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W21-760-2212

INSTALLATION INSTRUCTIONS

All work should be carried out in a properly equipped workshop with due regard to Health and Safety Regulations. No further reference to Health and Safety Regulations will be made, but they must be considered at all times.

The kit should be opened and the contents checked against the parts list provided.

Identify the various components and familiarise yourself with them using drawings and information provided.

WARNING

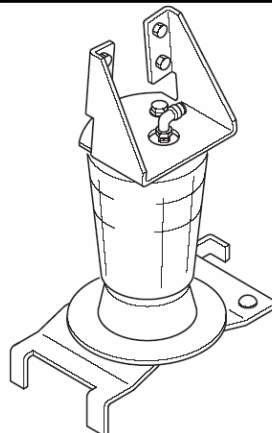
Do not inflate this assembly when it is unrestricted. When installed, a minimum of 10 psi should be maintained in the air bellows at all times to avoid damage. Do not inflate beyond 100 psi.

IMPORTANT

This kit is not designed to increase the GVW of your vehicle. For your safety and to prevent possible damage to your vehicle, do not exceed the maximum load recommended by the vehicle manufacturer.

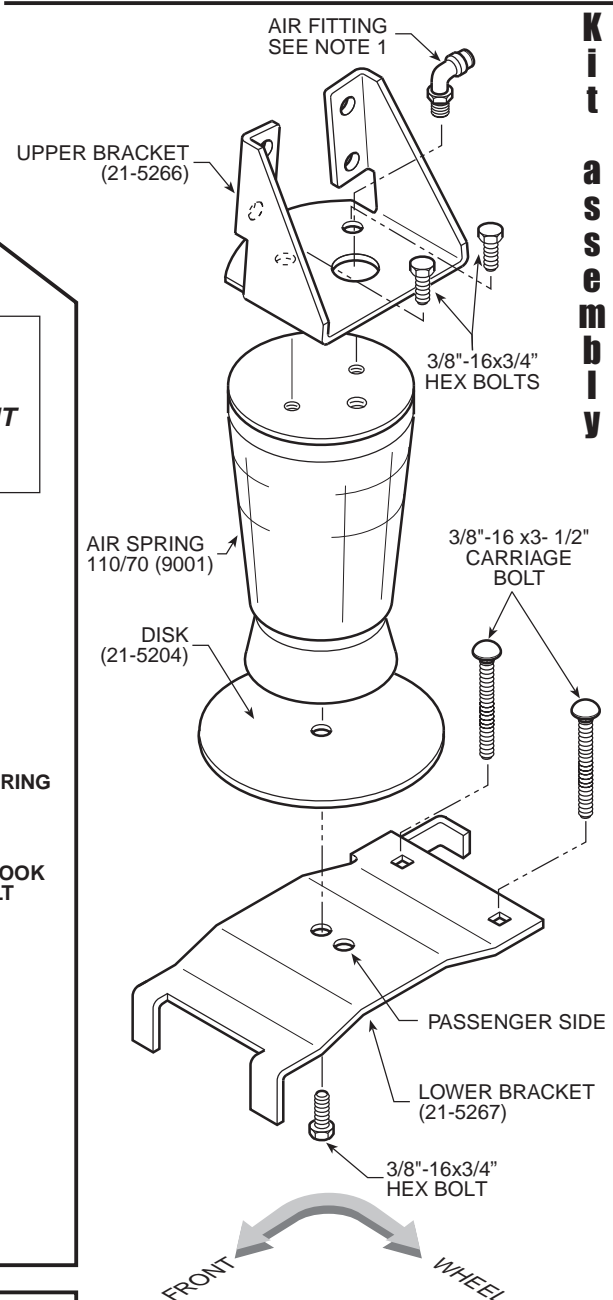
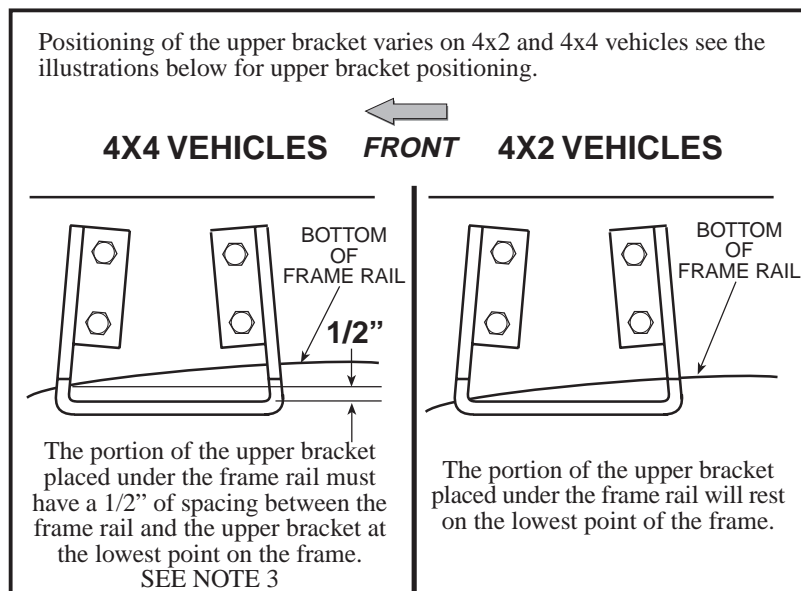
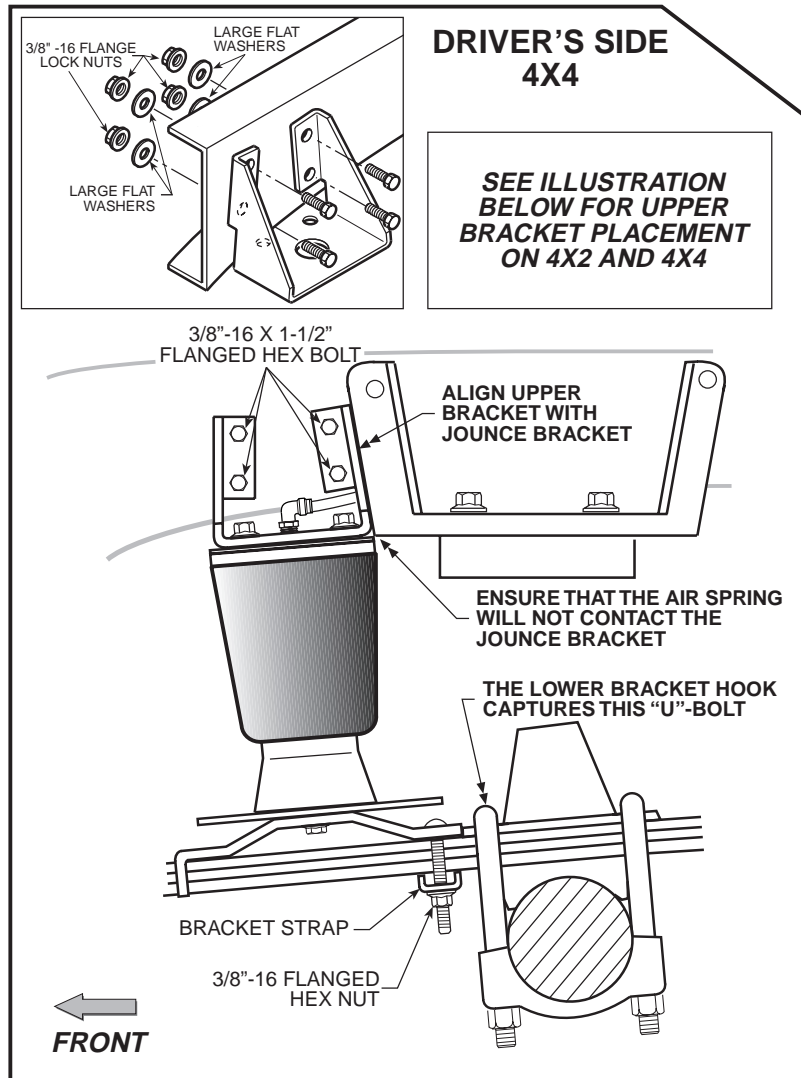
PARTS LIST

