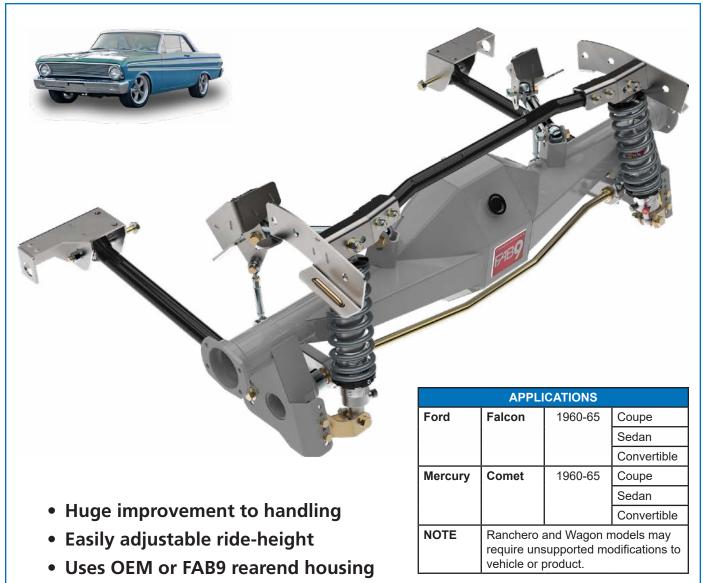
CLICK for More Info Online



g-Bar & g-Link Canted 4-Bar Rear Suspensions for Ford Falcon and Mercury Comet

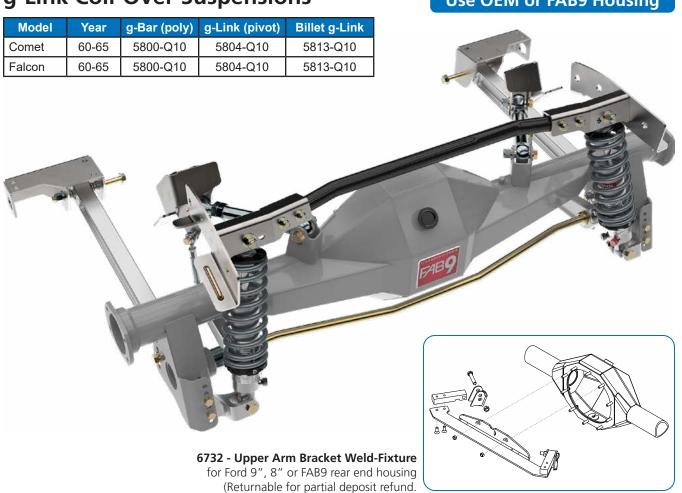


Falcon g-Link Rear Suspension Conversions

The g-Link series of retro-fit canted-4-bar suspenisons from Total Control Products directly replace the OEM leaf springs and shocks for dramatically improved handling and performance. Supported with multiple styles of control arms, mounting brackets, shock absorbers and rear end housings, g-Link systems are configurable to suit an incredibly broad range of street and high-performance applications. Laser scanned vehicle data is used during design and engineering for reliably accurate fit. As a result, components are positioned and mounted using easily accessed factory chassis features, saving installation time and expense. Installation requires only a minimal amount of welding of the control arm mounts, frame brackets, and rearend housing control arm mounts. Currently available applications include '60-65 Falcons and Comets, includes two-door, four-door and convertible models.

g-Link Coil-Over Suspensions

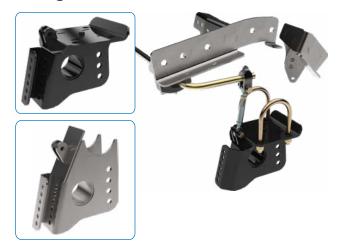
Use OEM or FAB9 Housing



Splined Anti-Roll Bar (Axle Mount)

5806-Q10	Splined Billet-Arm Anti-Roll Bar			
	3/4"-diameter tubular bar with splined ball-ends			
	Billet-aluminum arm with pinch bolt and clevis			
Pivot-socket threaded adjuster for axle bra				
	Adjustable end links with spherical-bearing ends			
Weld-on chassis end-link clevis				
	Fixed bar rate			

