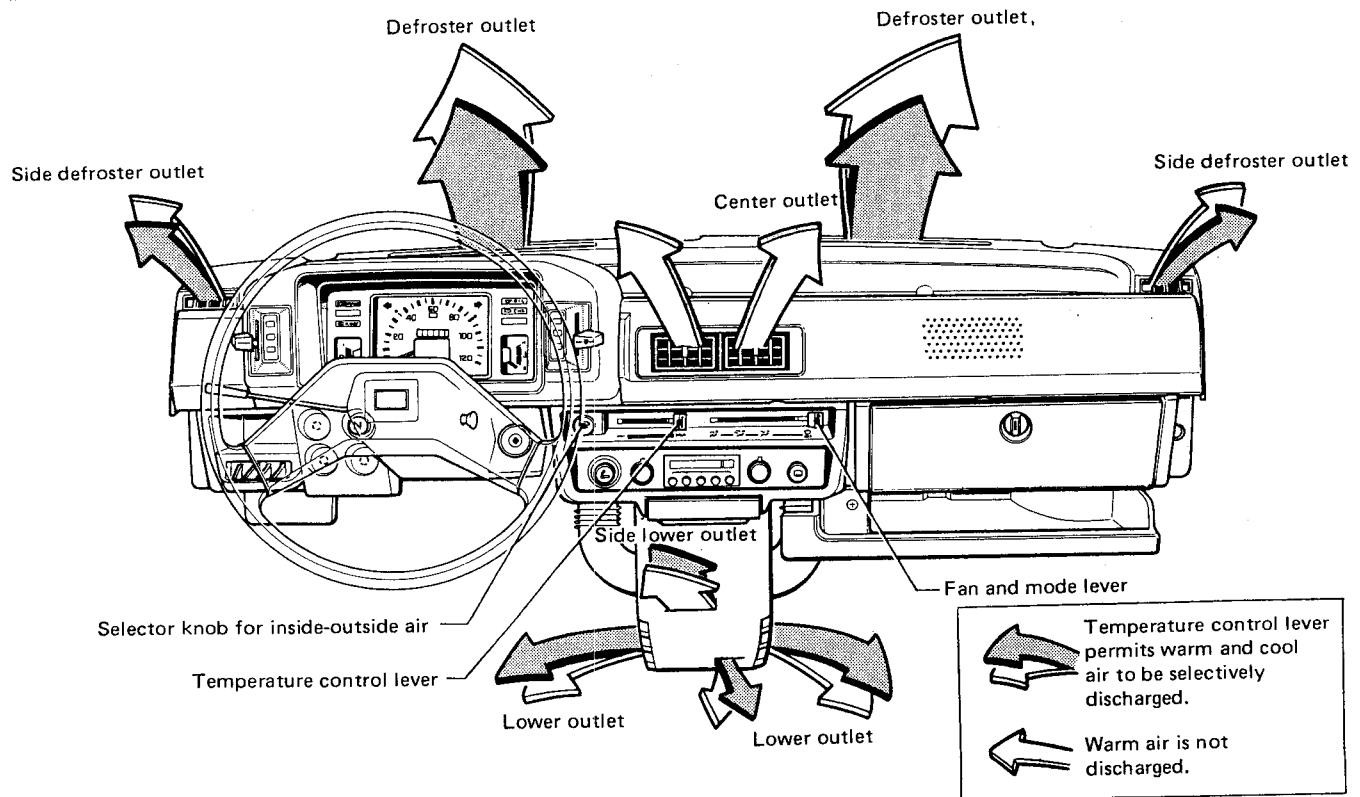


5-9. Heating and Ventilation

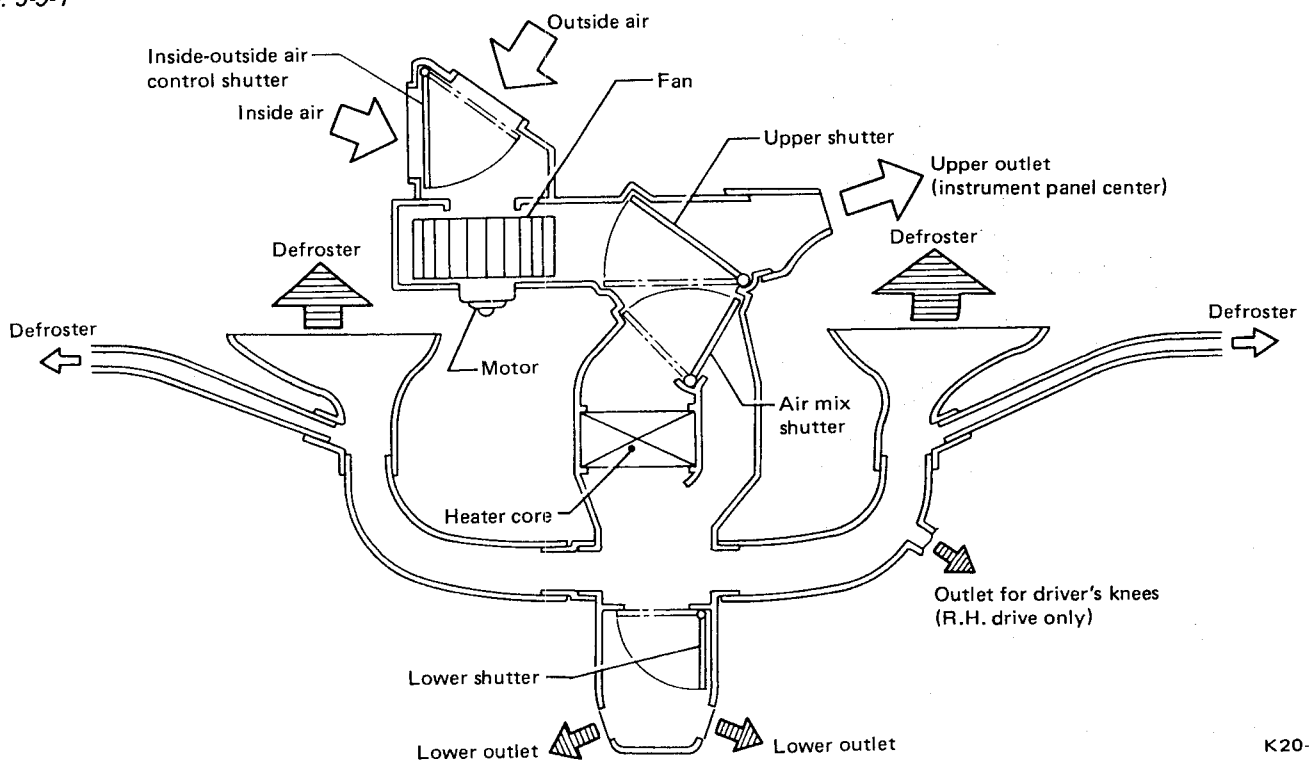
1. General

The heating and ventilating system heats, ventilates and defrosts. The inside-outside air knob and the control levers allow the operator to select whichever function desired.



K20-019

Fig. 5-9-1

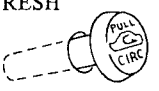
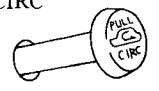


K20-009

Fig. 5-9-2

Heating and ventilation

1. Selector Knob for Inside-outside Air

Position of selector knob for inside-outside air	
FRESH	CIRC
	
Introduction of outside air	Circulation of inside air (Outside air shut off)

