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Range Rover **Safety Emergency Kit** **DRK001**

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.



How it works

The DRK001 kit, once installed, provides manual inflation of the vehicles air springs via an inflation valve connected to each air spring. In addition, the ECAS valves can be "locked off" from the air springs, thus allowing the vehicle to be driven at a normal height even with an air supply unit fault.

Fitting Instructions

Before you start

Please read the instructions fully before proceeding with the installation.

Ensure that the vehicle is in a safe location to work around it. Also ensure that the engine is turned off, and hand brake is applied.

Range Rover ECAS systems are normally pressurised at all height settings, this air pressure needs to be removed from the system before starting the installation. You can depressurize the air tank, and then the complete system, by manually unscrewing the drain plug SLOWLY until air is heard to be escaping. The cut in the drain plug will allow air to escape without fully removing the plug. Lowering the vehicle to the "access" mode then jacking up the chassis so the springs are well extended will greatly reduce the air pressure in the lines also, but it is better to drain the system.

Installation Procedure

Step 1 Locate Air supply unit

Locate the air supply unit on your vehicle, on Series One (Classic) vehicles it can be found on the right hand side, bolted to the chassis rail, under the seat.

On Series Two (4.0/4.6) vehicles the air supply unit is located under the bonnet on the left hand side.

Now, locate the four 6mm OD air lines that run from the air supply unit to the four air springs, label these lines as per *Figure 1* following. For Classic models the lines will need to be traced for identification.

Step 2 Cut Air Line

Working on one line at a time, cut the 6mm line using a tube cutter (or sharp knife), to produce a clean square cut, in a location that will allow the assembly to be fitted. If the system has not been fully depressurised some air will escape at this time.

Figure 1

4.0/4.6 LINE LAYOUT

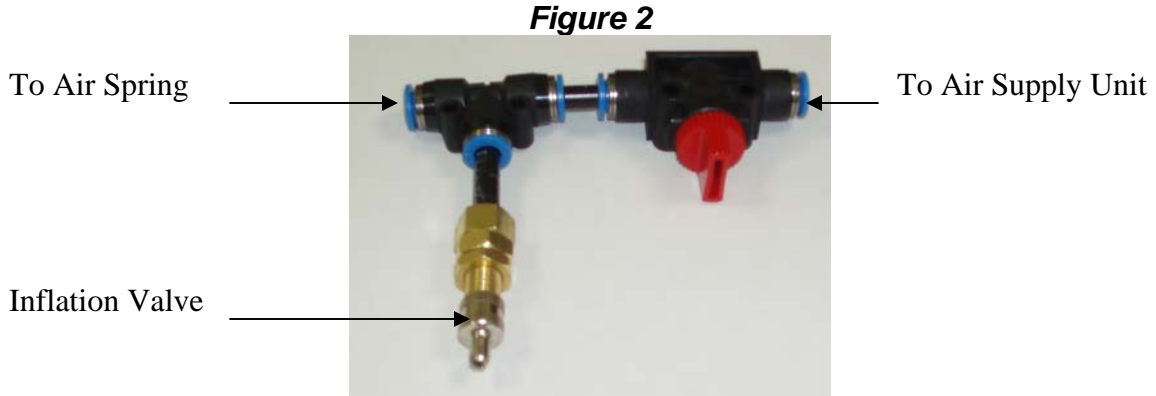
REAR LH SIDE	FRONT LH SIDE
REAR RH SIDE	FRONT RH SIDE



Step 3 Fit Assembly

Push the two cut ends of air line in to the straight air fittings of one assembly, (“TO AIR SPRING” and “TO AIR SUPPLY UNIT”) ensuring that the air line is pushed in firmly.