Sliding-Link Anti-Roll Bar (Chassis)



5812-Q10	Sliding-Link Adjustable Anti-Roll Bar
	5/8"-diameter solid bar with adjustment detents
	Integrated arm with sliding clevis; 3-positions
	Billet-aluminum urethane-bushing mount
	Adjustable end links with spherical-bearing ends
	Axle end-link clevis located on lower arm bracket
	Adjustable bar rate

g-Bar Coil-Over Suspension - (Poly-Bushing)





5800-Q10	Upper Arms	Billet-steel poly-eye arms - OPTIONS: single-adjustable, double-adjustable	
	Lower Arms	Tubular steel poly-eye arms (1/2" added clearance)	
	Shocks	Billet-aluminum VariShock coil-overs - OPTIONS: factory-valved, single-adjustable, double-adjustable	
	Springs	2-1/2" ID, 12" length - Spring Rates: 150, 175, 200	

g-Link Coil-Over Suspension - (Pivot-Ball)





5804-Q10	Upper Arms	Billet-steel pivot-ball arms - OPTIONS: single-adjustable, double-adjustable			
	Lower Arms	Tubular steel pivot-ball arms - OPTIONS: centered (1/2" added clearance), offset (1" added clearance)			
	Shocks	Billet-aluminum VariShock coil-overs - OPTIONS: single-, double- or 4-way adjustable; COM-8 or pivot-ball			
	Springs	2-1/2" ID, 12" length - Spring Rates: 150, 175, 200			

Billet g-Link Coil-Over Suspension - (Pivot-Ball)

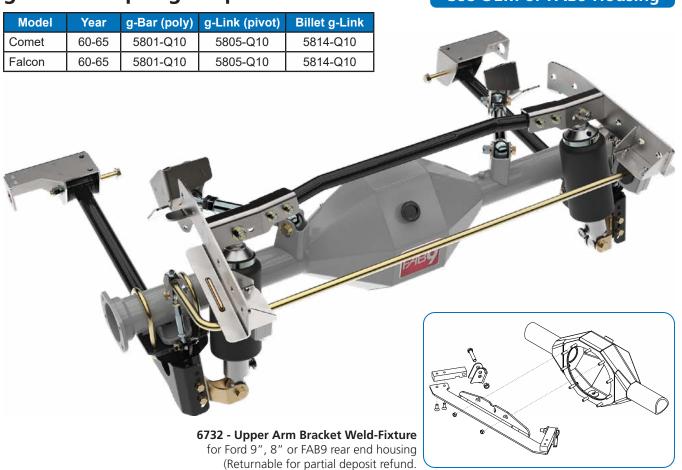




5813-Q10	Upper Arms	Billet-steel pivot-ball arms - OPTIONS: single-adjustable, double-adjustable			
	Lower Arms	Billet-aluminum pivot-ball arms - OPTIONS: centered (1/2" added clearance), offset (1" added clearance)			
	Shocks	Billet-aluminum VariShock coil-overs - OPTIONS: single-, double- or 4-way adjustable; COM-8 or pivot-ball			
	Springs	2-1/2" ID, 12" length - Spring Rates: 150, 175, 200			

g-Link Air-Spring Suspensions

Use OEM or FAB9 Housing



Splined Anti-Roll Bar (Axle Mount)



5806-Q10	Splined Billet-Arm Anti-Roll Bar		
·	3/4"-diameter tubular bar with splined ball-ends		
	Billet-aluminum arm with pinch bolt and clevis		
	Pivot-socket threaded adjuster for axle bracket		
	Adjustable end links with spherical-bearing ends		
	Weld-on chassis end-link clevis		
	Fixed bar rate		

Sliding-Link Anti-Roll Bar (Chassis)



5812-Q10	Sliding-Link Adjustable Anti-Roll Bar		
	5/8"-diameter solid bar with adjustment detents		
	Integrated arm with sliding clevis; 3-positions		
	Billet-aluminum urethane-bushing mount		
	Adjustable end links with spherical-bearing ends		
	Axle end-link clevis located on lower arm bracket		
	Adjustable bar rate		

g-Bar Air-Spring Suspension - (Poly-Bushing)



