		72317	134
68206	136	68342	181	68822	133		70016	139		72141	135		72318	134
68208	136	68344	204	68824	133	1 -	70018	139		72142	135		72319	134
68210	136	68346	137	68830	133		70020	139		72143	141		72320	132
68211	136	68347	137	68832	133	1	70022	139		72144	141		72322	132
68212	136	68370	238	68834	133		70024	139		72145	141		72323	132
68213	136	68372	238	69000	142	1	70026	139		72146	141		72324	132
68218	136	68375	141	69002	142		70028	139		72147	141		72325	132
68220	136	68376	141	69004	142	1	70030	139		72148	141		72330	199
68222	136	68377	141	69006	142		70032	139		72150	244		72332	199
68224	136	68380	141	69010	243		70034	139		72152	244		72336	164
68226	136	68382	141	69011	76		70036	139		72155	141		72338	164
68228	136	68385	141	69013	76		70038	139		72156	141		76000	62
68230	136	68386	141	69014	141	i	70040	139		72160	132		76001	62
68231	136	68387	141	69015	141	1	70042	139		72161	132		76002	62
68232	136	68396	141	69016	141		70044	139		72164	132		76003	62
68234	136	68509	138	69017	141	1	70100	139		72165	132		76004	62
68235	136	68510	138	69018	141		70110	139		72173	132		76005	62
68240	136	68511	138	69025	141	1	70112	139		72176	132		76006	62
68244	136	68512	138	69030	244		70113	139		72177	132		76007	62
68246	136	68513	138	69031	244		70114	139		72200	131		76008	62
68248	136	68515	138	69032	244		70115	139		72202	131		76010	62
68252	136	68518	138	69034	244		70116	139		72210	131		76011	62
68256	136	68519	138	69035	244		70117	139		72212	131		76012	62
68258	136	68521	138	69036	244	1	70118	139		72215	131		76013	62
68260	136	68531	138	69037	244		70120	139		72216	131		76014	62
68262	136	68532	138	69040	244		70122	139		72217	131		76015	62
68264	136	68533	138	69042	244		70124	139		72225	131		76016	62
68266	136	68534	138	69043	244		70126	139		72230	131		76017	62
68268	136	68537	138	69044	244		70128	139		72231	131		76018	62
68270	136	68538	138	69045	244		72040	140		72245	131		76020	62
68272	136	68539	138	69046	244		72042	134		72246	131		76021	62
68274	136	68540	138	69047	244		72043	134		72247	131		76022	62
68276	136	68541	138	69048	244		72044	140		72255	131		76023	62
68278	136	68542	138	69100	241		72045	140		72256	131		76024	62
68280	136	68543	138	69101	241		72050	137		72260	131		76025	62
68300	136	68610	138	69102	241		72052	137		72270	131		76026	62
68302	136	68611	138	69104	241		72054	137		72274	131		76027	62
68304	136	68613	138	69107	241		72056	137		72275	131		76028	62
68308	134	68615	138	69108	241		72058	137		72277	131		76030	62
68309	134	68618	138	69110	241		72059	137		72278	131		76031	62
68313	199	68619	138	69111	241		72060	137		72290	131		76032	62
68314	199	68621	138	69112	241		72061	137		72291	131		76033	62



Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.	Part No.	Page No.
76034	62	76109	65	76233	61	76368	64	76576	60	80082	70
76035	62	76110	65	76234	61	76369	64	76577	60	80083	70
76036	62	76111	65	76235	61	76400	151	76600	60	80085	251
76037	62	76112	65	76240	53	76401	151	76602	60	80086	251
76038	62	76114	65	76250	24	76404	151	76604	60	80090	70
76040	62	76115	65	76251	24	76405	151	76610	60	80091	70
76041	62	76116	66	76252	24	76406	151	76612	60	80092	70
76042	62	76117	66	76253	24	76407	151	76614	60	80093	70
76043	62	76118	66	76260	61	76409	150	76616	60	80094	70
76044	62	76119	66	76262	61	76415	78	76618	60	80095	70
76045	62	76120	66	76264	218	76416	78	78099	49	80096	70
76046	62	76122	66	76265	61	76420	78	78100	49	80097	70
76047	62	76128	66	76266	61	76422	78	78101	49	80098	70
76048	62	76129	66	76267	61	76424	78	78105	49	80099	70
76050	62	76131	66	76268	61	76428	125	78107	49	80110	70
76051	62	76132	66	76269	61	76430	69	78108	21	80113	70
76052	62	76133	66	76270	61	76432	69	78110	49	80114	70
76053	62	76135	218	76272	61	76434	69	78111	49	80120	70
76054	62	76137	66	76273	61	76436	69	78115	21	80123	70
76055	62	76138	66	76274	61	76500	60	78116	21	80138	71
76056	62	76139	69	76275	61	76501	60	78117	21	80140	71
76057	62	76140	69	76276	61	76502	60	78118	21	80141	71
76058	62	76141	69	76277	61	76503	60	78120	49	80142	71
76060	62	76142	66	76280	61	76504	60	78122	49	80146	71
76061	62	76146	64	76281	61	76505	60	78123	49	80150	71
76062	62	76147	66	76282	61	76506	60	78124	49	80152	67
76063	62	76150	66	76283	61	76510	60	78125	49	80153	67
76064	62	76152	67	76284	61	76511	60	78126	49	80154	67
76065	62	76153	67	76288	61	76512	60	78127	49	80155	67
76066	62	76154	66	76289	61	76513	60	78128	49	80156	67
76067	62	76160	63	76290	61	76514	60	78129	49	80157	67
76068	62	76161	63	76291	61	76515	60	78130	49	80158	67
76070	62	76162	63	76292	61	76516	60	78131	49	80159	67
76071	62	76163	63	76293	61	76540	60	78132	49	80160	71
76072	62	76164	63	76294	61	76541	60	78133	49	80162	71
76073	62	76165	63	76295	61	76542	60	78135	49	80164	71
76074	62	76166	63	76296	61	76543	60	78137	49	80165	71
76075	62	76167	63	76297	61	76544	60	78138	49	80167	71
76076	62	76170	64	76298	61	76545	60	78139	49	80168	71
76077	62	76172	64	76299	61	76546	60	78140	49	80170	25
76078	62	76180	64	76300	69	76550	60	78141	49	80172	25
76080	62	76186	64	76310	69	76551	60	78201	47	80175	71
76081	62	76188	64	76320	69	76552	60	78202	47	80176	71
76082	62	76197	125	76321	69	76553	60	78203	47	80177	71
76083	62	76198	125	76322	69	76554	60	78205	47	80180	71
76084	62	76202	68	76323	69	76555 76556	60	78211	47	80181	71
76085 76086	62 62	76203 76205	68 215	76324 76325	69	76556 76560	60	78213 78220	47	80200 80202	124 124
76086		76205		76328	69	76561	60	78230	49	80202	124
76087	62	76208	215	76328	66	76562	60	78232	47	80204	124
76090	64	76208	68 68	76329	66	76563	60	78232	47	80208	124
76090	64	76212	64	76341	65	76565	60	78234	47	80210	124
76091	65	76212	218	76341	64	76566	60	78240	131	80210	124
76100	65	76216	61	76362	64	76567	60	78240	131	80214	124
76100	65	76220	218	76363	64	76568	60	78242	131	80218	124
76101	65	76221	218	76364	64	76570	60	78242	135	80250	70
76102	65	76224	62	76365	64	76571	60	78250	139	80500	69
76105	65	76231	61	76366	64	76572	60	80080	70	80501	69
76103	65	76232	61	76367	64	76575	60	80081	70	80505	69
70107		10202	01	70007	UT	10010		00001	70	00000	



