



Unit 626 Kilshane Avenue, North West Business Park, Ballycoolin, Dublin 15, Ireland  
 Telephone: +353 1 8612 632, Fax: +353 1 8612 647, email: sales@driveriteltd.com

## W21-760-2249

### 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**

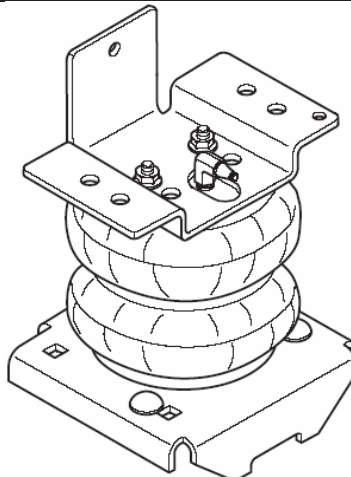
*Do not inflate this assembly when it is unrestricted. When installed, a minimum of 10 psi should be maintained in the air bellows at all times to avoid damage. Do not inflate beyond 100 psi.*

#### **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 SPRING        | 6957 | 2 | 3/8"-16 X 1-1/2" HEX BOLT      | 4  |
| UPPER BRACKET     | 5295 | 2 | 3/8"-16 FLANGE NUT             | 12 |
| LOWER BRACKET     | 5300 | 2 | 3/8"-16 X 3/4" FLANGE LOCK     | 2  |
| NUT PLATE BRACKET | 5299 | 2 | 3/8"-16 X 7" CARRIAGE BOLT     | 4  |
| 18 ft. TUBING     | 0938 | 1 | 3/8" FLAT WASHER               | 4  |
| PUSH-TO-CONNECT   |      |   | 5/16" FLAT WASHER              | 4  |
| INFLATION VALVE   | 3098 | 2 | 1/4"-14 X 1 SELF-TAPPING SCREW | 2  |
| PUSH-TO-CONNECT   |      |   | M16 X 2.0 LOCK NUT             | 4  |
| ELBOW             | 3101 | 2 | NYLON TIE WRAP                 | 7  |
| THERMAL SLEEVE    | 0899 | 2 | CAUTION TAG                    | 2  |

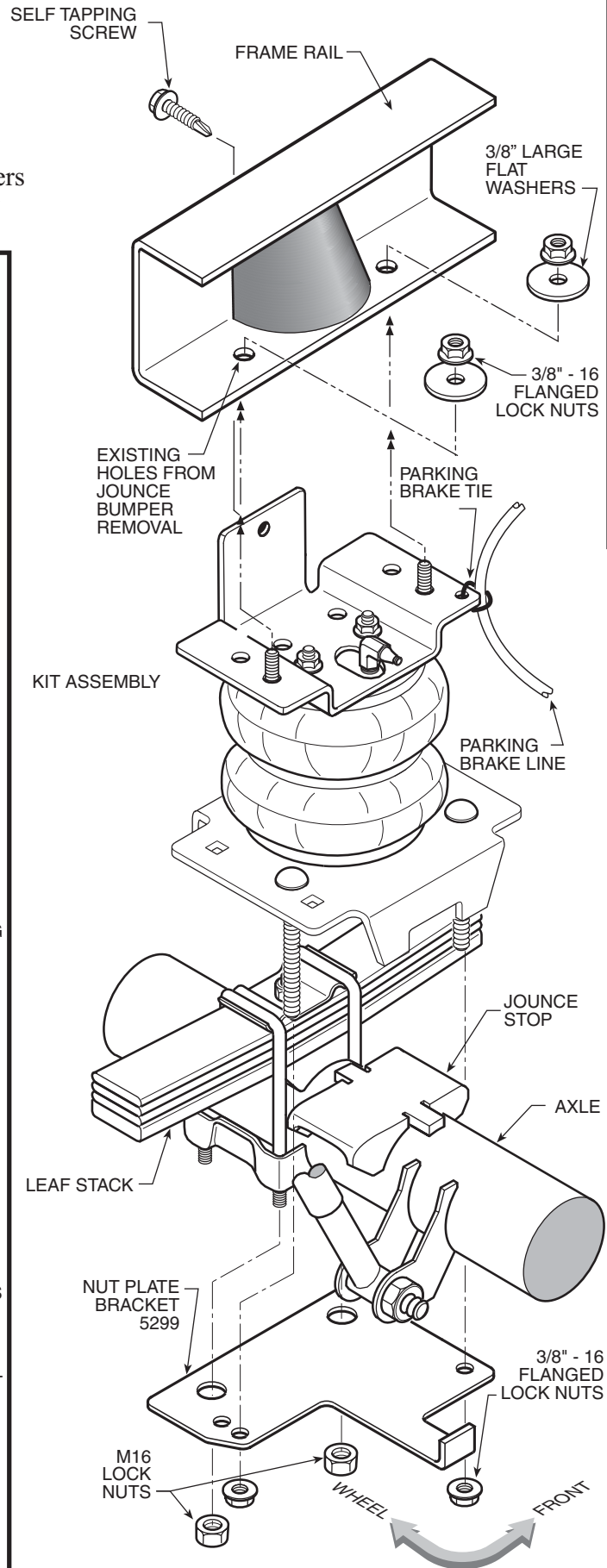
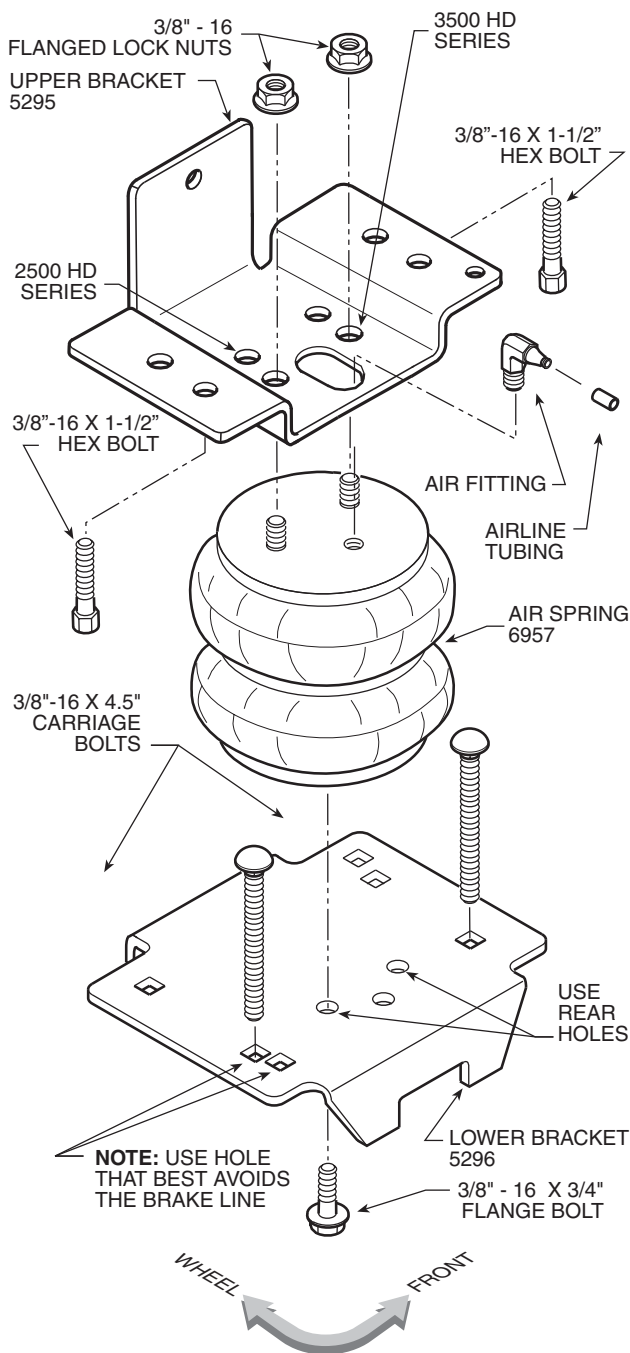


KIT TO FRAME ASSEMBLY

FIGURE "A"

**NOTE:** Both illustrations are of the left, or drivers side, of the truck. Refer to step 3 for the proper lower bracket alignment.

KIT ASSEMBLY



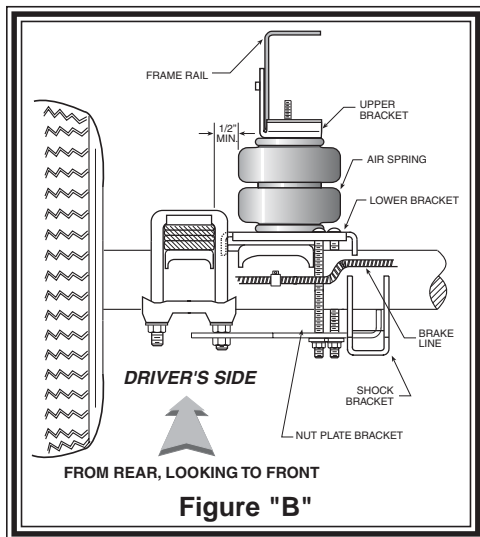


Figure "B"

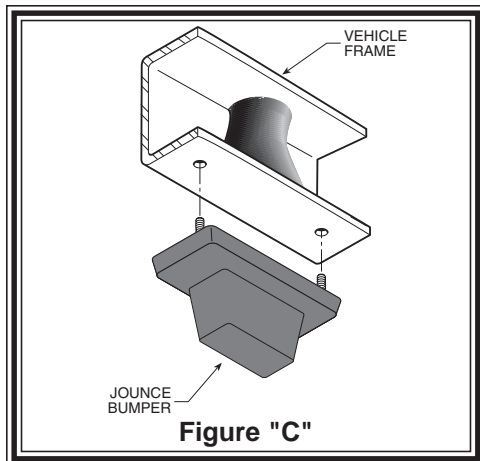


Figure "C"



Figure "D"

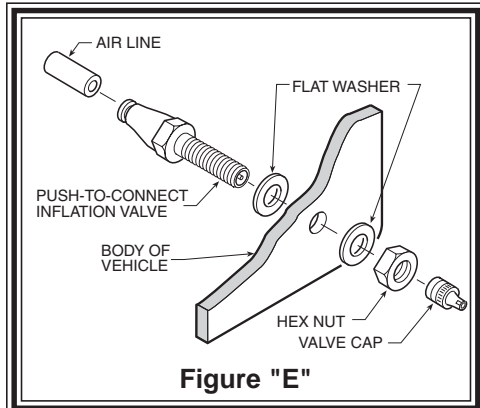


Figure "E"

**NOTE:**

Please read through this manual completely before installing the air spring kit to your vehicle. A heat shield is required on the exhaust side of the vehicle.