5801-Q10	Upper Arms	Billet-steel poly-eye arms - OPTIONS: single-adjustable, double-adjustable			
	Lower Arms	Tubular steel poly-eye arms (1/2" added clearance)			
	Shocks	Billet-aluminum VariShock air-spring shocks - OPTIONS: single-adjustable, double-adjustable			

g-Link Air-Spring Suspension - (Pivot-Ball)





5805	5-Q10	Upper Arms	Billet-steel pivot-ball arms - OPTIONS: single-adjustable, double-adjustable
		Lower Arms	Tubular steel pivot-ball arms - OPTIONS: centered (1/2" added clearance), offset (1" added clearance)
		Shocks	Billet-aluminum VariShock air-spring shocks - OPTIONS: single-adjustable, double-adjustable

Billet g-Link Air-Spring Suspension - (Pivot-Ball)





5814-Q10	Upper Arms	Billet-steel pivot-ball arms - OPTIONS: single-adjustable, double-adjustable			
	Lower Arms	er Arms Billet-aluminum pivot-ball arms - OPTIONS: centered (1/2" added clearance), offset (1" added clearance)			
	Shocks	Billet-aluminum VariShock air-spring shocks - OPTIONS: single-adjustable, double-adjustable			

Adjustable Geometry

Upper and lower control arm mounting brackets feature multiple positions to adjust chassis anti-squat and optimize vehicle handling. Both upper bars are length adjustable to set pinion angle and preload. g-Link lower arms are also adjustable for wheelbase variations and precise housing alignment. Some vehicles are worn enough that the wheelbase will not be correct without using a wheelbase adjustable lower link.



4-position lower arm mount (FAB9) 2-position chassis and housing mounts



Lower Link Bar Styles

There are three lower link styles and two upper link styles. Proper selection depends on the intended use of your vehicle.

Poly-Bushing Lower Bar

Included in the g-Bar system is the lower fixed-length-tubular link with poly bushings in each end. It is best for vehicles seeing mostly street use because it provides a quiet ride and improved handling.

Pivot Ball Lower Link

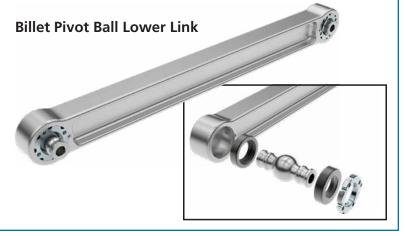
Included in g-Link system is the lower adjustable-length-tubular link with pivot ball mechanisms in each end. This is our ultimate performance link for use on performance driven street or track applications.

Billet Pivot Ball Lower Link

Included in billet g-Link system is the lower fixed-length billet I-beam link with pivot ball mechanism in each end. The billet link features all radius corners for reduction of stress risers and a pocket area for lower weight. This ultimate link is for those who want to set their g-machine apart from the crowd. It combines the characteristics of our fixed-length link (which is easier install) with the best performance links and, adds a custom built g-machine look. All link bars are externally greasable at each end. Pivot ball mechanism can be rebuilt and tightened to remove play as they wear. Lower link bar fronts attach to the front leaf-spring eye in the chassis.







Upper Link Bars

Both styles of upper links are constructed of billet alloy steel and clear zinc finished for corrosion resistance. They are length adjustable, and feature a Chassisworks exclusive - massive 7/8"-shank billet alloy steel rod ends.

Poly-Bushing Upper Bar

Poly links use urethane bushings in both ends for a firm but stiffer-than-stock ride. They are included in g-Bar system.

Pivot Ball Upper Link

Pivot ball links are included with g-Link and billet g-Link systems and are used when no-compromise handling is required. The high misalignment and non-compressible nature of these links will guarantee your vehicle goes where you point it.





Stock rear end housing

System is compatible with Ford 8- or 9-inch stock axle housings with at least a 2-13/16" diameter axle tubes. The 1-piece formed upper-suspension-link axle mount is easier to install than 2-piece styles. Upper control arm brackets weld on and lower control arm brackets attach to the housing on the leaf spring pad using included U-bolts.

