# INSTALLATION GUIDE

CHRIS ALSTON'S Chassisworks
THE HOME OF HIGHER TECHNOLOGY

# 5706-H20 and 5707-H20

## gStreet™ Coil-Over and Air-Spring Shock Conversion for 1958-1964 Chevy Impala and Full-Size GM

**Description:**
gStreet™ Coil-Over and Air-Spring Shocks conversions includes upper and lower control arms, and VariShock coil-over shocks with springs or Air-Spring Shocks. Additional air compressor and control system are required for operation.

# PARTS LIST

## 5704-H20 - Upper Control Arms, ‘58-64 Impala

| Qty | Part Number | Description |
|---|---|---|
| 1 | 7955-013 | Upper control arm assembly, driver side ‘58-64 Chevy |
| 1 | 7955-014 | Lower control arm assembly, passenger side ‘58-64 Chevy |

## 5705-H20 - Coil-Over Lower Control Arms, ‘58-64 Impala

| Qty | Part Number | Description |
|---|---|---|
| 1 | 7952-5705H20 | Hardware bag |
| 1 | 7955-021 | Coil-over lower control arm assembly, driver side ‘58-64 Chevy |
| 1 | 7955-022 | Coil-over lower control arm assembly, passenger side ‘58-64 Chevy |

## 7952-5705H20 - Lower Control Arm Hardware Bag

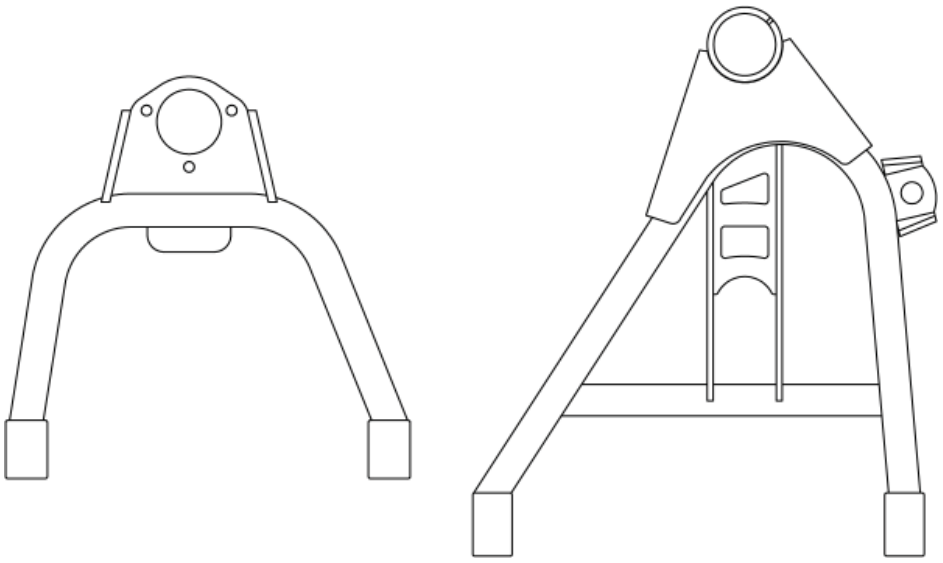
| Qty | Part Number | Description | Location |
|---|---|---|---|
| 2 | 7955-074 | LCA cross-shaft clamp 58-64 Chevy | Lower control arm (mounting) |
| 4 | 3100-044F2.00Y | Bolt 7/16-20 x 2” hex head cap screw | Lower control arm (mounting) |
| 4 | 3108-044L-C | Lock washer 7/16” regular | Lower control arm (mounting) |
| 2 | 3100-056C2.50Y | Bolt 9/16-12 x 2-1/2” hex head cap screw | Lower control arm (mounting) |
| 2 | 3101-056-12C | Locknut 9/16-12 nylon insert | Lower control arm (mounting) |
| 4 | 3157-056S-C | Washer flat 9/16 SAE plated | Lower control arm (mounting) |
| 1 | 7955-90000476 | Steering stop, driver side | Lower control arm (steering stop) |
| 1 | 7955-90000477 | Steering stop, passenger side | Lower control arm (steering stop) |
| 4 | 3100-031C1.00Y | Bolt 5/16-18 x 1” hex head cap screw | Lower control arm (steering stop) |
| 8 | 3157-031S-C | Washer flat 5/16” SAE plated | Lower control arm (steering stop) |
| 4 | 3101-031-18C | Locknut 5/16-18 nylon insert | Lower control arm (steering stop) |
| 2 | 3100-038C6.50Y | Bolt 3/8-16 x 6-1/2” hex head cap screw | Lower control arm (endlink) |
| 2 | 3101-038-16C | Locknut 3/8-16 nylon insert | Lower control arm (endlink) |

