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the 1968 maintenance recommendations are in the 1968 Passenger Car Maintenance and Lubrication Manual Form 7920C-68, and the 1968

specifications are in Group 19 of this manual.

All basic service procedures outlined in Group 16 of the 1967 Shop

Manual remain the same, with the following exceptions:

PART 16-1—Ventilating and Heating System

VENTILATING SYSTEM

DESCRIPTION AND OPERATION

The heating and ventilation system of the 1968 Lincoln has been modified to include more efficient low velocity air plenum that distributes side air more evenly to the front area as well as rearward toward seat.

The heater control assembly (Fig. 1) has been modified to include an additional push button that permits operator to choose one of two ventilation conditions.

The five push buttons, OFF, FAN, DEFROST, LOWER VENT, and UPPER VENT, control the system operation. The OFF, HEAT, and DEFROST push buttons operate the system in the same manner as in 1967.

The LOWER VENT push button provides unheated outside air through heater outlets to the right and left side floor area, rearward to the front floor area, and through the floor duct to the rear floor area. The UPPER VENT push button provides unheated outside air in the same manner through heater outlets and, in addition, through the four ventilation registers on the instrument panel (Fig. 1).

Fig. 2 shows the rear view of the heater assembly with switch connections. Figs. 3 and 4 show heater ventilation system vacuum

schematic and vacuum system operating conditions. Refer to the 1968 Wiring Diagrams book for schematics and locations of wiring harnesses.

UPPER VENT POSITION

In UPPER VENT the outside air door is open, the heat defrost door is

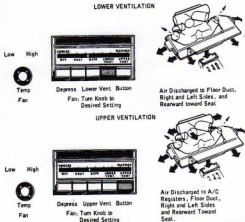
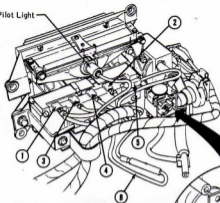


Fig. 1—Ventilating Control Operation

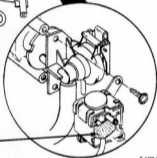
Pilot Light



PUSH BUTTON SELECTOR
SWITCH CONTINUITY
CONNECTIONS

| POSITION | TERMINALS |
|-----------|-----------|
| OFF | NONE |
| HEAT | 8-1-4 |
| DEFROST | 8-1-2-4 |
| LOW. VENT | 8-1-5 |
| UPR. VENT | 8-1-3-1 |

| TERMINAL NO. | COLOR OF WIRE | CIRCUIT |
|--------------|---------------------|-------------------------------|
| 1 | RED-GREEN STRIPE | TO OUTSIDE AIR DOOR SOLENOID |
| 2 | WHITE-BLUE STRIPE | TO HEAT-DEFROST DOOR SOLENOID |
| 3 | GREEN-YELLOW STRIPE | TO HEAT-VENT DOOR SOLENOID |
| 4 | VIOLET-WHITE STRIPE | TO TEMP. BLEND DOOR SOLENOID |
| 5 | RED | TO LOWER VENT DOOR SOLENOID |
| 8 | BROWN | BATTERY FEED AND FAN SWITCH |
| PILOT | BLUES-RED STRIPE | |



Low Vent
Door
Solenoid

K 1499-B

Fig. 2—Control Assembly—Rear View

in the heat position, the vent-heat door is in the vent position, and the low vent door is in the open position. When the UPPER VENT button is depressed, electrical signals are sent to the outside air door solenoid, the vent-heat air door solenoid, and the low-vent door solenoid; and vacuum is directed to the respective vacuum motors to open each door. Since no signal is directed to the temperature-bleed door solenoid, the temperature-bleed door is in the minimum heat position and the water control valve is closed.

LOWER VENT POSITION

In LOWER VENT all doors remain in the same position except that the vent-heat door is in the HEAT position.

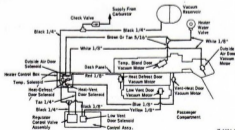


Fig. 3—Vacuum Schematic

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When the LOWER VENT button is depressed, electrical signals are sent to the outside air door solenoid and the low vent door solenoid; and vacuum is directed to the two vacuum motors to open the doors. Since no signal is directed to the vent-heat air door solenoid and temperature solenoid, the vent-heat door remains in the heat position, the temperature-air door is in the minimum heat position and the water control valve is closed.

LOW VENT DOOR SOLENOID

The low vent door solenoid is located on the back of the heater con-

trol head assembly adjacent to the vacuum regulator. The solenoid can be removed for service by removing both the control assembly and two screws that retain the solenoid (Fig. 2).

HEATER CONTROL ASSEMBLY

The push button selector switch has been modified to include the electrical circuit for the LOW VENT push button. Refer to Fig. 2 for the rear view of the control assembly wire color code.

HEATER DISCHARGE AIR DUCT ASSEMBLY

The new heater discharge air duct and damper assembly can discharge air through two outlets, one on each side of the tunnel, in the same manner as originally released. A new vacuum-actuated damper door in the plenum will allow air to be discharged rearward over the tunnel and front seat area through additional air outlets when the UPPER or LOWER VENT push button is depressed (Fig. 1).