**STEP 1 - PREPARE THE VEHICLE**

With the vehicle on a solid, level surface chock the front wheels. Remove the negative battery cable. Remove the jounce bumper located under the frame rail, see Figure "C". The jounce bumpers and nuts will not be reused with this kit.

**STEP 2 - PRE-ASSEMBLE THE KIT**

Select one air helper spring from your kit. Use the mounting holes closest to the outside of the vehicle for the 2500 series truck and use the other mounting holes for the 3500 series truck, see Figure "A". Install the upper bracket by inserting the air helper spring studs into the holes, use two 3/8" - 16 lock nuts to secure the bracket to the air spring, see 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. Position the elbow so as to point in the anticipated location of the air inflation valve see Figures "A" & "D". Place the 3/8"-16 x 4.5" carriage bolts into their designated holes and then fasten the lower bracket to the air helper spring using a 3/8"-16 x 3/4" flange hex bolt, see Figure "A".

**STEP 3 - INSTALLING THE ASSEMBLY TO THE VEHICLE**

Place the assembly on the top of the driver's side axle housing, see Figures "A" & "B". Using the existing jounce bumper holes, install the upper bracket onto the frame with 3/8"-16 x 1-1/2" bolts, large flat washers, and 3/8"-16 lock nuts. The 3/8"-16 x 1-1/2" bolts will be facing upward with the washers and nuts on the inside of the frame rail, see Figure "A". The upper bracket will also be attached to the outside of the frame rail. Using the existing hole in the upper bracket as a template, drill a 1/8" pilot hole in the side of the frame rail to ease the insertion of the 1/4" x 1" self-tapping screw, see Figure "A" & "B". **On the drivers side only, the parking brake line will need to be tie-wrapped to the upper bracket, see Figure "A" & "B"**. Position the nut plate bracket on the leaf spring retainer below the axle. Two of the U-bolt studs should protrude through the holes in the nut plate bracket. Attach the nut plate bracket to the U-bolts with the provided M16 x 2.0 hex nuts. Attach the lower bracket to the axle using the nut plate bracket and 3/8"-16 flange lock nuts, see Figure "A" for bolt location. The lower bracket should fit without altering the brake lines. If the brake lines are touching the bracket, it may be necessary to reposition the line to avoid contact with the bracket. Once the assembly is in place, you must have a minimum of 1/2" clearance around the air spring for proper operation, see Figure "B".

**STEP 4 - INSTALLATION OF THE PASSENGER'S SIDE ASSEMBLY**

Follow steps 1-3 with reverse orientations for assembly and installation of the passenger's side assembly.

**STEP 5 - INSTALL THE AIR LINE AND INFLATION VALVE**

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

## **STEP 5 - CONTINUED**

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 "D"*. Drill a 5/16" hole and install the air inflation valve using two 5/16" flat washers per valve as supports *see Figure "E"*. Run the airline tubing from the air helper spring to the valve, routing it to avoid direct heat from the engine, exhaust pipe, and away from sharp edges. Thermal sleeves have been provided for these conditions. The airline tubing should not be bent or curved sharply as it may buckle. Secure the airline tubing in place with the nylon ties provided. Push the end of the airline tubing into the inflation valve as illustrated *see Figure "E"*.

## **STEP 6 - CHECK THE AIR SYSTEM**

Once the inflation valves are installed, inflate the air helper springs to 70 *psi* and check the fittings for air leaks. Using a spray bottle, apply a solution of soap and water to the fittings. If a leak is detected at a airline tubing connection then check to make sure that the airline tube is cut as square as possible and that it is pushed completely into the fitting. The airline tubing can easily be removed from the fittings by exhausting all the pressure in the air springs and then pushing the collar towards the body of the fitting and then, with a gentle pull, remove the airline tubing. If a leak is detected where the air fitting screws into the spring, deflate the air springs and remove the tubing, then screw the air fitting into the air spring one additional turn or until the leak stops. Reinstall the tubing and reinflate the air springs and check for leaks as noted above.

This now completes the installation. Reattach the negative battery 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 50 lbs. of load for each *psi* of inflation pressure (per pair). For example, 50 *psi* of inflation pressure will support a load of 2500 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 not provide the improvement in handling that is possible. ***TO PREVENT POSSIBLE DAMAGE MAINTAIN A MINIMUM OF 5 *psi* IN THE AIR HELPER SPRINGS AT ALL TIMES.***

### **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.

