# Chassis Vorks

THE HOME OF HIGHER TECHNOLOGY

## g-Bar Rear Suspension System

g-Machine

**Pro Touring** 

Restomod

**ProStreet** 

Street/Strip

The Most Versatile Rear Suspension for Popular Muscle Cars



- GM and Ford
- Coil-Over or Air-Spring
- Poly or Pivot-Ball Links
- Fabricated or OEM Housing
- Adjustable Geometry
- Selection of 9" Conversion Products
- Street and Race Third Members
- Differential and Gear Options
- Complete Axle Packages







**SHOCKS** 

**Coil-Over or Air-Suspension** 

- 11-3/4" 14" E-Coated Rotors
- Rear Discs with Parking Brakes
- Brake System Accessories





BRAKES

**New Large Rotor Brake Kits** 

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## **Canted-4-Bar Suspension Conversions**

The q-Bar and q-Link are bolt-in, canted Available for 1967-81 Camaros, 1962-74 **Applications:** 4-bar suspension systems directly replace the Novas, 1964-73 Mustangs, and 1967-70 OEM leaf springs and shocks for remarkably Cougars. The q-Bar system consists of three 1967-69 Camaro improved handling and performance. Each different combinations of upper and lower 1970-81 Camaro can be used with our vehicle-specific boltlink bars with your choice of VariShock ■ 1967-70 Cougar in FAB9<sup>™</sup> housing or the vehicle's existing coil-over or air-spring shocks. These options create six different variations to better suit housing. Additional welding is required for 1962-67 Chevy II installation with all housings other than your particular performance application. See 1968-74 Nova our bolt-in FAB9™. Chassisworks' secondthe following pages for individual photos of each system. generation g-Bar and g-Link suspension 1964-73 Mustang systems represent the current state-of-the-art in canted 4-bar design. Also available with VariShock Air-Spring Shocks 58XX-XXX CANTED-4-BAR SUSPENSION CONVERSIONS **OPTIONS** FAB9 DIRECT-FIT REAREND HOUSING ANTI-ROLL BAR, SLIDING LINK STYLE, CHASSIS MOUNTED ANTI-ROLL BAR, SPLINE END STYLE, HOUSING MOUNTED QUICKSET 2, DOUBLE-ADJUSTABLE SHOCK UPGRADE

### g-Bar & g-Link Street & Performance Systems

g-Bar and its variant, g-Link, dramatically improve ride quality and performance over the stock leaf-spring suspension. The canted 4-bar design is a proven suspension system commonly used in later model American muscle cars of all makes. Four individual arms precisely position the rear axle, better defining the correct suspension travel path. A panhard bar is not required with this style of suspension. This enables spring rates to be easily changed without altering suspension geometry or allowing changes in pinion angle and lateral movement. Lighter spring rates can be used for better ride quality without allowing leaf-spring wrap-up, a common source of wheel hop. Our

links are available with premium urethane or, pivot-ball ends to create controlled ride quality that inspires more confident performance driving.

g-Bar and g-Link includes VariShock QuickSet 1 single-adjustable coil-over shocks (DA pictured) with spring rates (per your vehicle's rear weight) ranging from 110-350 lbs/in. VariShock features 16-position valving adjustment within our specifically designed range. The VariShock QuickSet 2 double-adjustable shock (shown) is also available to truly unlock the tuning potential of the g-Bar. QuickSet 2s are available at a substantial discount when purchased with g-Bar.

## g-Link Suspension and Rear Frame

For builds with higher horsepower and traction goals our engineering team has developed a fabricated 3x2x.120" rear frame rail set to completely replace the thin factory U-shaped rails from the leaf spring hangers to the rear bumper. Any areas of the rail that affect tire clerance, including the front control arm mounts, have been moved inboard approximately 3", while retaining the original width around the factory gas tank. g-Link control arm-and shock-crossmember brackets are integrated into the rail to make installation that much easier.

Suspension options include tubular-steel or billetaluminum q-Link control arms along with the same broad selection of shocks, anti-roll bars, and housing bracket options that can be selected with our regular q-Link suspensions (refer to following pages).

5840-F20	G-LINK COIL-OVER SUSPENSION AND REAR FRAME
5841-F20	BILLET G-LINK COIL-OVER SUSPENSION AND REAR FRAME
5842-F20	G-LINK AIR-SPRING SUSPENSION AND REAR FRAME
5843-F20	BILLET G-LINK AIR-SPRING SUSPENSION AND REAR FRAME
INCLUDES	UPPER AND LOWER SUSPENSION LINKS
	FACTORY-WELDED REAR FRAME
	SINGLE-ADJUSTABLE SHOCKS

1970-81 Camaro and Firebird

**NEW PRODUCT!!** 

For the top Pro-Touring cars in the world

OPTIONS **FAB9 HOUSING** SPLINED HOUSING-MOUNTED ANTI-ROLL BAR DOUBLE-ADJUSTABLE SHOCKS UPPER-ARM-BRACKET WELD FIXTURE DOUBLE-ADJUSTABLE UPPER SUSPENSION LINK





## Coil-Over Equipped g-Bar Systems

To take full advantage of the outboard mounting position, a complete custom shock absorber was developed by our sister company, VariShock. A revolutionary adjustment mechanism, smaller than any previous design, allows our billet-aluminum body to be both shorter and lighter. The urethane eyes have 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 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. 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.

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 chrome-silicon, ultra-high-tensile wire. 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. 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 vehicles 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.



## Remote Reservoir 4-Way Coil-Over

#### 4-Way Adjustable Valve System

The VariShock Q4R remote reservoir shock separates the bump and rebound valve mechanisms between the two units to free up valuable space within the main shock body. The benefit is a shorter shock length that provides greater flexibility when mounting without sacrificing shock travel. Each adjustment knob can be set to one of sixteen different positions and clearly marked to illustrate the effect it has on the shock's performance.

## ■ Bump Adjustment Independent High- and Low-Speed

Located at the base of the remote reservoir are the bump valve adjustment knobs. The facing arrows represent the shock coming together (bump/compression) with the letters "L" and "H" labeling the low-speed and high-speed knobs respectively. "Plus" and "minus" signs etched into each knob show the



rotation direction to increase or decrease valve stiffness.

## ■ Rebound Adjustment Independent High- and Low-Speed

The rebound valve adjustment knobs are located on the base of the shock. The opposing arrows represent the shock separating (rebound/extension) with the letters "L" and "H" labeling the low-speed and high-speed knobs respectively. "Plus" and "minus" signs etched into each knob show the rotation direction to increase or decrease valve stiffness.





Double-Swivel Banjo ...can be rotated 360-degrees for hose clearance. Plus the hose can rotate 360-degrees to position the reservoir without kinking the hose.



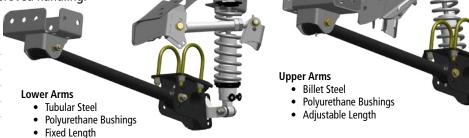
## g-Bar Coil-Over - Chevy II / Nova 62-67

### g-Bar (Poly Eye)



Poly-bushing equipped g-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5800-X10	1962-67 CHEVY II
SHOCKS	SENSISET
	QUICKSET 1
	QUICKSET 2
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE

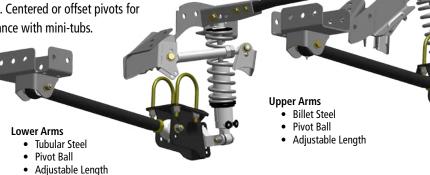


### g-Link (Pivot Ball)



Pivot-ball equipped g-Link is the ultimate suspension link for use on performance driven street or track applications. Centered or offset pivots for additional tire clearance with mini-tubs.

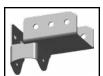
5804-X10	1962-67 CHEVY II
5854-X10	1962-67 CHEVY II (MINI-TUB)
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE



### **■ Compatible with Mini-Tubs**



Centered Position
Weld-on bracket replaces
factory leaf-spring mount,
maintains same centerline
as original spring.



Mini-Tub Position
Weld-on bracket moves
lower control arms inboard,
below frame rail, for greatly
increased tire clearance.

### Billet g-Link (Pivot Ball)



Pivot-ball equipped Billet g-Link features a fixedlength, I-beam lower arm for performance driven street applications. Centered or offset pivots for additional tire clearance with mini-tubs.

	<u></u>
5813-X10	1962-67 NOVA
5854-X10	1962-67 CHEVY II (MINI-TUB)
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE





## Centered Position Weld-on bracket replaces

Weld-on bracket replaces factory leaf-spring mount, maintains same centerline as original spring.



Adjustable Length

Upper ArmsBillet SteelPivot Ball

#### Mini-Tub Position Weld-on bracket moves lower control arms inboard, below frame rail, for greatly increased tire clearance.

### Compatible with Mini-Tubs

## g-Bar Coil-Over - Camaro/Firebird 67-69, Nova 68-74

### g-Bar (Poly Eye)



Poly-bushing equipped g-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5800-F10	1967-69 CAMARO	
5800-X20	1968-74 NOVA	
SHOCKS	SENSISET	
	QUICKSET 1	
	QUICKSET 2	
OPTIONS	WELD-ON BRACKETS	
	WELD FIXTURE	

#### Lower Arms

- Tubular Steel
- Polyurethane Bushings
- Fixed Length

#### **Upper Arms**

- Billet Steel
- Polyurethane Bushings
   Adjustable Length



### g-Link (Pivot Ball)



Pivot-ball equipped g-Link is the ultimate suspension link for use on performance driven street or track applications.

Centered or offset pivots for additional tire clearance with mini-tubs.

5804-F10	1967-69 CAMARO	
5804-X20	1968-74 NOVA	
SHOCKS	QUICKSET 1	
	QUICKSET 2	
	QUICKSET 4 REMOTE	
OPTIONS	WELD-ON BRACKETS	
	WELD FIXTURE	

#### Lower Arms

- Tubular Steel
- Pivot Ball
- Adjustable Length

#### **Upper Arms**

- Billet Steel
- Pivot Ball
- Adjustable Length



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.



#### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

Compatible with Mini-Tubs

## ■ Billet g-Link (Pivot Ball)



Pivot-ball equipped Billet g-Link features a fixed-length, I-beam lower arm for performance driven street applications. Centered or offset pivots for additional tire clearance with mini-tubs.

5813-F10	1967-69 CAMARO
5813-X20	1968-74 NOVA
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE
OPTIONS	WELD-ON BRACKETS
	WELD EIVTLIDE



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.