Part No.	Page No.	Part No.	Page No.
80515	68	81371	74
80516	68	81380	74
80520	68	81381	74
80525	68	81382	74
80530	68	81400	75
80532	68	81401	75
80533	68	81402	75
81200	73	81403	75
81202	73	86120	56
81204	73	86121	56
81205	73	86122	56
81206	73	86123	56
			55
81207	73	86124	
81208	73	86125	56
81210	73	86127	56
81211	73	86128	56
81212	73	86129	56
81213	73	86130	56
81214	73	86132	56
81215	73	86134	56
81216	72	86136	56
81218	72	86138	56
81220	72	86140	56
81221	72	87000	84
81223	72	87002	84
81224	72	87004	84
81225	72	87005	84
81226	72	87006	84
81228	72	87010	84
81230	75	87020	84
81232	75	87024	84
81234	75	87026	84
81241	72	87028	84
81243	72	87030	81
81245	72	87032	81
81246	72	87034	81
81248	72	87040	76
81250	72	87200	126
81253	72	87202	126
81255	72	87204	126
81258	72	87206	126
81300	73	87207	6
81308	73	87210	82
81309	73	87212	82
81310	73	87214	82
81311			
81324	73	87215	82
	75	87216	82 82
81326	75	87217	_
81330	75	87218	82
81332	158	87220	85
81340	74	87230	85
81341	74	87231	85
81345	74	87236	85
81350	74	87238	85
81360	74	87240	85
81361	74	87250	85
81365	74	87260	85
81366	74	87262	85
81370	74	87264	85

Part No.	Page No.
87266	85
87268	85
87280	80
87282	80
90000	81
90001	81
90002	81
90003	81
90004	81
90005	81
90007	81
90008	80
90009	80
90010	80
90014	80
90015	80
90016	80
90017	80
90018	80
90019	80
90020	81
90021	81
90022	81
90023	81
90024	81
	81
90025	-
90027	81
90028	80
90029	80
90030	81
90031	81
90033	81
90036	81
90037	81
90039	120
90040	120
90041	120
90042	120
90043	120
90044	120
90045	120
90048	120
90050	81
90052	81
90053	81
90054	81
90055	81
90060	81
90065	79
90067	78
90068	78
90070	78
90071	78
90072	78
90073	78
90075	107
90076	107
90070	81
90081	81

Part No.	Page No.	
90085	81	
90086	81	
90087	81	
90088	81	
90089	81	
90090	80 81	
	-	
90106	79 79	
90206	84	
90207	84	
90208	84	
90230	84	
90235	84	
90240	84	
90241	84	
90242	84	
90244	84	
90250	84	
92000	77	
92001	77	
92003	77	
92004	77	
92005	77	
92006	77	
92020	77	
92022	77	
92025	77	
92027	77	
92040	76	
92041	76	
92043	76	
96400	215	
96401	215	
96402	215	
96403	215	
96410	210	
96411	210	
96414	210	
96415	210	
96416	210	
96420	215	
96421	215	
96424 96426	214	
96440	243 238	
96470	214	
96474	214	
96475	214	
96478	214	
96480	214	
96481	214	
96482	214	
96483	214	
96484	214	
96485	214	
96490	215	
96505	74	
96506	74	

Part No.	Page No.
96510	215
96515	215
96516	215
96520	214
96525	214
98100	152
98110	153
98111	153
98112	153
98113	153
98115	153
98116	153
98117	153
98118	153
98120	153
	153
98121	
98125	34
98130	34
98132	34
98134	34
98135	34
98140	34
99013	208
99014	208
99015	240
99020	184
99023	149
99026	54
99027	54
99028	130
99029	130
99030	110
99043	76
99044	251
99045	67
99050	192
99052	182
99055	204
99056	70
20057	
99057	70
99058	70
99059	70
99062	70
99063	70
99064	70
99065	70
99066	71
99068	71
99069	71
99070	154
99071	154
99084	170
99085	170
99086	170
99087	170
99088	170
99100	190
99101	190
99102	209
00102	203

Part No.	Page No.
99104	232
99105	234
99106	234
99107	234
99108	232
99109	232
99111	232
99116	25
99127	234
99140	209
99141	209
99142	209
99143	209
99146	71
99147	70
99150	252
99151	252
99158	209
99159	209
99160	154
99161	154
99162	154
99163	154
99165	246
99173	208
99175	65
99176	65
99177	65
99178	194
99179	194
99250	181
99252	166
99255	205
99256	205
99282	203
99283	203
99284	203
99285	241
99286	166
99287	166
99288	166
99295	185
99296	185
99300	234
99301	234
99302	234
99303	234
99304	234
99305	234
99306	234
99307	234
99312	121
99314	197
99315	197
99328	207
99338	245
99345	21
99347	76
99388	128



Part No.	Page No.	Part No.	Page No.	. Part No. Page No.	•
		913041			
99390	80		145		
99392	234	913042	145	918729 146	
99393	234	913044	145	918730 146	
99394	234	913045	145	918731 146	
99400	203	913091	145	918732 146	
99401	203	913092	145	918734 146	ļ
99402	203	913094	145	919070 146	
99415	55	913095	145	919080 146	
99420	245	915011	145	919090 146	
99430	122	915012	145	919095 146	
99433	21	915014	145	919100 146	
99435	211	915015	145	919105 146	
99470	184	915016	145	919110 146	
99471	184	915021	145	919115 146	
99472	184	915022	145	919120 146	
99473	184	915024	145	919130 146	
99474	184	915025	145	919140 146	
99475	184	915071	145	920014 148	
99476	184	915071	145	921011 148	
99477	184	915074	145		
99490	231	915075	145	921015 148	
99901	253	916011	145	923114 146	
99902	253	916012	145	923214 146	
99903	253	916014	145	926011 146	
99904	253	916015	145	926012 146	
99906	253	916016	145	926014 146	
99907	253	916041	145	926015 146	
99908	253	916042	145	926110 146	
99913	253	916044	145	926111 146	
99916	253	916045	145	926112 146	
99917	253	916091	145	926114 146	
99918	254	916092	145	926115 146	
99919	253	916094	145	926116 146	
99920	253	916095	145	926117 146	
99921	253	918122	146	926118 146	
99922	253	918124	146	926119 146	
99940	219	918125	146	926210 146	
99941	219	918126	146	926211 146	
99942	219	918127	146	926212 146	
99951	253	918128	146	926214 146	
99953	253	918129	146		
99957	253	918130	146		
99959	253	918131	146	926217 146	
99960	254	918132	146	926218 146	
99962	219	918133	146	926219 146	
99965	254	918134	146	926411 146	
99968	254	918222	146	926412 146	
99970	254	918224	146	926414 146	
910011	145	918226	146	926415 146	
910012	145	918227	146	929010 148	
910014	145	918228	146	929313 148	
910015	145	918229	146	931011 144	
911011	145	918230	146	931012 144	
911012	145	918231	146	931013 144	
911014	145	918232	146	931014 144	
911015	145	918234	146	931015 144	
913011	145	918722	146	931016 144	
913012	145	918724	146	931017 144	
	145	918726	146	931021 144	
913014	140	3 10720			