See *Figure 2 Below*:



Step 4 Repeat

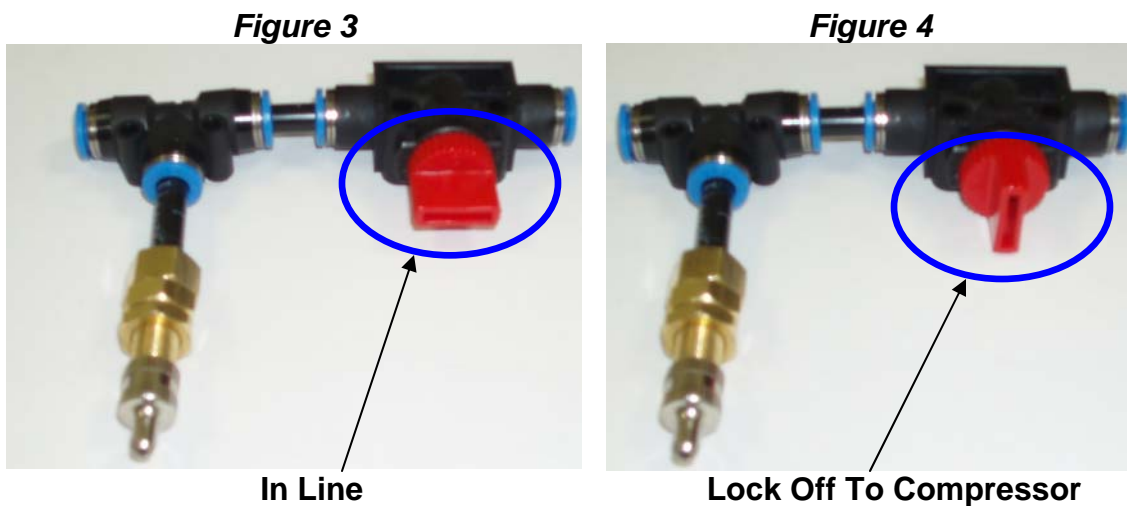
Repeat steps 1-3 for the other three 6mm air lines.

Step 5 Inflation Valves

Cut the supplied air line into four equal lengths, insert one end of the air line firmly in to the elbow air fitting, the other in to the inflation valve. With the length available, select a location for the inflating valves to be secured. Please note that the air line must be tied down securely and not exposed to excessive heat from exhaust pipes, hot a/c lines, etc...

Step 6 Test System

Set ball valves to in line, as shown in Figure 3 below



Ensure the vehicle is safe to start, then turn the ignition on and wait for the compressor to stop pumping. The system can now be leak checked using soapy

water in a spray bottle, spraying all joints and checking for bubbles forming after one minute. Re-fit or tighten any connections that are leaking until the leak stops.

Operating Instructions:

Inflating all air springs with ECAS fault

With the vehicle on a FLAT surface, apply foot brake, turn the engine off and **APPLY** the hand brake, select **NEUTRAL**, then release foot brake slowly, ensuring vehicle does not roll. Only when you are sure that the vehicle will not roll should you exit the vehicle.

Now, lock off the ball valves (lever perpendicular to direction of flow, see figure 4 on previous page), then using an external air source inflate the air springs, via the inflation valves, in the following order:

1. LH and RH Rear until vehicle has lifted approx. 50 mm (2") off bump stops and at equal pressures on both sides, LH and RH Front to approx. 50 mm (2") off bump stops, again at equal pressures.
2. LH and RH Rear to normal ride height, at equal pressures, LH and RH front to ride height, at equal pressures.
3. Level out rear to normal ride height, adjusting pressures to level vehicle from side to side. Should the pressure vary from side to side by more than 15psi, use the front bags also to help level the vehicle.
4. The vehicle can now be driven, with care taken to allow for the absence of automatic leveling as speed varies and in the event of an air springs leak.

Off road Driving with Manual Inflation

In the event that the vehicle becomes "hung-up" on its chassis rail when traveling over rough terrain, the air springs can be further inflated to clear the vehicle from the obstacle, the deflated back to the previous height, as would happen in the automatic mode.

Should you wish to drive the vehicle at a height equivalent to the extended mode height when off-road, ensure that the vehicle is lowered manually before traveling at speeds which the vehicle would normally automatically lower.

Table for recording normal vehicle heights

	D/S FRONT	O/S FRONT	D/S REAR	O/S REAR
KNEEL				
NORMAL				
EXTENDED				
MAXIMUM				

MAXIMUM

It is recommended that these heights be measured from the centre of the wheel to the underside of the guard above the wheel centre.