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INSTALLATION INSTRUCTIONS

6012 Air Spring Kit
1999-2006 Chevrolet/GMC 1500 2WD & 4WD

Thank you for purchasing a quality Hellwig Product.

PLEASE READ THIS INSTRUCTION SHEET COMPLETELY BEFORE STARTING YOUR INSTALLATION

IMPORTANT NOTES

DO NOT **INFLATE AIR SPRING ASSEMBLY UNLESS IT HAS BEEN PROPERLY INSTALLED ON VEHICLE.**

DO NOT **INFLATE AIR SPRINGS OVER 60 PSI**

A MINIMUM OF 5-10 PSI MUST BE MAINTAINED IN AIR SPRINGS AFTER INSTALLATION FOR WARRANTY TO BE VALID. FAILURE TO KEEP MINIMUM PRESSURE IN AIR SPRINGS WILL VOID WARRANTY.

THIS UNIT IS DESIGNED TO INCREASE THE LEVEL LOAD CARRYING CAPACITY OF YOUR VEHICLE. NEVER LOAD THE VEHICLE THIS UNIT IS INSTALLED ON BEYOND THE MANUFACTURER'S MAXIMUM GROSS VEHICLE WEIGHT RATING.

OVERINFLATION AND IMPROPER USE MAY RESULT IN PERSONAL INJURY AND/OR DAMAGE TO YOUR VEHICLE AND PROPERTY.

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BEFORE STARTING YOUR PROJECT

WHEN LIFTING A VEHICLE WITH A JACK, BE SURE TO SET THE PARKING BRAKE AND USE SAFETY STANDS.

ENSURE THAT THE INSTALLATION OF COMPONENTS WILL NOT CRUSH OR DAMAGE FUEL AND BRAKE LINES OR ELECTRICAL HARNESSES.

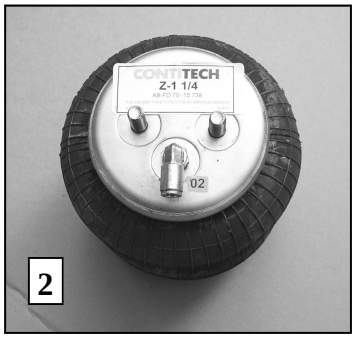
BEFORE DRILLING ANY HOLES, ENSURE THAT ALL ELECTRICAL WIRES, FUEL LINES, BRAKE LINES, BRAKE HOSES AND ANY OTHER COMPONENTS ARE MOVED OR PROTECTED TO AVOID DAMAGE FROM DRILLING ANY HOLES .

DO NOT ATTEMPT ANY MODIFICATIONS TO THE VEHICLE OTHER THAN THOSE OUTLINED IN THIS INSTRUCTION SHEET. IF ANY INTERFERENCE WITH THE GAS TANK, FUEL LINES, BRAKE LINES, EXHAUST PIPE, ETC. EXISTS, STOP YOUR INSTALLATION AND CALL HELLWIG PRODUCTS FOR TECHNICAL HELP.

IF WHEELS ARE REMOVED FOR INSTALLATION OF KIT, CHECK MANUFACTURERS SPECIFICATIONS FOR PROPER LUG NUT TORQUE BEFORE REINSTALLING WHEELS.

WHEN CUTTING AIR BRAKE TUBING A SQUARE CUT IS REQUIRED OR LEAKAGE MAY RESULT.

1. Park vehicle securely and set parking brake and chock wheels. Remove factory bump stops from vehicle by removing nuts from studs using a 15mm wrench or socket



2. Install elbow fitting in port of air spring. Torque fitting to approximately 20 ft-lb. Make sure that fitting is oriented as shown in photo.

