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

W21-760-4510

D21-760-1520/D21-760-1521/D21-760-1569

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.

DRIVE-RITE
AIR SUSPENSION SYSTEMS
BY Firestone
Manufacturers of air over leaf suspensions

INSTALLATION INSTRUCTIONS

Kit Nos. D21-600-1520
D21-600-1521
D21-600-1569

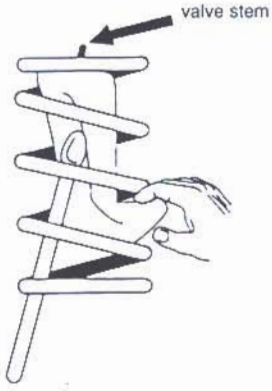


Figure 1

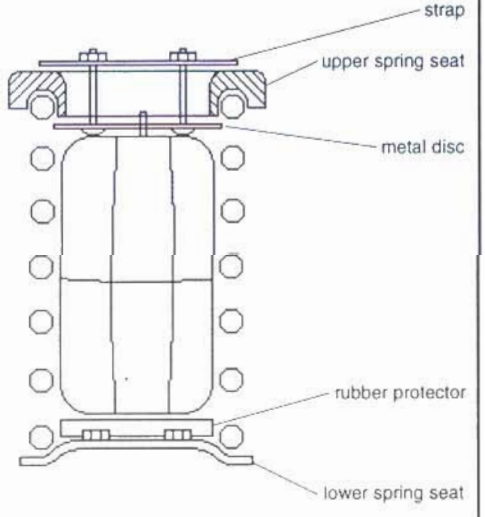


Figure 2

STEP 1 Jack up rear of vehicle or raise on hoist. Support frame with safety stands. Lower axle or raise body of vehicle until suspension is fully extended.

STEP 2 Remove plastic cap from barbed stem on end of cylinder. Exhaust the air from the cylinder by rolling it up towards barbed stem. Replace cap on stem to hold flat shape.

STEP 3 If necessary, additional clearance between the coil turns may be obtained by removing the shock absorbers from the lower shock mountings and lowering the suspension an additional one to two inches **(CAUTION: OBSERVE TENSION ON BRAKE HOSE - DO NOT STRAIN).**

STEP 4 Insert metal disc at the top of the coil just under the upper spring seat (fig.2).This metal disc can be bolted in place using the carriage bolts and straps provided.

STEP 5 Insert flattened air cylinder into coil spring through lowest opening with valve stem at the top (Fig.1). Push the cylinder up within the coil by hand or with a blunt instrument such as a "spoon-type" tire iron.

STEP 6 When cylinder is completely within the coil, remove the cap and allow the cylinder to assume its "as moulded" shape.

STEP 7 Push the cylinder to the top of the coil and insert rubber protector on top of lower spring seat as illustrated. Two holes may need to be drilled in the rubber protector so that it fits neatly over the bolt heads in the lower spring seat.

Continue with air line installation procedure on pages 2 & 3.

STEP 8 Inflate the cylinders to 25lbs. air pressure. Test for air leaks by applying a liquid soap and water solution (1part soap to 4 parts water) to all valve cores, fittings and connections.

STEP 9 Lower vehicle to the ground. Deflate the air springs in 5psi intervals to determine the best ride and handling. Read Maintenance/Operation for proper care of your air cylinders. Recheck air pressure after 24 hours. A 2-4psi after initial installation is normal. If pressure has dropped more than 5lbs. re-test for leaks with soapy water solution.

A "T" air line installation is recommended unless weight in vehicle varies from one side to the other and unequal pressures are needed to level load (or compensate for axle torque transfer in racing application). Dual air lines are used in this case.

"T" AIR LINE ROUTING

TO PREVENT AIR LINE FROM MELTING, KEEP IT AT LEAST TWELVE INCHES FROM EXHAUST SYSTEM.

A. Locate desired "T" location on the chassis frame or cross member.

B. Determine and cut an adequate length of air line to reach from tee to left and right side air cylinders.

CAUTION: LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON FITTINGS DURING AXLE MOTIONS.

C. Slide a hose clamp onto the air line.

D. Push the air line over one side of the "T" until all the barbs are covered. Repeat procedure for other leg of "T" (fig.3).

E. With pliers, slide the hose clamp forward until it fully covers the barbed section. Repeat for other leg of "T" (fig.3).

