

**READ ALL INSTRUCTIONS COMPLETELY AND THOROUGHLY UNDERSTAND THEM BEFORE DOING ANYTHING.  
CALL CHASSISWORKS TECH SUPPORT (916)388-0288 IF YOU NEED ASSISTANCE.**

# INSTALLATION GUIDE



## Bolt-In Front Suspension Conversion for 1962-1967 Chevy II



### Description:

VariShock™ front bolt-on suspension conversion, upper shock tower, VariSprings and mounting hardware.

**Applications:** '62-67 Chevy II

**IMPORTANT:** The outer shock tower reinforcement plate and suspension bump stop must be reinstalled prior to operating the vehicle. Worn or damaged suspension bump stops must be replaced. Failure to provide a proper compression-travel suspension stop will cause unwarrantable damage to the shock absorber and possible structural damage to the chassis.

### WARRANTY NOTICE:

There are NO WARRANTIES, either expressed or implied. Neither the seller nor manufacturer will be liable for any loss, damage or injury, direct or indirect, arising from the use or inability to determine the appropriate use of any products. Before any attempt at installation, all drawings and/or instruction sheets should be completely reviewed to determine the suitability of the product for its intended use. In this connection, the user assumes all responsibility and risk. We reserve the right to change specification without notice. Further, Chris Alston's Chassisworks, Inc., makes **NO GUARANTEE** in reference to any specific class legality of any component. **ALL PRODUCTS ARE INTENDED FOR RACING AND OFF-ROAD USE AND MAY NOT BE LEGALLY USED ON THE HIGHWAY.** The products offered for sale are true race-car components and, in all cases, require some fabrication skill. **NO PRODUCT OR SERVICE IS DESIGNED OR INTENDED TO PREVENT INJURY OR DEATH.**

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# PARTS LIST

Prior to beginning installation use the following parts lists to verify that you have received all components required for installation.

## Bolt-In Front Suspension Conversion

Part Number	Qty.	Description
VAS 21-09XXX	1 (pair)	VariSprings, 9" Length, Selected Spring Rate
<b>KIT INCLUDES ONE OF THE SHOCKS BELOW:</b>		
VAS 160MS-425	1 (pair)	VariShock SensiSet Coil-Overs, Ball Stud Upper, Crossbar Lower
VAS 161MS-425	1 (pair)	VariShock QuickSet 1 Coil-Overs, Ball Stud Upper, Crossbar Lower
VAS 162MS-425	1 (pair)	VariShock QuickSet 2 Coil-Overs, Ball Stud Upper, Crossbar Lower
VAS 131MS-350	1 (pair)	VariShock QuickSet 1 Air-Spring Shocks, Ball Stud Upper, Crossbar Lower
VAS 132MS-350	1 (pair)	VariShock QuickSet 2 Air-Spring Shocks, Ball Stud Upper, Crossbar Lower
<b>KIT INCLUDES ONE OF THE TWO SHOCK TOWER ADAPTER KITS BELOW:</b>		
300-34001	1	Shock Tower Adapter Set, No Offset
300-34002	1	Shock Tower Adapter Set, 1" Offset

### 300-34001 – Shock Tower Adapter X10, Zero Offset

Part Number	Qty.	Description
210142	2	Shock tower backup plate X10
210143	2	Shock tower adapter flat X10
7952-VAS86X10FX	1	Hardware bag

### 300-34002 – Shock Tower Adapter X10, One-Inch Offset

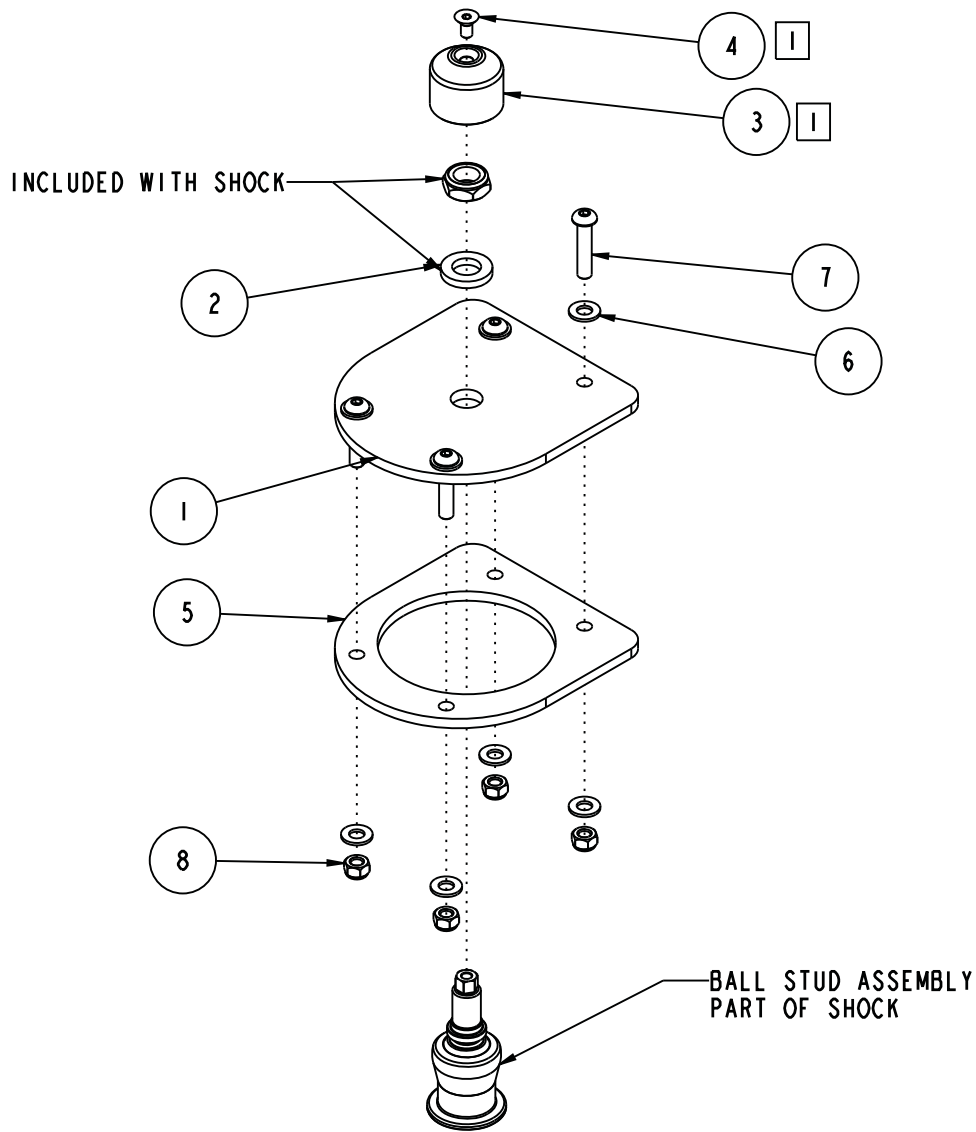
Part Number	Qty.	Description
210142	2	Shock tower backup plate X10
5411	2	Shock tower adapter weldment X10 1" offset
7952-VAS86X10FX	1	Hardware bag

### 7952-VAS86X10FX – Hardware Bag

Part Number	Qty.	Description
3101-031-18C	8	Locknut 5/16-18 nylon insert
3104-031C1.50C	8	Button head 5-16-18 x 1-1/2" clear zinc plated
3120-031S-Y	20	Washer 5/16" hardened flat

### 300-34001 – Zero-Offset Mount

ITEM	QTY	PART NO.	DESCRIPTION
1	2	210143	SHOCK TOWER PLATE, $\varnothing$ 1 1/16 HOLE, 62-67 CHEVY II/NOVA
2	2	899-044.63-1.13	STEEL WASHER .635 ID x 1.125 OD x .18 THICK
3	2	7909-055	CAP, TOWER ADAPTER, POLISHED STAINLESS
4	2	3105-025F0.50-H	FLAT HEAD SOCKET SCREW, 1/4-28 x 1/2, STAINLESS STEEL, POLISHED
5	2	210142	BACKUP PLATE, SHOCK TOWER, 62-67 CHEVY II/NOVA
6	20	3120-031S-Y	FLAT WASHER, 5/16 SAE, HARDENED
7	8	3104-031C1.50C	BUTTON HEAD SOCKET CAP SCREW, 5/16-18 x 1 1/2, CLEAR ZINC
8	8	3101-031-18C	LOCKNUT 5/16-18, GRADE 5, NYLON INSERT, CLEAR ZINC



