



2265 Crosswind Drive • Prescott, AZ 86301  
(928) 636-3175

## CHEVY/GMC K1500 '99-'05 DUAL SHOCK KIT INSTALLATION INSTRUCTIONS KIT # DS72

### ⚠ WARNING

Read and understand all instructions, warnings and safety precautions in these instructions and your owners manual before attempting to install these components.

### ⚠ WARNING

Performance Automotive Group does not recommend combined use of suspension lifts, body lifts or other lift devices. Combined use of lifts may result in unsafe and unexpected handling characteristics. Also, many states now have laws restricting vehicle lift, bumper heights and other alterations. Consult local laws to determine if your proposed alterations (including installation of this kit) comply with your state laws.

### PRODUCT SAFETY WARNING

Certain Performance Automotive Group products are intended to improve off-road performance. Modifying your vehicle for off-road use may result in the vehicle handling differently than a factory equipped vehicle. Use of oversized tires, suspension lifts, body lifts and other suspension modifications may raise your vehicle's center of gravity resulting in an increased tendency for the vehicle to pitch and roll during sudden turns or abrupt maneuvers. Extreme care must be used to prevent loss of control or vehicle roll over. Failure to drive your modified vehicle safely may result in serious injury or death. Drive at reduced speeds to ensure your ability to maintain control of the vehicle under all driving conditions. Always wear seat belts.

### ⚠ CAUTION

Proper installation of Performance Automotive Group products requires knowledge of recommended procedures for disassembly/assembly of OE vehicles and components. Access to OE shop manuals and special tools are required. Attempting to install this kit without knowledge of these procedures may affect the safety of your vehicle and/or the performance of these components. Performance Automotive Group strongly recommends that this kit be installed by a certified mechanic with off-road experience.

### ⚠ WARNING

This kit should only be installed on a vehicle that is in good working condition. Before you install the kit, thoroughly inspect the vehicle for corrosion or deformation of the sheet metal around the factory body mounts. If the vehicle is suspected to have been in a collision or misused, do not install this kit. Off-road use of your vehicle with this kit installed may increase the stress applied to the factory body mounts. We do not recommend that any vehicle with a body lift kit installed be involved in any extreme off-road maneuvers such as jumping. Failure to observe this warning may result in serious personal injury and/or severe damage to your vehicle.

# Before Starting Installation

**⚠ NOTE**

Kit parts are prefaced by the word **kit** and appear in **bold** print.

1. Carefully read all warnings and instructions completely before beginning.
2. Verify all parts have been received in this kit by checking the parts list at the end of this document
3. **Only install this kit on the vehicle for which it is specified.** If anytime during the installation you encounter something different from what is outlined in the instructions, call technical support at (928) 636-3175
4. Special tools needed:
  - a. 1" Drill Bit or Hole Saw
  - b. Welder or access to a professional welding shop
  - c. Drill Motor.

**⚠ NOTE**

This kit is not intended to replace the existing single shock. It is meant to compliment the existing suspension system's handling characteristics. No existing parts on the vehicle should be removed or discarded during installation of this system.

**⚠ NOTE**

Maximum back spacing for wheel & tire combo is 6" for clearance of shocks.

**⚠ CAUTION**

Performance Automotive Group recommends the use of Loctite® on all hardware, unless noted otherwise

**⚠ WARNING**

Always wear safety glasses when using power tools.

**⚠ WARNING**

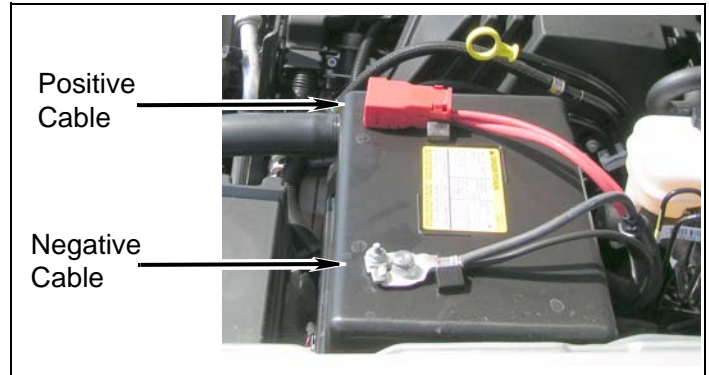
Properly block and secure vehicle prior to installation.