#### Lower Arms

- Billet Aluminum
- Pivot Ball
- Fixed Length

### Upper Arms

- Billet Steel
- Pivot Ball
- Adjustable Length



#### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

**■ Compatible with Mini-Tubs** 

## g-Bar Coil-Over - Camaro/Firebird 70-81

### g-Bar (Poly Eye)



Poly-bushing equipped g-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5800-F21	1970-77 CAMARO
5800-F22	1978-81 CAMARO
SHOCKS	SENSISET
	QUICKSET 1
	QUICKSET 2
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE

#### Lower Arms

- Tubular Steel
- Polyurethane Bushings
- Fixed Length

#### Upper Arms

- Billet Steel
- Polyurethane Bushings
- Adjustable Length

### g-Link (Pivot Ball)



Pivot-ball equipped g-Link is the ultimate suspension link for use on performance driven street or track applications. Centered or offset pivots for additional tire clearance with mini-tubs.

5804-F21	1970-77 CAMARO
5804-F22	1978-81 CAMARO
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE

#### Lower Arms

- Tubular Steel
- Pivot Ball
- Adjustable Length

#### **Upper Arms**

- Billet SteelPivot Ball
- Adjustable Length
- Offset Pivot (option)



Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

■ Compatible with Mini-Tubs



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.

## ■ Billet g-Link (Pivot Ball)



Pivot-ball equipped Billet g-Link features a fixed-length, I-beam lower arm for performance driven street applications.

Centered or offset pivots for additional tire clearance with mini-tubs.

5813-F21	1970-77 CAMARO
5813-F22	1978-81 CAMARO
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.

#### Lower Arms

- Billet Aluminum
- Pivot Ball
- Fixed Length

#### Upper Arms

- Billet Steel
- Pivot Ball
- Adjustable Length



### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

■ Compatible with Mini-Tubs

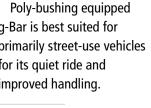
## g-Bar Coil-Over - Mustang 64-73, Cougar 67-70

### g-Bar (Poly Eye)



Poly-bushing equipped q-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5800-C10	1967-70 COUGAR
5800-M10	1964-66 MUSTANG
5800-M20	1967-70 MUSTANG
5800-M30	1971-73 MUSTANG
SHOCKS	SENSISET
	QUICKSET 1
	QUICKSET 2





- **Polyurethane Bushings**
- Fixed Length

OPTIONS WELD-ON BRACKETS WELD FIXTURE

#### **Upper Arms**

- Billet Steel
- Polyurethane Bushings
- Adjustable Length





g-Link is the ultimate suspension link for use on performance driven street or track applications. Available with centered or offset pivots for additional tire clearance.

5804-C10	1967-70 COUGAR
5804-M10	1964-66 MUSTANG
5804-M20	1967-70 MUSTANG
5804-M30	1971-73 MUSTANG
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE





Offset Pivot (option) Different-length shouldered spacers offset the arm within the factory leaf-spring mount

**Lower Arms** 

Tubular Steel

 Pivot Ball · Adjustable Length Upper Arms

- Billet Steel
- Pivot Ball
- · Adjustable Length

Compatible with Mini-Tubs



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.

## Billet g-Link (Pivot Ball)

Billet g-Link features a fixed-length, I-beam lower arm for performance driven street applications. Available with centered or offset pivots for additional tire clearance.

5813-C10	1967-70 COUGAR
5813-M10	1964-66 MUSTANG
5813-M20	1967-70 MUSTANG
5813-M30	1971-73 MUSTANG
SHOCKS	QUICKSET 1
	QUICKSET 2
	QUICKSET 4 REMOTE

**Centered Pivot (standard)** Equal-length shouldered

spacers center the arm within the factory leafspring mount.



**OPTIONS** 



 Billet Aluminum Pivot Ball · Fixed Length

WELD-ON BRACKETS WELD FIXTURE



Offset Pivot (option) Different-length shouldered spacers offset the arm within the factory leaf-spring mount

**■ Compatible with Mini-Tubs** 



**Upper Arms** Billet Steel

Pivot Ball

Adjustable Length

## **Air-Spring Equipped g-Bar Systems**

The VariShock Air-Spring system enables instant ride-height and ride-quality adjustment in single- or double-adjustable versions. When fully deflated, the vehicle rests 5 to 6 inches below stock ride height

and can be raised to driving height at the push of a button. An air-management system is required for operation (available separately).

#### VariShock Air-Spring Shocks

VariShock Air Springs a unique product line that combines VariShock shock absorbers with air bag springs and control sets. The redesigned upper bag mount is a significantly smaller component with increased clearance and easier installation. VariShock Air-Spring units feature the same revolutionary adjustment mechanism found in our

VariShock coil-overs, but revalved to meet the special requirements of an air spring configuration. This combination of technologies gives you complete ride control as well as adjustable ground clearance. For the ultimate in driving performance and ride height adjustability, we recommend VariShock Air-Spring Shocks.

#### Compressor Systems

To enable complete operation of your VariShock air-spring suspension, we offer a variety of electronic control and compressor systems, as well as individual components from the industry's leading manufacturers.







## g-Bar Air-Spring - Chevy II / Nova 62-67

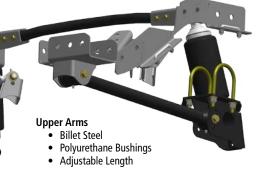
### g-Bar (Poly Eye)



Poly-bushing equipped q-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5801-X10	1962-67 CHEVY II
SHOCKS	SENSISET
	QUICKSET 1
	QUICKSET 2
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE





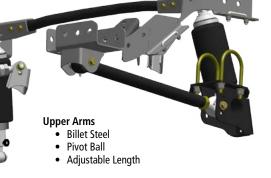
### g-Link (Pivot Ball)



Pivot-ball equipped q-Link is the ultimate suspension link for use on performance driven street or track applications. Centered or offset pivots for additional tire clearance with mini-tubs.

5805-X10	1962-67 CHEVY II
5854-X10	1962-67 CHEVY II (MINI-TUB)
SHOCKS	QUICKSET 1
	QUICKSET 2
OPTIONS	WELD-ON BRACKETS
	WELD FIXTURE

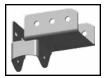




### Compatible with Mini-Tubs



**Centered Position** Weld-on bracket replaces factory leaf-spring mount, maintains same centerline as original spring.



**Mini-Tub Position** Weld-on bracket moves lower control arms inboard, below frame rail, for greatly increased tire clearance.

### Billet g-Link (Pivot Ball)



Pivot-ball equipped Billet q-Link features a fixedlength, I-beam lower arm for performance driven street applications. Centered or offset pivots for additional tire clearance with mini-tubs.

5814-X10 1962-67 NOVA 1962-67 CHEVY II 5854-X10 (MINI-TUB) SHOCKS QUICKSET 1 **QUICKSET 2** OPTIONS WELD-ON BRACKETS WELD FIXTURE



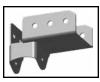




#### Compatible with Mini-Tubs



**Centered Position** Weld-on bracket replaces factory leaf-spring mount, maintains same centerline as original spring.



**Mini-Tub Position** Weld-on bracket moves lower control arms inboard, below frame rail, for greatly increased tire clearance.

## g-Bar Air-Spring - Camaro/Firebird 67-69, Nova 68-74

## ■ Air g-Bar (Poly Eye)



Poly-bushing equipped g-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

<u>5801-F10</u> <u>1967-69 CAMARO</u> <u>5801-X20</u> <u>1968-74 NOVA</u>

SHOCKS QUICKSET 1 INCLUDED

QUICKSET 2 ADD 200.00

#### **Lower Arms**

- Tubular Steel
- Polyurethane Bushings
- Fixed Length

#### **Upper Arms**

- Billet Steel
- · Polyurethane Bushings
- Adjustable Length

#### Shocks

- VariShock Air Spring Shocks
- Single-Adjustable
- Double-Adjustable (option)

### Air g-Link (Pivot Ball)



Pivot-ball equipped g-Link is the ultimate suspension link for use on performance driven street or track applications.

Centered or offset pivots for additional tire clearance with mini-tubs.

5805-F10 1967-69 CAMARO 5805-X20 1968-74 NOVA SHOCKS QUICKSET 1 QUICKSET 2

#### **Lower Arms**

- Tubular Steel
- Pivot Ball
- Adjustable Length

#### **Upper Arms**

- Billet Steel
- Pivot Ball
- Adjustable Length

#### Shocks

- VariShock Air-Spring Shocks
- Single-Adjustable
- Double-Adjustable (option)



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.



#### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

■ Compatible with Mini-Tubs

## l Billet Air g-Link (Pivot Ball)



Pivot-ball equipped Billet g-Link features a fixed-length, I-beam lower arm for performance driven street applications. Centered or offset pivots for additional tire clearance with mini-tubs.

 5814-F10
 1967-69 CAMARO

 5814-X20
 1968-74 NOVA

 SHOCKS
 QUICKSET 1

 QUICKSET 2

#### Lower Arms

- Billet Aluminum
- Pivot Ball
- Fixed Length

#### Upper Arms

- Billet Steel
- Pivot Ball
- Adjustable Length

#### Shocks

- VariShock Air-Spring Shocks
- Single-Adjustable
- Double-Adjustable (option)



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.



#### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

**■ Compatible with Mini-Tubs** 

## g-Bar Air-Spring - Camaro/Firebird 70-81

### Air g-Bar (Poly Eye)



Poly-bushing equipped g-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5801-F21 1970-77 CAMARO 5801-F22 1978-81 CAMARO SHOCKS **QUICKSET 1 QUICKSET 2** 



- Billet Steel
- **Polyurethane Bushings**
- Adjustable Length

#### Shocks

- VariShock Air Spring Shocks
- Single-Adjustable
- Double-Adjustable (option)

#### **Lower Arms**

- Tubular Steel
- **Polyurethane Bushings**
- Fixed Length

### Air g-Link (Pivot Ball)



Pivot-ball equipped q-Link is the ultimate suspension link for use on performance driven street or track applications. Centered or offset pivots for additional tire clearance with mini-tubs.

1970-77 CAMARO 5805-F21 5805-F22 1978-81 CAMARO SHOCKS QUICKSET 1

**QUICKSET 2** 

#### **Lower Arms**

- Tubular Steel
- Pivot Ball
- Adjustable Length

#### **Upper Arms**

- Billet Steel
- Pivot Ball
- Adjustable Length

#### **Shocks**

- VariShock Air-Spring Shocks
- Single-Adjustable
- Double-Adjustable (option)



Centered Pivot (standard)

Equal-length shouldered spacers center the arm within the factory leafspring mount.



#### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

**■ Compatible with Mini-Tubs** 

## Billet Air g-Link (Pivot Ball)



Pivot-ball equipped Billet g-Link features a fixed-length, I-beam lower arm for performance driven street applications. Centered or offset pivots for additional tire clearance with mini-tubs.

5814-F21 1970-77 CAMARO 1978-81 CAMARO 5814-F22 QUICKSET 1 SHOCKS **QUICKSET 2** 

#### Upper Arms

- Billet Steel
- Pivot Ball
- Adjustable Length

#### Shocks

- VariShock Air-Spring Shocks
- Single-Adjustable
- Double-Adjustable (option)



#### Centered Pivot (standard) Equal-length shouldered

Billet Aluminum

Pivot Ball

· Fixed Length

spacers center the arm within the factory leafspring mount.

Lower Arms



### Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

Compatible with Mini-Tubs

## g-Bar Air-Spring - Mustang 64-73, Cougar 67-70

### Air g-Bar (Poly Eye)



Poly-bushing equipped g-Bar is best suited for primarily street-use vehicles for its quiet ride and improved handling.

5801-C10	1967-70 COUGAR
5801-M10	1964-66 MUSTANG
5801-M20	1967-70 MUSTANG
5801-M30	1971-73 MUSTANG
SHOCKS	QUICKSET 1
	QUICKSET 2



- · Polyurethane Bushings
- Fixed Length
- Polyurethane Bushings
- Adjustable Length

### Air g-Link (Pivot Ball)



g-Link is the ultimate suspension link for use on performance driven street or track applications. Available with centered or offset pivots for additional tire clearance.

5805-C10	1967-70 COUGAR
5805-M10	1964-66 MUSTANG
5805-M20	1967-70 MUSTANG
5805-M30	1971-73 MUSTANG
SHOCKS	QUICKSET 1
	QUICKSET 2



**Lower Arms** 

- Tubular Steel
- Pivot Ball
- Adjustable Length

#### Upper Arms

- Billet Steel
- Pivot Ball Adjustable Length



Offset Pivot (option)

Different-length shouldered spacers offset the arm within the factory leaf-spring mount for additional tire clearance.

Compatible with Mini-Tubs

## Billet Air g-Link (Pivot Ball)

spring mount.

Centered Pivot (standard)

Equal-length shouldered

spacers center the arm

within the factory leaf-



Billet g-Link features a fixed-length, I-beam lower arm for performance driven street applications. Available with centered or offset pivots for additional tire clearance.

5814-C10	1967-70 COUGAR
5814-M10	1964-66 MUSTANG
5814-M20	1967-70 MUSTANG
5814-M30	1971-73 MUSTANG
SHOCKS	QUICKSET 1
	QUICKSET 2



Centered Pivot (standard) Equal-length shouldered spacers center the arm within the factory leafspring mount.

#### Lower Arms

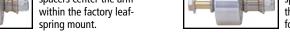
- Billet Aluminum
- Pivot Ball
- Fixed Length

## Upper ArmsBillet SteelPivot Ball

Adjustable Length



**■ Compatible with Mini-Tubs** 



### Self-Positioning Installation

Installation requires no fabrication, with only minimal welding and trimming required for certain applications. The g-Bar chassis cradle uses a "self-positioning" system utilizing existing factory-mounting features for direct location of the cradle or as an accurate reference point. Our multi-piece cradle design allows for variations in OEM chassis component locations. It is then welded to structural components of the vehicle, such as frame rails or reinforced sections of sheet metal. Multiple attachment points and tubular construction successfully create an effective chassis-stiffening cradle as well as a stable suspension-mounting crossmember. The cradle has a black-powder-coat finish and the frame adapters are clear-zinc plated to prevent rust and to make them easier to stitch weld into the chassis. They are easily painted after installation.

Chassis-attachment points for upper link bars and shocks are provided on the g-Bar cradle. The front of the lower link bars utilizes the factory front-leaf-spring mounting brackets. When using the stock rearend housing, our lower link bars and shocks fasten to our bracket assembly and are securely u-bolted directly to the existing leaf-spring pads. The rear of the upper-link-bar attachment points require mounting tabs be welded to the housing. An easy-to-use weld fixture is available to facilitate this task. Anti-roll bars are also available. A preassembled, fabricated 9" housing (FAB9<sup>TM</sup>) complete with welded bracket assemblies is also available, streamlining installation and saving time. The FAB9<sup>TM</sup> housing accepts standard 9" Ford components.

#### Camaro/Nova



Camaro/Nova installation relies upon the frame rail and the vertical panel of the body to correctly position the suspension cradle.



The lower link bolts into the factory leafspring bracket before installing onto car.



OEM mounting studs are replaced with supplied Grade 8 U-bolts.

### Mustang/Cougar



Mustang/Cougar installation utilizes existing pinion snubber and top shock mount factory bolt holes to locate the suspension cradle.



Lower links bolt directly in place of the factory leaf springs; all hardware included.

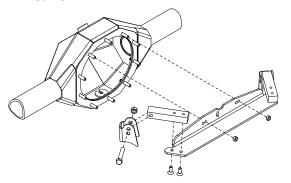


g-Bar axle brackets feature locating pin similar to original leaf springs.

### Upper-Axle-Bracket Weld Fixture



Simple to use upper bracket weld fixture





Accurate weld-fixture placement

### Adjustable Geometry

Upper and lower control arm attachment points have multiple mounting holes to adjust chassis anti-squat to optimize your vehicle's handling characteristics. Both upper bars are length adjustable to set pinion angle and preload. g-Link lower arms are also adjustable for wheelbase variations. Some vehicles are worn enough that the wheelbase will not be correct without using a wheelbase adjustable lower link.



4-position FAB9™ lower arm bracket



2-position chassis and housing arm brackets

### Lower-Link-Bar Styles

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

#### Poly-Bushing Lower Bar

Included in the g-Bar system is the lower fixedlength-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

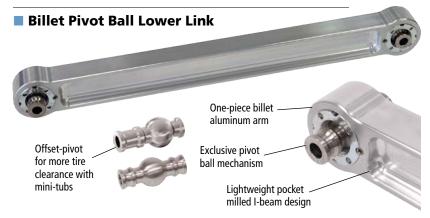
Included in g-Link system is the lower adjustable-length-tubular link with pivot ball mechanisms in each end. This is our ultimate performance link for use on performance driven street or track applications. Available with centered or offset pivots for additional tire clearance with mini-tubs.

#### ■ Billet Pivot Ball Lower Link

Included in the billet q-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 q-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. Available with centered or offset pivots for additional tire clearance with mini-tubs.







#### 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 stiffer-than-stock ride. They are included in the 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. Available in single-and double-adjustable versions.



#### Adjustable Shock Mounts

Billet aluminum 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 adjustments. The upper shock mount has three positions to allow additional ride height and shock angle adjustment. You can adjust the shock angle in at the top to provide increased stability during hard cornering.

#### Stock Rearend Housing

System is compatible with stock axle housings with at least a 2-13/16" diameter axle tubes. The 1-piece formed UCA 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 fasteners.

#### 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.



## g-Bar Rear Anti-Roll Bars

Chassisworks developed two styles of rear anti-roll bars for use with our g-Bar and 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 a muscle car, 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

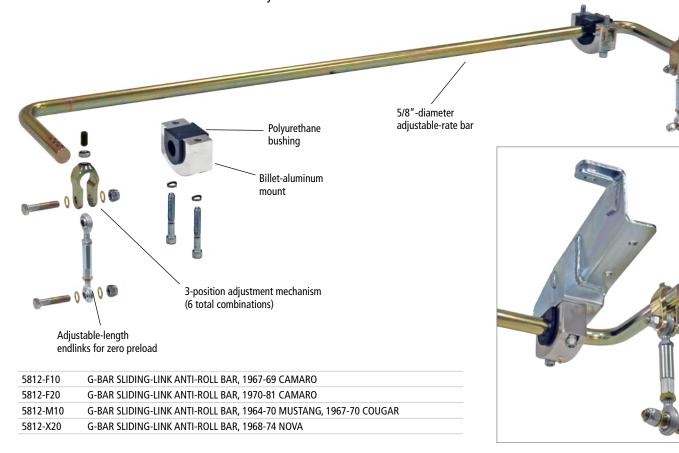
or near the vehicle's traction limits, careful testing is required. First, to determine need of a rear bar, and then to properly setup the vehicle to optimize cornering balance. Testing your vehicle with different springs, shock settings and anti-roll bars will definitely yield increased handling. If 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.

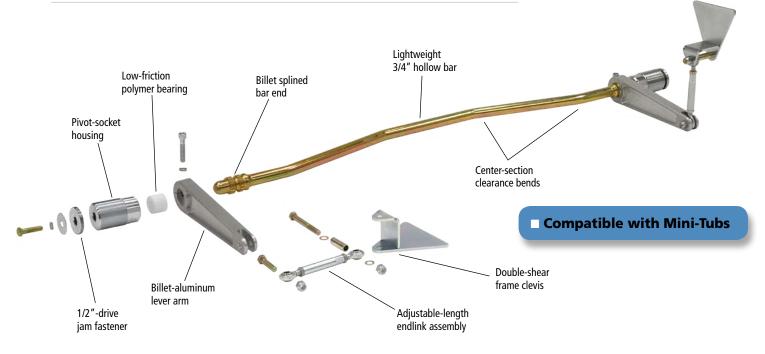


#### Splined-End Tubular Anti-Roll Bar

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 FAB9™ 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. Bars are available in stock and narrowed widths for use with mini-tubbed vehicles. 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.

5806-F10	G-BAR SPLINED-END ANTI-ROLL BAR, 1967-69 CAMARO, 1968-74 NOVA
5806-F20	G-BAR SPLINED-END ANTI-ROLL BAR, 1970-81 CAMARO
5821-F10	G-BAR MINI-TUB SPLINED-END ANTI-ROLL BAR, 1967-69 CAMARO, 1968-74 NOVA
5821-F20	G-BAR MINI-TUB SPLINED-END ANTI-ROLL BAR, 1970-81 CAMARO
5806-M10	G-BAR SPLINED-END ANTI-ROLL BAR, 1964-70 MUSTANG, 1967-70 COUGAR





## g-Bar FAB9™ Rearend Housings

Engineered to accept all 9", Ford-style differentials, each FAB9™ includes a fully-welded center section with internal gussets, 3" axle tubes, and Ford big-bearing late-model Torino or small-GM ends (with 3.15" bearing) 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 FAB9<sup>TM</sup> 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

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-over or air-spring 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 Housings

The versatility of the FAB9 $^{\text{TM}}$  housing allows you to choose from standard stock widths or specialty housings that enable use of extremely wide tire and wheel combinations.