5		
Part No.	Page No.	_
931023	144	9
931024	144	9
931025	144	9
931026	144	9
931027	144	9
931071	144	9
931072	144	9
931073	144	9
931074	144	9
931075	144	9
931076	144	9
931077	144	9
931111	144	9
931112	144	9
931113	144	9
931114	144	9
931115	144	9
931116	144	9
931117	144	9
931121	144	9
931122	144	9
931124	144	9
931125	144	9
931126	144	9
931127	144	9
931171	144	9
931172	144	9
931174	144	9
931174	144	9
931176	144	9
931177	144	9
931177	144	9
931211	144	9
931212		_
931213	144	9
	144	_
931215		9
931216	144	9
931217	144	9
935011	144	9
935012	144	9
935013	144	9
935014	144	9
935015	144	9
935016	144	9
935017	144	9
935022	144	9
935023	144	9
935024	144	9
935025	144	9
935026	144	9
935072	144	9
935073	144	9
935074	144	9
935075	144	9
935076	144	9
935111	144	9
935112	144	9
935113	144	9
935114	144	9
935115	144	9

David Na	Dana Na
Part No.	Page No.
935116	144
935117	144
935121	144
935122 935124	144
935124	144
935126	144
935120	144
935171	144
935172	144
935174	144
935175	144
935176	144
935177	144
935211	144
935212	144
935213	144
935214	144
935215	144
935216	144
935217	144
940601	147
940603	147
940604	147
940605	147
940712	147
940713	147
940714	147
940715	147
940716	147
940717	147
940718	147
940820	148
942000	147
942001	147
942002	147
942004	147
942005	147
942006	147
942007	147
942010	147
942011	147
942012	147
942014	147
942015	147
942016	147
942017	147
942030	147
942031	147
942032	147
942034	147
942035	147
942036	147
942037	147
943000	147
943001	147
943002	147
943004	147
943005	147
943006	147

Part No.	Page No.
943007	147
943011	147
943012	147
943014	147
943015	147
943016	147
943030	147
943031	147
943032	147
943034	147
943035	147
943036	147
943037	147
943081	147
943082	147
943084	147
943085	147
943086	147
951121	153
951131	153
951151	153
951171	153
951181	153
982011	240
991212	153
991312	153
26960-15	244
26963-12	244



Α		B (Cont.)		B (Cont.)	
Absorbent		Battery		Bolt(s)(Cont.)	
Mats/Pads	239	Boxes	65	Intake Manifold	84
Powder	239	Cable Kits	65	Jack	182
Access Panels	17	Cable Terminals	66	Load Bolt	183
Accessory Clamps	46	Cable Thru-Stud	66	Rotor	
Air		Charging Posts	69	Socket Head	
Hose	228-229	Charging Post Bracket		Sway Bar	
Jacks		Disconnect Switch		Boot, Shifter	
Pans		Hold Down (Optima)		Bottle Brackets	
Regulators		Quick Disconnects		Bracket(s)	
Rivet Guns		Terminals		Accessory	16
Tanks		Terminal Covers		Ballast	
Air Cleaner(s)		Bead Breakers		Caliper	
Covers				Charging Posts	
		Bell Cranks, Throttle			
Nuts/Studs		Bellhousing		Control Arm	
Air Filter Element(s)		Bellhousing Dowel Pins	243	Fire Extinguisher	
Sealing Foam		Belt(s)		Fuel Cell Mounting	
Alternators	69	Gilmer		Fuel Filter	
Aluminum		Seat		Nitrogen Bottle	229
Angle and Flat Stock		Torque Tube		Overflow Tank	
Sheet Metal		V-Groove	56	Panhard Bar	
Strapping	11-12	Bert Transmission		Power Steering Pump	166
Tubing	38	Ball Spline Ball Kit	244	Power Steering Tank	
Apron	234	Clevis Kit	240	Quick Turn Fasteners	96
Arm Restraints	153	Clutch Assembly Tool	244	Seat Mounts	34
Axle(s)	134-135	Clutch Discs	244	Shock	42
Bearing		Rebuild Bracket	244	Spoiler	17
C-Clips		Shifter		Steering Column	
Front (Sprint)		Birdcages		Steering Quickener	35
Housings		Birdcage Bearings		Tie Down	
Housing Ends		Blanket(s)		Trailing Arm	
Housing Seal		Moving/Utility	227	Transmission Mount	
Nut Wrench (Sprint)		Torque Ball (Safety)		Universal	
Plug		Transmission (Safety)		Braided Hose Cutter	
Puller, T-Handle		Bleeder Bottles		Braided Steel Lines	
Retainers		Bleeder Screws		Brake	
Straps		Blower Fan	110	Bias Adjusters	25
		Duct	22		
Tubes Tube Seals				Bias Gauges Bleeder Bottles	
	,	Helmet			
Tube Tool	136	Radiator	52	Boosters	
_		Body		Calipers	
В		Bolts		Caliper Bolts	
Backing Plate Bolts		Braces		Caliper Brackets	
Backpack		Graphic Tool		Caliper Spacers	
Back-Up Washers		Radius Tool		Combination Valve	
Balance Plate	76	Reinforcing Plates	97	Combination Valve Bracket	24
Ballast	46	Roller	207	Combination Valve	
Brackets	46	Strapping	12	Bleeder Tool	24
Ball Joint(s)	175-178	Support Panels	11	Ducts	22
Adapter Bushing	178	Bolt(s)		Duct Blower	22
Holders	179	Backing Plate	134	Duct Flange	22
Sleeves	178	Beadlock		Duct Hose	
Taper Reamer		Body		Fans	
Wrench		Button Head		Fittings	
Ball Spline Ball Kit		Caliper		Fluid	
Band Clamps		Center Caps		Hose Kits	
Banjo Bolts/Fittings		Countersunk		Kits, Disc	
Barrel Pump		Cylinder Head		Light Switches	
Darrott unip		Hex Head		Lines	
		1 IUA 1 IŪUU		LII 100	- /