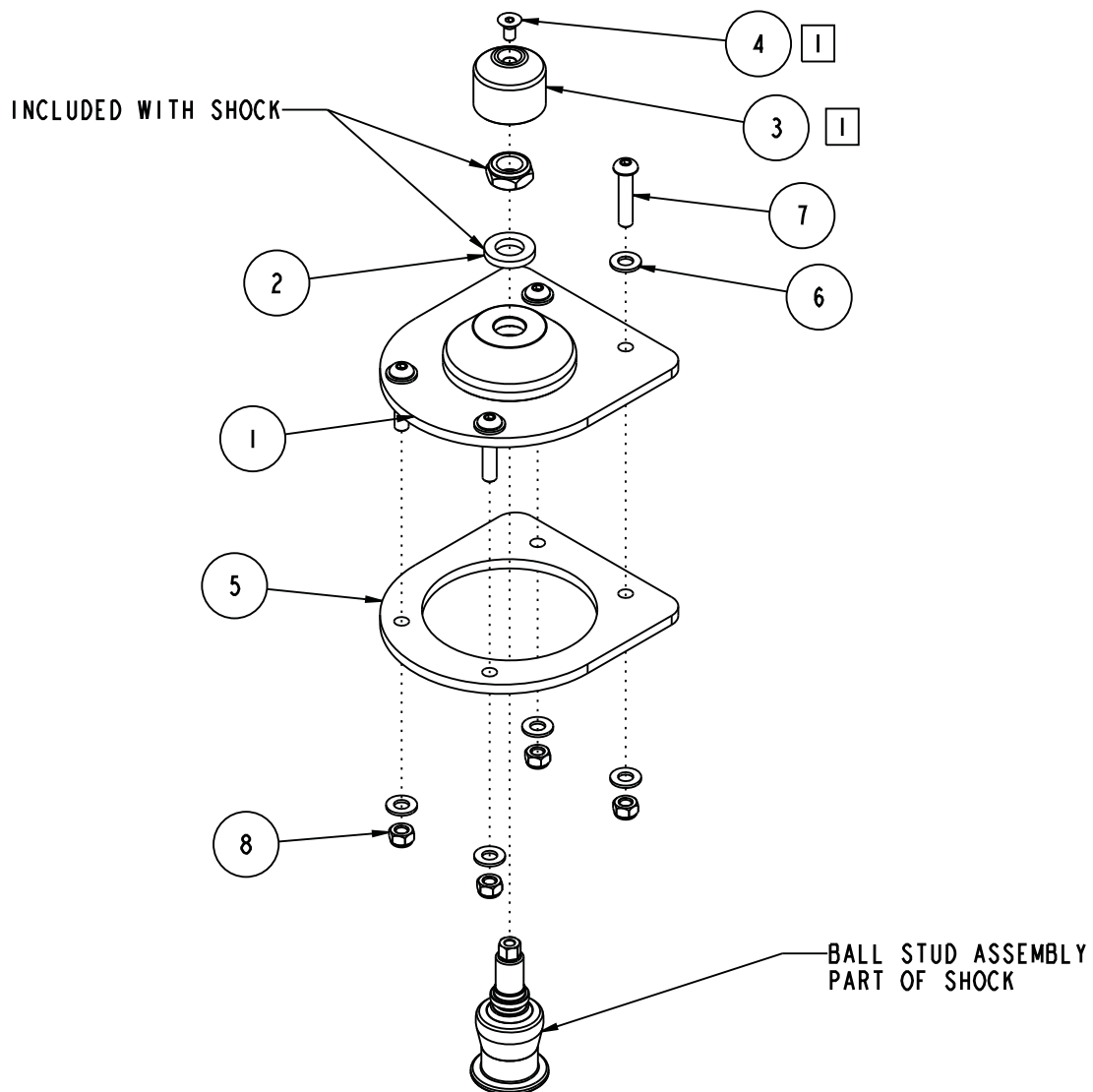
**NOTES:**

1 NOT INCLUDED IN THIS PART NUMBER. PART OF TCP COLVF-12

DESCRIPTION		TOWER ADAPTER, NO OFFSET, BALL STUD MNT, 62-67 CHEVY II/NOVA	
Chris Alston's CHASSISWORKS INC. 8661 YOUNGER CREEK DRIVE SACRAMENTO, CA 95828 (916) 388-0288 FAX 388-0295		PART NO. <b>VAS86X10FX-0</b>	
		12/18/07	DWG: 91VAS86X10FX-0