# Prepare to Install Kit

1. Park the vehicle on a level surface and block both sides of the rear tires.

## Battery Cables.

1. Disconnect both battery cables. Disconnect negative cable first, then positive cable.

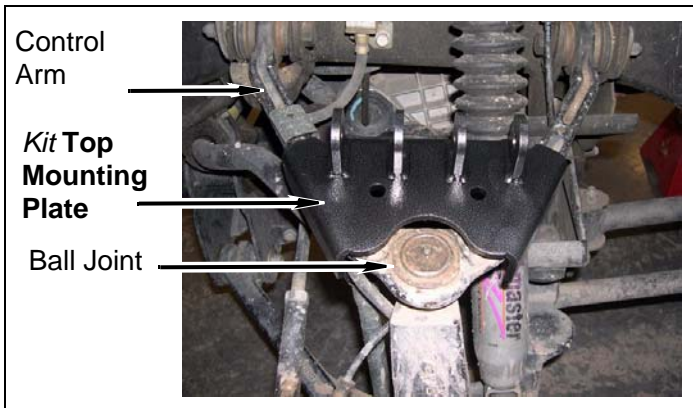


## Front Wheels

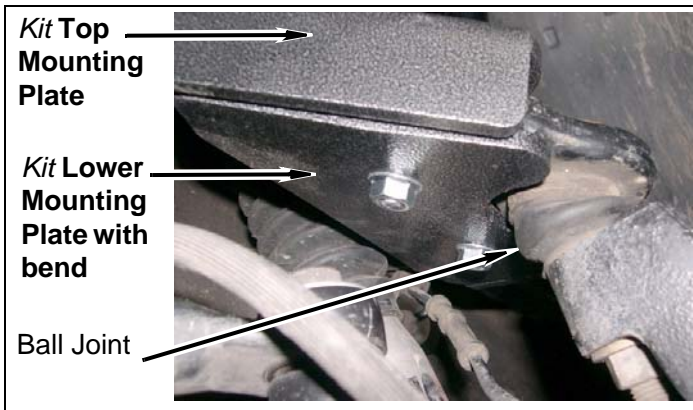
1. Raise front of vehicle until tires are off ground and support with jack stands.
2. Remove lug nuts and front wheels from vehicle.

# Install Kit

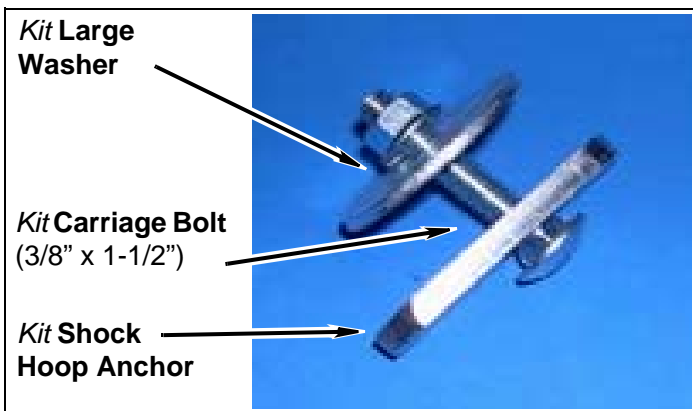
1. **Driver Side: Kit Lower shock mount.**
  - a. Position **kit top mounting plate** on top of control arm around ball joint ensuring that outer formed edges are against control arm.



- b. Install *kit lower mount plate* with slight bend in plate facing up.
- c. Install two *kit carriage bolts* (7/16" x 2-1/2") and *serrated flange nuts*. Torque to 45 Ft. Lbs.

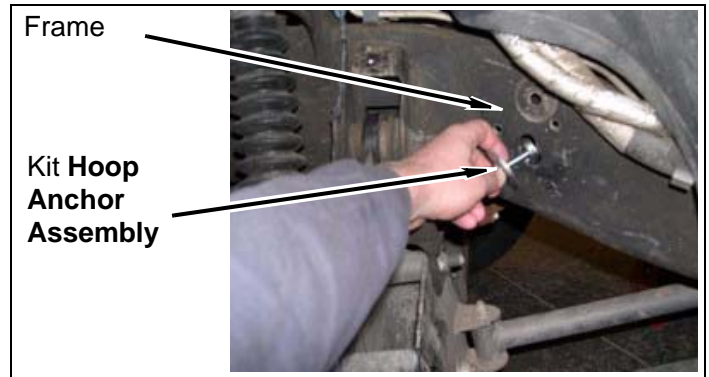


- 2. Install *kit shock hoop anchors*, *kit carriage bolt* (3/8" x 1-1/2"), *kit washer*, and *kit serrated flange nut*.