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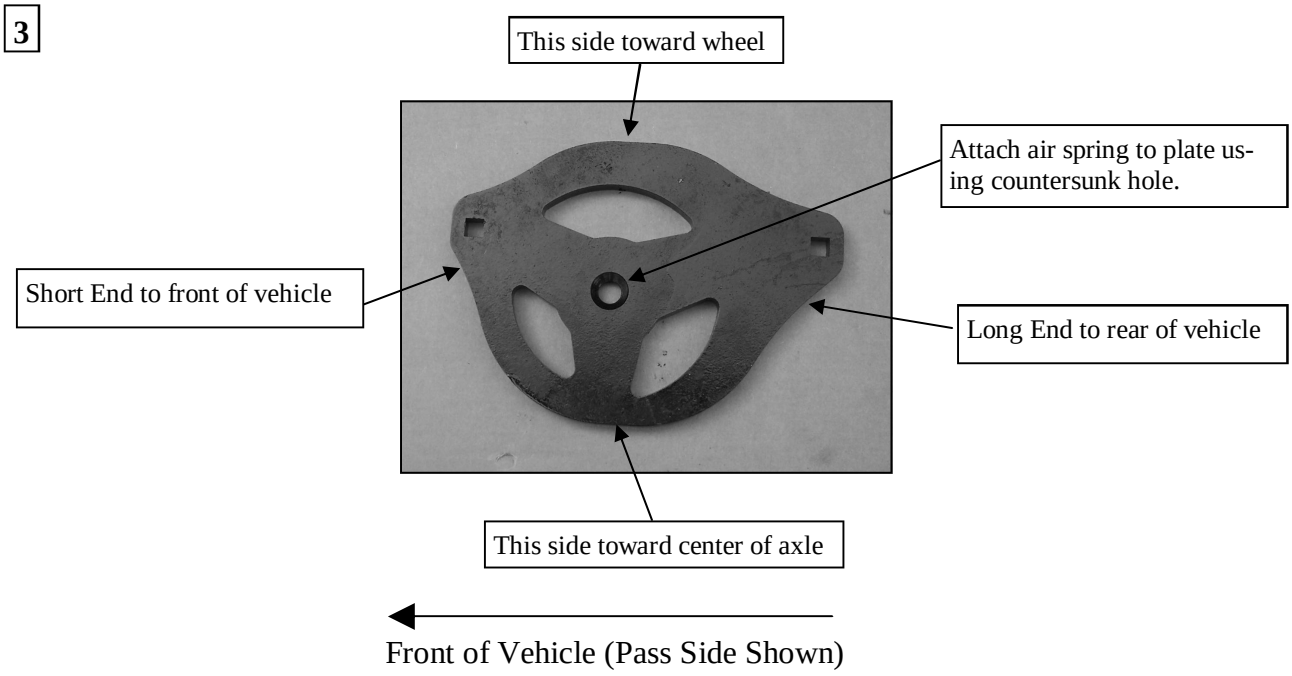
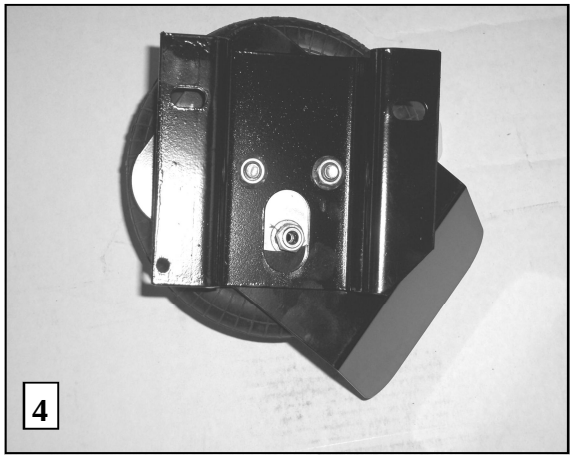


3. Lay out base plate as shown in photo. The air spring mounting hole is countersunk on both sides to allow the plate to be oriented correctly for both the left and right sides of the vehicle. (Passenger side shown) Attach air spring to plate using 3/8" flathead bolt. Tighten to 20 ft-lb.



4. Install heat shield and frame bracket as shown. (Passenger side shown. Driver's side does not require heat shield.) Torque nuts to 20 ft-lb.