Exhaust Clearance

The rear section of the factory exhaust is not compatible with g-Bar. Although space is limited, there is room to run a custom built exhaust system over the housing. Easier solutions include turn-downs before the housing or routing the exhaust underneath the housing.

Adjustable Shock Mounts

The **upper shock mount** has two positions to allow shock angle adjustment and 5-percent increase or decrease in spring rate.

Double shear **lower shock mounts** bolt directly to the back of the lower control arm bracket and provide 4-1/2 inches of ride height adjustment with changes to position and orientation.



Steel Lower Mount



Billet-Aluminum Mount



VariShock Coil-Overs for g-Bar Systems

To take full advantage of the outboard mounting position, a complete custom shock absorber was developed by our sister company, VariShock. Installed height, travel, valving range, and mounting configuration are built to our exact specifications, whereas other manufactures are forced compromise with "off-the-shelf" products.

VariShock Development

During five years of intense research and development every shortcoming of conventional performance shocks was successfully corrected. Designed from a clean sheet of paper, VariShocks QuickSet mechanism combines sophisticated shock valving with all-new, American-made components. Never before have so much performance, repeatability and adjustability been offered to classic vehicles.

Adjustable Shock Valving

VariShock's QuickSet, adjustable, design is easy to tune: 16 different settings are attainable simply by rotating the fully accessible, positive click knobs. Knobs are laser-etched with directional arrows and "plus/minus" symbols that clearly indicate which direction achieves the desired adjustment. Adjustments are made in seconds, without removing or unbolting the VariShock. QuickSet 1 shocks use a single knob to simultaneously set bump (compression) and rebound (extension) characteristics. QuickSet 2 double-adjustable shocks are available as an upgrade to enable separate 16-position compression and rebound adjustments.

Revolutionary Adjustment Mechanism

The revolutionary adjustment mechanism is smaller than any previous design, allowing our billetaluminum body to be both shorter and lighter. You get more clearance around the eyes, plus greater travel within any shock length. The shocks use "Deflective Disk Valving" in the pistons to eliminate spring fatigue. Piston rods are made from 5/8" centerless ground hard chrome steel for wear resistance and long service life. VariShock models are even "rebuildable" in the event they get bent or damaged. Custom valving is also available.

Premium Urethane Ends

The urethane end has up to 350% more urethane material than other brands, for superior load distribution, yet no less clearance around the eye. We also chose a premium urethane that has a much higher load capacity (for improved life) than the poly bushings from other manufacturers. Urethane ends are 1-1/4" wide and accept 1/2" bolts.

Locking Lower Spring Seat

A new-design, one-piece lower spring seat does not require a lock nut; it's locked in place by two ball locks that press into the grooves on the reservoir body and easily unlock with an Allen wrench for adjustment.

Shock Specifications

Part Number	Valves	Ride Height	Length (Compressed)	Length (Extend- ed)	Shock Travel
VAS 110XX-515	Factory	13.53"	10.95"	16.10"	5.15"
VAS 111XX-515	Single	13.53"	10.95"	16.10"	5.15"
VAS 112XX-515	Double	13.53"	10.95"	16.10"	5.15"



High-Travel VariSprings

The new VariSpring line of springs was designed to complement the VariShock family. Once again, we used higher technology to resolve application limitations. These springs are manufactured using a new, ultra-high-tensile wire, which is stronger than the chrome silicon wire used by other manufacturers. This allows the springs to "set solid." The springs can compress until the coils touch without damaging the spring or causing it to take a set, which ultimately changes the ride height. Since this wire can flex more than conventional wire, these springs have greater travel than our competitors' springs of the same rate. These springs will allow your shocks to travel their full range of motion without going solid. This gives you greater traction and control at full bump, plus additional suspension travel for tuning. If you are ready to take advantage of higher technology with greater travel, lighter, stronger springs, then step up to VariSprings. VariSprings have a silver-powder-coat finish.