F. Route air line along cross member and either lower control arm or upper spring seat to left and right air cylinder.

G. Insert air line through spring seat and slide on a hose clamp.

H. Push the air line onto the stem, covering all the barbs (fig.4).

I. With pliers, slide the hose clamp forward until it fully covers the barbed section.

J. Push the remaining air line over the last fitting on the "T" and route along frame to desired inflation valve location (fig.5). Attach with plastic straps or wire.

K. Select a location for inflation valve in the petrol cap well, the boot, rear bumper, bumper flange or behind the license plate, insuring that the valve will be protected and accessible with air hose.

L. Drill a 5/16" hole for inflation valve and mount as illustrated. Rubber washer is for outside weather seal (fig.7).

M. Slide a hose clamp over air line. Push air line onto fitting covering all barbs. With pliers, slide the hose clamp forward until it fully covers the barbed section (fig.6).

N. Raise axle or lower body until air cylinders lightly touch upper and lower spring seat.

DO NOT INFLATE AIR CYLINDERS BEFORE READING INFLATION PROCEDURES.

O. Continue with step 8, page 1.

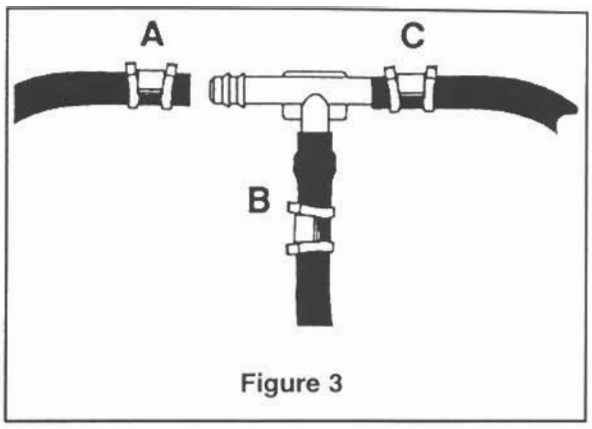


Figure 3

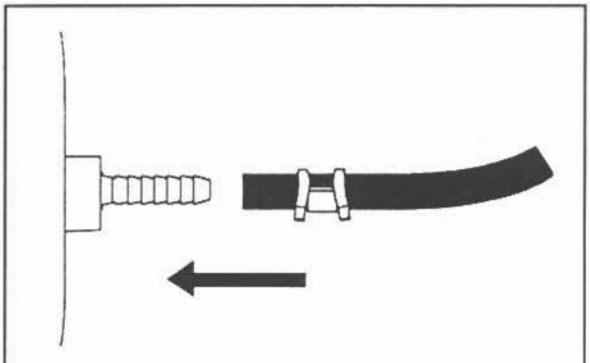


Figure 4

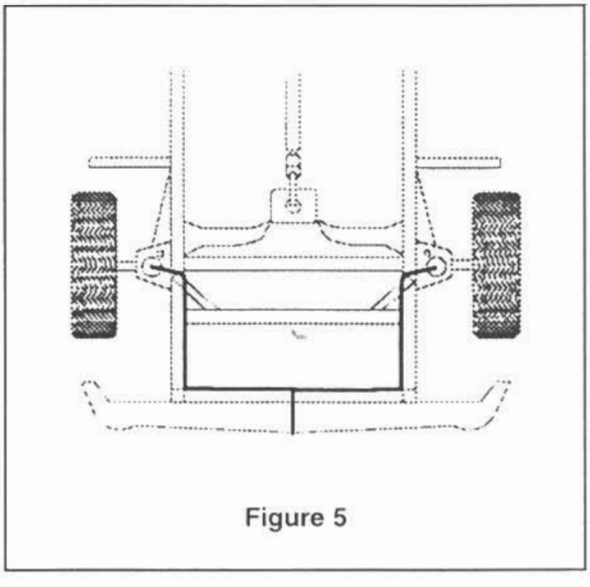


Figure 5

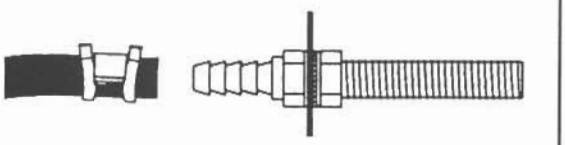


Figure 6

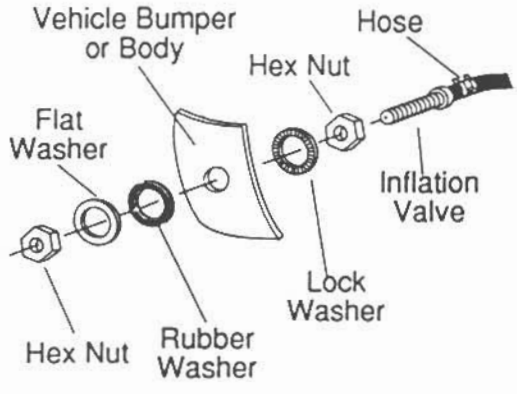


Figure 7

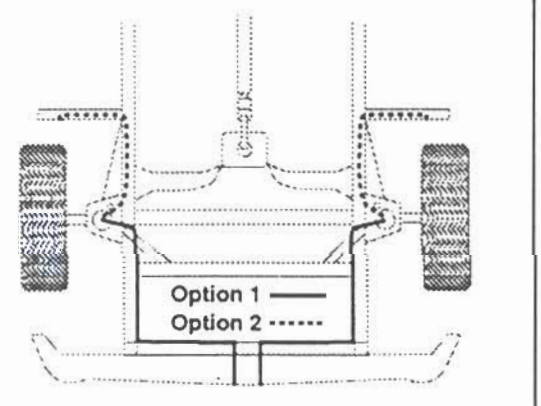


Figure 8

DUAL AIR LINE ROUTING

TO PREVENT AIR LINE FROM MELTING, KEEP IT AT LEAST TWELVE INCHES FROM EXHAUST SYSTEM.

A. Select a location for inflation valves in the rear floor plan or rear bumper, insuring that the valve will be protected and accessible with an air hose (fig.8).

B. Determine and cut an adequate length of air line, not longer than 90", to reach from valve location to left side air cylinder.

CAUTION: LEAVE SUFFICIENT AIR LINE SLACK TO PREVENT ANY STRAIN ON VALVE STEM DURING NORMAL AXLE MOTIONS.

C. Insert air line through spring seat.

D. Slide a hose clamp onto the cut air line.

E. Push the air line onto the stem, covering all the barbs.