Mini-Tub FAB9™ - Lower axle brackets and control arms are moved inward to allow more room for deeper backspaced wheels on mini-tub equipped vehicles.

**Narrowed Widths** - End-to-end housing widths can be narrowed in 1/4" increments to allow deeper outside wheel lips and adequate fender clearance.

Complete correct length axle packages and third members are also available. Ask our sales representatives for details.



- Available for mini-tub equipped vehicles
- Accurate, factory-welded construction
- Available in mild-steel and 4130 versions
- Accepts all 9" Ford-style differentials
- Saves hours of installation time



### ■ g-Bar FAB9<sup>™</sup> Chassis-Mounted Anti-Roll Bar

Mounting tabs are welded to the backside of the axle bracket for the chassis-mounted anti-roll-bar endlinks.





Sliding-link anti-roll bar

ANTI-ROLL BAR (5812-XXX)



### ■ g-Bar FAB9™ Housing-Mounted, Splined Anti-Roll Bar

A threaded boss serves as the axle-bracket gusset and provides a tension-adjustable mechanism for housing-mounted anti-roll-bars.



Splined-end anti-roll bar

	·
84F10-711*	4130 FAB9 HOUSING, '67-69 CAMARO, '68-72 NOVA
84F10-801*	MILD-STEEL FAB9 FOR MINI-TUB, '67-69 CAMARO, '68-72 NOVA
84F10-811*	4130 FAB9 FOR MINI-TUB, '67-69 CAMARO, '68-72 NOVA
84F20-701*	MILD-STEEL FAB9 HOUSING, '70-81 CAMARO
84F20-711*	4130 FAB9 HOUSING, '70-81 CAMARO
84F20-801*	MILD-STEEL FAB9 FOR MINI-TUB, '70-81 CAMARO
84F20-811*	4130 FAB9 FOR MINI-TUB, '70-81 CAMARO
84M10-701	MILD-STEEL FAB9 HOUSING, '64-66 MUSTANG
84M10-711	4130 FAB9 HOUSING, '64-66 MUSTANG
84M20-701	MILD-STEEL FAB9 HOUSING, '67-70 MUSTANG, '67-70 COUGAR
84M20-711	4130 FAB9 HOUSING, '67-70 MUSTANG, '67-70 COUGAR
84M30-701	MILD-STEEL FAB9 HOUSING, '71-73 MUSTANG
84M30-711	4130 FAB9 HOUSING, '71-73 MUSTANG
84X10-701*	MILD-STEEL FAB9 HOUSING, '67-67 CHEVY II/NOVA
84X10-711*	4130 FAB9 HOUSING, '67-67 CHEVY II/NOVA
OPTIONS	FOLDED BACK BRACE, MILD STEEL, FACTORY INSTALLED
	FOLDED BACK BRACE, 4130, FACTORY INSTALLED
NOTE	* AVAILABLE WITH LATE-BIG-FORD OR SMALL-GM HOUSING ENDS
	PRODUCTS LISTED ARE FOR USE WITH HOUSING-MOUNTED SPLINED-END

84F10-701\* MILD-STEEL FAB9 HOUSING, '67-69 CAMARO, '68-72 NOVA



## Direct-Fit FAB9™ Leaf-Spring Housings

Chassisworks' application-specific housings are engineered to accept stock or aftermarket suspension components to facilitate replacement of your vehicle's original rearend with a FAB9™ Ford 9" conversion housing. Housings can be built to standard widths for OEM wheel offsets or narrowed to accommodate wider tire and wheel combinations. Widths

can be narrowed in 1/4" increments.
All housings include a fully welded center section; housing-filler assembly; vent; drain plug; and a choice of CNC-machined housing ends. Housing options include custom widths, mild steel or 4130 construction, and folded back brace. Complete axle packages and third members are also available.
Ask our sales representatives for details.

MODEL	VEAD	MILD STEEL	4130
MODEL	YEAR		
BEL-AIR	1955-1957	84H10-101	84H10-111
CAMARO	1967-1969	84F10-101	84F10-111
	1970-1981	84F20-101	84F20-111
CHEVY II	1962-1967	84X10-101	84X10-111
COMET	1964-1965	84M10-101	84M10-111
COUGAR	1967-1970	84M20-101	84M20-111
	1971-1973	84M30-101	84M30-111
FALCON	1964-1965	84M10-101	84M10-111
MUSTANG	1964-1966	84M10-101	84M10-111
	1967-1970	84M20-101	84M20-111
	1971-1973	84M30-101	84M30-111
RANCHERO	1964-1965	84M10-101	84M10-111
OPTIONS	LATE-BIG-FO STYLE ENDS	ORD OR SMALL	-GM SEAL-
	FOLDED BAG	CK BRACE INST	ALLED

## ■ Bolt-in FAB9™ for Leaf-Spring Cars with Strange S/S Axles, Bearings & Studs





#### U-bolt Set

Chassisworks' U-bolts are much stronger because they 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.



TCP LSP-03 U-BOLT SET. 1/2 X 6-1/2" FOR 3" AXLE TUBES

## **Muscle Car Mini-Tubs**



## **GM Subframe Connectors**

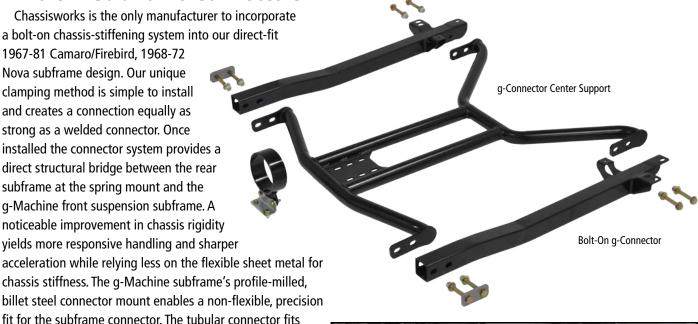
Bolt-In Subframe Connectors

Chassisworks is the only manufacturer to incorporate a bolt-on chassis-stiffening system into our direct-fit

1967-81 Camaro/Firebird, 1968-72 Nova subframe design. Our unique clamping method is simple to install and creates a connection equally as strong as a welded connector. Once installed the connector system provides a direct structural bridge between the rear subframe at the spring mount and the q-Machine front suspension subframe. A noticeable improvement in chassis rigidity yields more responsive handling and sharper

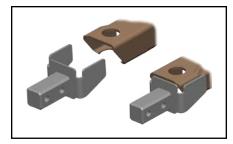
chassis stiffness. The q-Machine subframe's profile-milled, billet steel connector mount enables a non-flexible, precision fit for the subframe connector. The tubular connector fits snugly over the mount, flush along the lower face, and is securely held in place by doubling plates to more evenly distribute the clamping force from two 1/2" Grade 8 bolts for a slip-free joint. The 2 x 2 x .120"-wall connector tube features multiple, subtle mandrel bends to tightly follow the undercarriage for maximum ground clearance and perfect alignment with the rear factory subframe. To provide the most direct support and increase stability, the OEM leaf-spring mount sandwiches two of the three gusseted connector mounting tabs against the body, while the third tab attaches using a drilled hole at a stronger, contoured area of the undercarriage. This product ships with a black powder-coat finish, complete with Grade 8 hardware and detailed instructions.

Note: This product can be used only with hardtop models equipped with our q-Machine subframe system.





5900-F10	G-CONNECTOR SYSTEM FOR '67-69 CAMARO/FIREBIRD, OEM CLIP
5900-F21	G-CONNECTOR SYSTEM FOR '70-73 CAMARO/FIREBIRD, OEM CLIP
5900-F22	G-CONNECTOR SYSTEM FOR '74-81 CAMARO/FIREBIRD, OEM CLIP
5900-X10	G-CONNECTOR SYSTEM FOR '62-67 CHEVY II/NOVA, OEM OR CHASSISWORKS CLIP
5900-X20	G-CONNECTOR SYSTEM FOR '68-72 NOVA, OEM CLIP
5901-F10	G-CONNECTOR SYSTEM FOR '67-69 CAMARO/FIREBIRD, CHASSISWORKS CLIP
5901-F21	G-CONNECTOR SYSTEM FOR '70-73 CAMARO/FIREBIRD, CHASSISWORKS CLIP
5901-F22	G-CONNECTOR SYSTEM FOR '74-81 CAMARO/FIREBIRD, CHASSISWORKS CLIP
5901-X20	G-CONNECTOR SYSTEM FOR '68-72 NOVA, CHASSISWORKS CLIP
INCLUDES	OUTSIDE FRAME CONNECTORS (SUBFRAME TO REAR SUSPENSION)
	G-CONNECTOR CENTER SUPPORT
	DRIVESHAFT SAFETY LOOP
	OEM FRAME RAIL ADAPTER (IF APPLICABLE)
NOTE	AVAILABLE TO PURCHASE IN STAGES - FRAME CONNECTORS > CENTER SUPPORT > DRIVESHAFT LOOP



Weld-on adapters for OEM front clip



Bolt-on installation with Chassisworks front clip

## **Ford Subframe Connectors**

### Weld-In Subframe Connectors

The factory unibody frame rails do not span the undercarriage directly below the passenger compartment, leaving independent bracing structures. Our fully enclosed tubular-steel subframe connectors bridge the front and rear frame rails together. Previously separate braces now work as

a single structure extending from the radiator support to the rear bumper. Chassis-twisting forces from bumps, cornering and acceleration are now distributed along the entire subframe structure, rather than directly into the sheet-metal floor pan at the end of each subframe.

#### Coupe/Fastback Connectors

This is a 2-piece, weld-in kit that fits over the end cap of the forward frame rail and wraps the corner of the rear frame rail just before the leaf-spring mount. The large-diameter, square tubing visually blends with the factory rails and fits tightly along the bottom of the undercarriage.

TCP SUBFC-01 COUPE/FASTBACK WELD-IN SUBFRAME CONNECTORS, '64-70 MUSTANG/COUGAR

#### Convertible Connectors

Our 2-piece, weld-in convertible kit fits over the frame rail forward of the torque box and wraps the corner of the rear frame rail just before the leaf-spring mount.

Round tubing is used for maximum ground clearance beneath the torque box.

TCP SUBFC-02 CONVERTIBLE WELD-IN SUBFRAME CONNECTORS, '64-70 MUSTANG/COUGAR

### **■ Bolt-In Connector Supports**

Triangular bracing is one of the simplest and most effective methods of reinforcement. Our bolt-in connector supports tie the left and right subframe structures together diagonally, fixing the distance between opposite corners. Securing the diagonal length across the undercarriage in multiple directions prevents the sheet metal undercarriage from bowing or twisting. Connector supports include a

welded mount for use with the TCP torque arm. Mounts are positioned to provide correct pinion angle adjustment range on vehicles lowered 1-1/2 to 2" below stock ride height. The bolt-in design allows easy access to the drivetrain and exhaust for maintenance. You can expect a perfect fit every time with our included shim set. Exhaust may require modification for installation.