K20-005

Fig. 5-9-3

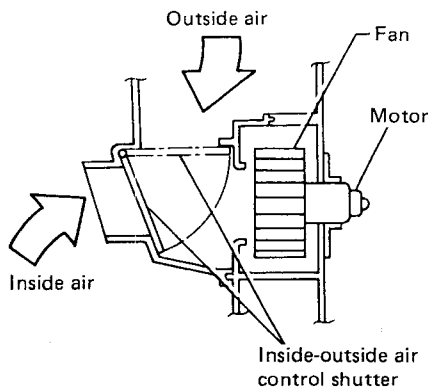


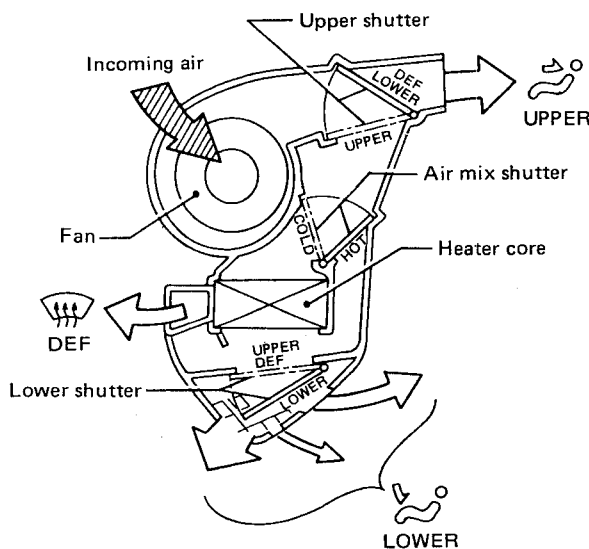
Fig. 5-9-4

2. Air Outlet Control Lever

Shutter	Lever position			
	UPPER	B/L	LOWER	DEF
Upper shutter	(← Adjustable →) Fully opens	(← Adjustable →) Half opens	(← Adjustable →) Fully closes	Fully closed
Lower shutter	Fully closes	Half opens	Fully opens	Fully closed

K20-011

Fig. 5-9-5



K20-012

Fig. 5-9-6

1) Even with the control lever set to the "LOWER" position, the amount of air flow necessary to prevent the windows from clouding is discharged from the defroster outlets.

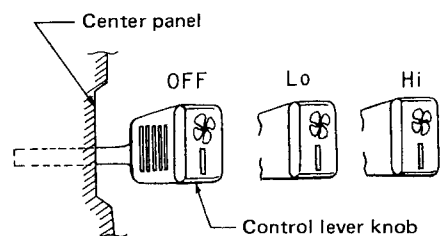
2) Also, with the control lever set to the "DEF" position, a small amount of air is discharged for heating.
3) The control can be set to the mid position of indicated illustrations.

3. Temperature Control Lever

Lever position	Air mix shutter	
	HOT	COLD
To heater core air passage	(Adjustable) Fully open ↔ Fully closed	

An air mix shutter is used to control the air temperature. The control lever can be used at any position.

4. Fan Switch



K20-014

Fig. 5-9-7

The fan switch is built into the air outlet control lever. The fan has two speeds which can be selected by pulling the lever.

2. Specifications

Heater specifications

Rated voltage		V	12
Heating value	KW (K cal/h, BTU/h)		2.559 (2,200 , 8,730)
Air flow	m ³ /h (cu ft/h)		170 (6,003)
Fan diameter	mm (in)		115 (4.53)
Motor	Type		Magnet
	Power consumption (W)		50
Heater core (length × width × thickness × fin pitch)		mm (in)	120 × 121.5 × 49 × 2.7 (4.72 × 4.78 × 1.93 × 2.7)

