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# W21-760-4570

# D21-600-1533/D21-600-1555

### **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.



# INSTALLATION INSTRUCTIONS

# D21-600-1533 D21-600-1555

**NOTE:** If your vehicle is equipped with vibration dampers between the turns of the coil, it is necessary that these be removed before installing the air springs. Their function will be replaced by the air spring.

**NOTE:** Some mid-size GM vehicles have a solid cup located on the lower spring seat which will not allow the hose to exit the coil. It is necessary to remove this cup before installing the air spring.



Before beginning the installation check the clearance from coil spring to exhaust. It is common in your application for the exhaust to be very close to the coil. If there is not more than 2" you will need to move the pipe for additional clearance.

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**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.

**2 INSTALL HEAT SHIELD KITS** (Note: separate instructions are included with heat shield.

**3** 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.

4 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).

NOTE: If hole is located in upper spring seat, use steps 5B and 8B.

- **5A** Insert flattened air cylinder into coil spring through lowest opening with stem at the bottom (fig.1A).
- **5B** Insert flattened air cylinder into coil spring through lowest opening with stem at the top (fig.1B).
- 6 Push the cylinder up within the coil by hand or with a blunt instrument such as a spoon-type tyre iron.
- 7 When cylinder is completely within the coil, remove the cap and allow the cylinder to assume its "as moulded" shape.
- **8A** Push cylinder to the top of the coil and insert protector on top of lower spring seat (see figs. 2A and 2B).
- **8B** Push cylinder to the bottom of the coil and insert protector at the top (see fig. 3).

**9** Install air hose as detailed on pages 2 and 3. A tee hose installation is recommended unless weight in vehicle varies from one side to the other and unequal pressures are needed to level load. Dual hoses are used in this case.

**10** Inflate cylinders to 25lbs, air pressure. Test for air leaks by applying a liquid soap solution to all valve cores and fittings.

Lower vehicle to the ground. Read Maintenance/ Operation for proper care of your air cylinders.









## 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.9).
- **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.5).
- 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.8).

- 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.
- M. Check tailpipe clearance and insure that it is at least 2-3 inches from air cylinder. If necessary, loosen clamps and rotate or move to obtain additional clearance. Attach shock absorbers if removed earlier in the installation.

# DO NOT INFLATE AIR CYLINDERS BEFORE READING INFLATION PROCEDURES.

N. Continue with step 10, page 1.



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.

### TEE HOSE 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.4).
- E. With pliers, slide the hose clamp forward until it fully covers the barbed section. Repeat for other leg of "T" (fig.4).
- 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.5).
- 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.6). 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.8).
- 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.7).
- N. Raise axle or lower body until air cylinders lightly touch upper and lower spring seat.
- O. Check tailpipe clearance and insure that it is at least 2-3 inches from air cylinder. If necessary, loosen clamps and rotate or move to obtain additional clearance. Attach shock absorbers if removed earlier in the installation.

# DO NOT INFLATE AIR CYLINDERS BEFORE READING INFLATION PROCEDURES.

P. Continue with step 10, 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.
- When you are carrying a payload it will be helpful to increase the tyre inflation pressure in proportion to any over load condition. We recommend a 2psi increase above normal (not to exceed tyre manufacturer maximum) for each 100lbs. total overload on the axle.

# FAILURE TO MAINTAIN MINIMUM PRESSURE WILL VOID THE WARRANTY

MAINTENANCE / OPERATION	
MINIMUM AIR PRESSURE 4 PSI	MAXIMUM AIR PRESSURE 25 PSI
MAINTENANCE TIPS: 1.Check pressure weekly! 2.Always maintain at least 4psi air pressure to prevent cha 3.If you develop an air leak in the system, use a soapy solu before removing cylinder.	
Increase your air springs versatility with o	ur easy to install Load Controller System
- Dash-mounted 0-100psi gauge with inflate/defla - Includes complete installation kit: air hose, fitting hardware, electrical wire and in-line fuse. - Ask for part number D21-200-5789	
Air Suspension Sy Manufacturers of air or	er leaf suspensions
CAUTION: DO NOT EXCEED THE VEHICLE MANU	STEMS STEMS STEMS



# HEAT SHIELD



#### EXHAUST CLEARANCE MODIFICATION

Check exhaust clearance and insure that it is 2 - 3 inches from air cylinder. If necessary, loosen clamps and move or rotate it to obtain additional clearance.

#### HEAT SHIELD INSTALLATION

CAUTION: Edges of heat shield may be sharp. Wear gloves while bending and installing heat shields.

The heat shield is installed on the exhaust pipe at the closest point to the air cylinder to protect it from the radiant heat of the exhaust system.

Attach radiator clamps loosely around exhaust pipe nearest to the air cylinder.

Bend heat shield tab out at a 90° angle and again half the distance up at a 90° angle to form a "L" shape. Repeat on other tab (fig.1A). Position heat shield and insert the heat shield tabs beneath the two radiator clamps. Tighten the clamps (fig.1).

Bend heat shield to form it around exhaust pipe. Be sure to maintain a "dead air" space of ½" to 1" between the pipe and the heat shield (fig.2).

NOTE: Make sure installation does not interfere with moving parts, fuel lines, etc.

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