#### Coupe/Fastback Connector Support

Our coupe/fastback connector support features four attachment points and a gusset mounting plate for our available driveshaft safety loop.

TCP SUBCS-01 COUPE/FASTBACK BOLT-IN CONNECTOR SUPPORT, '64-70 MUSTANG/COUGAR

#### ■ Convertible Connector Support

The convertible connector support uses a 3-point mounting system that ties into the factory torque-box-reinforcement plate.

TCP SUBCS-03 CONVERTIBLE BOLT-IN CONNECTOR SUPPORT, '64-70 MUSTANG/COUGAR

## Connector-System Packages

TCP PKG-SFC-01 HARDTOP PACKAGE (WITH DRIVESHAFT LOOP)
TCP PKG-SFC-02 CONVERTIBLE PACKAGE

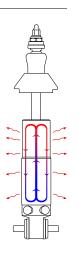
## VariShock Technology

#### VariShock Design

The VariShock product line offers an affordable and versatile, high-end performance improvement over OEM replacements and traditional twin-tube shock absorbers. Our updated design overcomes the major shortcomings of traditional gas shocks and low-end twintube shocks. Varishocks provide a more usable adjustment range and response curve, improved heat dissipation, and lightweight billetaluminum construction.

### **■ Improved Heat Dissipation**

Traditional twin-tube shocks provide damping force by moving fluid back and forth between the inner compression tube and the surrounding reservoir. This rapidly heats the fluid that remains trapped inside the compression tube, causing outgassing and shock fade. VariShock's system of internal valves circulates fluid in a single direction through the shock absorber body, utilizing the entire volume of fluid to absorb heat. Thermally conductive materials are used internally to further help equalize fluid temperature. Heat energy is then dissipated through the shock base and body. Coil-over threaded bodies provide additional surface area for more rapid cooling.



#### Fluid Control

A shocks purpose is to limit the rate at which the suspension moves, whether induced by road irregularities or by chassis movement. By carefully controlling the rate of fluid flow into the different areas of the shock we can better manage the suspension's ability to keep the tire in contact with the road. VariShocks operate with zero bleed, meaning that absolutely all fluid flow is purposely directed and metered. By contrast, many manufacturers skimp on sealing the shocks internals to lower manufacturing costs. The allowed internal leakage makes valving adjustments less effective and lacking in precision. The VariShock total-seal design gives you improved control over the entire range of damping and enhances adjustment effectiveness at the slower range of piston speeds (0-4 in/sec) that control small chassis movement and vehicle ride quality.

A combination of fatigue-resistant deflective-disk and adjustable poppet valves focus damping forces at a range useful to the widest variety of vehicle types and performance applications. Damping-force ranges differ depending upon the adjustment features and mounting configuration of the shock. Custom valve sets are also available to alter the adjustment range of compression or rebound independently. VariShocks provide digressive damping to permit finer adjustment at the higher range of piston speeds (6-12 in/sec) that control rapid suspension movement and ride harshness. To give better control of vehicle-handling without rapidly increasing ride harshness, rebound (extension) valving is purposely stiffer with a broader adjustment range.

- Available with single- or double-adjustable shock valving
- Easily accessible 16-position adjustment knobs
- Modular top- and bottom-mount hardware system enables low-cost versatility
- Broad range of travel lengths
- Lightweight billet-aluminum shock bodies
- High-strength billet-4130 strut bodies



#### VariShock Quality

Delivering a finished product that is of excellent quality and value is the primary focus throughout the VariShock product line. Unlike other brands in this price range, VariShocks are engineered, manufactured, and assembled in America using state-of-the-art engineering workstations and computer-numeric-controlled (CNC) manufacturing equipment. Each component, including valves, adjusters, and internal shaft seals is designed and manufactured specifically for use in VariShock products. This level of clean-sheet engineering is the first step to producing longer lasting seals that keep dirt out of the shock absorber and extend service life between rebuilds.

Assembly of the components is equally important to delivering a

quality product. To avoid the possibility of manufacturing debris contaminating the shock fluid and seals, the VariShock-assembly clean room is housed in a completely separate facility. After assembly, each shock is thoroughly dyno-tested and calibrated to meet Varishock's strict performance goals. This ensures virtually identical performance from every pair throughout their entire range of travel. By carefully controlling engineering, manufacturing, assembly, and final testing, VariShock can confidently deliver the highest-quality product with the most value for our customers.



#### Adjustable QuickSet Series



The VariShock QuickSet series allows you to easily tune your suspension for improved cornering and acceleration traction, or to quickly adapt to current track conditions. Adjustment takes only a few seconds and

is made with the VariShock installed on the vehicle. Readily accessible, 16-position adjustment knobs can be operated by hand or with the aid of a common allen wrench.

The QuickSet 1 valve system features a single adjustment knob that controls overall damping stiffness of the shock. Knobs are clearly etched indicating the correct direction of rotation to decrease (-), or increase (+) damping stiffness. There are a total of 16 specific adjustment positions.

The QuickSet 2 valve system features dual adjustment knobs that independently control bump- and rebound-damping stiffness of the shock. Dual-arrow symbols engraved into the shock body demonstrate the function of each knob. Arrows pointing toward each other designate bump (compression) adjustment; the shock collapsing. Arrows pointing away from each other represent rebound (extension) adjustment; the shock extending. There are 16 specific adjustment positions for each knob, with a total of 256 unique combinations possible. Each adjustment position is indicated by a detent that can be felt when turning the knob, and an audible click as the knob gently locks into position. Only very light force is necessary to rotate the knob past each detent.

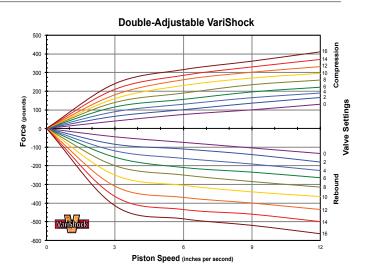
#### ■ The Truth About 16- vs. 24-Clicks

Don't be fooled by shocks offering more adjustment clicks. They are actually 1/2-click adjustments. The manufacturer merely added more detents to the mechanism without increasing the range of adjustment. This practice gives more clicks, but the

adjustment is so slight that your vehicle will not respond to the change. A 16-position VariShock actually has a broader range of adjustable force with the added benefit of a more manageable number of adjustments to try.

#### VariShock Dyno Graph

A shock dyno graph displays how much force is required to compress or extend the shock over a range of piston speeds (Force vs. Absolute Velocity). For readability purposes, the following graph only plots response curves for every other adjustment setting of the Bolt-In QuickSet 2 VariShock. The shock's digressive valving curve can be easily identified by the steeper incline in the slowest piston speeds and more level response as piston speed increases. Each setting provides an even increase of stiffness in relatively even increments across the entire range without deviation from the general response curve. This consistency can be found throughout the VariShock product line and makes suspension tuning simple and intuitive. VariShock compression and rebound adjustments are completely independent from each other. Adjustment of one direction of shock travel does not inadvertently affect the other, enabling you to find the correct settings for your vehicle in less time.



Graph displays valving curve of QuickSet 2 <u>double-adjustable shock</u>. Valving curves of VariStruts and QuickSet 1 products will differ.

## VariShock Coil-Overs

#### Shock-System Options

The q-Machine suspension systems can be equipped with VariShock coil-over shocks and high-travel VariSprings. A traditional coil-over configuration features the ability to corner balance the vehicle by varying spring preload, and offers predictable suspension tuning results.

#### 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 much higher load capacity for improved life than the poly bushings from other manufacturers.



Optional (COM-8) **Bearing Top-**Mount Eye: Increases accuracy and effectiveness of shock valving and suspension control.





with billet base

#### Billet Spring Seat Hardware

VariShock billet aluminum upper and lower spring seats utilize inset shoulders and counterbores to perfectly align the top mount, spring, and shock body. Upper seats feature an open slot that allows the spring to be easily installed or replaced without removing the upper mounting eye. One-piece lower spring seats ride on the shockbody ACME threads and are used to adjust spring preload. Each lower seat features two spring-loaded, ball-lock mechanisms to securely hold the adjusted setting. When rotated, the ball-locks and shock-body grooves provide positive-click stops to audibly and physically notify you of every half-turn. The lock mechanism is easily operated using a common 5/32" allen wrench to tighten (lock) or loosen (unlock) the spring seat's two set screws. The lower spring seat also features six individual notches that enable the VariShock four-tang spanner wrench to interlock with the spring seat for slip-free adjustment. Upper and lower spring seats are anodized for surface hardening and improved appearance.

#### SensiSet

SensiSet uses ride-sensitive valving that is factory-set.



#### QuickSet 1

Single 16-position knob adjusts bump and rebound simultaneously.



#### QuickSet 2

Dual 16-position knobs adjust bump and rebound independently.



TOTAL TRAVEL	COLLAPSED LENGTH	EXTENDED LENGTH	RIDE-HEIGHT Minimum	RIDE-HEIGHT MAXIMUM	SPRING LENGTH
5.15"	10.95"	16.10"	13.01"	14.04"	12"
VAS 1101	1-515 SENSISE	T, FACTORY-SET		BEARING	
VAS 1111	1-515 QUICKS	ET 1, SINGLE-ADJU	STABLE	BEARING	
VAS 1121	1-515 QUICKS	ET 2, DOUBLE-ADJ	USTABLE	BEARING	
VAS 1102	2-515 SENSISE	T, FACTORY-SET		POLY	
VAS 1112	2-515 QUICKS	ET 1, SINGLE-ADJU	STABLE	POLY	
VAS 1122	2-515 QUICKS	ET 2, DOUBLE-ADJ	USTABLE	POLY	
NOTES			NTING-EYE HARDWA LY UNLESS OTHERWI:	•	T SET;
	VARISH	OCKS SOLD ONLY	IN PAIRS		





## VariSpring Coil Springs

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 chromesilicon, high-tensile wire. 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, and additional suspension travel to work with. If you are ready to take advantage of higher technology with greater travel and lighter, stronger springs, step up to VariSprings.



VariSprings have a silver-powder-coat finish. They are individually labeled with our part number and spring rate on the outside of the coils for easy reference. VariSprings are available for front and rear applications in four lengths and a broad range of rates. All VariSprings are +3% on rate. The steps between rates are sufficiently close to make very fine adjustments. Sold in pairs.



