



## Introduction

If you drive a P38 Range Rover you may have been in the situation where the Electronic Air Suspension (EAS) system becomes slow to raise the vehicle, or in the worse case, stops pumping up altogether. This is also true for the late Range Rover Classics that were fitted with EAS.

We're glad you chose this relatively inexpensive kit rather than believing the dealers who say you need a new (and quite expensive) compressor. When the EAS Air Compressor stops working it is usually due to the thermal switch failing



## What's in the box/bag?

- A replacement thermal switch
- A pop-rivet
- Some screws

## Safety

**Please read & understand these fitting instructions before you commence installation.**

**Depressurising the system** - It is strongly recommended that the EAS is depressurised before any work is undertaken. It should not be necessary to do this if the valve block is working correctly, but in the interest of your personal safety we suggest you do this anyway. If diagnostics equipment (e.g. TestBook, Rovacom/FaultMate, EAS Unlock) is not available to depressurise the system, ensure the vehicle height is set at the lowest possible height (i.e. Access mode) and take extreme care when disconnecting air lines from the valve block.

**Safety glasses are recommended when disconnecting pressure filled air lines, and whenever working on the EAS.**

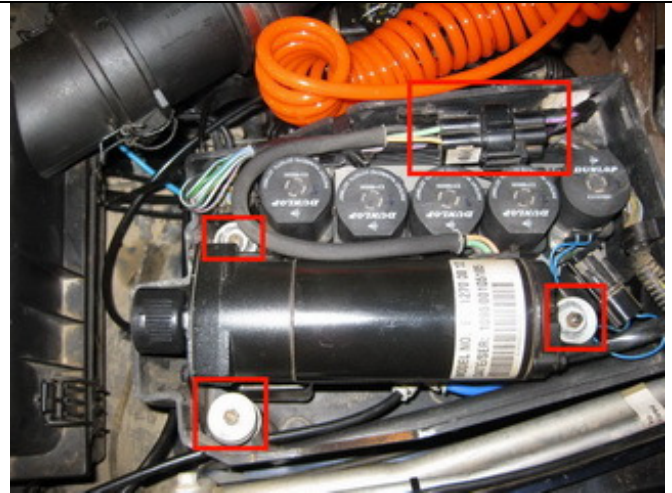
**If the car is not already sitting on the bump stops, be aware it may drop in height when air fittings are disconnected.**

### *Thermal Switch Replacement Procedure*

Remove the cover from the EAS box in the engine bay (rear right corner when looking from the front of the car).

Remove the nuts holding the compressor in place.

Disconnect the multi-plug (top RH in picture).



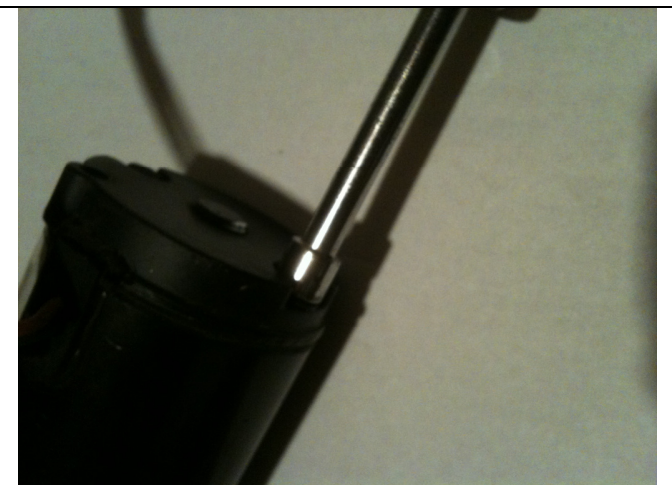
Lift the compressor so you can get to the brass air line connector.

Use a 12mm spanner to remove the brass air line connector.

Remove the compressor and put it on the bench for disassembly.



The Thermal Switch resides in the brush housing assembly, at the end of the motor. Remove the mount bracket and the 2 long bolts. Gently pry up the motor end, pry the wires out as well.



Installation Instructions for EAS Air Compressor  
Thermal Switch

Use a 7/64" (2.5-3mm) drill in a drill press (DO NOT USE A HAND DRILL!!!) to drill out the rivets, go approx 1/4" (6mm) deep.

This hole will be for the new mounting screws included in the kit.

Gently pry the brush-plate off with a screwdriver and clean up the burrs with a razor knife.



Use a 1/8" (3mm) drill to drill out the thermal switch rivet.

De-solder the old switch and replace with the new. It is easier to rivet (also included with the kit) the new switch in before soldering.

Discard the plastic ring. Its only purpose is to create bearing failure. It is loose in 90% of the compressors we see. If it's still there, pry it out. Re-assemble the bearing if necessary and oil with a few drops of light machine oil.



**Installation Instructions for EAS Air Compressor  
Thermal Switch**

Press the bearing retainer down with a flat blade screwdriver and re-crimp with the side of the blade and a hammer.