3. Component Parts

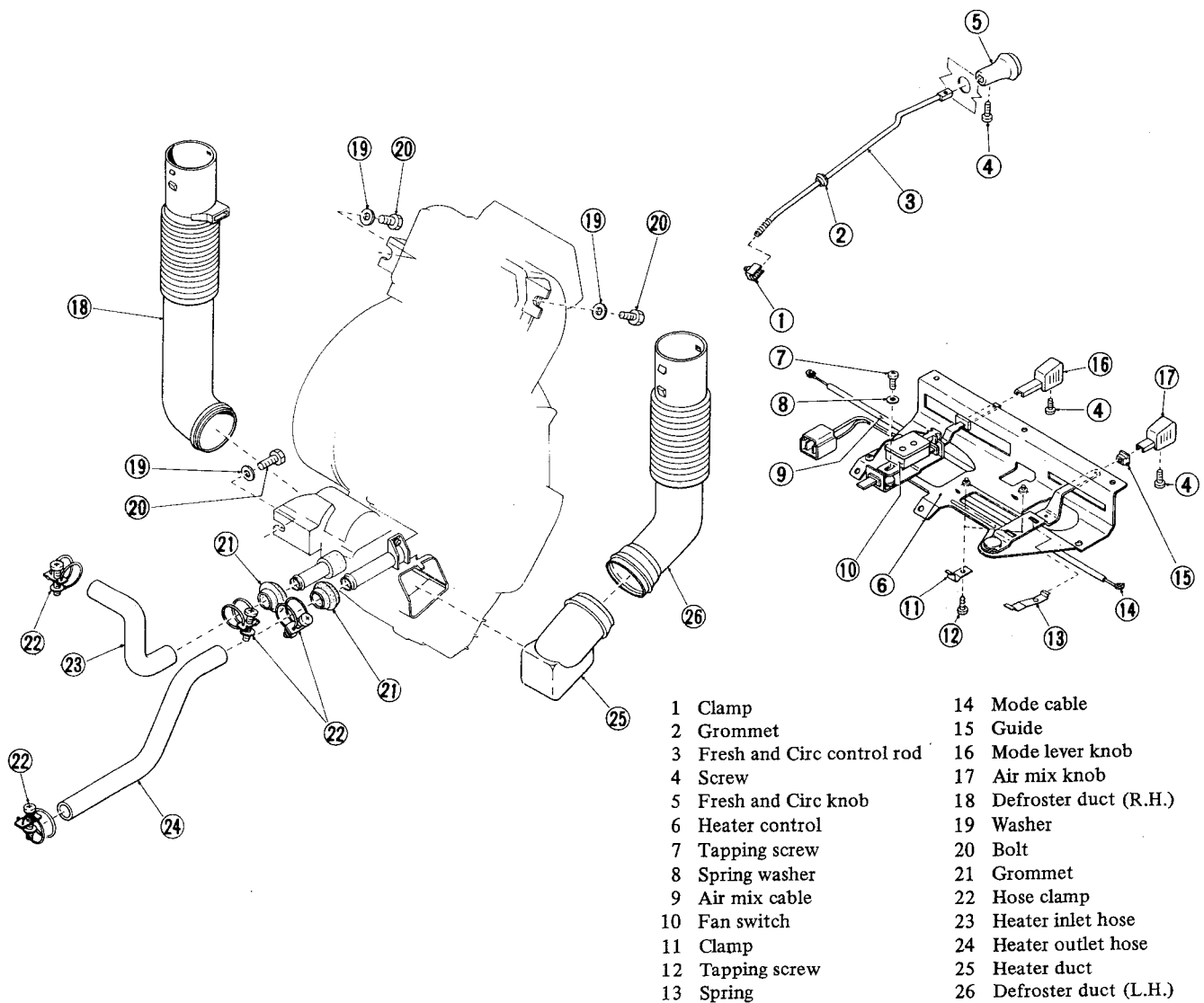


Fig. 5-9-8

K20-024

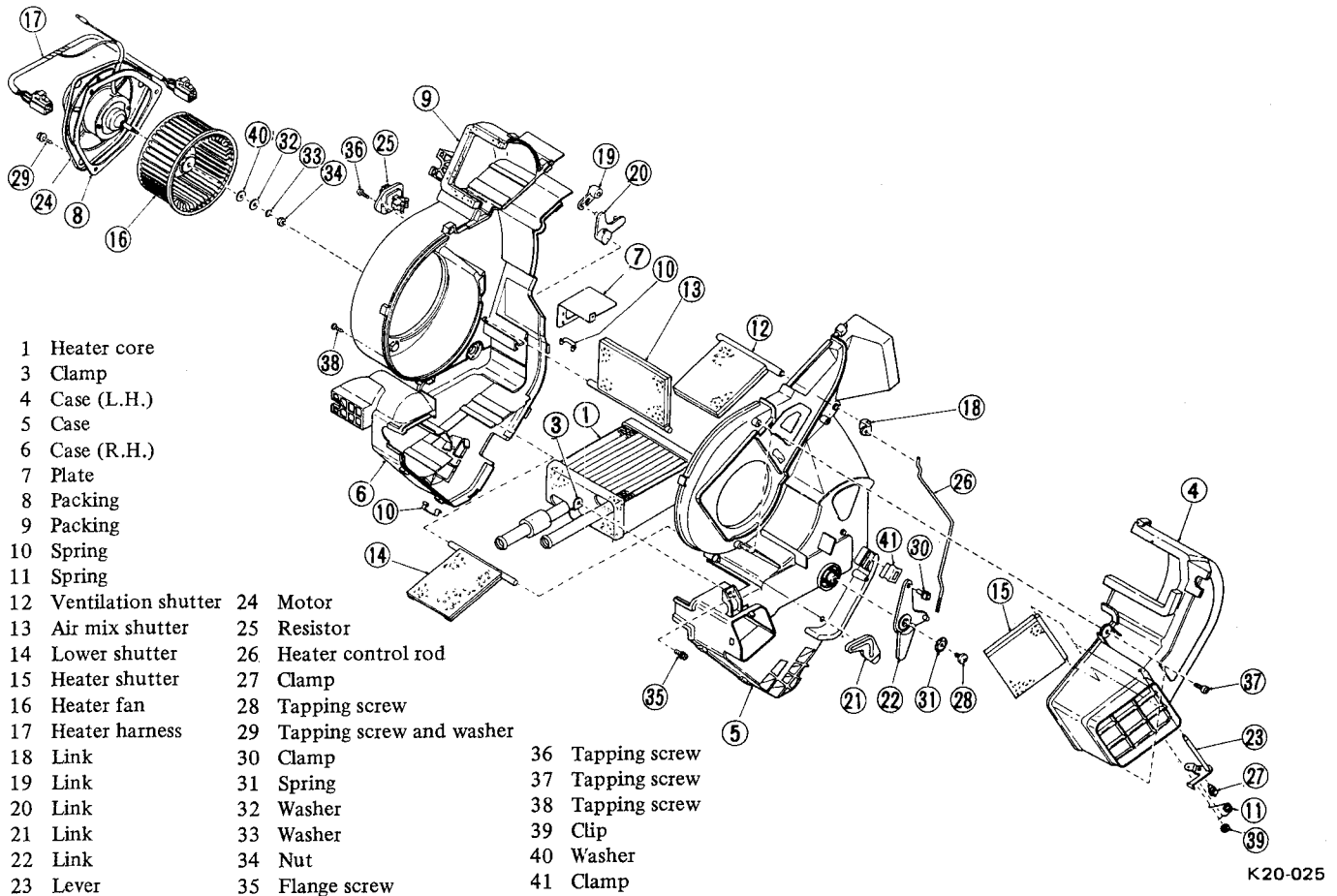


Fig. 5-9-9

4. Service Precautions for Major Components

1. Heater Unit

1) The heater unit can be removed by adhering to the following directions.

- (1) Disconnect the grounding cord from the battery.
- (2) Drain the coolant from the radiator by removing the drain plug.
- (3) Remove the outlet and inlet hoses from the heater.
- (4) Remove the defroster duct from the defroster nozzle on the right side of the heater. Then turn the duct to remove it from the heater unit.

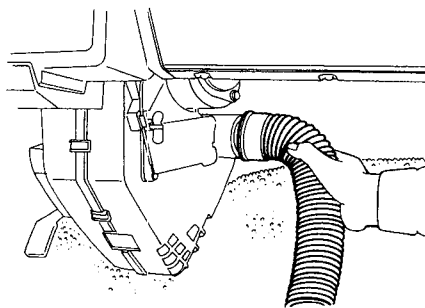


Fig. 5-9-10

- (5) Disconnect the wires between the fan switch and the blower motor.
- (6) Remove the air mix cable from the heater unit.
- (7) Remove the mounting bolts from the heater unit and the instrument panel.