#### Rear VariSprings, 12-inch

VAS 21-12080	80 LB/IN, TRAVEL = 8.63
VAS 21-12095	95 LB/IN, TRAVEL = 8.28
VAS 21-12110	110 LB/IN, TRAVEL = 7.91
VAS 21-12130	130 LB/IN, TRAVEL = 8.43
VAS 21-12150	150 LB/IN, TRAVEL = 7.61
VAS 21-12175	175 LB/IN, TRAVEL = 7.60
VAS 21-12200	200 LB/IN, TRAVEL = 7.45
VAS 21-12250	250 LB/IN, TRAVEL = 7.00
VAS 21-12300	300 LB/IN, TRAVEL = 7.07
VAS 21-12350	350 LB/IN, TRAVEL = 7.00
VAS 21-12400	400 LB/IN, TRAVEL = 6.35
VAS 21-12450*	450 LB/IN, TRAVEL = 5.86
VAS 21-12500*	500 LB/IN, TRAVEL = 5.06
VAS 21-12550*	550 LB/IN, TRAVEL = 5.50
VAS 21-12600*	600 LB/IN, TRAVEL = 5.17
VAS 21-12650*	650 LB/IN, TRAVEL = 5.76

## VariShock Accessories

### Spring-Seat Thrust Bearings

Thrust bearings are used at the lower spring seat to reduce friction when adjusting ride height. New stainless "cap-style" seats, a VariShock exclusive, enclose the thrust bearing to keep dirt out.



VAS 513-101 SPRING SEAT THRUST BEARING SET, ORIGINAL STYLE VAS 513-100 SPRING SEAT THRUST BEARING SET, DUST-SHIELD STYLE

#### Spanner Wrench

VariShock's exclusive spanner wrench, incorporates four tangs, which engage the lower spring seat in four places, preventing accidental slips.



899-012-201 VARISHOCK SPANNER WRENCH, PLATED STEEL

#### Coil-Over Spring Compressor

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

VAS 200 **COIL-OVER SPRING** COMPRESSOR FOR 2-1/2" SPRINGS



## **VariShock Air-Spring Shocks**

VariShock air-spring shocks is a unique product line that combines VariShock shocks with air-bag springs and control sets. The redesigned upper bag mount features relocated air fittings to increase clearance around the eye. Our double-adjustable shock unit gives you complete ride control as well as adjustable ground clearance. There are two styles of inlet port: the original style is in the spring cap; the new style is in the upper mounting eye. For the ultimate in driving performance and ride-height adjustability, we recommend VariShock air-spring shocks.

We even designed-in trouble-free installation! We made the diameter of the upper-air-bellows mount significantly smaller. We also extended the mounting eyes and machined them both to increase clearance and to incorporate the air-inlet fitting. A full range of travel lengths covers front- and rear-suspension applications. Choose from single-adjustable QuickSet 1 or double-adjustable QuickSet 2 models. Urethane bushings are standard, top and bottom.

- Available with single- or doubleadjustable shock valving
- Easily accessible 16-position adjustment knobs
- Lightweight billet-aluminum shock bodies



### Rear - Dual Poly-Eye, 4" Sleeve with Cap Port

- Upper Mount: Poly-urethane eye, 1/2" or 5/8" hardware with 1-1/4" clevis
- Lower Mount: Poly-urethane eye, 1/2" or 5/8" hardware with 1-1/4" clevis
- Light Capacity: Rear shock only for light to medium weight vehicles



PART NUMBER	VALVING	TRAVEL	COLLAPSED LENGTH	EXTENDED LENGTH	RIDE-HEIGHT MINIMUM	RIDE-HEIGHT MAXIMUM	
VAS 131K2-515	SINGLE	5.00"	11.56"	16.56"	12.56"	15.56"	
VAS 132K2-515	DOUBLE	5.00"	11.56"	16.56"	12.56"	15.56"	

## **Air Management**

#### ■ AirPod™ Self-Contained Compressor Systems

A completely self-contained compressor system, AirPod™ by Air Ride Technologies, conveniently mounts the tank, compressor(s), and valve set on one easily installed plate, eliminating tedious wiring and plumbing. AirPods™ are available in single-compressor 3-gallontank, or dual-compressor 5-gallon-tank versions with RidePro or LevelPro control systems.

- Factory wired, plumbed, and tested
- **Four simple air-line connections**
- Three electrical connections
- Saves 10 15 hours of installation time
- Compact size for easy installation
- Light weight aluminum tank
- Entire unit mounts with only four bolts







CALL FOR INFO

## 9" Third-Member Packages

■ ST Iron Trutrac Package (Up to 700 hp, Case - 26.70 lb)

The ST Iron package is a completely assembled Ford 9" third member shipped ready to install. Cases are constructed from high-grade nodular iron and feature a radial ribbed design providing more uniform support for the pinion and carrier bearings. The caps, also nodular iron, are designed with increased thickness for added strength and ring-gear stability. Third members are equipped with Truetrac worm-gear differentials, with proven acceleration performance in both strip and handling applications. A Daytona-style iron pinion support is included and features a larger than stock rear tapered pinion bearing and improved oil porting. Ring-and-pinion gear selections include: 3.50, 3.70, 3.89, 4.11, 4.30 and 4.57.



8520-112 ST IRON NODULAR CASE, 31-SPLINE TRUETRAC DIFFERENTIAL, 8620 GEAR SET WITH CHOICE OF RATIO (3.50-4.57), CHROME-MOLY 1350 YOKE, DAYTONA IRON PINION SUPPORT

8520-122 ST IRON NODULAR CASE, 35-SPLINE TRUETRAC
DIFFERENTIAL, 8620 GEAR SET WITH CHOICE OF
RATIO (3.50-4.57), CHROME-MOLY 1350 YOKE,
DAYTONA IRON PINION SUPPORT

- ST Iron Case (Nodular Iron)
- Dayton Pinion Support
- 1350 Chrome-moly Yoke
- Truetrac Differential (31- or 35-spline)

■ Pro-Iron 35-Spline Spool Package (700 hp & up, Case - 33.50 lb)

The Pro-Iron package is a completely assembled Ford 9" third member shipped ready to install. Cases are constructed from high-grade nodular iron and feature a heavy-wall, crossribbed design providing more uniform support for the pinion and carrier bearings. The caps, also nodular iron, are designed with increased thickness for added strength and ring-gear stability. Third members are equipped with 35-spline spools, for reliable acceleration performance in high-horsepower drag race applications. Ring and pinion sets are manufactured from high-nickel 9310 steel to endure the high-impact shock loads of drag racing. Gear ratio selections include: 3.40, 3.50, 3.60, 3.70, 3.89, 4.11, 4.29, 4.57, 4.71, and 4.86.



8520-256 PRO-IRON NODULAR CASE, 35-SPLINE SPOOL, 9310
GEAR SET WITH CHOICE OF RATIO (3.40-4.86),
CHROME-MOLY 1350 YOKE, LARGE-STEM IRON
PINION SUPPORT

- Pro-Iron Case (Nodular Iron)
- Chrome-moly 1350 Yoke
- Large Stem Pinion Support

## 9" Third-Member Packages

■ Pro HD Aluminum Truetrac Package (Up to 1000 hp, Case - 31.50 lb)

The Pro HD package is a completely assembled Ford 9" third member shipped ready to install. Cases are constructed from 206-T4 heat treated aluminum and feature a radial ribbed design providing more uniform support for the pinion and carrier bearings. Billet aluminum caps are retained with 9/16" studs and are fully machined. The cap design provides the utmost support for the carrier bearings and significantly reduces ring gear deflection. Third members are equipped with Truetrac worm-gear differentials, with proven acceleration performance in both strip and handling applications. The billet aluminum pinion support has a unique oil channel that is machined 360 degrees into the support to maximize oil flow to the pinion bearings thru optimized porting holes, as well as a large slot milled into the front of the support to further boost oil circulation. Ring-and-pinion gear selections

8520-319 PRO HD ALUMINUM CASE, 31-SPLINE TRUETRAC DIFFERENTIAL, 8620 GEAR SET WITH CHOICE OF RATIO (3.50-4.57), CHROME-MOLY 1350 YOKE, BILLET ALUMINUM PINION SUPPORT

include: 3.50, 3.60, 3.70, 3.89, 4.11, 4.30, 4.57, 4.71 and 4.86.

8520-329 PRO HD ALUMINUM CASE, 35-SPLINE TRUETRAC DIFFERENTIAL, 8620 GEAR SET WITH CHOICE OF RATIO (3.50-4.57), CHROME-MOLY 1350 YOKE, BILLET ALUMINUM PINION SUPPORT

- Pro HD Aluminum Thru-Bolt Case
- Billet Aluminum Pinion Support
- 1350 Chrome-moly Yoke
- Truetrac Differential (31- or 35-spline)

Ultra Case 40-Spline Spool Package (450 hp & up, spool only)

The Ultra Case package is a completely assembled Ford 9" third member shipped ready to install. The heavy-duty aluminum 9" Ultra Case is engineered to provide better lubrication to the pinion bearings and incorporates a uniquely designed pinion support that connects with the case to provide superior ring-and-pinion life. Four chrome-moly studs are encapsulated by billet caps, allowing for shorter and stronger studs. The tail bearing is larger than factory, allowing it to withstand greater rpm speeds, and is secured by a special retainer plate. Third members are equipped with 40-spline spools. Ring and pinion sets are manufactured from high-nickel 9310 steel to endure the high-impact shock loads of drag racing. Gear ratio selections include: 3.40, 3.50, 3.60, 3.70, 3.89, 4.11, 4.29, 4.57, 4.71, and 4.86.

8520-968 ULTRA CASE (ALUMINUM), 40-SPLINE SPOOL, 9310
GEAR SET WITH CHOICE OF RATIO (3.40-4.86),
CHROME-MOLY 1350 YOKE, LARGE-STEM IRON

PINION SUPPORT

- Ultra Case (Aluminum)
- Large Stem Pinion Support
- Chrome-moly 1350 Yoke

## **Custom Axle Packages**

We are proud to offer high-quality axle packages from the performance industry leader, Strange Engineering. Kits come with everything needed for a complete axle installation into your new aftermarket or existing factory housing and third member. Two series of axles are available. S-Series, induction-hardened axles are suitable for a wide variety of performance applications including street, strip or track use. For dedicated-drag-racing applications, the Thru-hardened, ProRace series can withstand power levels beyond 1000 horsepower. Allow 1-4 weeks for delivery.

