



A Chris Alston's Chassisworks, Inc. Brand

**VAS 86X10FX**

## Bolt-On Front Coil-Over-Shock Conversion for 1962-67 Chevy II Nova, 1963-67 Pontiac Acadian



### Features and Benefits

- Bolt-in installation with OEM-style upper control arms
- Modular shock-tower adapters with choice of stock or lowered ride height
- Spring-rate specific to vehicle weight and performance application
- Greaseable spherical-stem upper shock mount
- Heavy-duty urethane-bushed lower crossbar
- Available in 16-position single-adjustable or 256-combination double-adjustable versions

## Bolt-On Front Coil-Over Shock Conversion

Converting the stock front suspension of your 1962-67 Chevy II Nova or 1963-67 Pontiac Acadian to coil-over shocks is now a simple bolt-on procedure. Our exclusive modular shock-tower-adapter system and spherical-stem assembly gives you a choice of stock or lowered ride heights and can be used for a broad variety of performance applications. The tower adapter and lower crossbar replace the factory shock mount and lower spring perch respectively. Lightweight billet-aluminum VariShock coil-overs are available in 16-position single-adjustable or 256-combination double-adjustable versions and provide 7-1/2" of suspension travel. Choice of spring rates range from 350 to 750 lb/in., suitable for street-friendly ride quality to pro-touring and competitive handling performance. A second set of different rate springs can also be selected as an option for tuning purposes. Kits include shocks, springs, tower adapters with reinforcement plates, and mounting hardware.

# VariShock

To simplify installation a complete custom shock absorber was developed specifically for the application. Installed height, travel, valving range, and mounting configuration are built to our exact specifications. Other manufacturers are forced to compromise with off-the-shelf shock absorbers, limiting their design flexibility and available options.

Variable shock valving gives you up to 256 different combinations of “instant adjustment” – without unbolting your VariShock! During five years of intense research and development every shortcoming of conventional racing shocks was successfully corrected. Designed from a clean sheet of paper, VariShock’s QuickSet 2 combines sophisticated shock valving with all-new, American-made components. Never before have so much performance, repeatability, and adjustability been offered to vintage Mustangs and classic Fords.

## 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.

## Double-Adjustable 16-Position Knobs

VariShock’s double-adjustable design is also easier to tune: 256 different settings are attainable simply by rotating two fully accessible, 16-position knobs. All adjustments are made in seconds, without removing or unbolting the VariShock. One knob sets the bump (compression) range; the other sets rebound (extension). Both knobs are laser-etched with directional arrows and “plus/minus” symbols that clearly indicate which direction achieves the desired adjustment. Additional arrows etched into the QuickSet 2’s base reveal which knob sets bump and which sets rebound.

## Double- or Single-Adjustable

Our double-adjustable QuickSet 2 allows you to control vehicle separation (rebound) and settling (bump) independent of each other. This allows you to tune your suspension to track conditions for ultimate performance. In the single-adjustable model you have 16 settings where both bump and rebound are adjusted simultaneously. This offers a good compromise between the ultimate tunability of the QuickSet 2 and affordability of the QuickSet 1.

## Controlled Quality

Repeatability is unprecedented! By controlling the quality of the components, assembling them in-house, and dyno-testing every assembly, Chris Alston’s Chassisworks can deliver a pair of VariShocks that perform virtually identically — throughout the entire range of travel. Whereas other brands in this price range rely on cheaper offshore or OEM parts, American-made VariShocks are engineered systems of premium components, all designed to meet your specific needs.

## Revolutionary Adjustment Mechanism

A revolutionary adjustment mechanism, smaller than any previous design, allows our billet aluminum body to be both shorter and lighter. The shocks use deflective disk valving in the pistons to eliminate spring fatigue. Internal connections and return paths use a unique machined configuration and added seals to prevent bypassing. During low piston speeds the damping action of the shock is dominated by bypassing flows. VariShock eliminates the bypassing of internal leakage to give the shock repeatable control even at low piston speeds. Custom valving is also available.

## Durability

In addition to consistent performance, durability is of utmost importance. Internal shaft seals specifically designed and manufactured for these shock absorbers produce a longer-lasting seal that helps keep dirt out of the shock absorber. Piston rods are made from 5/8” centerless-ground hard-chrome steel for wear resistance and long service life. VariShock models are even rebuildable in the event they get bent or damaged.