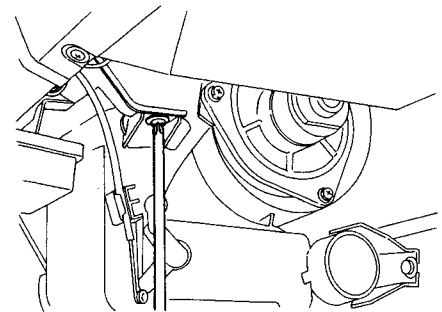


Fig. 5-9-11

- (8) Remove the defroster duct from the left side of the heater. Then remove the inside-outside air control rod and the air outlet control cable.

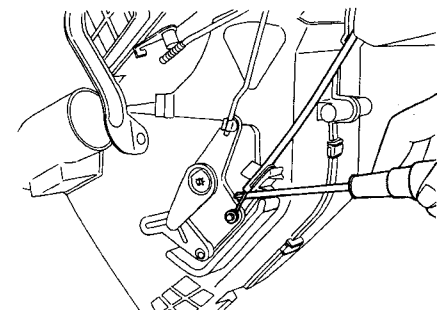


Fig. 5-9-12

Heating and ventilation

(9) Remove the instrument panel and heater unit.

NOTE:

- When taking out the heater unit, be careful not to spill the coolant that remains in it.
- Pull the heater pipe out through the hole in the vehicle body. Be careful not to twist it.

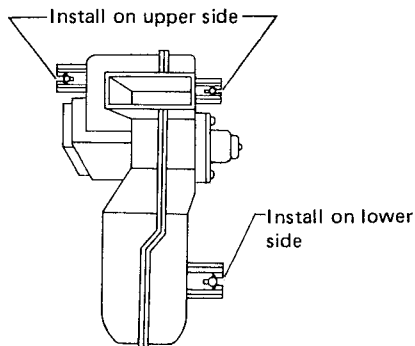


Fig. 5-9-13

K20-020

2) The heater unit should be installed in an order opposite to removal. Pay attention to the following points:

(1) Linking air outlet control cable

- Set the air outlet control lever on the instrument panel to the "DEF" position.
- Turn the control link upward to bring the control link boss as close as possible to the clamp embedded in the heater body.
- Hook the cable onto the link boss, securely clamp it and tighten it in the direction of the embedded clamp.
- Again push the coupling ring of the cable into the link boss. Ensure that the cable is linked properly.

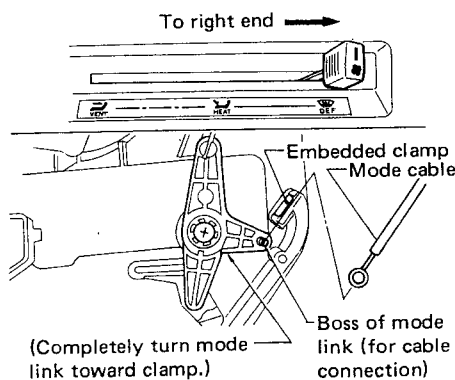


Fig. 5-9-14

K20-015

(2) Linking inside-outside air control rod

- Manually set the inside-outside air control shutter so that the inside air inlet of the heater is closed.
- Make sure the rod is installed properly. Push the upper part of the rod into the knob and push the lower knurled rod part into the clamp. A clearance of 0 to 1 mm (0 to 0.04 in) should be left between the grommet and the knob.

NOTE:

- The knob should be installed so that there are about 24 mm (0.94 in) between the upper marked surface of the knob and the center panel.
- Avoid clamping the knurled part within 3 mm (0.12 in) of the end face.

- After coupling the rod with the clamp, move the knob in and out 2 or 3 times to ensure the knob has a proper stroke. The knob must not come out beyond the specified amount when pulled, nor contact the grommet when pressed inward.