#### Induction-Hardened Axles (S/S,ST)

Each axle begins as a SAE 1550 modified steel forging, which then undergoes spline hobbing and CNC machining to meet exact required specifications. To improve resistance against bending loads and wear, a post-machining process of electric-coil-induction hardening is performed. Induction hardening increases the hardness of the outer surface while maintaining a more-ductile axle core, necessary for reliable street use. Both S/S and S/T axles feature precisely machined, 1.5635" bearing and special radius ring seats. The press-fit radius ring minimizes stress concentrations along the bearing shoulder and improves axle-flange stability. Bolt-on, billet-aluminum brake registers are machined to size, based on your particular brake and wheel requirements.



#### S/S 28- and 31-Spline Axles (28-spline up to 400 hp; 31-spline up to 500 hp)

For street and handling performance applications, 31-spline S/S axles are recommended. S/S axles can be used with factory 2.891"-or aftermarket 3.0625"-bore cases with appropriate differential (posi-traction, torque-sensing, locker or spool).

#### S/T 35-Spline Axles (up to 800 hp)

For street/strip applications, the S/T axles feature a larger, 1.50"-diameter, 35-spline end that is better suited for the extreme levels of torque during launches. Requires 3.250"-bore case with appropriate gear carrier (locker or spool only).

#### Thru-Hardened Axles (ProRace)

Strange's ProRace series of axles are constructed from Hy-Tuf steel, a high-nickel, ultra-strength steel alloy originally developed for military use.

Axle forgings are machined to required specifications, then heat treated in a vertical furnace to achieve a uniform hardness level from surface through to the center of the shaft. Because of their Thru-Hardened quality, these axles, while torsionally superior to withstand the abusive nature of drag racing, are not suited for high bending loads common with everyday street use. ProRace axles feature precisely machined 1.5635" bearing seats and special radius ring seats. The press-fit radius ring minimizes stress concentrations along the bearing shoulder and improves axle-flange stability. Raised brake registers are machined to size, based on your particular brake and wheel requirements.



### ProRace 31- and 33-Spline Axles (up to 600 hp)

Recommended for drag-race-only use, 31- and 33-spline ProRace axles must be used with a 3.0625"-bore case with appropriate differential (posi, locker or spool; 33-spline axles for spool only).

#### ProRace 35-Spline Axles (up to 1000 hp)

Recommended for drag-race-only use. Requires 3.250"-bore case with appropriate gear carrier (locker or spool only).

#### ProRace 40-Spline Axles (1000 hp and up)

Recommended for drag-race-only use. Requires 3.250"-or-larger-bore case with appropriate gear carrier (spool only).

Note: Horsepower ratings provide a guideline based on drag-race launches and adequate traction. Vehicles equipped with street tires and/or performance applications without drag-style launches (e.g., road racing/track days) can exceed listed power levels by a fair amount.

## **Custom Axle Packages**

#### Wheel-Stud Options

There are two types of wheel studs available in a variety of lengths.

#### Screw-In Studs (1/2")

The standard, 1/2" screw-in stud uses a headed fastener threaded through the axle flange from the back side. The wheel is centered by the raised "brake register" of the axle and driven by the lug-nut-contact surfaces. In the case of a tapered (acorn) lug nut, the driving surface is at the unsupported end of the wheel stud. Available lengths: 2", 3."



#### Drive Studs (5/8" only)

Chrome-moly drive studs are threaded through the flange from the outside and secured on the back by a locking nut. The front-side installation allows quick replacement if ever required. The 11/16" diameter shaft of the stud increases the contact surface with the wheel's bolt hole, to more effectively drive the wheel with reduced stud flex and without the need for shoulder-style lug nuts. Aluminum washers and lug nuts are provided. This upgrade is suitable for high-horsepower drag-racing-performance applications. Available lengths (given as 11/16" shaft length and overall length from flange): .875"/ 2.063"; 1.187"/ 2.375"; 1.500"/ 2.688"; 1.875"/ 3.125".

#### Axle-Package Pricing

Specific information regarding the vehicle application is required.

Visit our Website or call to obtain technical

data sheet with ordering requirements.

Includes: axles, radius rings, billet brake registers, bearings, wheel studs



S/S	28-, AND 31-SPLINE, 1/2" STUDS
	28-, AND 31-SPLINE, 5/8" STUDS
S/T	35-SPLINE, 1/2" STUDS
	35-SPLINE, 5/8" STUDS
PRORACE	28-, 31-, 33- OR 35-SPLINE, 1/2" STUDS
	28-, 31-, 33- OR 35-SPLINE, 5/8" STUDS
	40-SPLINE, SOLID, 5/8" STUDS
	40-SPLINE, GUN-DRILLED, 5/8" STUDS

#### ■ Floating Axle Kits

The Strange Engineering full-floater axle kit eliminates bending loads on the axles caused by the regular vehicle weight and by the wheels trying to accelerate the vehicle. The 40-spline floating axle shaft now only has to handle torque and can take the abuse from high-horsepower Pro Mod, Outlaw, and forced-induction classes. Billet aluminum hubs are available in dual-bolt-circle and scalloped single-bolt-circle versions. Floater axle shafts can be ordered with solid or gun-drilled cores. Calipers and pads also sold separately.

SE F2209	ALUMINUM FULL-HUB KIT FOR 8.5" SPINDLES AND 40-SPLINE AXLE SHAFTS, 5 X 4.75" AND 5 X 5.00" BOLT CIRCLES
SE F2200	ALUMINUM SCALLOPED-HUB KIT FOR 8.5" SPINDLES AND 40-SPLINE AXLE SHAFTS, 5 X 5.50" BOLT CIRCLE
SE B1855	BILLET CALIPER KIT WITH METALLIC PADS
SE A2140	SOLID FLOATER SHAFT, 40-SPLINE (EACH)
SE A2040	GUN-DRILLED FLOATER SHAFT, 40-SPLINE (EACH)





## **Street 11" Disc Caliper Parking Brake**

### Hydra-Mechanical Combination Parking Brake Caliper

This caliper uses hydraulic pressure for stopping and a mechanical locking mechanism for a parking brake. This redesigned unit provides new options for drum brake conversions and disc upgrades on rear axles that are not conducive to internal shoe systems. This caliper, when matched with the correctly proportionate rotor diameter, provides balanced bias and brake performance for use in conjunction with front wheel brake upgrades. It is the perfect compliment of high tech style to custom wheel, tire, and suspension modifications.

Red caliper option

The single piston floating design that attaches to a fixed radial mount bracket. The floating mount allows the caliper to maintain perfect alignment when the cable actuated mechanical parking brake lock is engaged and then released. The



floating mount also keeps the caliper in correct alignment over the disc and prevents

excessive pad knock-back on c-clip rear axles with measurable side play. As the pads wear, the caliper remains centered over the disc. Radial mounting provides nearly unlimited attachment options. Axle flange brackets can be configured to mount the caliper at any height within the compatible rotor diameter range, or lateral position relative the hat and rotor offset. Black and red powder coast units are also available.

The parking brake lock is cable actuated. Connections are made with common cable ends that use a 1/2" cable housing end on the stop bracket, and a 1/8" to 9/64" cable with a crimped or welded ball end. The caliper will accept the OE cable on some vehicles. For other vehicles, new cable ends can be ordered to adapt the caliper to the vehicle's original cable system. For custom installations, aftermarket hand brake kit suppliers can easily configure the cable with the correct attachment end.

### **■ High-Performance Disc Rotors**

The kit comes standard with ultralite HP series 11 x .81" vented, smooth-surface rotors. The HP rotors come uncoated and can withstand extreme operating temperatures for extended periods of time; ideal for high-performance applications. To maximize cooling surface area, 32 individual air passages are cast internally into each rotor. Air passages or vents offer

increased airflow and cooling capability over standard solid-rotor designs.

For more eye-catching high-end street performance, SRP series vented, cross-drilled, slotted, and black E-coated rotors are available.







SRP Rotor

The slotted surface and cross-drilled holes improves pad-to-rotor contact by wiping the pads clean and allowing brake dust and gases to be easily exhausted.

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HOUSING STYLE	AXLE OFFSET	HP ROTOR	SRP ROTOR
BIG FORD (LATE/TORINO)	2.50"	WW 140-10329	WW 140-10329-D
OPTION: RED POWDER-COATE	D CALIPERS		

## Street 12.19" Rear Discs with Parking Brake

#### Forged Dynalite Caliper

The Wilwood rear disc brake kit uses Forged Dynalite (FDL) four-piston, aluminum, lug mount caliper for its superior rigidity, enhanced braking performance and pedal feel. The calipers use a closed end, internal fluid passage design that is further strengthened by four steel bridge bolts extending through the caliper body. Stress flow forging and smooth surface transitions help to eliminate stress points and reduce overall caliper deflection. FDL calipers use one-piece, 1.38"-bore, stainless-steel pistons and hightemperature, square-faced bore seals. Stainless steel slows heat transfer to the brake fluid and improves the systems resistance to heat induced pedal fade.

This reduction in heat also increases the service life of the fluid and seals. The four individual pistons apply pressure against both sides of the rotor. Caliper fluid requirements are matched to the output capabilities of commonly used factory

master cylinders ensuring comfortable performance in a wide range

of applications. The Dynalite calipers are trouble-free and service friendly. Vibration-dampening, stainless-steel bridge plate inserts protect the caliper body from wear caused by pad movement, greatly extending service life. Two-piece bleed screws are easily accessed at each corner of the caliper body and eliminate direct wear to the aluminum body. Brake pads are also easily changed by simply removing the retaining pin and sliding the pads out.



Red caliper

#### High Performance Disc/Drum Rotors

The kit comes standard with HP series, vented, smooth surface, rotors with integrated drum and measure 12.19" x .81". The HP rotors come uncoated and can withstand extreme operating temperatures for extended periods of time; ideal for high performance applications. For more eye-catching high-end street performance, rotors can be upgraded to a SRP series vented, cross-drilled, slotted and e-coated rotor. To maximize cooling surface area, 32 individual air passages are cast internally into each rotor. Air passages or vents offer increased airflow and cooling capability over standard solid rotor designs. The optional SRP rotor with slotted surface and cross-drilled holes improve pad to rotor contact by wiping the pad clean and allowing brake dust and gases to be easily exhausted.







#### **HP Rotor**

#### Billet Aluminum Bracket Assembly

The parking brake and caliper mounting bracket assembly is machined from lightweight, high-strength billet aluminum. Structural mounting points on each bracket receive spline-threaded steel inserts, reducing the mounting hardware and simplifying installation. All components

are anodized, painted, or plated for corrosion resistance and extended service life. Brackets are available for all standard housing ends.