- a. Find front and rear slotted holes in frame to use as locating holes for shock hoop.
- b. Insert *kit carriage bolt* through *kit anchor* and slide *anchor* so that it is as far off center from bolt as possible.

- c. Work *kit anchor* into frame *being very careful not to let go of the bolt and drop it in the frame*.
- d. Install *kit washer* and *nut* loosely on b.
- e. Center *kit anchor* on *bolt* and turn *anchor* inside frame 90 degrees so that it is facing opposite of slot in frame.



- 3. Install *kit DRVR side shock hoop*.

**⚠ NOTE**

Identify *kit DRVR Side Shock Hoop*. The "TM" logo faces outward and the longer arm is towards the front of the vehicle.

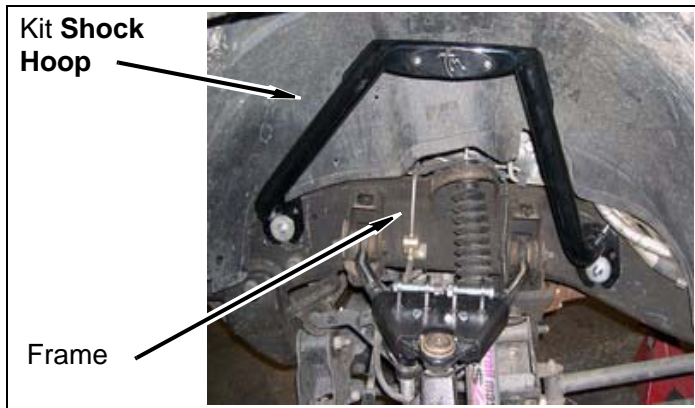
- a. Slide slotted hangers of *kit shock hoop* between the large *kit anchor washer* and frame. Tighten snugly but do not torque at this time.

**⚠ NOTE**

Always place the front mount of the *kit shock hoop* on the *kit anchor*. If the rear mount doesn't fall in to place on the rear anchor or a hole doesn't exist for the rear anchor use the rear shock hoop mount as a template to mark and drill a 1" hole in the frame to insert an anchor into.

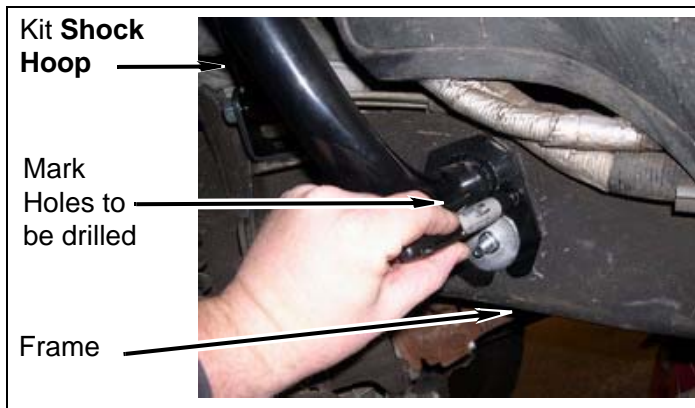
**⚠ NOTE**

Some Trimming on front side of inner wheel well may be needed to fit *kit shock hoop*.



4. **Kit shock hoop** placement.

- a. Remove **kit rubber dust boots from shocks**.
- b. Install post end of **kit shocks with washers, rubber bushings, and nuts** supplied through upper plate on **kit shock hoop**. Tighten nut until rubber bushings just start to compress.
- c. Slide lower looped end of shocks into **kit lower shock mount** previously bolted onto OE upper control arm.
- d. Secure using **kit bolts (1/2" x 2-3/4") and hardware** supplied. Do not torque at this time.
- e. Make sure suspension of vehicle is fully extended and position the **kit shock hoop** so that the shocks are fully extended.
- f. Tighten the hoop so that it stays in position.
- g. Use the mounting tabs as a template to mark 4 additional holes to be drilled.



h. Remove **kit shocks** from hoop and lower mount.