**QuickSet 2**  
Double Adjustable



**QuickSet 1**  
Single Adjustable

## Spherical Stem Mount

Our free-pivoting, deflection-free mount allows precise suspension tuning by eliminating compliant rubber or urethane bushings. The VariShock exclusive, spherical-stem assembly attaches the coil-over shock to the chassis at the factory mounting location. The swedged-steel mount base effectively captures and houses the spherical bearing of the stem. The stem mounts directly to the shock-tower adapter and is secured by a 5/8" locknut. An



integral hex at the top of the stem enables the stem to be securely held as the locknut is tightened during installation. An easily accessible zerk fitting mounted at the tip of the stem injects grease directly onto the bearing contact surfaces.

## Locking Lower Spring Seat

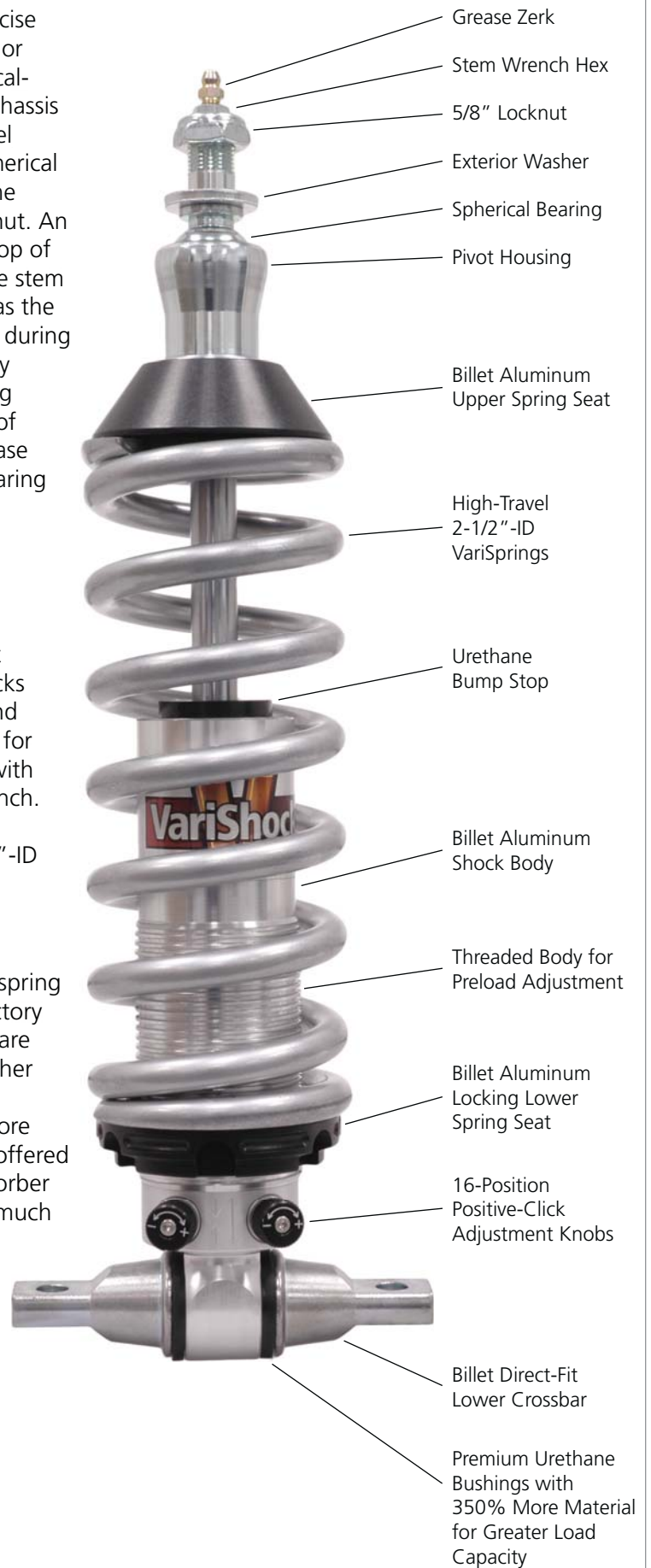
A redesigned, one-piece lower spring seat does not require a locknut; it's locked in place by two ball locks that press into the grooves on the reservoir body and



easily unlock for adjustment with an Allen wrench. Spring seats accept 2-1/2"-ID coil springs.

## Billet Lower Crossbar

The lower cross-bar assembly replaces the factory spring perch and can be mounted directly to a TCP or factory upper control arm. A 1/2" stud and crush washer are used to thread the two billet crossbar halves together and apply the proper amount of bushing preload. The lower cross-bar bushings have up to 350% more urethane material than common 1/2" shock eyes offered by other brands. To improve spring and shock absorber performance we chose a premium urethane with much higher load capacity and longer service life.



## Shock Tower Adapter System

Our exclusive shock tower adapter system is used to position the shock at the correct height for your specific vehicle and performance application. Two different adapters enable us to offer a stock-to-raised or stock-to-lowered ride-height option, covering the full range of performance applications and vehicle styles.