AXLE	HP ROTOR	SRP ROTOR	
OFFSET			
2.66"	WW 140-7143	WW 140-7143-D	
2.36"	WW 140-7139	WW 140-7139-D	
2.36"	WW 140-7582	WW 140-7582-D	
2.50"	WW 140-7140	WW 140-7140-D	
2.50"	WW 140-7146	WW 140-7146-D	
2.66"	WW 140-9228	WW 140-9228-D	
2.75"	WW 140-7148	WW 140-7148-D	
2.81"	WW 140-7141	WW 140-7141-D	
2.75"	WW 140-7149	WW 140-7149-D	
2.81"	WW 140-7578	WW 140-7578-D	
2.75"	WW 140-9315	WW 140-9315-D	
2.36"	WW 140-7144	WW 140-7144-D	
2.81"	WW 140-7147	WW 140-7147-D	
	2.66" 2.36" 2.36" 2.50" 2.50" 2.66" 2.75" 2.81" 2.75" 2.81" 2.75" 2.36"	OFFSET  2.66" WW 140-7143  2.36" WW 140-7139  2.36" WW 140-7582  2.50" WW 140-7140  2.50" WW 140-7146  2.66" WW 140-9228  2.75" WW 140-7148  2.81" WW 140-7141  2.75" WW 140-7149  2.81" WW 140-7578  2.75" WW 140-9315  2.36" WW 140-7144	

## 14" and 13" Rear Discs with Parking Brake

#### Billet SL4R Radial Mount Caliper

The Performance 14" and 13" kits use Wilwood's SL4R four-piston, billet aluminum, radial mount caliper for its superior rigidity, enhanced braking performance and pedal feel. These calipers use a closed end design that is further strengthened by five steel bridge bolts extending through the caliper body and directly across the brake pads. Smooth surface transitions help to eliminate stress points and reduce overall caliper deflection. The SL4R caliper uses lightweight, coated aluminum pistons and high temperature rubber boots to seal out debris from the piston bores. The total seal design reduces unnecessary wear, increasing the service life of the pistons. Caliper fluid requirements are matched

to the output capabilities of commonly used factory master cylinders ensuring comfortable performance in a wide range of applications. Vibration dampening stainless steel bridge plate inserts protect the caliper body from wear caused by pad movement,

greatly extending service life. Dampened external fluid tubes are routed through recessed pockets to keep clear of debris

and reduce the potential of vibration induced wear at the fittings.

Two-piece bleed screws are easily accessed at the top of each side of the caliper body and eliminate direct wear to the aluminum body. Brake pads are also changed easily by simply removing the center bridge bolt and sliding the pads out.



SRP Rotor

#### ■ High Performance Vented Disc Rotors

The kit comes standard with HP series, vented, smooth surface, rotors with integrated drum and measure 14" x 1.10", or 13" x .81". The HP rotors come uncoated and can withstand extreme operating temperatures for extended periods of time; ideal for high performance applications. For more eye-catching high-end street performance, rotors can be upgraded to a SRP series vented, cross-drilled, slotted and zinc washed rotor. To maximize cooling surface area, individual air passages are cast internally into each rotor. Air passages or vents offer increased airflow and cooling capability over standard solid rotor designs. The optional SRP rotor with slotted surface and cross-drilled holes improve pad to rotor contact by wiping the pad clean and allowing brake dust and gases to be easily exhausted.

#### 2-piece Steel Hat Drum

Red caliper

wilwor

Separate machine finished, cast steel hats provide the holding drum for the parking brake shoes and allow components to be easily replaced if damaged or worn. Rotors and hats are secured in a 12-bolt configuration to provide additional stability to the rotor. Hats are drilled for multiple five-lug bolt patterns and accept 1/2" wheel studs.

#### ■ Billet Aluminum Bracket Assembly

The parking-brake, and caliper-bracket assembly is machined from high-strength billet aluminum. Structural mounting points on each bracket receive spline-threaded steel inserts, reducing the mounting hardware and simplifying installation. All components are anodized, painted, or plated for corrosion resistance and extended service life.

■ Performance 14"					
HOUSING STYLE	AXLE OFFSET	HP ROTOR	SRP ROTOR		
BIG FORD (LATE/TORINO)	2.50"	WW 140-10012	WW 140-10012-D		
OPTION: RED POWDER-COATED	CALIPERS				

■ Performance 13"				
HOUSING STYLE	AXLE	HP ROTOR	SRP ROTOR	
HOOSING STILE	OFFSET			
SMALL FORD (EARLY MUSTANG)	2.66"	WW 140-9216	WW 140-9216-D	
BIG FORD (EARLY)	2.36"	WW 140-9217	WW 140-9217-D	
BIG FORD (LATE)	2.36"	WW 140-9218	WW 140-9218-D	
BIG FORD (LATE/TORINO)	2.50"	WW 140-9219	WW 140-9219-D	
8.8" FORD (5-LUG NO ABS/TRACTION CONTROL)	2.50"	WW 140-9223	WW 140-9223-D	
8.8" FORD (5-LUG 2005-PRESENT)	2.66"	WW 140-9221	WW 140-9221-D	
SMALL GM W/ C-CLIPS	2.81"	WW 140-9213	WW 140-9213-D	
SMALL GM SPECIAL	2.81"	WW 140-9215	WW 140-9215-D	
MOPAR/DANA (GREEN BEARING W/ SNAP RING)	2.36"	WW 140-9222	WW 140-9222-D	
OLDS/PONTIAC	2.81"	WW 140-9224	WW 140-9224-D	
OPTION: RED POWDER-COATED CALIPERS				

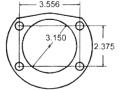
## **Rear Brake Guide**

#### Applications - Rear Disc Brake Parking Brakes

AXLE	PERFOR	PERFORMANCE 13"		STREET 12.19"	
OFFSET	HP ROTOR	SRP ROTOR	HP ROTOR	SRP ROTOR	
2.66"	WW 140-9216	WW 140-9216-D	WW 140-7143	WW 140-7143-D	
2.36"	WW 140-9217	WW 140-9217-D	WW 140-7139	WW 140-7139-D	
2.36"	WW 140-9218	WW 140-9218-D	WW 140-7582	WW 140-7582-D	
2.50"	WW 140-9219	WW 140-9219-D	WW 140-7140	WW 140-7140-D	
2.50"	WW 140-9223	WW 140-9223-D	WW 140-7146	WW 140-7146-D	
2.66"	WW 140-9221	WW 140-9221-D	WW 140-9228	WW 140-9228-D	
2.75"	-	-	WW 140-7148	WW 140-7148-D	
2.81"	WW 140-9213	WW 140-9213-D	WW 140-7141	WW 140-7141-D	
2.75"	-	-	WW 140-7149	WW 140-7149-D	
2.81"	WW 140-9215	WW 140-9215-D	WW 140-7578	WW 140-7578-D	
2.75"	-	-	WW 140-9315	WW 140-9315	
2.36"	WW 140-9222	WW 140-9222-D	WW 140-7144	WW 140-7144-D	
2.81"	WW 140-9224	WW 140-9224-D	WW 140-7147	WW 140-7147-D	
	2.66" 2.36" 2.36" 2.50" 2.50" 2.66" 2.75" 2.81" 2.75" 2.81" 2.75" 2.36"	OFFSET HP ROTOR  2.66" WW 140-9216  2.36" WW 140-9217  2.36" WW 140-9218  2.50" WW 140-9219  2.50" WW 140-9223  2.66" WW 140-9221  2.75" -  2.81" WW 140-9213  2.75" -  2.81" WW 140-9215  2.75" -  2.81" WW 140-9215  2.75" -  2.81" WW 140-9222	OFFSET         HP ROTOR         SRP ROTOR           2.66"         WW 140-9216         WW 140-9216-D           2.36"         WW 140-9217         WW 140-9217-D           2.36"         WW 140-9218         WW 140-9218-D           2.50"         WW 140-9219         WW 140-9219-D           2.50"         WW 140-9223         WW 140-9223-D           2.66"         WW 140-9221         WW 140-9221-D           2.75"         -         -           2.81"         WW 140-9213         WW 140-9213-D           2.75"         -         -           2.81"         WW 140-9215         WW 140-9215-D           2.75"         -         -           2.36"         WW 140-9222         WW 140-9222-D	OFFSET         HP ROTOR         SRP ROTOR         HP ROTOR           2.66"         WW 140-9216         WW 140-9216-D         WW 140-7143           2.36"         WW 140-9217         WW 140-9217-D         WW 140-7139           2.36"         WW 140-9218         WW 140-9218-D         WW 140-7582           2.50"         WW 140-9219         WW 140-9219-D         WW 140-7140           2.50"         WW 140-9223         WW 140-9223-D         WW 140-7146           2.66"         WW 140-9221         WW 140-9221-D         WW 140-9228           2.75"         -         -         WW 140-7141           2.75"         -         -         WW 140-7149           2.81"         WW 140-9215         WW 140-9215-D         WW 140-7578           2.75"         -         -         WW 140-9315           2.75"         -         -         WW 140-9315	

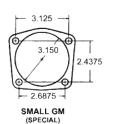
### Housing End Diagrams

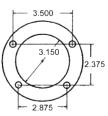
#### Axle Offset: Measured from face of housing end to outside face of axle flange.

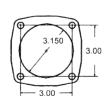


BIG FORD

3.557

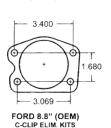


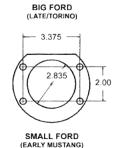




SYMMETRICAL

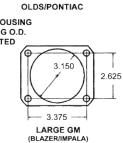
AXLE OFFSET





3.125 AXLE HOUSING TUBING O.D. LISTED 2.4375

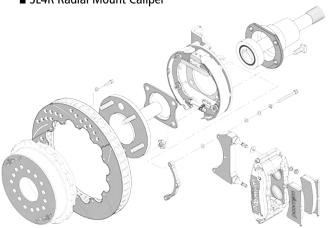
SMALL GM (OEM) C-CLIP ELIM. KITS (64-72 2.725 OD) (93-02 2.840 OD)



(5) HOLES ON 3 375 B.C.

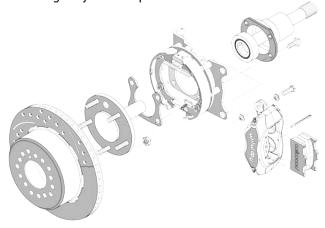
### ■ Diagram - Performance 13"

- 2-Piece Disc Drum Assembly
- SL4R Radial Mount Caliper



#### ■ Diagram - Street 12.19"

- 1-Piece Disc/Drum
- Forged Dynalite Caliper



## Notes

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## Notes

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Revised: 04/01/13

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