### 300-34001 – One-Inch-Offset Mount

ITEM	QTY	PART NO.	DESCRIPTION
1	2	5411	TOWER ADAPTER WELDMENT, 1.00 OFFSET, 62-67 CHEVY II/NOVA
2	2	899-044.63-1.13	STEEL WASHER .635 ID x 1.125 OD x .18 THICK
3	2	7909-055	CAP, TOWER ADAPTER, POLISHED STAINLESS
4	2	3105-025F0.50-H	FLAT HEAD SOCKET SCREW, 1/4-28 x 1/2, STAINLESS STEEL, POLISHED
5	2	210142	BACKUP PLATE, SHOCK TOWER, 62-67 CHEVY II/NOVA
6	20	3120-031S-Y	FLAT WASHER, 5/16 SAE, HARDENED
7	8	3104-031C1.50C	BUTTON HEAD SOCKET CAP SCREW, 5/16-18 x 1 1/2, CLEAR ZINC
8	8	3101-031-18C	LOCKNUT 5/16-18, GRADE 5, NYLON INSERT, CLEAR ZINC



**NOTES:**

1 NOT INCLUDED IN THIS PART NUMBER. PART OF TCP COLVF-12

DESCRIPTION		TOWER ADAPTER, 1.0 OFFSET, BALL STUD MNT, 62-67 CHEVY II/NOVA	
Chris Alston's CHASSISWORKS INC. 8661 YOUNGER CREEK DRIVE SACRAMENTO, CA 95828 (916) 388-0288 FAX 388-0295		PART NO.	VAS86X10FX-1
12/18/07	DWG: 91VAS86X10FX-1		

# INSTRUCTIONS

## Remove Factory Shock and Spring

1. Raise the front end of car and secure with jack stands. Wheels must not be in contact with ground.
2. Remove wheels, making note of which side of vehicle they were removed from.
3. The outer shock tower reinforcement to which the factory suspension bump stop is attached can be removed for easier access when mounting the upper stem of the shock.

**IMPORTANT:** The shock tower reinforcement must be placed back into it's installed position when checking clearances in later steps.

4. Unbolt lower shock mounting nuts from the spring perch.



5. The upper shock mount is attached to the shock tower. It will be removed and replaced with the coil over mount.



6. Unbolt the upper shock mount from the shock tower and remove the nut, washer, and bushing from the shock stem.



7. The shock is now ready to be removed.



8. Remove the shock by lifting it through the coil spring and out the top of the shock tower.
9. Once the shock is out of the way, the coil-spring lower perch can be removed.



10. Using a spring compressor, remove the coil spring. Follow the tool manufacturer's instructions for proper use of the spring compressor.
11. Unbolt lower spring perch from control arm.
12. With the coil spring and shock removed, the coil-over shock can now be installed.



## Modify the Shock Tower

*There are two lips on the under side of the shock tower that need to be ground so the shock tower backup plate will sit tight against the tower.*



13. Use a disc sander to remove the two lips as shown.



14. This photo shows the ground areas on the shock tower.



15. Trial fit the shock tower backup plate (210142), sand the lips until the plate fits tight.





The upper shock towers are slightly different on the 1962-65 and 1966-67 models. The 1962-65 is shown on the left and will need the modifications in steps 17-20 before the upper coil-over mount plate can be installed. If you are working on a 1966-67 model, skip to page 11.