Spring Rate Selection

Spring rate affects ride quality, ride height, roll rate, and performance handling characteristics. Differences in vehicles such as aluminum engine components, vehicle weight distribution, fiberglass body parts, chassis stiffening as well as wheel-size and offset and the specific performance application, should be taken into consideration. Additional tuning springs are available at a discount when purchased with a system. A good spring-rate baseline for Mustangs with rear g-Bar or g-Link, and with a small-block engine seeing regular street use would be 175-200 lbs/in., depending upon desired ride quality. A good baseline is for every 100-lb. change in rear vehicle weight, the spring rate needs to change by 25 lb/in.

Rear Weight (lbs)	Part Number	Rate (lbs)	Travel (in)
925-1000	VAS 21-12110	110	7.91
1000-1100	VAS 21-12130	130	8.43
1100-1225	VAS 21-12150	150	7.61
1225-1350	VAS 21-12175	175	7.60
1350-1575	VAS 21-12200	200	7.45
1575-1825	VAS 21-12250	250	7.00
1825-2075	VAS 21-12300	300	7.07
2075-2350	VAS 21-12350	350	7.00

VariShock Accessories

Coil-Over Spring Compressor

The VariShock coil-over-spring compressor greatly eases lower-spring-collar adjustment on high-preload or high-rate applications. Heavy-duty plates at each end fit 2-1/2" insidediameter coil springs of 130 lb., rate or greater, with a maximum spring height of 14".



Spanner Wrench

Also available is an exclusive spanner wrench, incorporating four tangs, which will not slip off the lower spring seat because it engages the seat in four places (not one, like common spanners).



Part Number	Description			
VAS 512-1-2	1"-extended top shock eye, COM8 bearing (pair)			
VAS 512-2-2	1"-extended top shock eye, poly bushing (pair)			
899-012-201	VariShock spanner wrench, zinc plated steel			
VAS 200	Coil-over spring compressor for 2-1/2" springs			

Rear Anti-Roll Bars

Chassisworks developed two styles of rear anti-roll bars for use with our g-Bar/g-Link canted-rear-suspension systems. The first, a solid, adjustable rate, bar mounted to the frame rearward of the rearend housing. The second, a splined-end, tubular bar mounted to the rearend housing, below the axle.

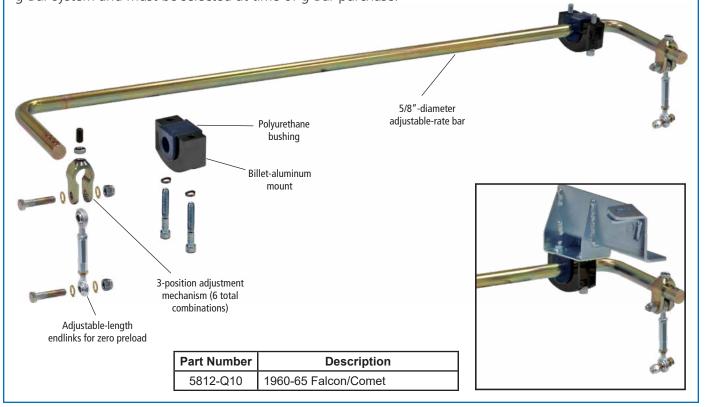
Do I really need a rear anti-roll bar?

In an effort to correct excessive body roll on early muscle cars, the common approach is to add a large front anti-roll bar. This may initially appear to correct the issue, but with the unintended result of increased understeer on an already nose-heavy vehicle. To regain vehicle cornering balance a rear anti-roll bar may be needed. For mild street-performance vehicles a rear anti-roll bar will provide a noticeable improvement to the "tightness" of the handling. However, on high-performance vehicles operating at or near the vehicle's traction limits, careful testing is required. First, to determine need of a rear bar, and then to properly setup the vehicle to optimize cornering balance. Testing your vehicle with different springs, shock settings and anti-roll bars will definitely yield increased handling. If it is a specific look you are after then that's a good enough reason to put one on your car. Nothing is better looking than our billet g-Bar, with splined-end anti-roll bar with billet aluminum arms.