- i. Loosen mounting anchors.

**NOTE**

Do not completely remove nuts, this prevents dropping anchors into frame.

- j. Remove **kit shock hoop** from frame. Drill 4 marked locations on frame using 5/16" drill bit.

5. **Kit shock hoop** prep.

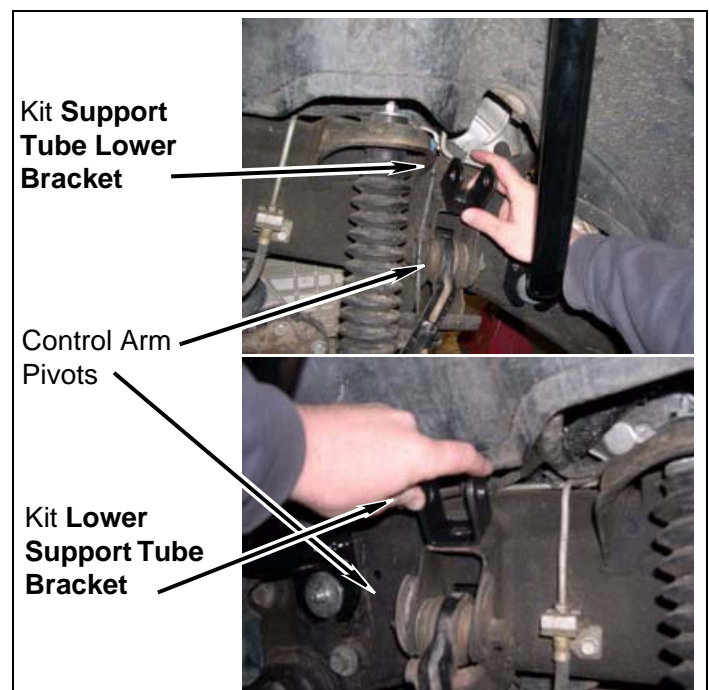
- a. Grind about 1" of paint off front and rear edges of both mounts on shock hoop.
- b. Grind and clean frame around area where mounts will be welded later in installation.

6. **Kit shock hoop** installation.

- a. Slide mount of hoop onto bolts and align with holes drilled in previous step.
- b. Install four **kit self tapping bolts (3/8")**.

7. **Kit support tube lower bracket** installation.

- a. Center **kit support tube lower bracket** on flat perches above both upper control arm pivot points.



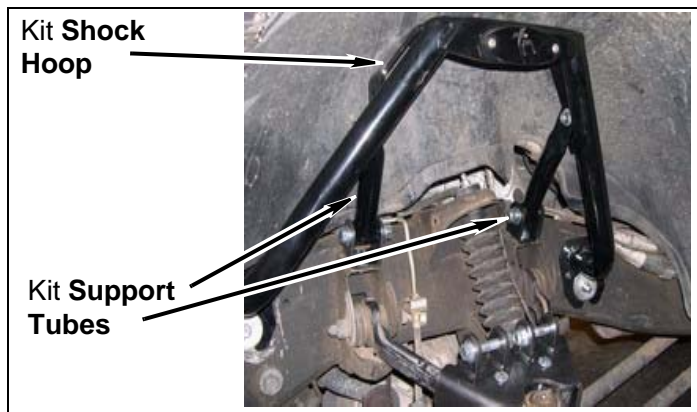
- b. Center punch slot and drill with 3/8" drill bit.
- c. Install **kit support lower brackets** to frame pads using **kit bolts (3/8" x 1") and hardware**. Do not tighten at this time.

8. Install **kit support tubes**.

- a. Install **kit 7-1/2" support tube** on front side of **kit shock hoop**.

**⚠ NOTE**  
 Barrel end of **kit support tube** goes to the lower mount. Upper end of support tube secures to slotted hole on side of upper plate on **kit shock hoop**.

- b. Secure **kit support tube** to **kit lower bracket** using **kit bolt (1/2" x 2-1/2") and hardware**.
- c. Secure **kit support tube** to **kit shock hoop** using **kit bolt (3/8" x 1")**, **washers and serrated nut**.
- d. Mount **kit 6-7/8" support tube** on rear side of **kit shock hoop** using same hardware as front **kit support tube**. Do not torque at this time.

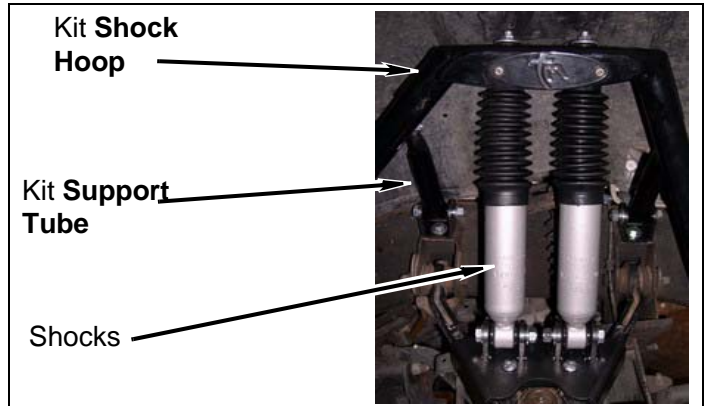


- 9. Weld shock hoop mounts where prepped earlier in installation. Welding should be performed by certified welder. Make sure to check surrounding area where welding for materials or parts that may be harmed due to welding process. Remove or shield anything affected by extreme heat or spark.

10. Install shocks

- a. Reinstall rubber boot onto shocks.

- b. Install shocks on vehicle. Torque upper nut until bushings just begin to compress.



- 11. Torque all hardware not tightened to specs in torque section at end of these instructions.

- 12. Repeat previous steps on Pass side of vehicle.

- 13. Install front tires and torque lug nuts to factory recommendation.

- 14. Raise vehicle with Jack and remove jack stands. Lower vehicle to ground.

**Battery**

- 1. Connect the negative terminal then the positive terminal on battery.

**POST-INSTALLATION NOTES**

**⚠ CAUTION**  
 Retorque all fasteners after 500 miles and after off road use. All body lift components should be visually inspected and fasteners retorqued during routine vehicle servicing.

**⚠ NOTE**  
 Maximum wheel & tire back space is 6"

- 1. Retain this and all information regarding your altered vehicle for future reference. Thank you for choosing Trail Master Suspension. For questions or suggestions, contact our Technical Assistance Department at (928) 636-3175.

## PARTS LIST

Rev. 02, Copyright 10/05  
Performance Automotive Group

Qty	Description
1	Hoop, Shock Driver
1	Hoop, Shock Passenger
2	Mount, Control Arm (upper plate)
2	Mount, Control Arm (lower plate)
4	Mount, Support Tube
2	Tube, Support (7-1/2" long)
2	Tube, Support (6-7/8" long)
4	Anchors (2-3/4" with 7/16" x 1" slot)
8	3/8" x 1" Hex Cap Screw Gr5
8	3/8" x 1" Cap Screw Gr5
4	Bolt, Carriage (3/8" x 1-1/2")
4	Bolt, Carriage (7/16" x 2-1/2")
4	1/2" x 2-1/2" Hex Cap Screw
4	1/2" x 2-3/4" Hex Cap Screw
8	Washer, (3/8" x 1")
8	Washer, (3/8" USS)
4	Washer, (3/8"ID x 2"OD)
8	Washer, (1/2" SAE)
12	Nut, 3/8" Serrated Flange
4	Nut, 7/16" Serrated Flange
8	Nut, 1/2" Lock

## Torque Specifications

See factory service manual for torque values when re-using OE fasteners.

<b><u>Bolt Size</u></b>	<b><u>Grade 5 (ft.-lbs.)</u></b>	<b><u>Grade 8 (ft.-lbs.)</u></b>
1/4"-20	10	10
1/4"-28	10	12.5
5/16"-18	17	22.5
5/16"-24	20	25
3/8"-16	30	40
3/8"-24	35	45
7/16"-14	50	65
7/16"-20	55	70
1/2"-13	75	100
1/2"-20	55	70
9/16"-12	105	135
9/16"-18	115	150
5/8"-11	150	195
5/8"-18	160	210
3/4"-16	175	225