B (Cont.)		C (Cont.)		C (Cont.)	
Bleeder Tool (Cont.)		Carburetor		Crankcase Evacuation System	86
Line Adapters/Fittings	110-111	Bushing Kits	128	Crayons, Tire	230
Line Deflectors		Fittings	124	Cross Pins	
Line Display Rack	211	Gaskets	126	Crush Washers	140
Line Flaring Tool		Hats	223	Cylinder Head	
Line Kits		Hold Down Nuts	126	Bolts	84
Line Lock Kit		Line/Log Kits	124	Dowel Pins	
Master Cylinder	23	Linkage Kits			
Pedal Assemblies		Return Springs		D	
Pedal Clevises		Shear Plates		Dash Panels	16
Pedal Mounts		Spacers		Deburring Tool	
Pressure Gauges		Stand		Degreaser	
Proportioning Valve		Caster Wheels		Dial/Digital Calipers	
Quick Disconnects		Catalog Rack		Dial Indicator	
Residual Valves		C-Clips		Dial-In Board	
Rotors		Centerlinks		Dial-In Window Marker	
Rotor Bolt Kit		Charging Post(s)		Diamond Plate, Aluminum	
Rotor Hats		Mounting Bracket		Diaper Pins	
Shut-Off Valves		Chassis Dollies		Digital Level	
Breathers		Chassis Set-Up Blocks		Dipsticks, Transmission	
Breather Covers		Chassis Tie Down Brackets		Disc Brake Kits	
Breather Tanks		Chrome Moly Tubing		Disconnect Switches, Battery	
		Circuit Breaker			
Broom Holder		Clamp-On Rings		Distributor(s) Gasket	
Bulbs, LED				Gears	
Bulkhead Fittings		Cleaning Discs		Hold Downs	
Bumper(s)		Cleaning Wipes	221		13
Covers		Cleco	005	Dollies	000
Hook Up Kit		Fasteners		Chassis	
Bump Rubbers/Stops		Pliers		Engine	
Bump Steer Studs		Clevises	.,	Door Bars	
Bump Steer Spacers	172	Clock	254	Door Bar Clamp	
Bungs		Clutch	242	Door Bar Padding	
Weld-In		Alignment Tools		Door Bar Swing-Out Kit	
02		Discs, Bert		Door Plate	
Burst Panel Components		Lines		Double Adjusters	
Buss Bars	64	Coil Mounts	75	Dowel Pins, Bellhousing	243
		Coil-Over Shock		Down Nozzle	
С		Bearing Kit		Breather Ring	125
Cable Tie(s)		Eliminators		Plugs	
Mounting Bases		Kits		D-Rings	
Nylon	93	Load Bolt Assembly		D-Ring Backing Plate	
Stainless Steel	93	Spring Adapter (5")		Drag Links	
Tool	93	Spring Adjuster, Hydraulic	189	Drag Link Tether	
Caliper(s)		Coil Spring		Drain Pans	239
Bolts	19	Cups	183	Drain Plug	76, 109
Brake	19	Shims	183	Drill Bit(s)	
Brackets	20	Spacers	183, 188	Double Ended	208
Dial/Digital	210	Compression Tester	214	Flange Rivet	208
Fittings	110-111	Control Arm(s)	179-182	Spring Steel	208
Spacers		Brackets/Mounts	180	Step	208
Camshaft		Bushings	180-181	Wheel Stud	208
Bearing Tool	214	Limit Clamps	182	Drill Holders	224
Button Spacers		Shims		Drink Bottle Kit	
Locking Plate		Crankshaft		Drive Flange Gaskets	
Seal Plates		Balancing Plate	76	Driver Air System	
Caps, Plastic and Aluminum		Hub		Driving Suits	
Car Covers		Keys		Driving Gloves	
		Pulley Mandrel Kit		-	
		Socket			



D (Cont.)		F (Cont.)		F (Cont.)	
Driving Shoes	146	Filter (Cont.)		Fuel (Cont.(
Driveshaft Loops	142	Fuel	123	Pressure Gauges	70, 124
Drum Pump	222	Oil	76	Pressure Regulator	122
Dry Break Valves	130	Fin Comb	219	Pressure Reg. Brackets	122
Duct Blower		Fire Extinguishers	222	Primer Bottle	222
Durometer	230	Fire Extinguisher Mount Brackets	152	Pumps	122
Dust Caps	132	Fire Suits		Pump Block-off Plates	
·		Firewall Cable Bushing	66	Pump Gaskets	
E		Fitting(s)		Pump Mounting Plate	
Earplugs	219	Brake	110-111	Shut-Off Valve	
Electrical Connectors		Carburetor		Funnels	
Electrical Outlet(s)		Fuel Injection		Fuses	
Mounting Brackets		Inverted Flare		Fuse Terminals	
Electrical		NPT		Fuse Block	
Pliers	218	Oil Inlet			•
Relay		Power Steering		G	
Tape		Radiator		Gas Pedals (Throttle)	120
Wire		Reducer, AN		Gasket(s)	120
Emery Cloth		Flange Bearing		Carburetor	120
•	210			Distributor	
Engine Conversion Kits	01	Flaring Tool			
Conversion Kits		Flexplates		Engine	
Cover		Flexplate Bolt Kits		Ford 9"	
Cradles		Floor Jack		Fuel Pump	
Cradle Wheel Kits		Floor Plates		Header	
Diapers		Flywheel Locking Tool		Oil Pan	
Lift Handles		Fogging Oil	49	Quick Change Cover	
Lift Plates		Ford 9"		Thermostat Housing	
Mid-Plates		Axles		Valve Cover	82
Motor Plates		Axle Housing Seal		Gauge(s)	
Mounts		Axle Retainers		Brake Pressure	
Primer Tank		Backing Plate T-Bolts	134	Feeler	
Evacuation System, Crankcase	86	Gasket		Lines	
Exhaust		Housings	133-134	Mechanical	
Block Off Plates		Housing Ends	134	Panels	
Cut Outs (Electric)	86	Housing Studs	140	Sending Units	
Gaskets	85	Pinion Centering Jig	238	Stagger	
Hangers	86	Pinion Nuts	141	Tire	230
Shields	86	Pinion Support	141	Gear(s)	
Wrap	86	Pinion Yokes	141	Distributor	73
		Truss Support	133	Marking Compound	139
F		Frame Repair Plate	34	Ring and Pinion	
Fabrication Pencil	208	Freeze Plug Driver	214	Totes	
Fan(s)		Fuel		Tote Trays	239
Blower	219	Cell Cap and Bung	130	Gear Drive	
Electric	53	Cell Guard	45	Gilmer Belts	56
Mechanical	54	Cell Hose	130	Gloves	
Reinforcement Plate		Cell Mounting Brackets	130, 159	Disposable	219
Shrouds		Cell Top Plate Hardware		Driving	
Spacers		Check Valve		Work	
Feeler Gauges		Drum Pump		Graphic Trim Tool	
Fender Braces		Dry Break Valves		Grease	
Fender Washers		Filters		Gun/Tips	21
Files, Thread		Filter Brackets		High-Pressure	
Fill Line Kit		Fragrances		Remover/Cleaner	
Fill Tanks		Injection Fittings		Wheel Bearing	
Filler Cap Kit		Line		Grommets	
Filter	109	Line Kits, Carb	•	Ground Clearance Indicator	
	0	· ·		Ground Straps	
Air Breather		Logs Lubricant		Ground Stud	
טו למנו ולו		Luvi icai il	4J	Orduria diaa	00