The low vent door vacuum motor is located on the top right side of the

| PUSH BUTTON SELECTION | HEAT DEFROST DOOR | | TEMPERATURE BLEND DOOR | | VENT-HEAT DOOR | | LOW VENT DOOR | | OUTSIDE AIR DOOR | | HEATER WATER VALVE | |
|-----------------------|-------------------|-----|------------------------|------------------------|----------------|-----|---------------|-----|------------------|-----|--------------------|------------------------|
| | Position | Vac | Position | Vac ("Hg) ^a | Position | Vac | Position | Vac | Position | Vac | Position | Vac ("Hg) ^a |
| OFF | Heat | NV | Min Heat | 0 | Heat | NV | Closed | NV | Closed | NV | Off | 0 |
| HEAT | Heat | NV | Min Heat | 0-6 | Heat | NV | Closed | NV | Open | V | Off | 0 |
| | | | Temp Control Range | 6-10 | | | | | | | On | 3-5 |
| DEFROST | Defrost | V | Max Heat | 10-16 | | | | | | | On | 3-5 |
| LOWER VENT | Heat | NV | Min Heat | 0 | Heat | NV | Open | V | Open | V | Off | 0 |
| UPPER VENT | Heat | NV | Min Heat | 0 | Vent | V | Open | V | Open | V | Off | 0 |

^aVacuum At Which Blend Door And Water Valves Will Operate

Vac - Vacuum

Max - Maximum

Min - Minimum

NV - No Vacuum Applied

V - Vacuum Applied

K 1268-A

Fig. 4—Vacuum System Operating Conditions

| STEP | INSTRUCTIONS | VACUUM | AIR DOOR BEING OPERATED |
|------|---|---|---|
| 1 | Install Gauge in 1/4-inch black vacuum hose to heater control box. | | |
| 2 | Evacuate vacuum reservoir. | Minimum vacuum of 18" Hg. in reservoir. | |
| 3 | Ignition on ACC, temperature control COOLER, OFF push button depressed. | Wait 10 seconds and record vacuum. | |
| 4 | Depress HEAT push button. | 1/2"-3" Hg. vacuum drop. | Outside-Air Door. |
| 5 | Slowly rotate temperature control to WARMER. | 2"-3 3/4" Hg. vacuum drop. | Temperature Blend-Air Door, Heater Water Valve. |
| 6 | Depress DEFROST push button. | 1/2"-1 1/2" Hg. vacuum drop. | Heat-Defrost Door. |
| 7 | Depress LOWER VENT push button. | 1/2"-1 1/2" Hg. vacuum drop. | Lower Vent Door. |
| 8 | Depress UPPER VENT push button. | 1/2"-1 1/2" Hg. vacuum drop. | Heat Vent Door. |

Fig. 5—Ventilating and Heating System Vacuum Drops

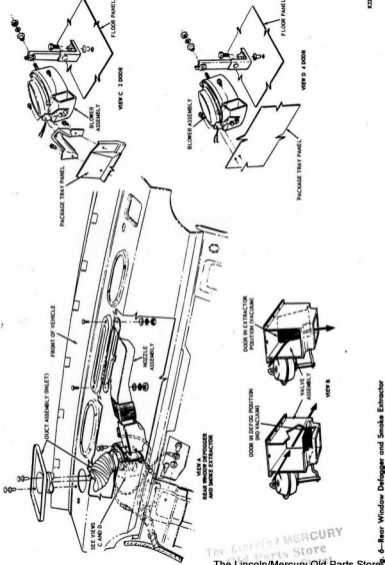


Fig. 6—Rear Window Defogger and Smoke Extractor

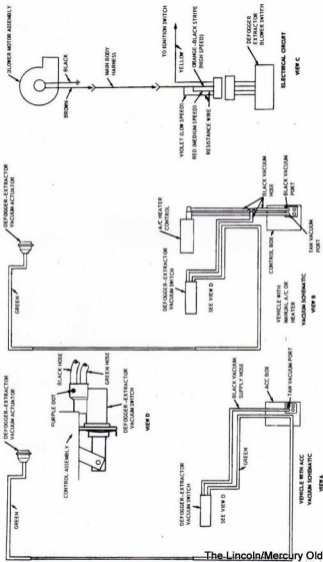


Fig. 7—Rear Window Defogger Vacuum and Electrical Schematics

duct and can be serviced by lowering the duct and removing the two vacuum motor retaining screws.

REAR WINDOW DEFOGGER

Fog accumulating on the inside of the rear window can be cleared by the rear window defogger, located in the rear package tray (Fig. 6) by activating a control switch on the instrument panel. Inside air is drawn into a blower housing and immediately discharged to the rear window. A four-position switch provides three blower motor speeds.

The rear window defogger assembly also includes a valve assembly with a vacuum-actuated door that permits smoke extraction from the passenger compartment into the luggage compartment. Two horizontal control levers located in the lower chin casting on the right side of the steering column are provided to select the three blower speeds and controls the valve position for defog operation (no vacuum) and smoke extraction (vacuum). Refer to Fig. 7 and the 1968 Wiring Diagrams book for vacuum schematics, electrical diagram, and wiring and vacuum hose routings.

REMOVAL AND INSTALLATION

Controls

1. Lower the instrument panel chin castings and remove two control

mounting screws.

2. Remove three switch mounting screws and remove the blower switch and vacuum switch.

3. Disconnect the bulb socket, two vacuum hoses and multiple connector on the blower switch harness.

4. Connect the vacuum hoses, multiple connector and bulb socket to the blower switch (Fig. 6).

5. Mount the blower and vacuum switch.

6. Install the control and install the instrument panel chin castings.

Defogger and Smoke Extractor

Removal

1. Remove the spare tire from the luggage compartment to gain access to the defogger and smoke extractor assembly.

2. Remove the nut, washer and spacer securing the blower assembly to the rear support bracket.

3. Remove the lower rear support bracket mounting bolt and remove the bracket assembly.

4. Remove two blower assembly forward mounting screws. Model 65 (2-door) has an additional support bracket between the blower housing and package tray panel; Model 53 (4-door) blower assembly is mounted directly to the panel.

5. Disconnect the flexible inlet air duct from the blower (three retaining clips).

6. Carefully disconnect the discharge air duct from the valve assembly. Two retaining clips with sharp tabs retain the flex ducts to the air valve and blower inlet.

7. