A.C. Thermostat Kit A120P0149S

lsl532

The Elise/Exige a.c. control system uses a thermostat mounted on the top of the evaporator housing, with a capillary line probe to sense the temperature of air leaving the evaporator. The thermostat then signals the compressor to cycle on and off to maintain air outlet temperature just above freezing. It is however possible under extreme ambient conditions of high humidity, for ice to begin to form on the evaporator core and restrict air flow past the temperature probe, creating a 'domino effect' which can lead to complete icing up of the evaporator core and little or no airflow to the cabin vents.
A new type of electronic thermostat has been introduced, which has improved temperature sensing and faster reaction time, reducing the possibility of ice formation.

The electronic thermostat was introduced on factory build at approx. February 2007

If a symptom is experienced of no refrigerated airflow after an initial period of satisfactory operation, usually characterised by resumption of performance after switching off for 30 minutes, diagnosis should be confirmed by re-creating the condition, and then releasing the air outlet trunking from the heater box, and visually inspecting the evaporator for ice formation. Note that a limited time is available before this evidence will be lost. Diagnostic procedures should also include checks of refrigerant charge and correct system operation.
In the first instance, the correct positioning of the capillary line probe should be verified. With the air outlet trunking disconnected from the heater unit, the tip of the probe should be seen to be touching the centre of the second from top row of evaporator fins, on the air outlet side. If problems persist with a correctly positioned probe, it is recommended to fit the new type thermostat by the following procedure.

Parts Required	*Part Number*	*Qty*
Electronic Thermostat Retrofit Kit	A120P0149S	1

1. On RHD Elise, remove the front clamshell and air outlet trunking from the heater/evaporator housing. On LHD Elise, it is not necessary to remove the clamshell, sufficient access being available after removing both front body access panels, and the air outlet trunking. Also release the fusebox and remove the wiper motor cover. On all Exige models, remove the front clamshell, radiator outlet air deflector panels, fusebox and wiper motor cover.

2. Turn on the ignition and select the fully cold temperature setting to move the air blender flap to full travel.

3. It is not necessary to remove the old thermostat unit from the top of the heater housing, but the capillary line should be cut off at the thermostat, and the carefully withdrawn from the evaporator.

4. The new thermostat is to be mounted on the top surface of the heater/a.c. retaining bridge. Clean the surface before removing the backing tape and applying the self adhesive thermostat.

5. Route the thermistor cable through the housing grommet, and insert into the top row of evaporator finning, approximately 45mm from the rear edge. Insert into the fins to a depth of 17 - 20mm. Coil up the spare length of cable outside the case, and secure with a tie wrap.

6. Prise off the plastic cover over the temperature flap actuator. Unplug the short jump harness from the actuator and vehicle harness and discard. Plug the new jump harness into the actuator and the new thermostat. Plug the two orange (or pink) cables from the main harness into the two remaining single connectors on the thermostat.
Tidy cable runs with tie wraps as necessary. Refit plastic shroud over actuator.

7. Test fan operation before re-fitting air trunking, and other removed parts.