F. With pliers, slide the hose clamp forward until it fully covers the barbed section (fig.4).

G. Repeat process for right side.

H. Drill a 5/16" hole for inflation valves and mount as illustrated. Rubber washer is for outside weather seal (fig.7).

I. Route air line along control arm and frame to inflation valve location and cut off excess.

J. Slide a hose clamp over air line and push air line onto fitting covering all barbs.

K. With pliers, slide the hose clamp forward until it fully covers the barbed section.

L. Raise axle or lower body until air cylinders lightly touch upper and lower spring seat.

DO NOT INFLATE AIR CYLINDERS BEFORE READING INFLATION PROCEDURES.

M. Continue with step 8, page 1.

INFLATION PROCEDURE:

1. Inflate your air springs to 25 psi before adding the payload. This will allow the air cylinder to properly mesh with the coil spring. After vehicle is loaded, adjust your air pressure (down) to level the vehicle and for ride comfort.

2. When you are carrying a payload it will be helpful to increase the tire inflation pressure in proportion to any over load condition. We recommend a 2psi increase above normal (not to exceed tire manufacturer maximum) for each 100lbs. total overload on the axle.

FAILURE TO MAINTAIN MINIMUM PRESSURE WILL VOID THE WARRANTY

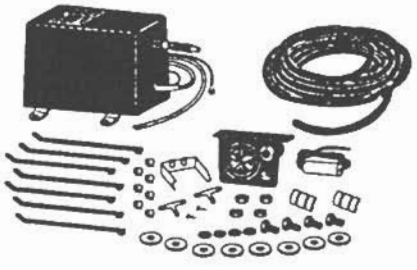
MAINTENANCE / OPERATION

MINIMUM AIR PRESSURE 5 PSI	MAXIMUM AIR PRESSURE 25 PSI

MAINTENANCE TIPS:
1.Check pressure weekly!
2.Always maintain at least 5psi air pressure to prevent chafing or coil pinch.
3.If you develop an air leak in the system, use a soapy solution to check all hose connections and the valve core before removing cylinder.

Increase your air springs versatility with our easy to install Load Controller System

- Compressor mounts easily in engine compartment.
- Dash-mounted 0-100psi gauge with inflate/deflate controls.
- Includes complete installation kit: air hose, fittings, hardware, electrical wire and in-line fuse.
- Ask for part number D21-012-2047



DRIVE-RITE AIR SUSPENSION SYSTEMS BY Firestone

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

DRIVE-RITE AIR SUSPENSION SYSTEMS BY Firestone