

SECTION · P

HEATING AND VENTILATION

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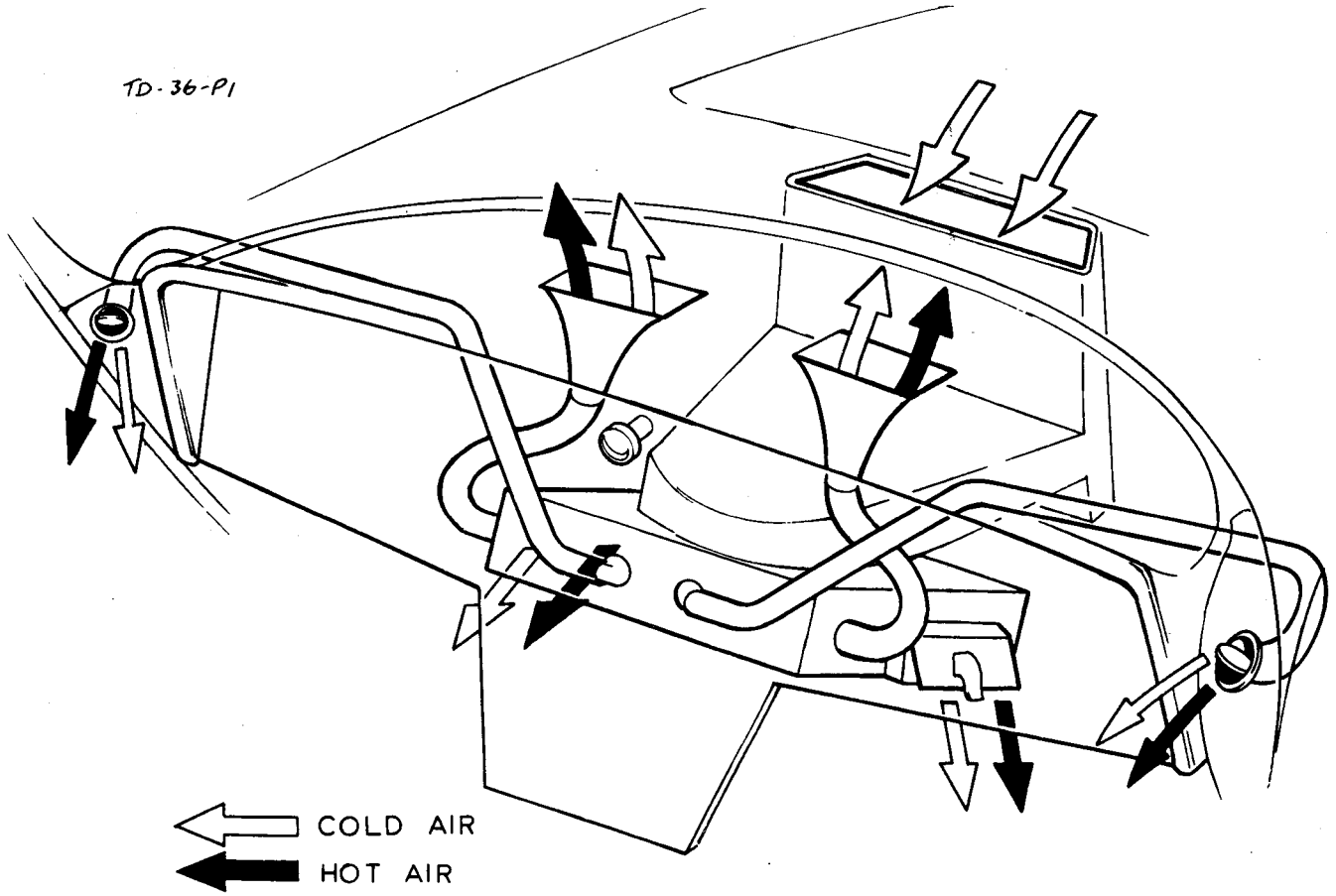


Fig. 1. DIAGRAM OF AIR FLOW

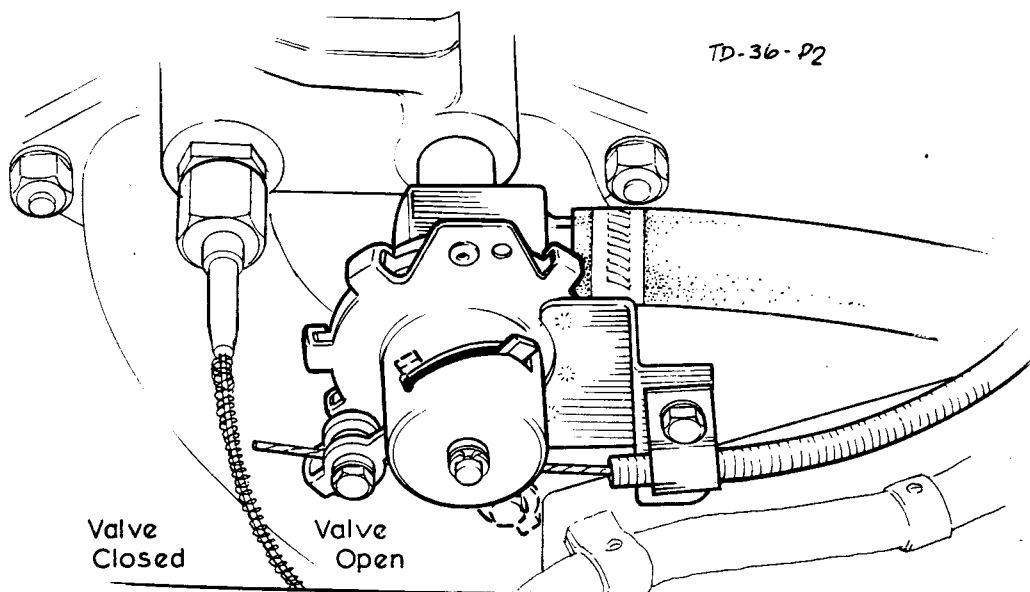


Fig. 2. TEMPERATURE CONTROL VALVE

P.1. - GENERAL DESCRIPTION

The heating and ventilation system is designed to deliver fresh air to either the windscreen for demisting or to the car interior, or a proportion to both, at any temperature between cold and hot depending on the position of the controls.