The upper mount utilizes the factory shock tower mounting holes and is a direct bolt-on for most

applications. Some installations may require minor trimming of sheetmetal seams to ensure a solid mount. Adapter plates mount on top of the shock tower with a steel reinforcement backup ring to sandwich the shock-tower sheet metal, helping to evenly distribute loads.

Adapter mounts are black powder coated and can be fit with optional polished-stainless-steel caps for an extremely clean and finished appearance.



Polished-Billet-Stainless Cap (optional)



### Zero Offset Adapter

- Stock to 2" raised ride height



### 1" Offset Adapter

- Stock to 2" lowered ride height



Shock Tower Back-up Plate



Mounting Hardware



## 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 high-tensile wire that is stronger than the chrome-silicon wire used by other manufacturers. This allows the springs to "set solid." The springs can compress until the coils touch without damaging the springs or causing them to take a set, which ultimately changes the ride height. Since this wire can flex more than conventional chrome-silicon wire, we can wind VariSprings with a coarser pitch that reduces weight and increase spring travel. These springs have greater travel than our competitors' springs of the same rate. VariSprings allow your shocks to travel their full range of motion without experiencing coil-bind. 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, then step up to VariSprings.



## Spring Selection Guidelines

A good spring rate baseline for a Chevy II with an iron small block is 450 lb./in.

### Differences that alter desired spring rate:

- Weight Reduction -50 lbs
- Big Block +100 lbs
- Road Race +50 lbs (better handling)
- Drag Race -50 lbs (more stored energy)

Spring rate affects ride quality, ride height and roll rate characteristics. Differences in vehicles such as aluminum engine components, fiberglass body parts and chassis stiffening should be taken into consideration. Additional springs can be purchased for tuning purposes.

## 9" VariSprings

Rate (lb/in)	Part Number
350	VAS 21-09350
400	VAS 21-09400
450	VAS 21-09450
500	VAS 21-09500
550	VAS 21-09550
600	VAS 21-09600
675	VAS 21-09675
750	VAS 21-09750

## Additional Coil-Over Components

### 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.



### Coil-Over Spring Compressor

For use with all 2-1/2"-ID coil springs. Greatly eases adjustment on high-preload or high-rate applications.



### Non-Slip Spanner Wrench

Offered with the conversion kit is an exclusive, non-slip spanner wrench incorporating four tangs, which will not slip off the lower spring seat. Unlike common single-tang spanners, our VariShock wrench engages the seat in four places and can be used to push or pull in tight spaces. Wrenches are also available separately to add to your toolbox.



Part Number	Description	Price
VAS 513-100	Spring-seat thrust bearing set (pair)	\$49. <sup>00</sup>
899-012-201	VariShock spanner wrench	31. <sup>00</sup>
VAS 200	2-1/2" coil-over spring compressor	55. <sup>00</sup>

## Applications and Pricing

Make	Model	Year	QuickSet 1	QuickSet 2
			\$788-up	\$988-up
Chevrolet	Chevy II/Nova	1962-1967	VAS 86X10F1	VAS 86X10F2
Pontiac	Acadian	1963-1967	VAS 86X10F1	VAS 86X10F2

Options	Price
Lowered ride height	\$0 <sup>.00</sup>
VariShock spanner wrench	15 <sup>.00</sup>
Spring-seat thrust bearings	39 <sup>.00</sup>
2-1/2" coil-over spring compressor	55 <sup>.00</sup>
Polished-stainless tower-adapter caps	79 <sup>.00</sup>
Add second set of springs for tuning	100 <sup>.00</sup>
Upgrade to QuickSet 2, double-adjustable shocks	\$200 <sup>.00</sup>

## Related Products

### The Most Complete Subframe System

Chassisworks' muscle-car g-Machine Chevy II subframe is a direct-fit, high performance suspension solution designed for 1962-67 Chevrolet Chevy II Novas and 1963-67 Pontiac Acadians. The system features a welded subframe with integrated g-Machine double A-arm, rack-and-pinion crossmember and two supporting struts, all secured at the factory firewall mounting locations. Our direct bolt-on design enables a time-saving, straight-forward installation that requires absolutely no custom fabrication. Unlike others, the g-Machine Chevy II subframe is completely boxed with welded radiator-core-support crossmember, high-clearance bent support struts for engine and exhaust clearance, and optional aluminum inner fender panels and steel fender supports with integrated hood-hinge mounts. As an option, factory-welded motor-plate brackets can also be added for vehicles requiring maximum chassis stiffness, while an optional mid plate is a simple bolt-on.



All prices subject to change. Current pricing available at [www.varishock.com](http://www.varishock.com).



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