Sliding-Link Adjustable Anti-Roll Bar

The sliding-link anti-roll bar system features a 5/8"-diameter, solid bar mounted to the same frame adapter brackets as the g-Bar suspension cradle for a complete bolt-on installation. Billet-aluminum bushing housings securely hold the bar and feature a grease-zerk fitting, and black-polyurethane bushings with internal grease passages. Our unique sliding-link mechanism, utilizes three distinct indents at each end of the anti-roll-bar lever to create six incremental adjustments. The CNC-machined clevis is locked into each detent by a set screw and jam nut, preventing unintended sliding or twisting of the assembly. Links consist of 3/8" rod-ends, allowing the anti-roll bar to be precisely set to a neutral, non-preload condition, by adjusting the assembly length. The sliding-link anti-roll bar system can be used on the entire family of g-Bar suspensions.

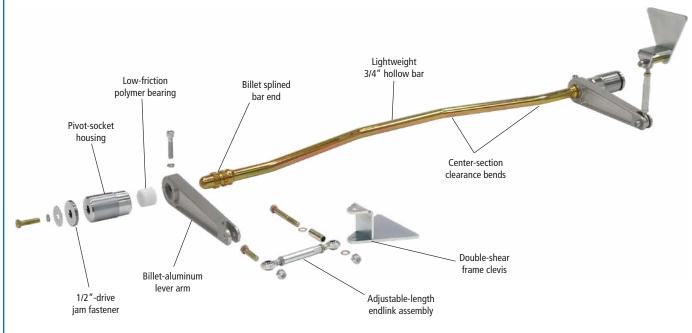
Note: Required g-Bar frame-adapter bracket with integrated anti-roll bar mounting flange is packaged with g-Bar system and must be selected at time of g-Bar purchase.



Splined-End Tubular Anti-Roll Bar

Our splined-end anti-roll bar system features a 3/4"-diameter, bent-tube design, that mounts below the rearend-housing. The bar adequately clears FAB9TM and OEM center sections, without decreasing ground clearance. An adjustable, billet-pivot-socket mechanism threads into the g-Bar lower axle-bracket sleeve, and allows the bar to rotate smoothly in a play-free joint. Billet-aluminum arms extend forward, and are connected to the chassis through links consisting of adjustable-length, 3/8" rod-end assemblies. This allows the anti-roll bar to be precisely set in a neutral, non-preloaded state. Double-shear, steel mounts are welded along the stronger, outside corner and across the bottom of the stock frame rail. The combination of Chassisworks' exclusive pivot mechanism, splined bar ends, spherical-bearing links, and rigid chassis attachment eliminates delayed resistance in the anti-roll bar system, common with rubber-, or urethane-mounted systems. The splined-end anti-roll bar system can be used on the entire family of g-Bar suspensions.

Note: Required g-Bar axle bracket with integrated anti-roll-bar socket boss is packaged with g-Bar system and must be selected at time of g-Bar purchase.



Part Number	Description
5806-Q10	1960-66 Falcon/Comet



FAB9 Ford 9" Rearend Housings

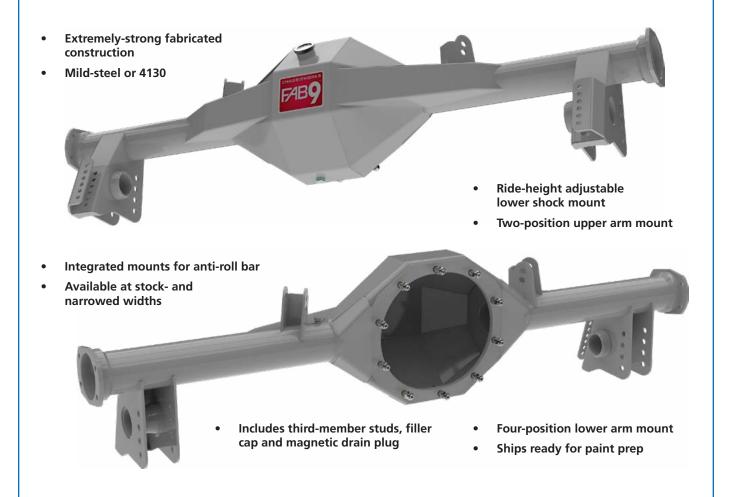
Engineered to accept all 9", Ford-style differentials, each FAB9TM includes a fully-welded center section with internal gussets, 3" axle tubes, and Ford big-bearing, late-model Torino, housing ends. All housings are manufactured in-house utilizing our state-of-the-art robotic spray-arc welder. Weld penetration, and quality are absolutely outstanding, guaranteeing consistent, reliable performance. Center sections are fully CNC-machined after welding to provide an excellent third-member-seal surface and extremely tight tolerances on the remaining housing features. Optionally, a folded back brace assembly can be factory welded to your FAB9TM housing, substantially strengthening the housing without adding significant weight. Standard housings are constructed from mild steel, but can be upgraded to 4130 chromemoly; recommended for vehicles weighing over 3500 lbs., and/or developing 650-plus horsepower. Housing hardware includes: billet-aluminum, o-ringed filler/inspection cap; axle-tube vent; magnetic drain plug; and alloy-steel, 12-point, mounting studs with locknuts.