## Shocks, Springs and Air-Spring Shocks, ‘58-64 Impala (one pair)

| Qty | Part Number | Description |
|---|---|---|
| 1 | VAS 161M1-350 | Quickset 1 VariShock 3.50” travel, pair (optional in 5706-H20) |
| 1 | VAS 162M1-350 | Quickset 2 VariShock 3.50” travel, pair (optional in 5706-H20) |
| 2 | VAS 21-07xxx | VariSpring 7” 450 to 650 pound rate (optional, one pair) |
| 1 | 899-012-201 | Coil-over spanner wrench (coil-over shocks only) |
| | | |
| 1 | VAS 131M1-280 | Quickset 1 VariShock Air-Spring Shock 2.80” travel, pair (optional in 5707-H20) |
| 1 | VAS 132M1-280 | Quickset 2 VariShock Air-Spring Shock 2.80” travel, pair (optional in 5707-H20) |
| 1 | VAS 508-103 | Shock spacer set 1” COM to 2” width |

# Driver-Side Components Shown Below

**Upper** **Lower**



*Photos used in this instruction sheet were shot using a similar vehicle and may not exactly match your vehicle.*

*DO NOT install the coil springs on the shocks or inflate the air bags until after proper clearance during suspension travel has been verified. Shocks must be adjusted to the softest setting.*

*We recommend you refer to the factory service manual for more detailed disassembly instructions.*

1. Raise the car to a safe comfortable working height.
2. Place jack stands under the frame and let the front suspension hang.
3. Remove the front wheels.
4. Place a floor jack under the lower control arm to hold it up once the lower balljoint is loosened at the spindle. Do not support the weight of the vehicle with the floor jack.
5. Remove the cotter pin and castle nut from the lower balljoint.
6. Use a balljoint separator or pickle fork, to separate the upper and lower balljoint from the spindle. A large hammer can also be used to strike the spindle, jarring the balljoint stud loose.
7. Once the balljoints are loose, lower the floor jack slowly until the coil spring can be removed.
   NOTE: The coil spring is under tension. USE EXTREME CAUTION.
8. Unbolt the lower control arm from the chassis. Part of the factory mounting hardware will be reused.
9. Unbolt the upper control from the chassis. Save the factory hardware it will be reused.

## Air-Spring Shock Clearance

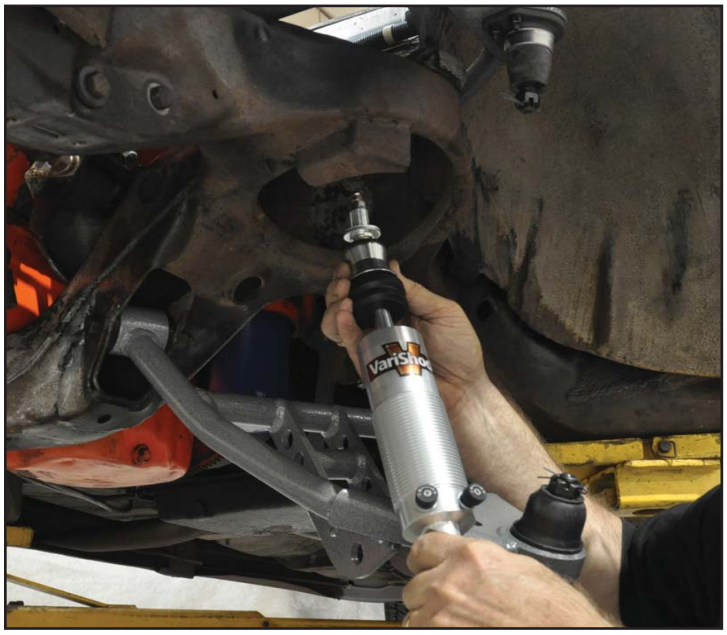
*Air-Spring Shocks require a minimum of 3/4" clearance around the air bag to operate safely once inflated.*

10. Apply thread sealant to one of the 90-degree air fittings and screw it into the top of the Air-Spring Shock.
11. Raise the Air-Spring Shock into position to determine the exact area of the frame rail that will need to be trimmed.
12. Use a torch or cutting wheel to trim the frame. Allow ample time for the frame to cool and/or grind smooth any sharp edges before test fitting the Air-Spring Shock.
13. For clearance purposes, the air bag and upper cap can be twisted to rotate the location of the air fitting. The Air-Spring Shocks have set screws along the bottom end of the bag that must be loosened first.
14. Drill a hole 2 times the diameter of the air line in the upper spring cup of the frame to run the air line to the Air-Spring Shock.