G (Cont.)	<u> </u>	H (Cont.)		L .	
Guide Plates		Hose(s)		Lanyards	
Gussets	40	Air		Layout Pencil	
		Assembly Tools		Layout Fluid	215
Н		Brake Duct		Leaf Spring	
Half Clamps	46	Clamps		Lowering Blocks	
Hat(s)		Cutter		Pads	
Baseball		Helmet Vent		Shackles	
Beanie	253	Fittings	106-109	Slider Box	204
Carb		Fuel	118	U-Bolts	204
Rotor	19	Radiator	58	LED Bulbs	72
Header Tab Kit	86	Reducer	58	Level, Digital	207
Header Gaskets	85	Restrictor	58	Lift Bar Retainer Clamp	199
Header Wrap	86	Vacuum	118	Lift Handles	213
Headlight Decal Kits	28-29	Housing Stud Kit, Ford 9"	140	Lift Plates, Engine	213
Heat Shrink		Hub(s)		Lifter Valley Covers	
Heat Sleeve		Covers	132	Lifter Valley Vents	
Heat Wrap		Kits		Light Bulbs	
Heaters		Seals		Limiter Chain	
Immersion	78			Limiter Chain Clamps	
Pads	•	1		Line Clamps	
Heel Riser		Idle Speed Adjuster	129	Line Lock Kit	
HEI Distributors		Idler Arms		Linkage Kits, Carb	
HEI Mechanical Advance Kit		Ignition Box Mount		Load Bolts	
HEI Wire Connectors		Ignition Coil		Jam Nuts	
Heims (See Rod Ends)	13	Ignition Coil Mounts		Sleeves	
,	1.17	•			
Helmet(s)		Ignition Panels		Loading Couplers	
Bag		Impact Crimper		Log Book	
Blower System		Indicator Lights		Log Decal	
Dryer		In-line Duct Blower		Lowering Blocks	
Holder		In-Line Thermostat Housing		Ludwig Clamps	
Hooks		Inner Mud Shield		Lug Nuts	
Shields		Intake Manifold Bolt Kit		Lug Wrenches	229
Skirts		Inverted Flare Fittings			
Speaker Kit		Inverted Flare Nuts	116	М	
Supports				Magnets	
Vent Hose		J		Main Cap Removal Tool	
Vent		Jacks		Mandrel Spacers	
Hinges, Aluminum	117	Air		Markers, Paint	
Holder(s)		Pit	227	Masking Tape	221
Aerosol Can	224	Jack Bolts		Master Cylinder	23
Ball Joint	179	Jam Nuts	182	Mat, Absorbent	239
Broom	224	Plate	182	Mat, Pit	227
Drill	224	Sleeves	182	Mat, Track	227
Nitrogen Bottle		Jack Post Kit, Right Hand	34	Merchandising Displays	
Paper Towel		Jack Post Quick Change		Metal Snips	
Radiator		Jack Stands		Micro Switch	
Rod and Piston		Jacobs Ladders		Mid-Plates	
Tire Gauge		Pin Kits		Mini-Spools	
Hole Saws		Jam Nuts		Mirrors, Rear View	
Honeycomb		J-Bars		Mirror, Telescoping	
Hood Hinge Kits		Junction Block		Mono Ball Bearings	
Hood Pin	10	OUTION DIOCK	04	Morse Cable Clamps	
	11	K			
Kits			450	Motor Mount(s)	
Mounts/Adapters		Knee Guard		Spacers	
Supports		Knee Guard Mount		Motor Plates	
Hood Prop		Koul Tool	216	Moving Blanket MSD Box Mount	



M (Cont.)		P (Cont.)		Q (Cont.)	
Mud Scraper	219	Panhard Bar(s)	192	Quick Change (Cont.)	
Mud-X	47	Adjusters	192-193	Axle Tube Support Brackets	200
		Brackets/Mounts	192-193	Axle Tube Tool	
N		Pedal Extensions	22	Cover Gasket	139
Nitrogen Bottles	228	Pedal Plate, Floor	22	Cover Nuts	
Nitrogen Bottle Holder		Peg Hooks		Drain Pan	
Nitrous Bottle Warmer		Petcock		Gear Tote	
Nitrous Combination Wrench		Pilot Bearings/Bushings		Oil Plug Socket	
Nitrous Pressure Control Kits		Installation Tool		Side Bell O-Ring	
Nitrous Switches (WOT)		Pinion	210	Quick Disconnects, Battery	
Non-Skid Tape		Centering Jig	238	Quick Disconnect Fittings	
Nosepieces		Nuts		Quick Release Pin(s)	
Nose Supports		Seals		Lock Collar	
Nose Wing Posts		Support		Throttle End	
Nose Wing Wall Mount		Yokes		Quick Turn	120
Notcher, Tubing		Yoke Wrench		Fasteners	04.06
Novus Cleaner and Polish		Pit	234	Insert Plates	
	41		227		
Nuts	7	Cart		Mounting Brackets	
Air Cleaner		Jacks		Reinforcing Plates	
Carburetor		Mats		Spring Adjuster	
Hex		Sockets		Spring Fixture	
Insert		Pitman Arm(s)		Tool	
Jam		Nut Kit	170	Transfer Punches	206
Lug		Plastic			
Pinion		Rolled/Sheets		R	
Spindle		Caps and Plugs		Racers Tape	
Weld-on	40	Plastigage	76, 214	Rack and Pinion Spacers	
		Pliers		Radiator(s)	
0		Cleco		Air Scoop	
O2 Sensor Plug and Bung	86	Electrical		Caps	
Oil		Safety Wire	209	Fan Shroud	
Bottle Tray	224	Polycarbonate Sheet(s)	10	Fin Comb	
Coolers	78-79	Cleaner	47	Fittings	
Cooler Scoop	78	Port and Polish Kit	215	Honeycomb	51
Filter	76	Power Brake Boosters	23	Hoses	58
Filter Adapters	77	Power Steering		Hose Clamps	58
Filter Cutter	214	Cooler	167	Mounting Brackets	50
Galley Plugs	78	Fittings	168	Overflow Tanks	59
Heaters	78	Hose Kits/Fittings	167-168	Rock Screen	51
Inlet Fittings	77	Pump	166	Shaker Screen	51
Pan and Pick-Up	76	Pump Brackets	167	Wall Mount	223
Pan Gaskets	85	Tanks		Radio Boxes	
Primer Tank	214	Tank Brackets	167	Radius Rods	
Restrictors		Pressure Switches	72	Radius Rod Studs	
Temperature Tee		Primer Bottle	222	Ratchet Straps, Tie Down	
Oil Eater		Proportioning Valve		Reamer/Taper	
Overflow		Pull Bar(s)		Rear End	
Check Valves (Fuel)	130	Brackets		Bearing and Shim Kits	138
Fitting		Covers		Fill Tanks	
Nozzle		Pulley(s)		Gear Sets	
Tanks		Aluminum	55-56	Housings	
Tank Brackets		Shims		Station Brackets	
Talik Diackets	9	Punch and Flare Tools		Truss Support	
Р		Pushrod Guide Plates		Rear Main Seal Adapters	
		i usiiiou Guiue Fidles	04	Rear Main Seal Adapters	
Padding Par	161	Q			
Door Bar		Quick Change		Reducer Bushings	
Roll Bar		Axles	135	Reducer Fittings	
Paint Markers	230	Axle Tubes		Reflective Tape	220



