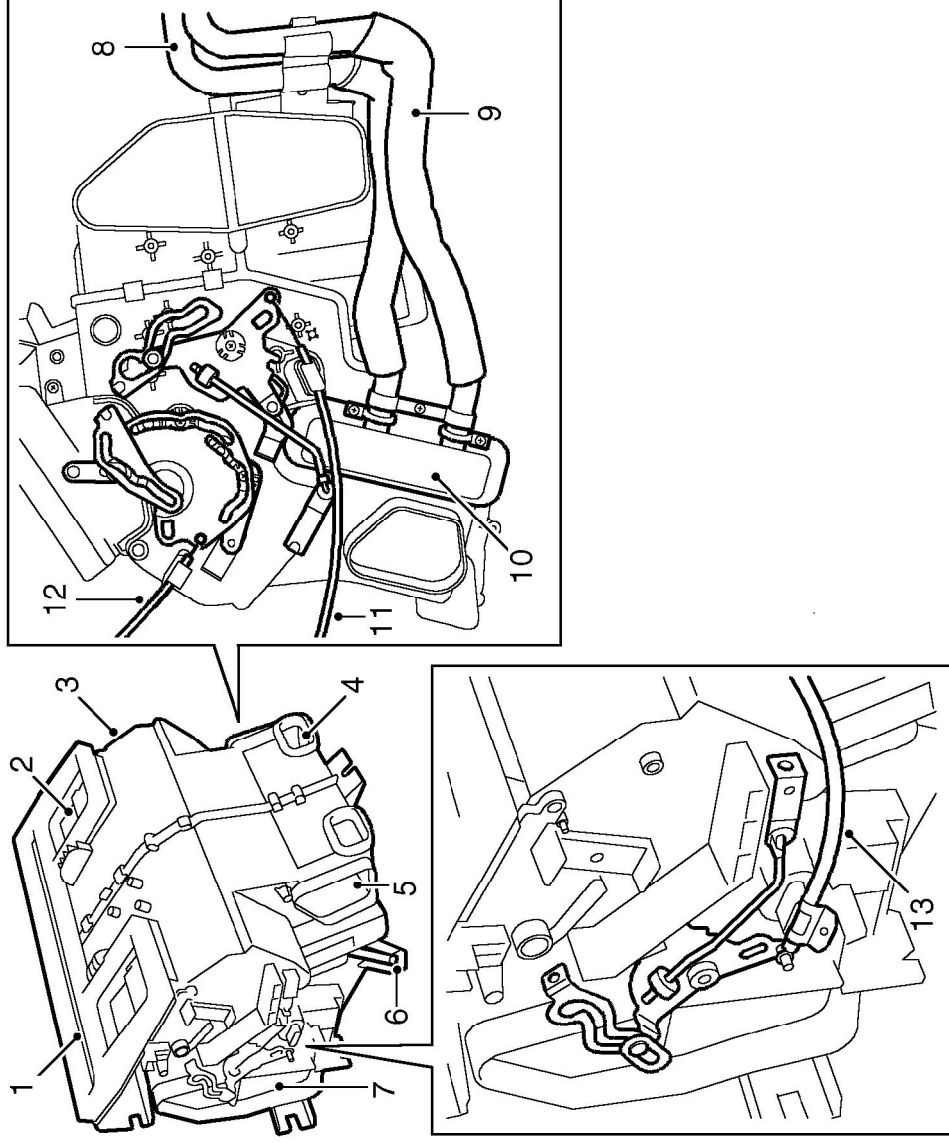


HEATING AND VENTILATION

Heater assembly



M80 0308A

- 1 Windscreen and side window air outlet
- 2 Face level air outlet
- 3 Casing
- 4 Rear footwell air outlet
- 5 Front footwell air outlet
- 6 Drain outlet
- 7 Air inlet
- 8 Engine coolant return
- 9 Engine coolant feed
- 10 Heater matrix
- 11 RH temperature control cable
- 12 Distribution control cable
- 13 LH temperature control cable

The heater assembly heats and distributes air as directed by selections made on the control panel. The assembly is installed on the vehicle centre-line, between the fascia and the engine bulkhead. The heater assembly consists of a casing, formed from a series of plastic moldings, which contains a heater matrix and control flaps. Internal passages integrated into the casing guide the air through the casing and separate it into two flows, one for the LH outlets and one for the RH outlets. Two drain outlets at the bottom of the casing connect to overboard drain tubes installed in the sides of the transmission tunnel.

Heater matrix

The heater matrix provides the heat source to warm the air being supplied to the distribution outlets. The heater matrix is an aluminium two pass, fin and tube heat exchanger, installed in the RH side of the casing. Two aluminium tubes attached to the heater matrix extend through the engine bulkhead to connect the heater assembly to the engine coolant system. When the engine is running, coolant is constantly circulated through the heater matrix by the engine coolant pump. On diesel models, the coolant flow is assisted by an electric pump while the FBH system is active.