g-Bar Direct-Fit FAB9™ Housings

The Chassisworks g-Bar FAB9™ offers exceptional performance, reliability, and adjustability in a bolt-on, factory-welded housing, complete with all suspension brackets. Housings are engineered for proper clearance using either VariShock coil-overs or air suspension; with or without a back brace. Anti-roll-bar bracket options include chassis-mounted (sliding-link bar), axle-housing mounted (splined-end bar), or no anti-roll-bar brackets installed.

Narrowed Housing Widths

Housings can be built to standard widths for OEM wheel offsets or narrowed to accommodate wider tire and wheel combinations. Complete correct length axle packages and third members are also available. Ask our sales representatives for details.





Housing Mounted Anti-Roll Bar FAB9 Housings

Integrates threaded bosses to mount the splined-end anti-roll bar.

Model	Year	Mild Steel	4130	Housing End	Pinion Offset	Stock Width	Minimum Width
Falcon	60-65	84Q10-601	84Q10-611	LBFS	0"	57-1/4"	55-1/4"
Notes:	LBFS = Late Big-Ford Sealed; 2-1/2" axle flange offset						
	Stock and Minimum Widths measured wheel-to-wheel, using 1/4" thick brake hats						



Chassis Mounted Anti-Roll Bar FAB9 Housings

Includes endlink mount tabs for the sliding-link anti-roll bar.

Model	Year	Mild Steel	4130	Housing End	Pinion Offset	Stock Width	Minimum Width
Falcon	60-65	84Q10-701	84Q10-711	LBFS	0"	57-1/4"	55-1/4"
Notes:	LBFS = Late Big-Ford Sealed; 2-1/2" axle flange offset						
	Stock and Minimum Widths measured wheel-to-wheel, using 1/4" thick brake hats						

Housing Hardware Kit

Each FAB9™ housing comes equipped with an easily accessible fill hole, drain, and all necessary hardware. The fill hole is purposely oversized and strategically placed to allow visual inspection of the ring gear without draining fluid or disrupting gaskets or seals. A black anodized, billet aluminum cap with o-ring seal prevents any unwanted fluid seepage. A specially slotted drain insert, welded to the floor of the center section, allows complete drainage of fluid and increases drain plug thread engagement. The magnetic drain plug with reusable copper gasket captures



Housing hardware includes: billet cap, magnetic drain plug, 12-point studs, hardened washers, locknuts, and vent (not shown).



Fill/inspection hole with billet-aluminum, o-ring sealed, cap



Screw-in axle vent eliminates seal

metal particles from being suspended in the fluid, reducing the rate of wear on gears and seals. To relieve internal pressure, housings are fitted with an axle vent located along the top of the axle tube. Equalized pressure improves the effectiveness of all seals and gaskets for trouble free extended use. If an external fluid catch can is required, axle vents can be easily removed using the 7/16" hex and replaced with an appropriate 1/8" NPT fitting. Third-member mounting hardware consists of high-strength 12-point studs, hardened SAE flat washers, and nylon insert lock nuts.

No Measurement Installation

Each of the six chassis brackets (three per side) seat against existing factory undercarriage features for precise location without measurement. Brackets have been designed with folded tab or extensions to enable welding to two or more planes of the factory sheet metal or frame rails. This method provides the best footing for the brack and helps to strengthen the attachment area of the chassis.