Use a solid surface with a hole for the dimple so the end bell will sit flat. The base of your drill-press will work very well.



Clean the burrs from the end bell, screw the socket head screws into the holes drilled previously, they will cut their own threads.

Start with your electric driver on low torque and slowly increase until just seated, or run in by hand.

Ensure the brush assembly is fully seated on the end-bell, misalignment will cause brush chatter and vibration.



**Installation Instructions for EAS Air Compressor  
Thermal Switch**

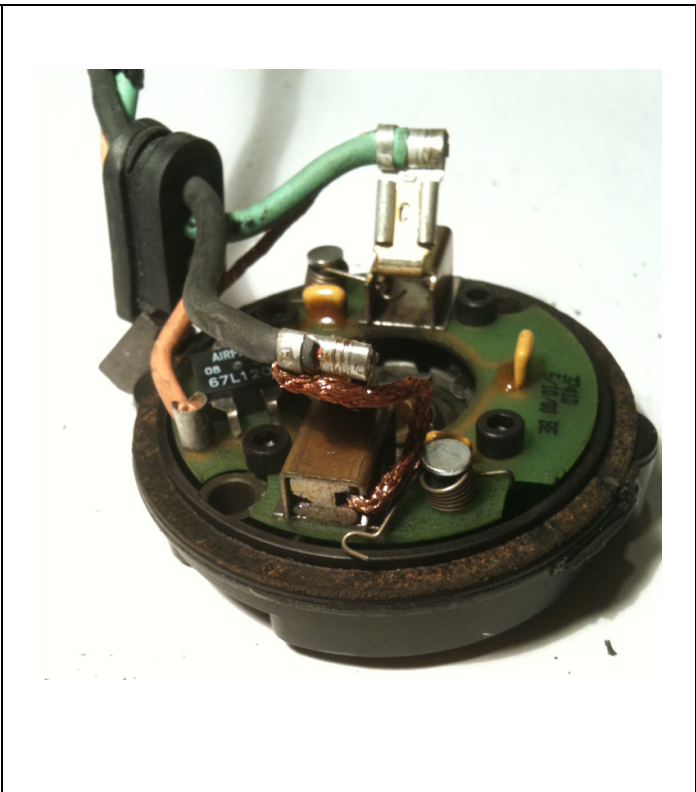
Hook the brush spring on the end of the guide, it's tricky...

Install the brushes in the guides with the leads along the spring slot to allow free movement. The black wire goes beside the post for the orange wire connection (overheat switch lead).

Clean all the old brush dust out of the motor, a damp cloth works well.

Install the end-bell, wires facing the valve block as the compressor sits in the EAS box.

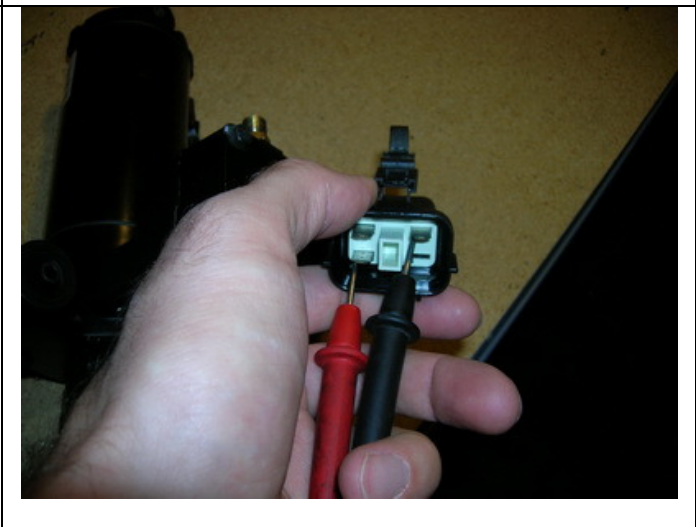
It's tricky to get the brushes over the commutator, use a small screwdriver to hold them back if needed, un-clip the springs and ensure the brushes seat correctly. Re-install the bolts tight enough that there is no rotation of the motor housing.



Check the continuity of the thermal switch, from the black to the orange wire it should be a closed circuit.

If it is open circuit, check that the orange wire didn't come loose when you re-installed the end-bell.

Replace the compressor back in to the EAS box in the engine bay, run the engine and enjoy the new lease of life in your EAS Compressor.





**HARD  
RANGE  
AUSTRALIA**

**Installation Instructions for EAS Air Compressor  
Thermal Switch**

**Questions and Suggestions**

If you are in or close to Australia, contact Paul or Andy at Hard Range Australia

<http://hardrange.com>

E-mail: [info@hardrange.com](mailto:info@hardrange.com)

If you are in or close to the USA, contact Scott at So Cal Used Rover Parts

<http://www.socalusedroverparts.com>

E-mail: [roverscotty@gmail.com](mailto:roverscotty@gmail.com)