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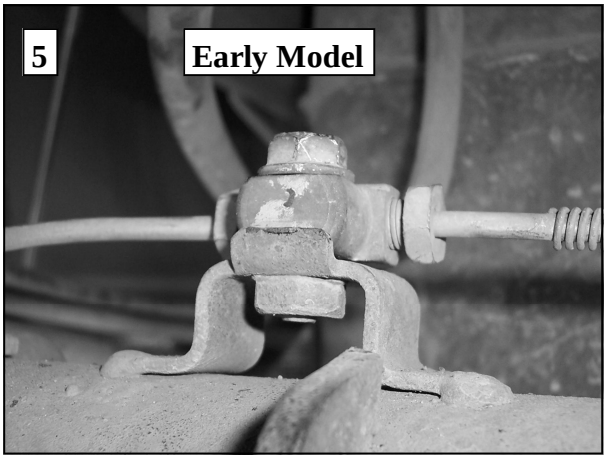
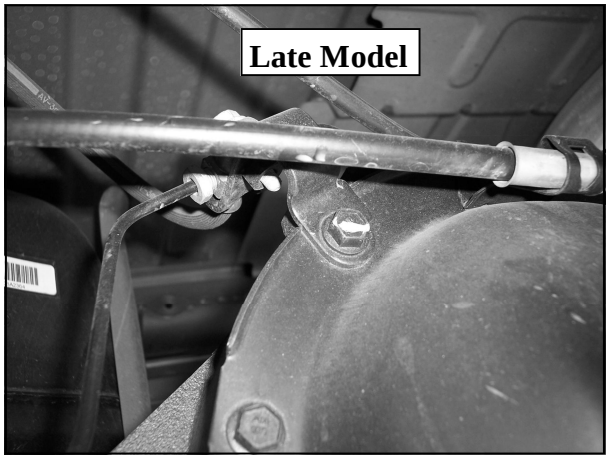
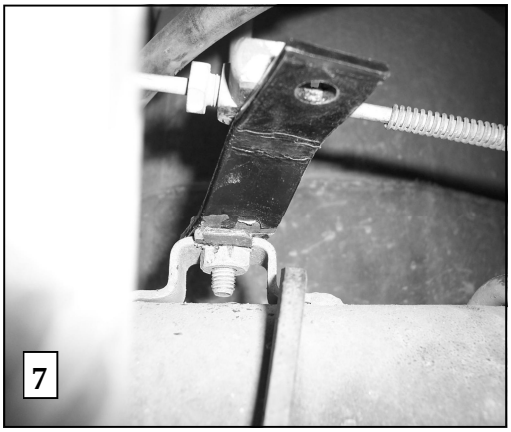




5. If you have an early model with the brake line tee mounted on the driver's side axle tube as shown in photo, proceed to step 6. If you have a later model with the brake line tee mounted from the center section of the axle skip to step 11.

6. Using a 13mm wrench, remove bolt connecting brake tee to axle bracket and save for use later. Bend tab flat with pliers as shown in photo.



7. Attach brake line spacer tab to axle bracket using bolt removed in step 6. Place washer under head of bolt to prevent bolt from bottoming on axle. Align tab as shown in photo with new brake tee attachment point 1/2" inboard of previous location to prevent brake hose from rubbing on air spring. Do not connect brake line tee to bracket at this time.

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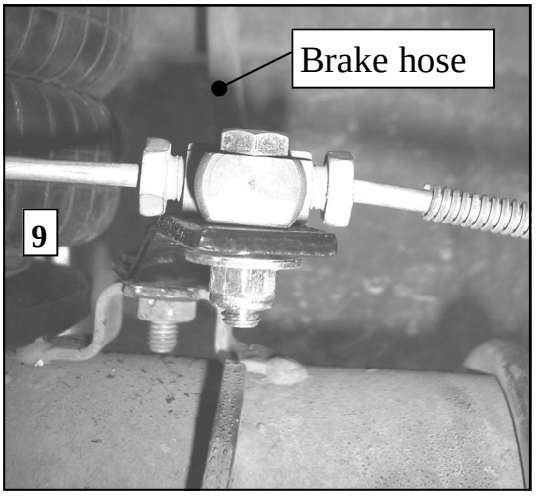
8. Place air spring assembly between frame rail and axle pad as shown and align frame bracket with holes in frame rail. .



9. Connect brake line tee to spacer tab using 5/16 bolt, washer and locknut. Rotate brake line tee gently to position tee so that brake hose has at least 1/2" clearance to air spring. The brake lines can be flexed slightly for best location of tee and brake hose. Notice new location of brake line tee is 1/2" inboard of old location. Tighten 5/16" bolt to 15 ft-lb.

10. Gently reposition brake line to match profile as shown in photo. Take care not to kink or deform brake line. Make sure that there is adequate clearance between brake line and shock absorber, axle bracket and other components. Proceed to step 12.