Lower Control Arm Mounts

The strength of the factory leaf-spring mounts fell short of the performance level we had targeted for the suspension system. We chose to remove the stock mount and clearance the section of underbody that protrudes downward to make room for a much more durable mount. The new mount is positioned by the control arm bolt and once welded spans the entire area between the frame rail to the body pinch-weld seam.



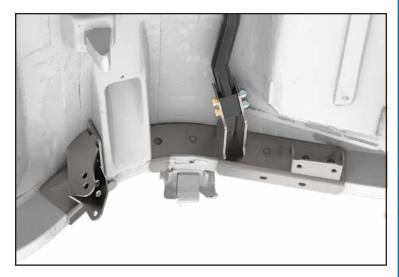


Upper Control Arm Mounts

Using the factory shock mount reinforcement structure and the frame rail for position, the upper control arm mount welds to one of the strongest points of the stock chassis. The two mounting holes allow changes to the rear suspension's instant center geometry. Upper position improves drivability while entering or exiting a corner. Lower position provides greater straight-line acceleration traction.



The largest bracket seats against the backside of of the shock mount reinforcement structure and hosts a pair of mounting holes for the shock as well as the attachment point for the tubular shock crossmember. The sliding-link anti-roll bar mounting bracket may also be integrated if selected at purchase.



	NOTES:
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Leaf-Spring Direct-Fit FAB9™ Housings

Direct-fit FAB9TM fabricated housings are available for most models of leaf-spring equipped Camaros, Comets, Cougars, Falcons, Firebirds, and Mustangs. Heavy-duty, leaf-spring pads are clocked for correct pinion angle and perfect alignment with factory leaf-spring mounts. Late-big-Ford housing ends are standard on all bolt-in FAB9s. GM FAB9s can also be ordered with small-GM housing ends.



U-bolt Set

Chassisworks' U-bolts are manufactured from larger, 1/2"-diameter, alloy steel instead of stock 7/16" material. Gold irridated for durability and formed to fit 3"-diameter axle tubes. These u-bolts will fit with 4- through 5-leaf springs and axle housings, with 2-13/16" through 3"-diameter axle tubes. Included are hardened alloy steel washers and Grade 8 nylon-insert locknuts. Recommended to use LSP-01 or LSP-02 as the stock leaf-spring plates will not accept these larger diameter u-bolts.

Part Number	Description			
TCP LSP-03	U-bolt set, 1/2 x 6-1/2" for 3" axle tubes			

Model	Year	Mild Steel	4130			
Camaro	1967-1969	84F10-101 ¹	84F10-111 ¹			
	1970-1981	84F20-101 ¹	84F20-111 ¹			
Comet	1964-1965	1964-1965 84M10-101				
Cougar	1967-1970 84M20-101 8		84M20-111			
	1971-1973	84M30-101 ²	84M30-111 ²			
Falcon	1964-1965	84M10-101	84M10-111			
Firebird	1967-1969	84F10-101 ¹	84F10-111 ¹			
Mustang	1964-1966	84M10-101	84M10-111			
	1967-1970	84M20-101	84M20-111			
	1971-1973	84M30-101 ²	84M30-111 ²			
Nova	1962-1967	84X10-101	84X10-111			
	1968-1974	84F10-101	84F10-111			
Ranchero	1964-1965 84M10-101 84M10-111					
Options	Folded back brace					
(installed)	Torque-arm	Torque-arm brackets				
Notes:	1 - Also available with small-GM ends					



Axle Packages and Third Members

Chassisworks is proud to offer high quality axle packages and completely assembled Ford 9" thrid members from the performance industry leader, Strange Engineering. Packages are available to cover nearly any performance application including street, strip or track use. Contact our expert sales staff for additional information.









All prices subject to change. Current pricing available at www.totalcontrolproducts.com.



Order: 800-722-2269 Tech: 916-388-0288 Fax: 916-388-0295 tcpsales@cachassisworks.com tcptech@cachassisworks.com www.totalcontrolproducts.com