R (Cont.)		S (Cont.)		S (Cont.)	
Remote Fill Tanks	143	Seat		Sockets	
Remote Starter	40	Mount Kits/Brackets	34	Crank	214
Residual Check Valves	24	Track Assembly	152	Lug/Pit	229
Return Springs	126-128	Seat Belt(s)	153	Quick Change Plug	
Ride Height Blocks		Anchor Plates/Mounts		Shock Eye	
Ride Height Set-Up Stick		Installation Kits		Spindle Nut	
Ring and Pinion		Sending Units		Solder Slugs	
Set	139	Set Screws		Solenoid, Starter	
Installation Kits		Set-Up		Jumper Wire	
Ring Gear Spacer		Blocks	236	Spacer(s)	
Ring Terminals		Book		Bolt	102
Rivets		Plates	,	Caliper	
Rivet Guns		Stick		Carb	
Rock Screen		Shackles, Leaf Spring		Crank Mandrel	
Rocker Arm Studs		Shaft Collars		Engine/Motor Mount	
Rocker Panels		Shaker Screen		Fan	
Rod and Piston Holder		Sharpie Markers		Rack and Pinion	
Rod Ends		Shear Plates		Rod End	
Rod End Kit, Oversize		Sheet Metal		Shock 90/10 Kit	
Rod End Bushings/Spacers		Shifter(s)	158, 240	Tapered	
Rod End Centering Tools		Arm		Thermostat Housings	
Rod End Socket	236	Boot	240	Tie Rod	172
Rod Guide Tool	214	Cable	241	Upper Link Kit	195
Roll Bar/Cage Kit(s)	31-32	Shim(s)		Wheel	248
Front Arch Support		Bump steer	172	Spark Plug	
Front Support Kit		Control Arm	180	Boot Protectors	74
Installation Kit		Pulley		Gap Tool	
Rear Support Kit		Shock		Indexing Shims	
Roll Bar Padding		Shipping Tape		Indexing Tools	
Roof(s)		Shock	220	Wire looms	
Cap		Boot	180	Wire Retainers	
Support		Brackets		Wire Sets	
Runout Checker		Bump Rubbers		Spindle(s)	
Runout Checker	230	Bump Spring Cups		Checkers	
c		Canister Mounts		Ducts	
\$	040				
Safety Glasses		Covers	,	Nut Kits	
Safety Wire		Extensions		Nut Socket	
Drill Fixture		Eye Socket		Reamers	
Twister Pliers		Inflation Tool		Savers	
Sanding Discs		Protector		Spoiler(s)	
Schrader Valves	252	Quick Pins		Brackets	17
Scoop(s)		Racks	225	Extension Kits	17
Dragster	13	Shims	186-187	Hinges	17
Hood	13	Spacers	190	Supports	17
Mounts	13	Travel Indicator	184	Spools	140
Oil Cooler	78	Workstation	237	Spoons, Tire	
Radiator	156	Shop Towels	223	Sprayer	
Tray		Shrinker/Stretcher		Spring	
Tray Mounts		Side Bell O-Ring		Cups	183
Screen, Stainless Wire		Sipers, Tire		Pre-loader	
Screws, Wheel Rim		Sixth Coil Assembly		Pre-loader Adapter (5")	
Scuff Plates					
	13	Slider Box(es)		Shims/Spacers	
Seal(s)	40E 40 7	Adjuster		Spring Steel	
Axle Tube	•	T-Nuts		Drill	
Hub		Smart Tool		Punches	
Pinion		Snouts		Shrink Sleeve	
Tailshaft Housing		Soap/Cleaners	47	Stack Stands	227
Timing Cover	80				