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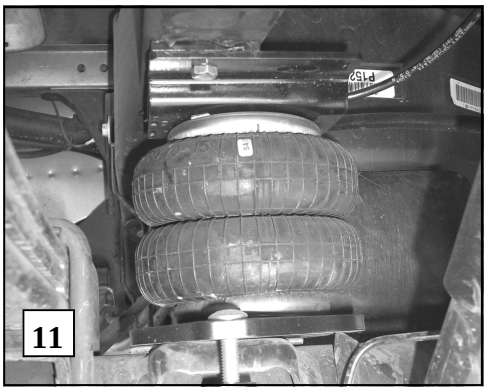
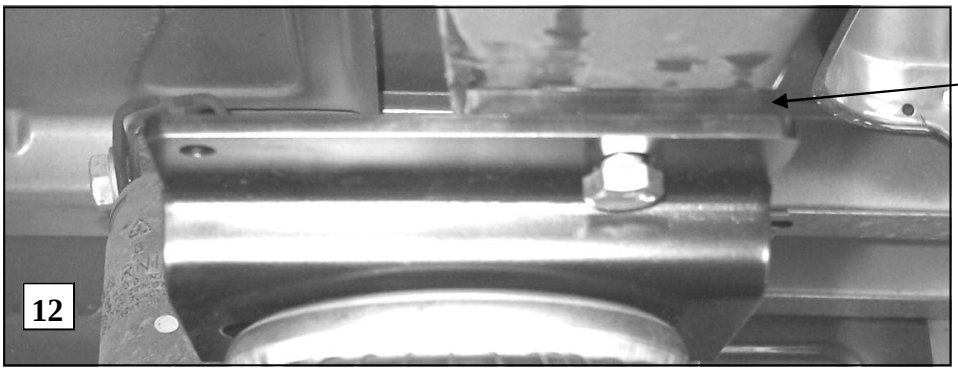
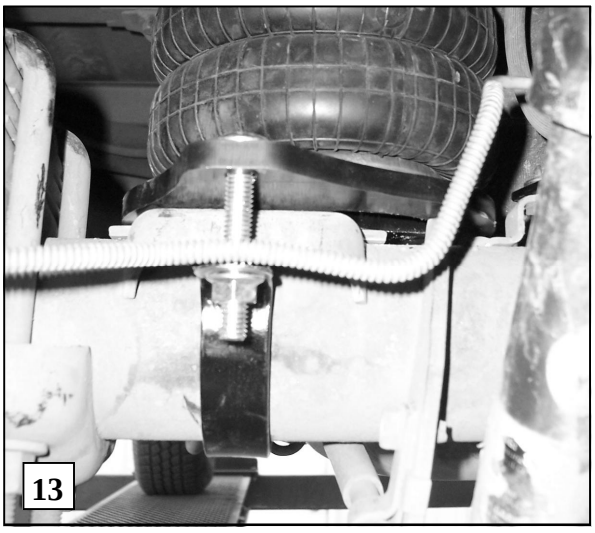


11. Place air spring assembly between frame rail and axle pad as shown.



Spacer Plate

12. Insert spacer plate with two slotted holes between frame rail and frame bracket as shown. Insert 3/8 X 1-1/4 bolts into holes in frame and attach using flange nuts. Tighten to 25 ft-lb.



13. Insert carriage bolts into square holes as shown in photo. Attach axle strap using washers and flange nuts. Tighten nuts until arms of axle strap flex slightly. It may be necessary to relocate brake lines slightly to provide clearance to carriage bolt and axle strap. MAKE SURE AXLE STRAP AND CARRIAGE BOLT WILL NOT CONTACT BRAKE LINE.

