From Mike SR
https://www.pistonheads.com/gassing/topic.asp?h=0&f=6&t=1118394

Below are my notes re checking the aircon. They may be of some use if the clutch on the compressor is not engaging.

Diagnosing Why the Air Conditioning Clutch Doesn't Engage

The pressure switch is on top of the receiver drier bottle.
The drier bottle is in the front of the passenger side wing in front of the wheel.
Accessible by taking the wheel off and removing the rectangular inspection cover (its below the circular cover for access to the headlamp).

The drier is a thermos flask size and shape. Its held in a P clip type fastener that is bolted to the back of the inspection cover.

It is a pain to get at and it will be very rusty because of all the water that comes in through the hole under the front indicator
It has two hoses connected to it and an electrical plug attached at the top. Disconnect the plug and give it a good clean with contact cleaner and spray with WD40 or similar.

WARNING WARNING WARNING

All of the following is from a 98 4.2. TVRs vary so if in any doubt about wires/colours/pins and plugs don't start waving a multimeter around the electrics

Before doing anything pore over the wiring diagrams from the Cerbera CD and make sure you have identified the plugs and control boxes and the connectors.
If you can't match pin numbers and wire colours with the diagrams do not proceed with the testing.

### J10 Engine Harness Connector

| | |
|---|---|
| Location: | Push back of passenger footwell |
| Connection: | 19 way |

### J11:A+B Hand Brake Switch

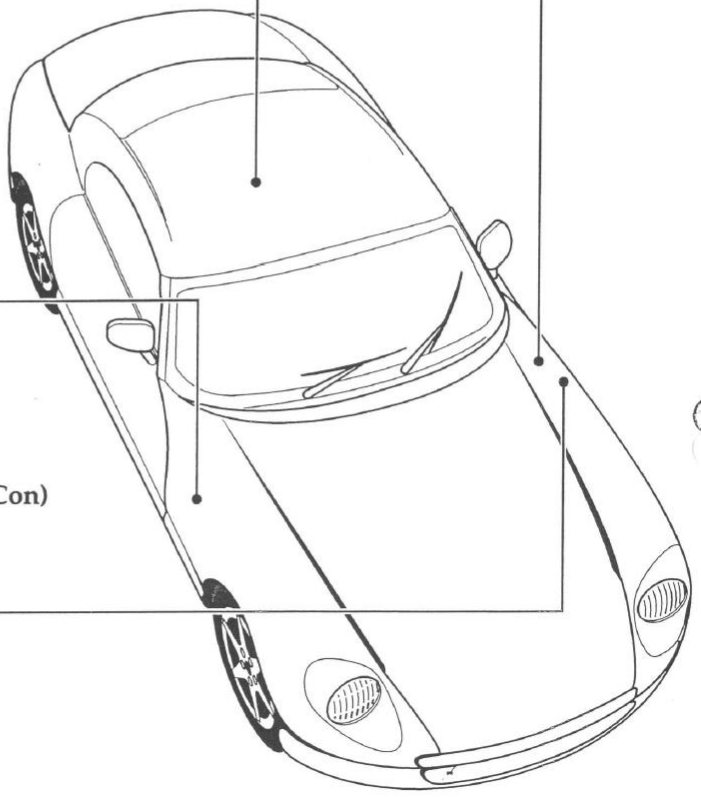
| | |
|---|---|
| Location: | Mirco Switch under handbrake |
| Connection: | spades |

### J12 Heater Box (Heated Air)

| | |
|---|---|
| Location: | Drivers footwell |
| Connection: | |

### J13 Heater Box ( Fresh Air and A/Con)

| | |
|---|---|
| Location: | Passenger footwell |
| Connection: | |



### J14+15 Heater Control Unit

| | |
|---|---|
| Location: | Pushed to back of passenger footwell |
| Connection: | 2 x 17 way |

### J16 Ignition Switch

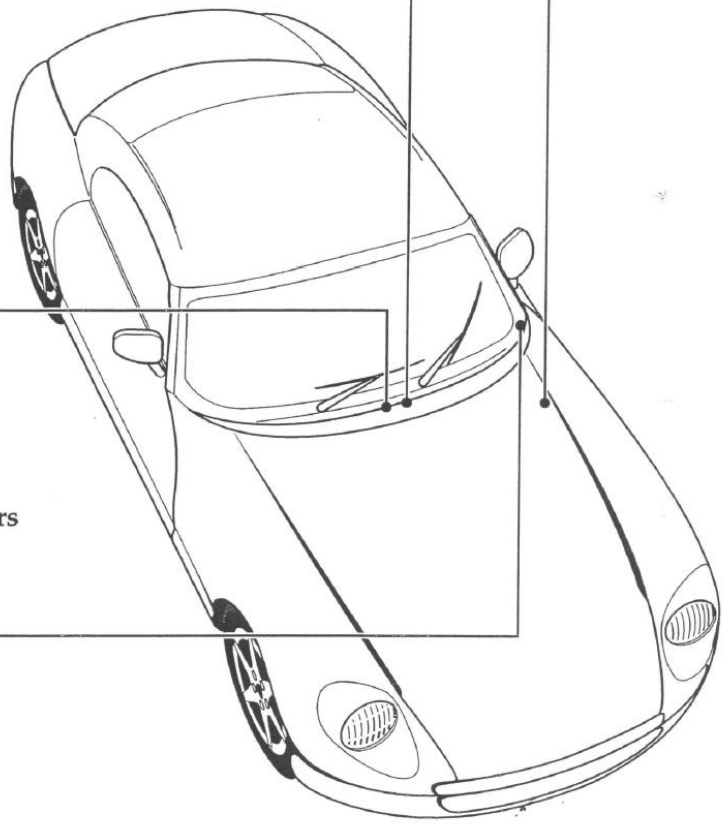
| | |
|---|---|
| Location: | Behind centre panel |
| Connection: | 2 way |