### 1962-65 - MODIFICATION REQUIRED



### 1966-67 - PROCEED WITH MOUNT INSTALL



## 1962-65 Modification

*This lip will need to, ground to allow the coil over mount plate to sit flat on the shock tower.*



16. Set the upper mount plate on the shock tower, then insert the two outside bolts as show.

17. Use a marker to mark the lip at the edge of the plate. The lip underneath the mount plate will need to be ground.



18. Use a disc sander to grind the lip until the plate sits flat on the tower.



19. The plate now fits correctly and is ready to be installed.

*If the top plate does not seat solidly against the shock tower, extra flat washers are included to shim the corner that does not make full contact.*



### **Installing The Upper Coil Over Mount Plate**

20. The coil-over upper mount plate installs with the flat edge toward the outside of the car as shown.
21. Set the plate on the shock tower and install the outer button head bolts and flat washers. The inner bolts are also placed in the holes just as a guide to ensure the mount is not rotated. These holes will need to be drilled.

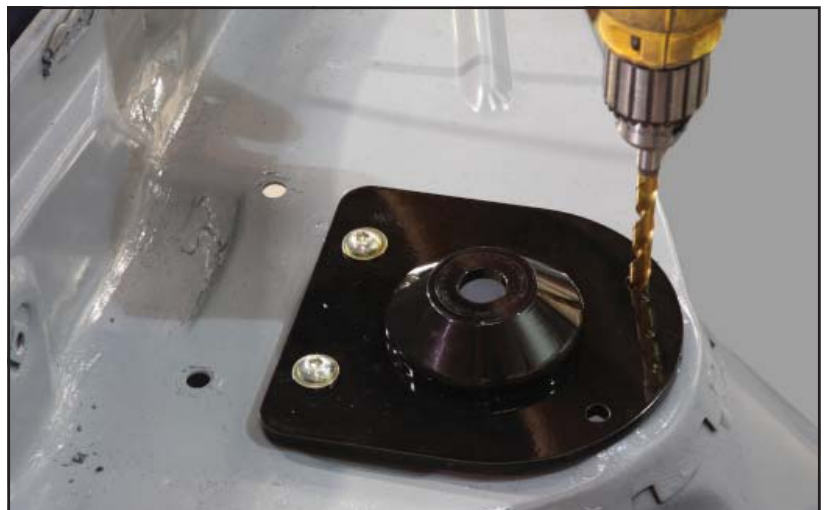


22. Install the flat washer and locknuts on the two outer bolts and tighten to hold the mount plate securely.



23. Using the plate as a guide, drill the two inner holes of the shock tower with a 5/16" diameter drill bit.

24. Insert the button head bolts and flat washers through the mount plate and the shock tower.



25. Slide the backup plate over the four bolts and secure with the flat washers and locknuts.

26. Tighten the bolts and torque to 25 lb-ft.



27. Install the spring on the coil over shock and install the lower crossbar following the instructions included with the shock.
28. Insert the coil-over stem into the upper mount plate from the bottom. A washer is not used for this step. The stem seats directly against the mount plate.



29. On the top of the mount, place 5/8"-ID, heavy washer over the stem, followed by the 5/8" half-height locknut.



30. Use a 7/16" open end wrench to hold the stud while tightening the half-height locknut with a 15/16" open end wrench.
31. Use a grease gun to lube the bearing in the upper coil over swivel mount.



## Optional Stainless Cap

*The following steps apply only if the optional Stainless Steel Cap has been purchased. If using the standard hardware, skip to the following page.*

32. Remove the zerk fitting from the shock stem. Keep the zerk fitting to grease the upper bearing at regular oil-change intervals.



33. Set the stainless steel cap over the stud until it is seated against the upper mount plate.
34. Use an allen wrench to thread the 1/4-28 flat head cap screw into the threaded hole from which the zerk fitting was removed.



## Lower Shock Mount

35. Slide a flat washer over each 3/8-16 x 1-3/4" bolt (from the 899-061-304 hardware bag) into the crossbar as shown.
36. Lift the spindle and A-arm assembly up until the bolts go through the A-arm. You may need to rotate the crossbar during this step to get the bolts to align.