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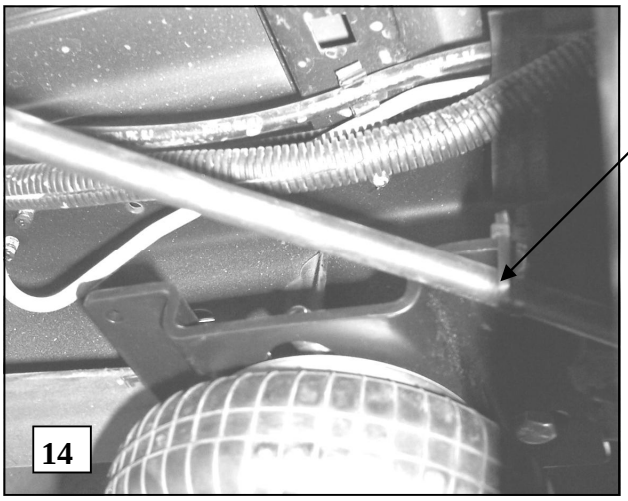
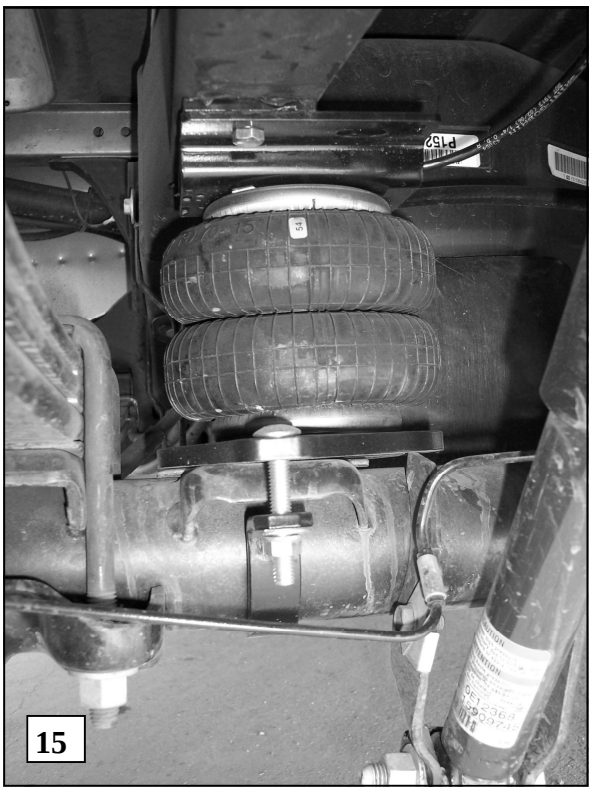


14. Tie off emergency brake cable to hole in passenger side frame bracket using tie strap to avoid interference with air spring.



15. Check your installation to ensure that all fasteners are tight and that the assembly and all fasteners clear brake and fuel lines, emergency brake cables, fuel tanks, wiring harnesses, etc.

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16. Complete passenger and driver's side installation of air spring assembly.
17. Select a location for the air inflation valves. The location can be on the bumper or body of the vehicle where an air chuck can be used to inflate the air springs. Select a location where the valve will not be damaged or interfere with the operation of other components.
18. Cut air brake lines to length and connect air lines to fittings by pushing the air line into the air fittings as far as possible. **WHEN CUTTING AIR BRAKE TUBING, A SQUARE CUT IS REQUIRED AND THE HOSE END MUST NOT BE DEFORMED OR LEAKAGE MAY RESULT. IF DEFORMATION OF THE HOSE END OCCURS, THE HOSE END MUST BE REWORKED SO THAT IT IS ROUND.** Engagement of the sealing O-ring will be felt when the air line has been inserted properly into the fitting. Fittings may be disconnected if required by pushing down on the outer ring while pulling firmly on the air line. Route air lines away from exhaust pipes or any other sources of heat and ensure that the air lines are protected from sharp edges. A length of heat shielding is provided to protect the air line as it exits the passenger side air spring.
19. Inflate air springs to 40 psi and check for leaks. A soapy water solution can be used to find slow leaks.
20. When satisfied with integrity of the system, adjust air pressure to desired level. The air springs can be inflated to any level between 10 and 60 psi. DO NOT EXCEED THE GVW RATING OF THE VEHICLE. DO NOT run the air springs empty or warranty will be void. MINIMUM air spring pressure is 5 psi. Failure to keep air in the air springs will void the warranty. For best RIDE use only enough air pressure as required to level the vehicle. If a firmer ride is desired, more pressure can be used.
21. Check air pressure in the system regularly to ensure system performance and maintenance of warranty. Just like tires, the air pressure in the system will vary due to temperature changes. For your air spring system to function properly it must be checked on a regular basis.

ATTENTION INSTALLER: BE SURE THAT THE CUSTOMER RECEIVES THIS INSTRUCTION SHEET, ALL IMORTANT NOTE CARDS AND THE WARRANTY FORM.