### J17 Inner Lock Button

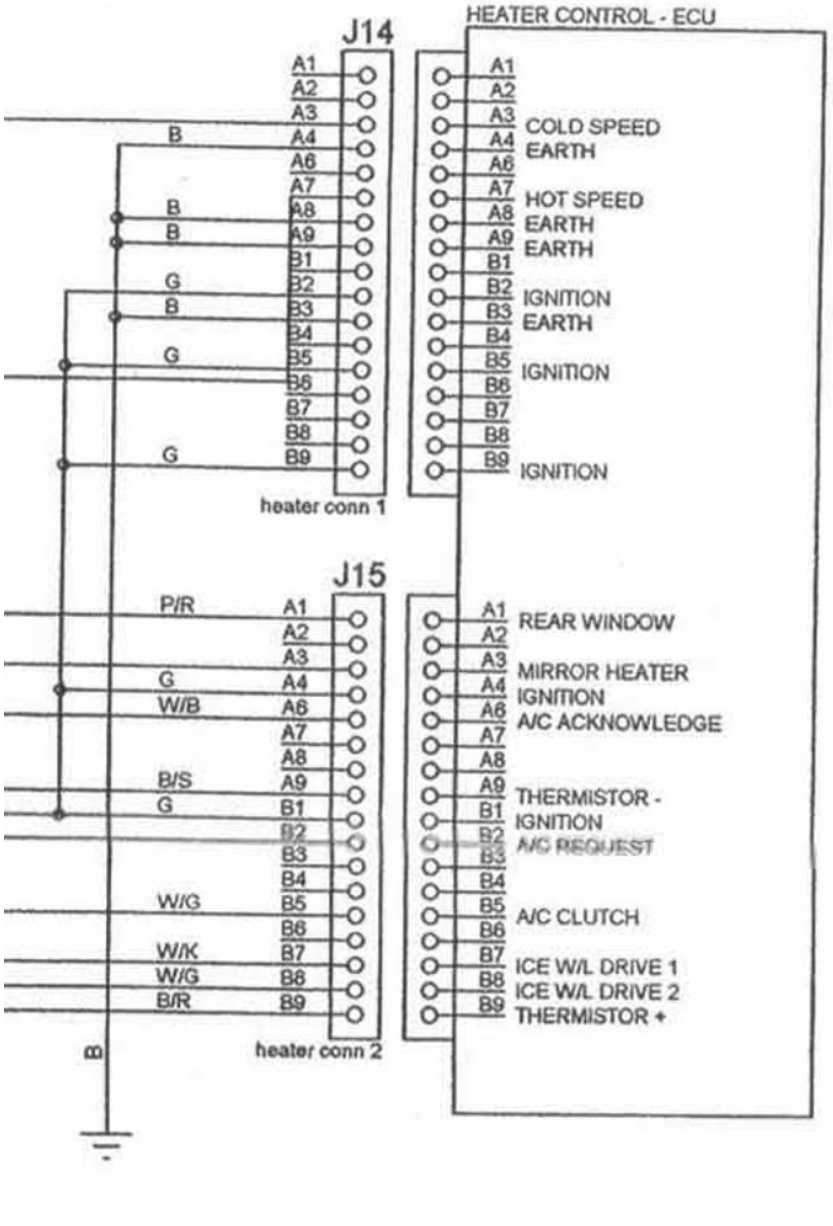
| | |
|---|---|
| Location: | Behind centre panel |
| Connection: | 6 way |

### J18 +19 Passenger Door Connectors

| | |
|---|---|
| Location: | Under hinge recess |
| Connection: | 2 spades connectors |



Earth on the heater contol box is a black wire on pin B3 of the connector with fewest wires
12V is pin B1 on the other connector - green wire




When the AC switch is pressed the heater control box puts a request into the ECU for the aircon to be turned on. The request is 12V on a wire via a relay that goes through the thermostat switch and the pressure switch.
If the ECU says yes it pulls another wire to 0V that energises a second relay in the heater control box that puts 12V onto the AC clutch wire out of the control box to the red wire going into the compressor.

Sooo nice and simple and not much to go wrong

Turn it on and test for 12V at the red wire going to the compressor. (I use the oil filler cap as earth) If it's live there is a problem with the box of tricks on the compressor.

If no 12V at the red wire then here we go.....

When the AC switch is pressed you should hear a click from the first relay in the heater control box.

If the relay has clicked then you should be able to measure 12V on one or both contacts of the thermostat in the driver footwell (need to measure from the contact to a suitable earth). If only one contact has 12V then the thermostat is open and you have found the problem.

If neither are live check there is 12V at pin B2 white/pink wire on the heater control box. If not the box is faulty.

If both contacts are live then the pressure switch is next in the chain.

Check this at the engine harness connector in the passenger footwell. Its probably hidden up above the roll cage next to passengers left knee.
IIRC its pin 19 and a white pink wire. Its right at one end of the plug. Again test to a suitable earth.

If no 12V then the pressure switch is open and its mucky contacts or the pressure is too high or too low.

If there is 12V then it could be an ECU or heater control box fault.

If the ECU is happy then there should be 0V at the heater control box pin A6 which is white/black

and there should be 12V at pin B5 which is white/green. This is the feed to the AC clutch so if this is at 12V and the red wire at the compressor is not there is a break in the wiring somewhere betwixt compressor and control box.