AIR SPRINGS	9001	2	1/2"-13 NYLON INSERT NUT	4
UPPER BRACKETS	5266	2	3/8" SPECIAL FLAT WASHERS	8
LOWER BRACKETS	5267	2	3/8"-16 X 3-1/2" CARRIAGE BOLTS	4
JOUNCE BUMPER BRACKET	5268	2	5/16" FLAT WASHERS	4
DISK	5204	2	PUSH TO CONNECT	
BRACKET STRAPS	5086	2	INFLATION VALVES 3098	2
18 ' AIR LINE TUBING		1	VALVE CAPS	2
3/8"-16 X 1-1/2" HEX BOLTS		8	PUSH TO CONNECT	
3/8"-16 FLANGE LOCK NUTS		12	ELBOW FITTINGS 3101	2
3/8"-16 X 3/4" HEX BOLTS		6	NYLON TIES	6
1/2"-13 X 1-1/4" HEX BOLT		4	THERMAL SLEEVES	2



Note: The kit assembly illustrations shown is of the left or drivers side of the vehicle. Reverse any orientations when assembling the kit on the right or passengers side of the vehicle.

Kit to frame assembly



Note 1:

The elbow fitting in this kit has a swivel feature which allows positioning for air line routing.

Note 2:

Please take all necessary safety precautions while installing your kit.

Note 3 Helpful hint:

Use the 1/2" bracket strap included in the kit, placed between the upper bracket and the frame rail to achieve the correct spacing between the upper bracket and the bottom of the frame.

FIGURE "A"

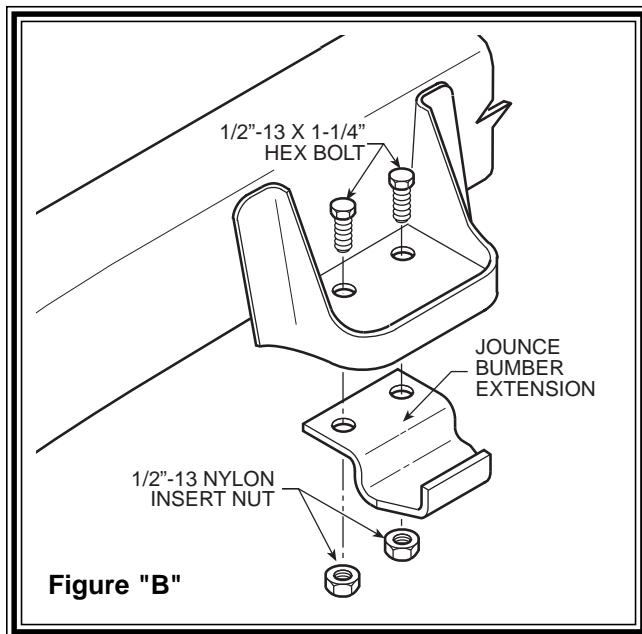


Figure "B"



Figure "C"

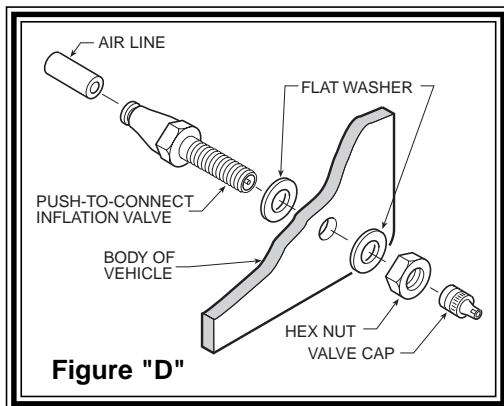


Figure "D"

NOTE:

Once the air helper springs are installed, it is recommended that the vehicle not be lifted by the frame, as over-extension may occur, resulting in damage to the air helper springs. However, should it become necessary to raise the vehicle by the frame, deflate both air helper springs completely.

STEP 1 - PREPARE THE VEHICLE

With the vehicle on a solid level surface chock the front wheels. Raise the vehicle by the rear axle and remove the rear wheels. After the removal of the wheels, lower the vehicle so the axle rests on jack stands rated for your vehicles weight. Remove the negative battery cable.

STEP 2 - INSTALL JOUNCE BUMPER SPACER

Install the jounce bumper spacer under the current jounce bumper bracket located on the frame rail. Use the 1/2"-13 x 1-1/4" hex bolt and the 1/2"-13 nylon hex nuts to attach the bracket to the frame jounce bracket see Figure "B".

STEP 3 - PREASSEMBLE THE KIT

Select one air helper spring from the kit. Install the upper bracket by aligning the threaded holes on the air spring with the small holes on the upper bracket. Fasten the upper bracket to the air spring using the 3/8"-16 x 3/4" hex bolts as shown in Figure "A". Install the air fitting as shown in Figure "A". Tighten the air fitting so as to make contact with the nylon ring and then tighten 1/4 turn to snug the fitting. No thread sealant is needed. Insert the two 3/8"-16 x 3-1/2" carriage bolts into the lower bracket. Next, attach the lower bracket and disk to the air spring using the 3/8"-16 x 3/4" hex bolt see Figure "A". Refer to Figure "A" for proper orientation of the lower bracket.

STEP 4 - ATTACH LOWER BRACKET TO LEAF SPRING

Place the assembly on the driver's side on top of the leaf spring stack forward of the axle see Figure "A". Attach the lower bracket to the leaf stack using the 3/8"-16 x 3 1/2" carriage bolts (installed in the lower bracket earlier), the flange lock nuts and bracket strap as shown in Figure "A". Note that the lower bracket will sit on top of the leaf spring with the bracket hook capturing the forward "U"-bolt. The bracket strap is used to clamp the lower bracket to the leaf stack see Figure "A".

