SECTION P

HEATING AND VENTILATION.

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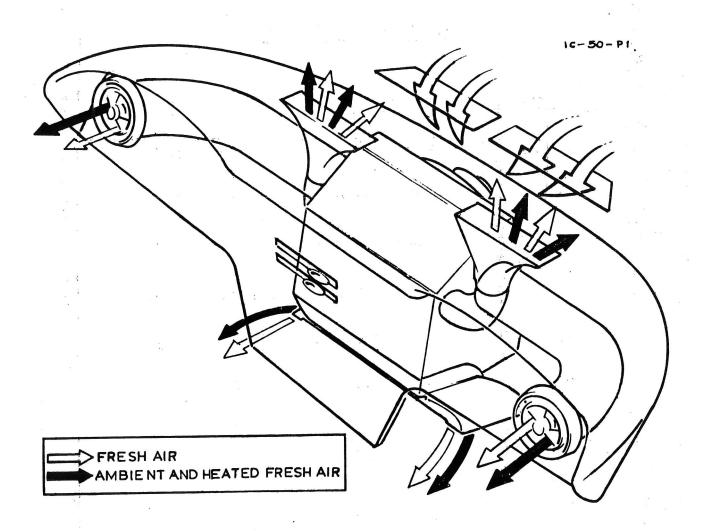


Fig.1. DIAGRAM OF AIR FLOW

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, 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' (top) control.

For warm air interior ventilation, move the 'air distribution' (lower) control fully to 'INTERIOR' and the 'air temperature' (top) control to 'WARM'. For hot air interior ventilation move the 'air temperature' control to 'HOT'.

The windscreen may be demisted by moving the 'air distribution' control to 'SCREEN' and the 'air temperature' control to 'HOT' or 'COLD'. To defrost the windscreen, move the 'air distribution' control to 'SCREEN' and the 'air temperature' control to 'HOT'; 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 'SCREEN' or 'INTERIOR' at any temperature between 'COLD' and 'HOT'.

The air extraction system 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, after removing the adhesive tape from the end of the tubing.
- Grasp the front rim of the ventilator and turn anti (counter) clockwise through approximately 30°. Pull ventilator from its location.

To Replace.

1. Align the lugs on the ventilator body with the slots in the facia panel, insert ventilator and turn through approximately 30° to secure.

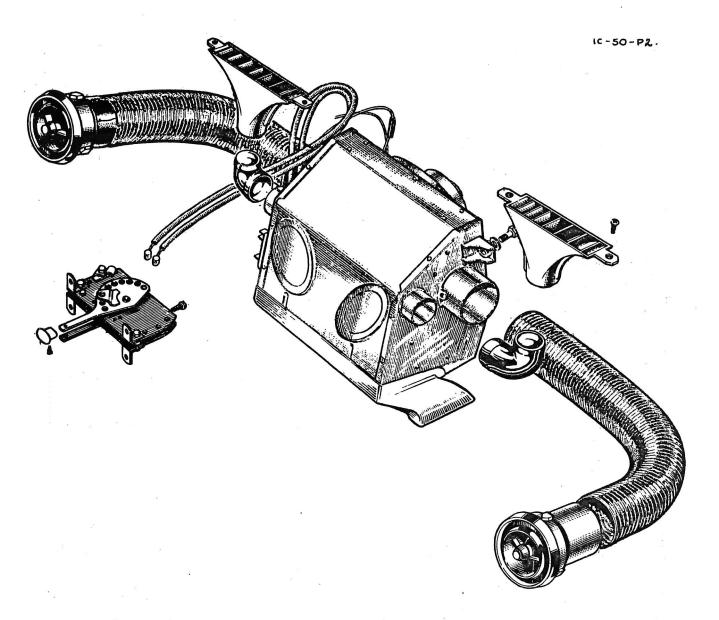


Fig. 2. HEATING AND VENTILATION COMPONENTS

2. From behind the facia panel attach the tubing to the ventilator body and secure with adhesive tape.

P. 3 - VENTILATOR TUBES.

To Remove.

- 1. Remove the face level ventilators (Section 'P.2').
- 2. Remove the facia 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 facia panel.
- Replace the face level ventilators.