S (Cont.)		T (Cont.)		T (Cont.)	
Stagger		Tank(s)(Cont.)		Timing Chain Cover(s)	80-8
Gauge	230	Oil Primer	214	Gaskets	8
Tape		Overflow, Radiator	59	Seals	80
Starter(s)		Power Steering		Timing Pointers	
Cover		Remote Fill		Tin Snips	
Solenoid		Tank Heaters		Tire	
Switches/Buttons		Tap(s)		Bead Breakers	233
Steel		Таре		Cleaner	
	20	·		Covers	
Angle and Flat Stock		Gun			
Balls		Tape Measures	,	Crayons	
End Caps		Taper Reamers		Durometer	
Plate		Tapered Spacers		Gauge	
Tubing	36, 37	Tear-Off Machine		Gauge Holder	
Steering		Tear-Off Posts	150	Grinding Discs	
Arms, (Sprint Car)	162	Telescoping		Groovers, Heated	
Box Mounts (Sprint Car)	159	Magnet	206	Log Books	23
Centerlinks	170	Mirror	214	Log Decals	230
Column Brackets	169	Temperature Gauge Adapters	59	Markers	230
Flange Bearing	169	Temperature Switches		Needler/Perforator Tool	
Loading Coupler		Temperature Tees		Prep Stands	
Pitman Arms		Terminal Connectors		Sipers	
Quickener Bracket		Test Leads		Soap	
Rack Boot Cover		Test Light		Softener	
		•			
Rod End Kit, Oversize		Tether, Drag Link		Spoons	
Rod End Mounting Tab		Thermostat Housing(s)		Tape Measure	
Shaft		Gasket		Temp Gauge	
Shaft, Collapsible		In-line		Wrap	
Shaft Collar		Restrictors		Titanium Fastener Kits	
Tie Rod Ends		Spacer		Toe Plates	
Wheel Disconnects		Throw-out Bearing Bleeder Kit		Toggle Extensions	
Wheel Extensions		Transmission Coolers		Toggle Switches	71
Wheel Hook	168	Threaded Inserts	97	Tool Tray	
Wheel Pads	168	Threaded Insert Tool	97	Top Wing Trees	16′
Step Drill Set	208	Third Link(s)	194	Torque Ball Blanket	157
Storage Cases	218	Brackets	193	Torque Converters	243
Storage Tote		Thread Files	209	Torque Tube Belt	
Stretch Wrap		Thread Sealant Tape		Torsion Arms	
Surface Guard Tape		Threaded Tube Ends		Torsion Arm Stop	
Suspension Limiter		Throttle		Torsion Arm Stop Kit	
Suspension Limiter Chain		Bell Crank	158	Torsion Bar Bushings	
Suspension Set-up Tool		Bushings		Totes	100
		Cable			220
Suspension Tubes	190-190			Gear	
Sway Bar	404	Linkage Kits		Storage	
Adjuster Kits		Pedals		Tow Hooks	
Arms		Quick Release Ends		Towel(s)	
Bolts		Return Springs		Holders	
Sweatshirts	253	Return Spring Bracket	126-128	Track Bar Locator Brackets	
Swing Arms	202	Tie Down Straps	226	Track Mats	
Switch Panels	71	Tie Down Brackets	226	Trailing Arm(s)	203
		Tie Rods	171	Brackets	
Т		Tie Rod Spacer	172	Bushings	
Tabs, Chassis	39	Tie Rod Stud		Transfer Punches	
Tachometer Mount (Tel Tac)		Tie Rod Tubes		Transmission	
Tail Light Decal Kit		Tie Wraps		Blanket	243
Tailshaft Seal and Bushing		Mounting Bases	ОЗ	Breather Kit	
	44			Dipsticks	
Tank(s)	220	Nylon Stainless Steel			
Air				Mount	
Breather	19, 143	Tool	93	Stand	
				Yokes	244



T (Cont.)		W (Cont.)	
Trays		Water Pump(s)	55-57
Can	224	Block Adapters	
Gear Tote	239	Cam Stop Kit	55
Oil Bottle	224	Gaskets	85
Tube Clamps	46	Pulley Kits	55-56
Tube Nuts	108-116	Spacer Kits	
Tubing		Weather Pack Connector(s)	61
Aluminum	38	Pliers	218
Cutters	211	Terminal Tool	218
End Caps	40	Weight Jack	
Notcher	207	Bolts	182-183
Tubing (Cont.)		Jam Nuts	182
Steel	36-37	Plate	182
Threaded Ends	37	Sleeves	182
		Weld Bungs	
U		Weld-On Nuts	40
U-Bolts		Wheel	
Leaf Spring	204	Adapter	248
U-Joint	141	Bearings	131
U-Joint(s)	141	Bearing Grease	131
U-bolt Kits	141	Bearing Seal	131
Umbrella	254	Bearing Spacer	132
Underwear	146	Covers/Fasteners	245-246
Universal Brackets	45	Cover Holder	245
Upper Link(s)		Rim Screws	246
Brackets	193	Spacers	248
Spacer Kits	195	Studs	
Upper Lube		Stud Drill Bit	
Utility Jugs		Stud Thread Chaser	
, 0		Wrench (Sprint)	
V		Wheelie Bar Wheels	
Vacuum Line	118	Bracket Kit	42
Valve		Wheelie Bar Wrenches	
Core	252	Wide Open Throttle Switch	127
Core Tool	229	Window Dial-In Marker	
Lash Wrenches	215	Window Net(s)	155
Seals	84	Installation Kits	
Spring Compressor	215	Windshield	16
Stem Puller	229	Cleaner/Polish	47
Stems	252	Material	10
Stem Caps	252	Mounting Kit	100
Valve Cover(s)	82	Support	16
Breathers	82	Support Bar	33
Gaskets	82	Wing	
Hold Down Fasteners	82	Adjuster, Manual	161
V-Belts	56	Caps	160
Vice Jaws	217	Cylinders	161
		Cylinder Line Kit	
W		Posts	
Warning Lights	70	Tree	161
Washers		Wall Mount Brackets	224
Back-Up	92	Wipes, Hand Cleaning	
Crush		Wire	
Fender		Connectors	61-62
Flat		Cutters	
Locking	101	Heat Shrink	
Water Necks		Primary	
Water Neck Spacer		Loom	
Water Pressure Warning Kit		Pliers	

W (Cont.) Wire(Cont.)	
Safety	1200
Terminals	
Wire Tie(s)	. 01-02, 00
Mounting Bases	03
Nylon	
Stainless Steel	
Tool	
Wrecker Hook-up Kit	30
Wrench(es)	040
Aluminum Adjustable	
AN Fitting	
Ball Joint	
Lug	
Nitrous Combination	
Pinion Yoke	
Quick Turn	206
Valve Lash	215
Wheelie Bar	216
Y	
Yokes	
Seals	
Wrench	238
Z Tr. Tr. (1)	
Zip Tie(s)	00
Mounting Bases	
Nylon	
Stainless Steel	
Tool	93

Employee PERFORMANCE **R&D Team**



Bob Baldwin



Bob Martin



Brandon Zachary



Brent Abrams



Carly Truhler



Jim Ragosta



Craig Mullauer



Brian Robbins



James Gooding





Curt Spalding



Jason Koehler



Greg Strom

ALLSTAR Employee R&D Team



Tom Rutherford



Jim Keakel



Joe Petlick



Nick LeVeck



Mike Zordan



Matt Kemp



Rich Farnsworth



Ryan Disterheft



Tim Conrad



Bryan Postelli



CJ Milliken



Nick Burch

James Rocky



Returns

To make sure that the item(s) get quickly processed, please follow these simple steps.

- 1. Call and request an RGA (Returned Goods Authorization) number for the merchandise you wish to return. All merchandise to be returned must be accompanied by an RGA number and be in its original packaging. The product must be unused, unaltered and unchanged from its original state (unless it is a potential warranty issue). Any merchandise returned that does not meet this criteria may be subjected to an additional handling fee or refusal.
- 2. Pack the parts carefully to avoid any damage during shipping. Always use a sturdy shipping carton to ship the parts back. Print your RGA number on the outside of the shipping carton. Please do not write on, use tape, or affix shipping labels to the product package itself, because we must return it to stock and we can't sell a box that is defaced.
- 3. We need the invoice number or, better yet, a copy of the original invoice showing when the part was purchased. Please include this information with the merchandise you're returning. We're sorry, but we can not accept returns on custom-built items.

Warranty

Allstar Performance® warrants each new product to be free from defects in both workmanship and materials for a period of ninety (90) days from the date of purchase. Product in question should either be returned to the dealer from which it was purchased, or shipped directly to Allstar Performance® along with an RGA (see above), proof of purchase and a complete description of the problem. The product must be returned freight pre-paid; COD's will not be accepted. No parts will be reviewed for inspection if modifications have been made. If, after factory inspection, the part is deemed to be defective, it will be replaced or a refund check will be issued.

Disclaimer of Warranty

ALLSTAR PERFORMANCE makes no warranties...

Allstar Performance products are designed for Off-Road use and makes no written, oral, expressed, or implied statement of warranty or guarantee on any product sold. Allstar Performance will not assume liability for personal or property damage resulting from the use or misuse of any product we manufacture or sell. Purchase and/or use of these products implies recognition and acceptance of this entire warranty and disclaimer by customer.

Printing Disclaimer...

Allstar Performance reserves the right to update, change or modify any product or policy deemed necessary without notice. Every effort has been made to avoid printing errors, in this catalog and previous versions. We disclaim any responsibility for application or specification errors.

Items That Require Additional Shipping Charges

Some items in this catalog are too large for ground shipment and therefore must be shipped via truck freight (pre-paid), some of these items may also include a shipping pallet surcharge. Throughout this catalog, the parts that require truck freight or a pallet for shipment will be marked with an appropriate icon.

Note: Some packages and/or shipments may be subject to the application of dimensional weight when calculating freight charges. Dimensional weight, when applied, may be significantly greater than the actual weight of a package and/or shipment and generally applies to products which are not very heavy, but large in volume (LxWxH).







Dan Ebert









INCH/METRIC CONVERSION TABLE

Inch			Inch			Inch		
Fraction	Decimal	ММ	Fraction	Decimal	MM	Fraction	Decimal	ММ
	0.00004	0.001	17/64	0.2656	6.746		0.6693	17.0
	0.00039	0.01		0.2756	7.0	43/64	0.6719	17.066
	0.0010	0.025	9/32	0.2812	7.1437	11/16	0.6875	17.4625
	0.0020	0.051	19/64	0.2969	7.5406	45/64	0.7031	17.859
	0.0030	0.0762	5/16	0.3125	7.9375		0.7086	18.0
	0.00394	0.1		0.3150	8.0	23/32	0.7187	18.256
	0.0050	0.1270	21/64	0.3281	8.334	47/64	0.7334	18.653
	0.00984	0.25	11/32	0.3437	8.731		0.7480	19.0
	0.0100	0.254		0.3543	9.0	3/4	0.7500	19.05
1/64	0.0156	0.396	23/64	0.3594	9.1281	49/64	0.7656	19.446
1/32	0.0312	0.793	3/8	0.3750	9.525	25/32	0.7815	19.843
	0.03937	1.0	25/64	0.3906	9.9219		0.7874	20.0
3/64	0.0469	1.191		0.3937	10.0	51/64	0.7969	20.240
	0.0591	1.5	13/32	0.4062	10.318	13/16	0.8125	20.6375
1/16	0.0625	1.5875	27/64	0.4219	10.716		0.8268	21.0
5/64	0.0781	1.984		0.4331	11.0	53/64	0.8281	21.034
	0.0787	2.0	7/16	0.4375	11.1125	27/32	0.8437	21.431
3/32	0.0937	2.381	29/64	0.4531	11.509	55/64	0.8594	21.828
	0.0984	2.5	15/32	0.4687	11.906		0.8661	22.0
	0.1000	2.54		0.4724	12.0	7/8	0.8750	22.225
7/64	0.1094	2.778	31/64	0.4844	12.303	57/64	0.8906	22.621
	0.1181	3.0	1/2	0.5000	12.7		0.9055	23.0
1/8	0.1250	3.175		0.5118	13.0	29/32	0.9062	23.018
	0.1387	3.5	33/64	0.5156	13.096	59/64	0.9219	23.416
9/64	0.1406	3.571	17/32	0.5312	13.493	15/16	0.9375	23.8125
5/32	0.1562	3.968	35/64	0.5469	13.891		0.9449	24.0
	0.1575	4.0		0.5512	14.0	61/64	0.9531	24.209
11/64	0.1719	4.366	9/16	0.5625	14.2875	31/32	0.9687	24.606
	0.1772	4.5	37/64	0.5781	14.684		0.9843	25.0
3/16	0.1875	4.7625		0.5906	15.0	63/64	0.9844	25.003
	0.1969	5.0	19/32	0.5937	15.081	1	1.0000	25.4
13/64	0.2031	5.159	39/64	0.6094	15.478		1.0630	27.0
7/32	0.2187	5.556	5/8	0.6250	15.875		1.1024	28.0
15/64	0.2334	5.953		0.6299	16.0		1.1811	30.0
	0.2362	6.0	41/64	0.6406	16.271	1 1/4	1.2500	31.75
1/4	0.2500	6.35	21/32	0.6562	16.668		1.2992	33.0

Inch/Metric Conversion Factors

Inches x 25.4 = Millimeters

Millimeters x .03937 = Inches

Sq. Inches x 6.4515 = Sq. Centimeters

Sq. Centimeters x .155 = Sq. Inches

Pounds x.4536 = Kilograms

Kilograms x 2.2046 = Pounds

Lbs. per in. 2 x .0703 = kg per cm 2

kg per cm² x 14.2231 = Lbs. per In.²

Newtons x .2248 = Pounds(Force)

Temperature Conversion (Approximate)

Degrees C = (Degrees F -32)(.5556)

Degrees F = (Degrees C)(1.8)+32



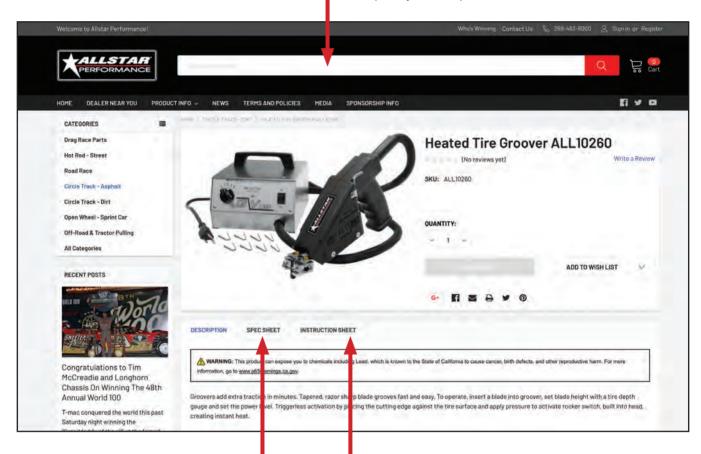
Daison Pursley



www.allstarperformance.com

PART NUMBER AND KEYWORD LOOKUP

Type a part number or keyword into the search field to quickly locate parts.



PRODUCT INFORMATION SHEETS

Opens a printable PDF with detailed information of each item.



INSTRUCTION SHEETS

Opens a printable PDF with detailed installation and operation instructions.





8300 LANE DRIVE WATERVLIET, MI 49098 269-463-8000