STEP 5 - POSITION THE UPPER BRACKET ON THE FRAME

It is recommended that air pressure be added to the air spring at this time to bring the upper bracket into position on the frame rail. Cut a 6.00"-10.00" piece of air line tubing from the 18' roll. Install one end into the elbow fitting located at the air spring, then place one inflation valve on the other end of the air line (refer to step 9 for inflation valve installation). Once completed inflate the air spring slowly (**Do NOT inflate beyond 10 psi for this step**). The upper bracket will move upwards and fall into position on the frame.

The portion of the upper bracket that is placed under the frame will rest against the bottom of the frame rail on 4x2 vehicles. 4x4 vehicles must have at least 1/2" between the upper bracket and the under side of the frame rail at the lowest point on the frame (Suggestion: use a 1/2" bracket strap included in the kit between the upper bracket and the under side of the frame rail) see Figure "A". Note that the frame rail is curved where the upper bracket is located, make sure there is a 1/2" of clearance between the upper bracket and the lowest point on the frame see Figure "A".

STEP 6 - MARK AND DRILL HOLES IN THE FRAME RAIL

Make sure the upper and lower brackets are parallel. With the air spring assembly in place, mark the four holes to be drilled in the frame rail with a center punch. Drill the holes using a 13/32" drill bit. ***Before drilling the holes make sure all electrical, brake and fuel lines are cleared from the path of the drill.*** In order to prevent any damage to these lines it is recommended that a piece of wood be placed between the frame rail and the existing lines while drilling.

STEP 7 - ATTACHING THE UPPER BRACKET

Once the holes have been drilled attach the upper bracket using the 3/8" - 16 x 1 1/2 inch hex bolts, large flat washers and the flanged hex nuts to the frame rail refer to *Figure "A"*. Remove the 6.00"-10.00" piece of air line tubing installed in step 5. See step 10 for procedures for releasing the tubing from the fitting.

STEP 8 - INSTALLATION OF THE PASSENGER'S SIDE ASSEMBLY

Follow steps 2-7 for assembly and installation of the passenger's side assembly. Note, reverse any orientations for the passenger side installation.

STEP 9 - INSTALL THE AIR LINE AND INFLATION VALVE

Uncoil the remaining air tubing and cut it into two equal lengths. ***DO NOT FOLD OR KINK THE TUBING.*** Try to make the cut as square as possible. Insert one end of the tubing into the elbow fitting installed in the top of the air helper spring. Push the tubing into the fitting as far as possible refer to *Figure "A"*.

Select a location on the vehicle for the air inflation valves. The location can be on the bumper or the body of the vehicle, as long as it is in a protected location so the valve will not be damaged, but maintain accessibility for the air chuck (*see Figure "C"*). Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports (*see Figure "D"*). Run the tubing from the air helper spring to the inflation valve, routing it to avoid direct heat from the engine, exhaust pipe, and away from sharp edges. The air line tubing should not be bent or curved sharply as it may buckle with age. Secure the tubing in place with the nylon ties provided. Push the end of the air line tubing into the inflation valve as illustrated (*see Figure "D"*).

STEP 10 - CHECK THE AIR SYSTEM

Once the inflation valves are installed, inflate the air helper springs to 50 P.S.I. and check the fittings for air leaks with an applied solution of soap and water. If a leak is detected at a tubing connection then check to make sure that the air tubing is cut as square as possible and that it is pushed completely into the fitting. The tubing can easily be removed from the fittings. First remove the air pressure from the air springs. Push the collar towards the body of the fitting and then pull out the tube. If a leak is detected where the air fitting screws into the air spring, remove the tubing, then tighten the air fitting into the spring until the leak stops. Re-install the tubing and re-inflate the air springs and check for leaks as noted above.

This now completes the installation. Install the wheels and torque the lug nuts to the manufactures specifications. Raise the vehicle by the rear axle and remove the jack stands and lower the vehicle back onto the ground. Re-attach the negative cable and remove the wheel chocks from the front wheels. Before proceeding, check once again to be sure you have proper clearance around the air springs. With a load on your vehicle and the air helper springs inflated, you must have at least 1/2" clearance around the air springs. As a general rule, the Air Helper Springs will support approximately 30 lbs. of load for each P.S.I. of inflation pressure (per pair). For example, 50 P.S.I. of inflation pressure will support a load of approximately 1500 lbs. per pair of air helper springs. ***FOR BEST RIDE*** use only enough air pressure in the air helper springs to level the vehicle when viewed from the side (front to rear). This amount will vary depending on the load, location of load, condition of existing suspension and personal preference.

NOTE:

Too much air pressure in the air helper springs will result in a firmer ride, while too little air pressure will allow the air helper spring to bottom out over rough conditions. Too little air pressure will also not provide the improvement in handling that is possible. ***TOPREVENT POSSIBLE DAMAGE MAINTAIN A MINIMUM OF 10 P.S.I. IN THE AIR HELPER SPRINGS AT ALL TIMES.***