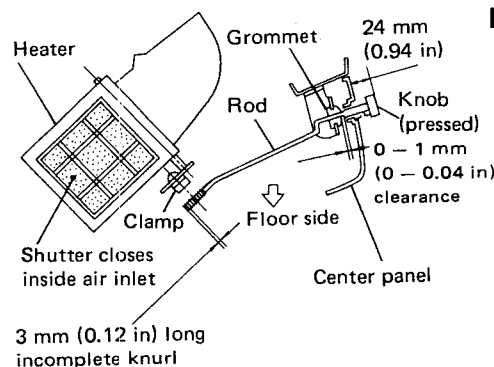


Fig. 5-9-15

K20-022

(3) Linking temperature control cable

Set the temperature control lever on the instrument panel to the "HOT" position. Turn the link upward to bring the boss of the temperature control link as close as possible to the embedded clamp of the heater. Then hook the cable onto the boss, securely clamp it and tighten it in the direction of the embedded clamp.

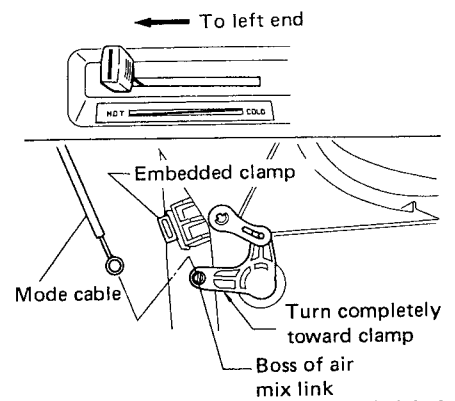


Fig. 5-9-16

K20-016

(4) Wiring fan switch

After wiring, and with the fan switch turned on or off, move the air outlet control lever left and right over the full stroke to check the arrangement of the harness and the operation of the blower.

(5) When installing the heater hose, turn the matching marks up, connect the end with the • mark to the heater pipe, and connect the end with the white ⇐ mark to the pipe on the engine side. Place the hose into the mating pipe as far as the root or grommet and firmly tighten with the hose clamp.

NOTE:

Be careful that the hose is not crushed.

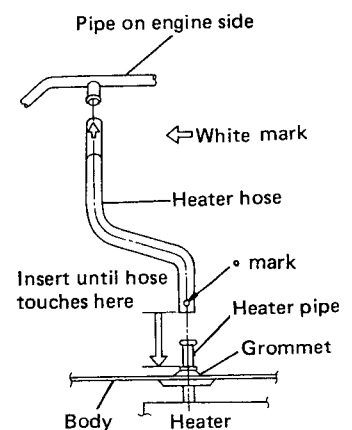


Fig. 5-9-17

K20-023

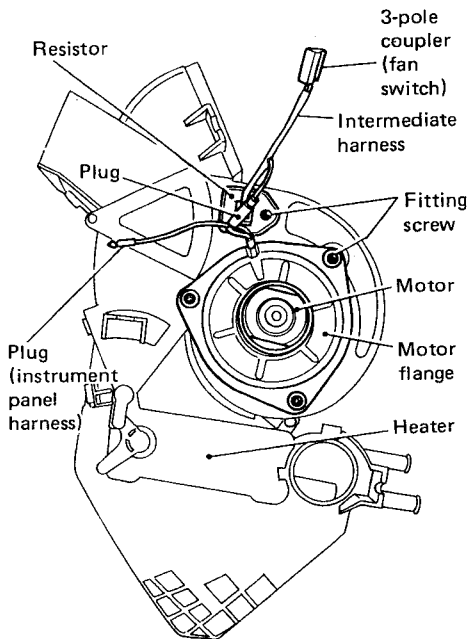
2. Motor and Fan

The motor and fan should be removed after removing the battery grounding cord and the defroster ducts.

The motor and fan can be removed by removing the harness connections and the screws on the motor flange.

NOTE:

When assembling the motor and fan, be careful not to allow the harness to be caught under the motor flange.



K20-017

Fig. 5-9-18

3. Heater Core

1) The heater core should be removed, using the following directions, after the heater unit has been removed.

(1) Remove the heater unit control linkage and cut the urethane seal in the outside air inlet at the split of the unit.