P. 4 - DEMISTER TUBES AND NOZZLES.

To Remove.

- 1. Remove the facia panel (see Section 'B').
- 2. Remove the adhesive tape securing the tubes to both the heater unit and the nozzles. On some cars, the demist tubes may be in a pre-formed elbow shape.
- 3. The demist nozzles are removed by extracting the screws securing the demist grilles to the crash pad, these screws also securing the nozzles.

To Replace.

- 1. Secure the demist nozzles in their locations with the screws which also retain the demist grilles. Note that the nozzles are handed when refitting.
- 2. Push the tubes onto both the heater unit and the demist nozzles, securing with adhesive tape.
- Replace the facia panel.

P. 5 - HEATER CONTROLS.

To Adjust.

1. Remove the facia panel (Section 'B').

- 2. The cable adjusters are located on the left-hand side of the heater unit and should be adjusted as shown.
- a. Air Distribution this is the lower (long) cable which should be adjusted such that the heater flap is fully open when the control lever is in the 'INTERIOR' position.
- b. Air Temperature this is the upper (short) cable which should be adjusted to ensure that the flap covering the heater matrix is fully open when the control lever is at 'HOT' and fully closed with the lever at 'COLD'.

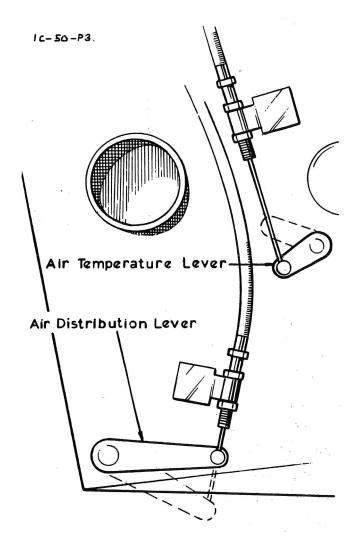


Fig.3 CABLE ADJUSTMENT

To Remove.

- 1. Remove the facia panel (see Section 'B') and release the cables from their control levers, and from their trunnions on the left-hand side of the heater unit.
- 2. The control lever assembly which is mounted on the facia panel is removed by first releasing the knobs on the levers by extracting their securing screws, then removing the screws securing the assembly to the reverse side of the facia panel.

To Replace.

- 1. Place the lever assembly in position on the reverse side of the facia panel and secure with its screws. Push on the knobs and replace their screws.
- 2. Fit the cables to their trunnions on the heater unit and to the control levers. Adjust cables as given previously.

P. 6 - HEATER UNIT.

To Remove.

- 1. Drain the cooling system (see Section 'K').
- 2. Remove the facia panel (see Section 'B') and release the ventilator tubes from the heater unit. Release the demister tubes from the heater.
- 3. Release the control cables from their trunnions on the heater unit.
- 4. From the rear of the engine compartment, remove both the flow and return water hoses from the heater.
- 5. Release the four bolts (two at each side) securing the heater unit in its location. Lift up and out to ensure the heater deflector (if fitted) is not damaged. On later models, the heater deflector is secured to the heater unit with "pop" rivets.
- 6. The heater deflector (if fitted) is removed by extracting the four (two at each side) self-tapping screws.

To Replace.

- 1. Loosely mount the heater unit in position, inserting the securing bolts finger tight. Lift the unit as much as possible and locate the deflector in position. Using 'Ladac' foam rubber, insert between heater unit and deflector to form a seal, then lower heater unit into deflector and insert self-tapping screws to secure deflector to heater unit. Fully tighten heater unit securing bolts.
- 2. Replace control cables, adjusting as necessary (Section 'P.5')
- 3. Replace demister tubes, (Section 'P.4') and ventilation tubes (Section 'P.3'). Replace facia panel (see Section 'B').
- 4. From the rear of the engine compartment, replace the water hoses to the heater unit. Ensure that the return water hose (connecting to the water pump) passes outside the fuel pump, not over it. Also check that the pipe is not fouling the radio anti-interference shield. Bend the shield if necessary to clear the pipe.

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