In addition to the above (from later Series 3 cars onwards), there are also two independent face level ventilators, located one at each end of the facia panel; these will deliver unheated air at ambient temperature by simple ram effect or, if the heater fan is operating, at any temperature between cold and hot depending on the position of the 'air temperature' control.

For warm air interior ventilation, open the flaps fully on either side of the heater unit and pull the air temperature control out to the midway position. For hot air interior ventilation, pull the air temperature control out fully.

The windscreen may be demisted by closing the flaps on the sides of the heater, while the 'air temperature' control can be in any position between cold and hot. To defrost the windscreen, pull the 'air temperature' control fully out and switch on the heater fan.

The fan ('heat') switch is 3-positional; up - 'OFF'; centre - 'ON SLOW'; lower - 'ON FAST'.

When used in conjunction with the heater controls, the fan will deliver a greater quantity of air to either the windscreen or car interior at any temperature between cold and hot.

The air extraction system (on coupe models) is entirely automatic, as the air pressure both inside and outside the car will always tend to equalise where it can. The vents in the roof rear quarter panels permit the higher air pressure built up inside the car to discharge interior air to the atmosphere, thus changing the air regularly inside the car.

P.2. - FACE LEVEL VENTILATORS.

To Remove

1. From behind the facia, pull off the tubing where it joins the ventilator.
2. Grasp the front rim of the ventilator and pull from its location.

To Replace

1. Push ventilator into its location.
2. From behind the facia panel attach the tubing to the ventilator body.

P.3. - VENTILATOR TUBESTo Remove

1. Remove the face level ventilators (Section 'P.2').
2. Remove the fascia panel (see Section 'B').
3. Remove the adhesive tape securing the ventilator tubes to the heater unit and release tubes.

To Replace

1. Push the ventilator tubes onto the heater unit and secure with adhesive tape.
2. Replace the fascia panel.
3. Replace the face level ventilators.

P.4. - DEMISTER TUBESTo Remove

1. Remove the fascia panel (see Section 'B').
2. Remove the tubes from the heater unit and from the expansion box outlets. From Body No. 8730, separate demister nozzles have been used.

To Replace

1. Reverse the removal procedure.

P.5. - DEMISTER NOZZLES

These are removable parts only from Body No. 8730, prior to which they formed part of the expansion box.

To Remove

1. Remove the fascia panel.
2. Disconnect tubes from their nozzles and remove nozzles and grilles by releasing the grilles from top of fascia crash pad.

To Replace

1. Reverse the removal procedure.

P.6. - HEATER (WATER) TEMPERATURE CONTROL

The only control for the heater is the 'heater' control which is connected directly to the water valve on the engine cylinder head. See Fig.2. It is adjusted in the following manner:-

- a. Release the inner cable from the water valve on the cylinder head. Ensure the outer cable is clamped securely, but not too tightly to restrict the movement of the inner cable.

- b. Fully close the water valve by the 'heater' control on the facia panel.
- c. Re-connect the inner cable to the water valve.
- d. Check operation of 'air temperature' control to ensure that the water valve is both opening and closing.

P.7. - HEATER UNIT

To Remove

1. Drain the cooling system (see Section 'K').
2. Release 'air temperature' control cable from the water valve on the engine cylinder head.
3. From the rear of the engine compartment, remove both the flow and return water hoses from the heater.
4. Remove the facia panel (see Section 'B') and release the ventilator tubes from the heater unit (where fitted), and also the demister tubes from the heater unit.
5. Release the two screws securing the heater unit to the facia support bracket. Pull the heater unit from its location taking care not to damage the sealing ring between the unit and the plenum chamber.

To Replace

1. Loosely mount the heater unit in position, ensuring that the sealing ring between it and the plenum chamber is correctly located. If damaged, the sealing ring should of course be replaced.
2. Carry on with the remainder of the replacement by reversing the removal instructions.

P.8. - PLENUM CHAMBER

To Clean

1. Remove the heater air intake grille (see Section 'B').
2. Using a stiff piece of wire, clear the drain hole in the base of the plenum chamber. If the drain hole is allowed to become obstructed, rain water could collect in the chamber and subsequently be drawn into the car interior.

To Remove

1. Remove the facia panel (see Section 'B').
2. Remove the heater unit (Section 'P.7').
3. From the rear of the engine compartment, remove the two bolts screwing into the front of the plenum chamber. A further bolt is located in the base of the plenum chamber and is accessible from the forward end of the transmission tunnel above the gearbox.

To Replace

1. Reverse the removal instructions.

P.9. - DEFROSTING AND DEFOGGING

To conform to U.S. Federal requirements, the following modifications have been incorporated into current Production from Body No. 8730.

The expansion box immediately beneath the facia crash pad has been replaced by separate demist vents, the body being modified to accept the new nozzles and grilles. For a period the expansion box was cut away and an adaptor plate to accept the new nozzles and grilles fitted.

In each case a redesigned crashpad, with individual shaping for the grilles has been used.

This modification has meant that where a radio is fitted, the speaker is mounted in the rear panel. (See Section 'M').