HEATING AND VENTILATION

Control flaps

Control flaps are installed in the heater assembly to control the temperature and distribution of air. Blend flaps control the temperature and distribution flaps control the distribution.

Temperature and distribution control

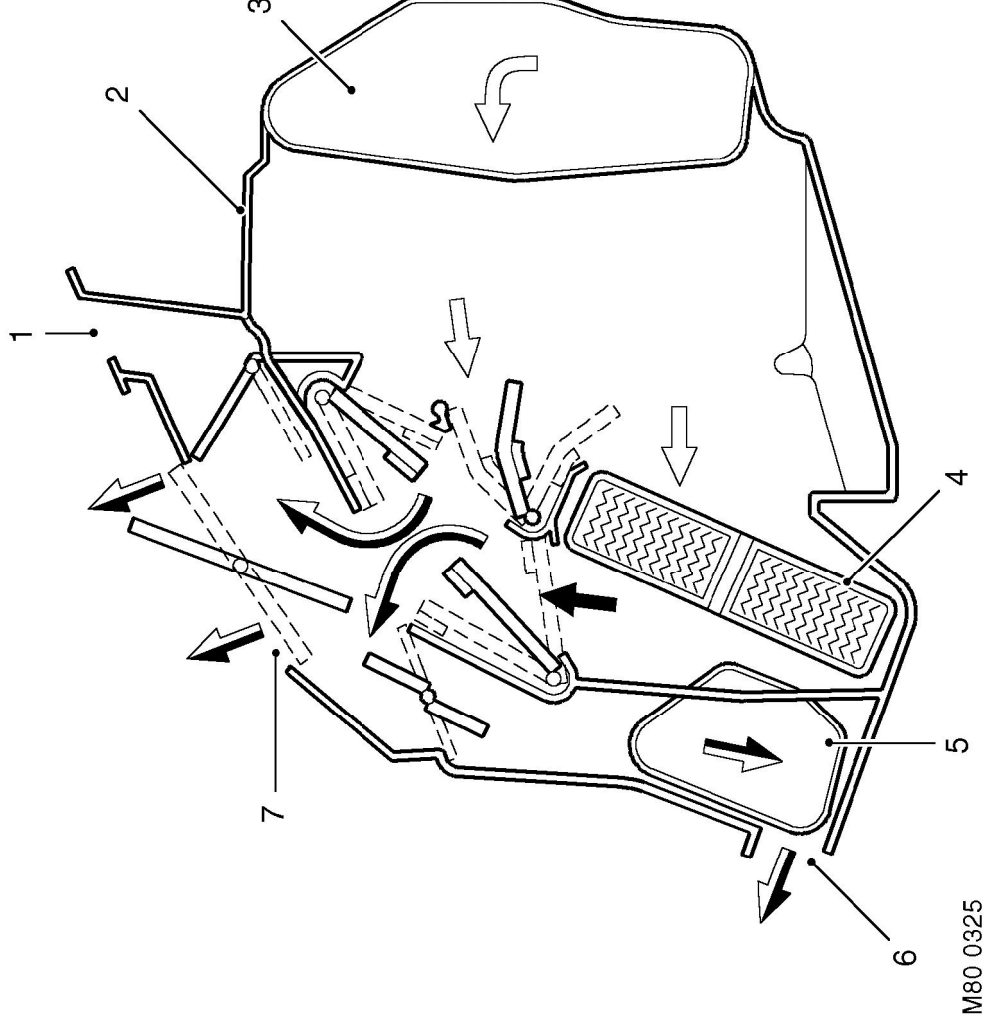


Figure shows flaps set for medium heat to face level and footwell outlets

- | | | | |
|---|--------------------------------|---|------------------------|
| 1 | Windscreen/Side windows outlet | 5 | Front footwells outlet |
| 2 | Heater assembly casing | 6 | Rear footwells outlet |
| 3 | Air inlet | 7 | Face level outlet |
| 4 | Heater matrix | | |

Blend flaps: Two sets of three blend flaps, one LH and one RH, regulate the flow of air through the heater matrix and a heater matrix bypass, to control the temperature of the air leaving the heater assembly. The two sets of blend flaps operate independently to allow different temperatures to be set for the LH and RH outlets.

Each blend flap is attached to a spindle. The end of each spindle extends through the side of the heater casing and is attached to a common lever mechanism on the related side of the casing. A control cable is installed between the lever mechanism and the related temperature knob on the control panel. When the flow is split between the bypass and the heater matrix, the two flows mix downstream of the heater matrix to produce an even air temperature at the individual outlets.

Distribution flaps: Separate distribution flaps are installed to control the flow of air to the footwells, windscreen/side windows and the LH and RH face level outlets. The distribution flaps are attached to spindles that extend through the RH side of the heater casing and are attached to a common lever mechanism. A control cable is installed between the lever mechanism and the distribution knob on the control panel.