

## Section L3

## Thermostat

**Thermostat - To remove (see Fig. L4)**

1. Drive the car onto a ramp
2. Firmly apply the parking brake and remove the gear range selector thermal cut-out from the fuse-board. Disconnect the oil pressure switch situated behind the fan on the 'B' bank side of the engine, enabling the air conditioning system to operate without starting the engine.
3. Switch on the ignition and rotate the air conditioning system function switch to the DEF (defrost) position.

Ensure that the fan motors are operating at maximum speed.

Wait approximately 20 seconds for the lower servo to reach the full hot position and observe that all the air is diverted to the windscreen.

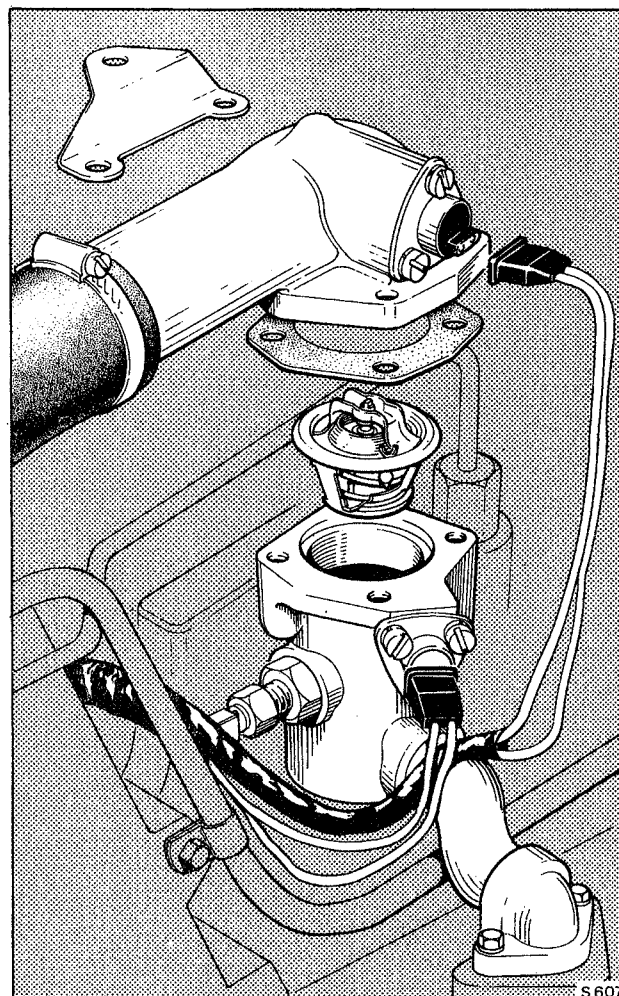
This procedure opens the heater water tap ensuring the water system can be completely drained.

4. Switch off the ignition and carefully remove the radiator filler cap.
5. Raise the car to a convenient working height.
6. Place containers under the car to collect the coolant. Attach a length of rubber hose from the radiator drain tap to direct the coolant into the containers.
7. Open the radiator drain tap and drain the coolant from the radiator. When completed, remove the drain plugs to drain the residue from the crank-case.
8. On cars fitted with exhaust emission control equipment it will be necessary to disconnect the cable to the primary valve lock-out switch and, dependent on the car's domicile, to remove the air diverter valve. Refer to Chapter U - Emission Systems, for removal and fitting of exhaust emission control components.
9. Remove the setscrew to the air intake elbow bracket then the two setscrews securing the bracket to the thermostat cover and release the bracket.
10. Unscrew the remaining two setscrews securing the thermostat cover to the housing and move the cover to one side; the hose being sufficiently flexible to allow the desired movement without having to be removed.
11. Lift the thermostat from the housing.

**Thermostat - To test**

If the thermostat is suspected of being faulty, it can be tested as follows.

1. Suspend the thermostat and the bulb of an accurate thermometer into a container of water so that they are completely immersed. They must not be allowed to touch the sides or bottom of the container as this would cause a false reading.



**Fig. L4 Thermostat and housing for SU H1F7 carburettors**

2. Gradually heat the water, stirring continuously to ensure that the water and thermostat are at a uniform temperature.
3. Note the temperature at the point when the thermostat valve begins to open.  
If the water is heated too quickly, or if it is not adequately stirred, a false reading may result.  
The thermostat has its opening temperature stamped on the base of the unit, for example, 80 C. (190 F.)  
When fully open, the valve should have travelled a minimum of 9.5mm. (0.375in).  
**No attempt must be made to adjust the thermostat.**
4. Check that the fusible plugs are intact.

**Thermostat - To fit**

1. Remove the old gasket material from the thermostat housing and cover, ensuring that no material enters the thermostat housing.  
Check that the two faces are wiped clean.
2. Fit a new gasket and insert the thermostat into its housing.
3. Replace the cover and secure in position by progressively tightening the four setscrews.
4. Examine hoses for deterioration and ensure all worm drive clips are secured. Renew any hoses that are unserviceable.
5. Replace exhaust emission control components, if fitted.
6. Fill the system using the correct anti-freeze/water mixture verifying and adjusting the concentration level using the method described in Section L1 Coolant - To check.