37. Place a flat washer followed by the locknut on each bolt.



38. Tighten the bolts to 30 lb-ft.

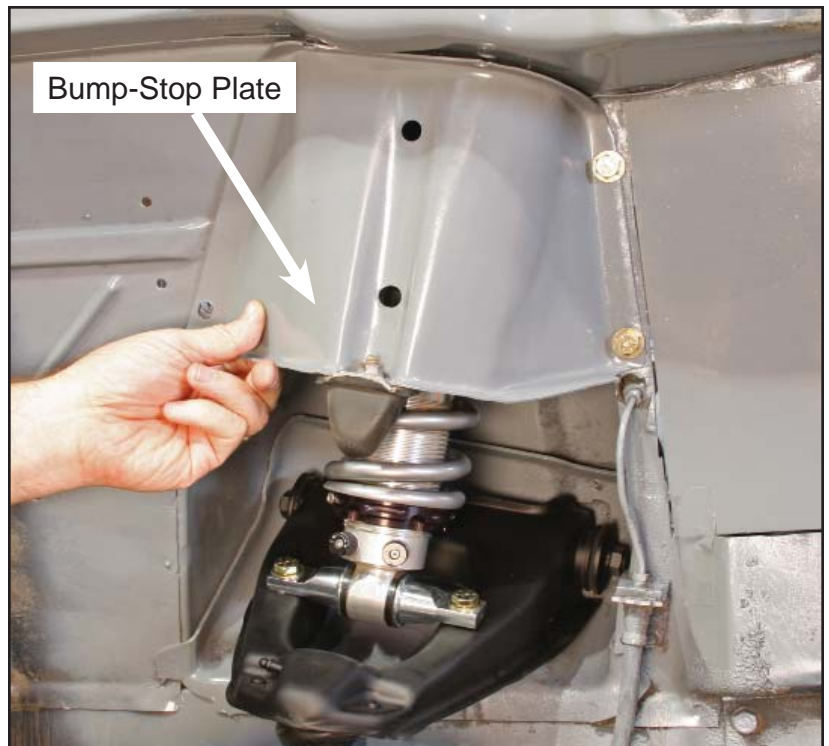


39. The coil-over shock and spring are now installed.



40. Reinstall the bump-stop plate, check to make sure there is at least 3/4" clearance between the coil-over and the plate when installed. If additional clearance is needed, washers can be used in the lower holes to space the shock tower reinforcement plate outward.

41. Repeat this procedure on the opposite side of the car.

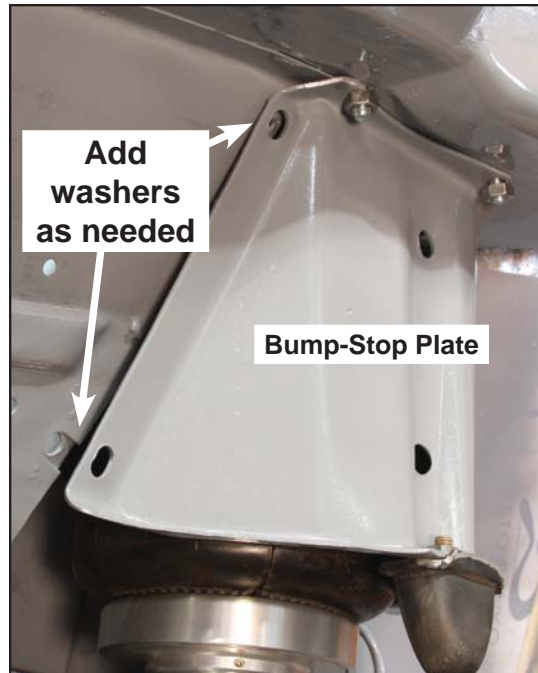


## Installing the VariShock Air Spring

- Use the same procedure to install the VariShock air spring as the coil over.



- The Air spring is larger in diameter than the coil-over. When reinstalling the bump-stop plate you will need to shim it out with washers. There must be at least 3/4" of clearance between the bump-stop plate and the air spring. If the air spring rubs on the plate during travel it will be damaged and this is not covered under the warranty in any way.



## Verifying Ride Height

Before operating the vehicle you must verify that the correct rate springs are installed and that the shock is within the allowable ride-height range when the full weight of the vehicle is on the suspension. Instructions for correctly measuring the ride-height and calculating the correct spring rate are included in the installation guide packaged with the shock absorbers.

If you need assistance refer to the [www.VariShock.com](http://www.VariShock.com) or contact Chassisworks tech support.

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