## Coil-Over Top Mount Clearance

*The material that forms the factory upper spring pocket may require trimming to allow The ball-stud upper shock mount to properly seat.*

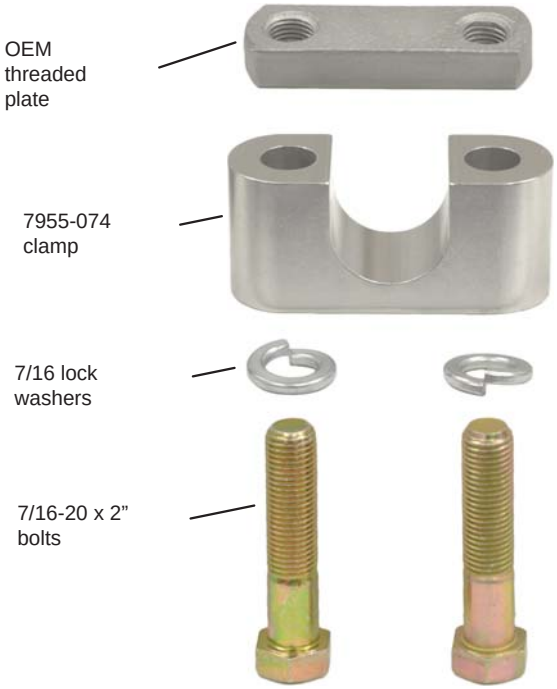
15. Raise the shock into position to determine the exact area of the spring pocket that will need to be trimmed.
16. Use a torch or cutting wheel to trim the pocket. Allow adequate room for the shock to pivot as it will during normal operation.
17. Grind smooth any sharp edges.
18. Mount the shock in the upper spring pocket.
19. Place the thick washer, <u>with 11/16" hole</u>, onto the shock stem and insert the shock (without the spring installed) up through the coil-spring pocket and into the factory mount.
20. Place a second thick washer, <u>with 5/8" hole</u>, over the stem and secure with the 5/8-18 half-height locknut. Hold the stem with a 7/16" box-end wrench while tightening the locknut with a 15/16" wrench.



## Install Lower Control Arm

21. Install the driver side lower control on the frame using the hardware included with the arms.
22. The billet clamp, 7/16-20 x 2” bolts and lock washers are used on the LCA shaft on the forward end. You will need to reuse the OEM threaded plate when attaching this end of the shaft.
23. The 9/16-12 x 2-1/2” bolt, locknut and flat washers are used on the end toward the rear of the LCA shaft.

**Billet Clamp Assembly**




24. Place one spacer on each side of the COM–8 bearing at the base of the shock. The ends of the bearing slip into the counter bore in the spacers.
25. Raise the lower control arm up and secure the shock with the 1/2-13 x 3-1/2” bolt, flat washers, and locknut.

26. Set the spindle onto the lower control arm balljoint stud.
27. Thread the castle nut onto the balljoint stud and tighten. Torque to 75 lb.-ft.
28. Align the slot in the castle nut with the balljoint stud. Insert the cotter pin into the stud and wrap around the castle nut.
29. There are holes on the lower arms near the balljoint to mount the factory steering stop. The steering stops are not required unless you are having tire clearance issues.
30. Install the stops using the hex bolts, flat washers and locknuts suppled.

## Install Upper Arm

31. Bolt the upper arm to the frame re-using the factory bolts.

    NOTE: The upper balljoint is bolted underneath the arm's mounting plate to provide additional arm travel.

32. Set the upper A-arm ball joint stud into the spindle.

33. Thread the castle nut onto the balljoint stud and tighten. Torque to 75 lb.-ft.

34. Align the slot in the castle nut with the balljoint stud. Insert the cotter pin into the stud and wrap around the castle nut.

35. Grease the upper and lower ball joints.

## Check Suspension Travel

*Clearance around the shock will need to be physically verified throughout the full range of suspension travel.*

36. Move the suspension from full compression to full extension while checking for clearance around the shock and spring.

    NOTE: Some installations will require the anti-roll bar endlinks to be shortened to correctly angle the bar ends, use bolts and locknuts supplied.

## Air-Spring Shock Pressure

37. Air pressure on this system will be approximately 105-110 psi, but will vary due to vehicle weight differences and driver preference.

38. Repeat procedure for the passenger-side.

## NOTES:

**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**.

Chris Alston's Chassisworks
8661 Younger Creek Drive
Sacramento, CA 95828
Phone: 916-388-0288
Technical Support: sales@cachassisworks.com

CHRIS ALSTON'S Chassisworks
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