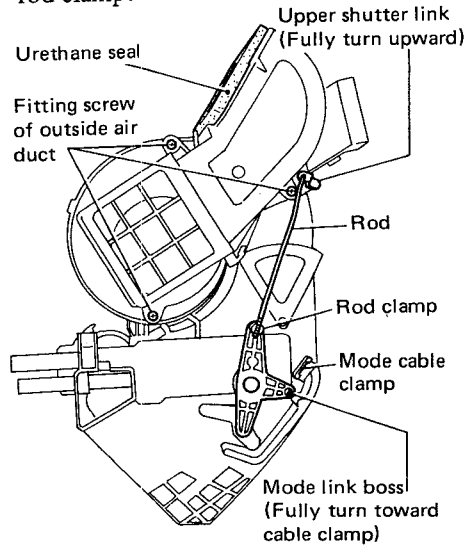
(2) Remove the case clamps, split the heater unit in two and take out the heater core.

2) The heater core should be installed in an order opposite to removal. Pay attention to the following points:

(1) Stick the cut parts of the urethane seal in the outside air inlet with adhesive agent.

(2) Be careful not to damage the boss when installing the links.

(3) When joining the air outlet control link to the upper shutter link rod, place the rod into the hole of the upper shutter link and fully turn the link upward. Next, fully turn the boss of the air outlet control link toward the cable clamp and join the rod to the rod clamp.



K20-018

Fig. 5-9-19

4. Adjustment of Control Mechanisms

Check that each control mechanism operates normally. If necessary, adjustments should be made.

1) Inside-outside air control rod

The adjustment should be made with the knob set to the outside air inlet position.

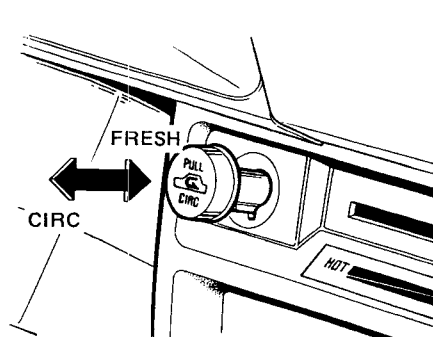
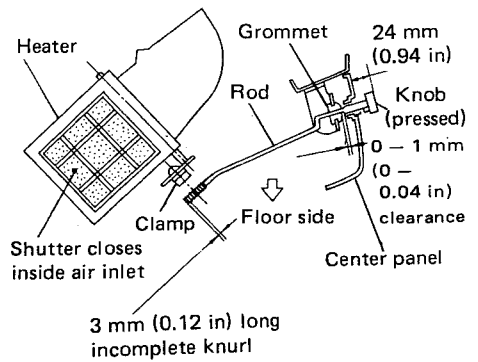


Fig. 5-9-20

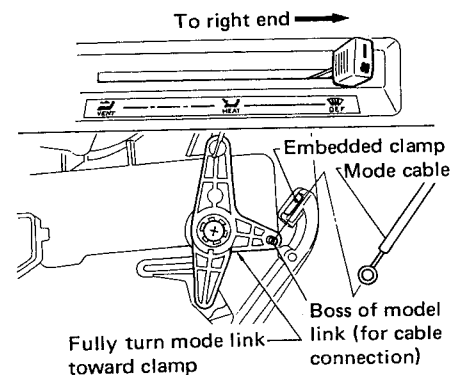


K20-022

Fig. 5-9-21

2) Air outlet control lever

The adjustment should be made with the lever set to the "DEF" position.

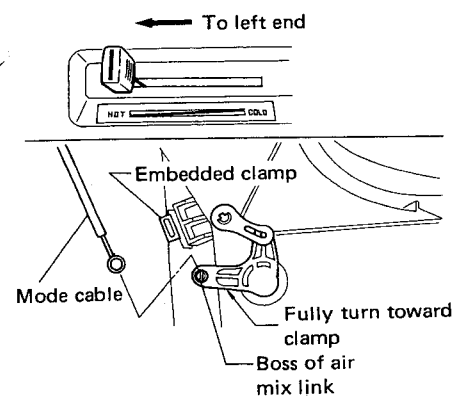


K20-015

Fig. 5-9-22

3) Temperature control lever

The adjustment should be made with the lever set to the "HOT" position.



K20-016

Fig. 5-9-23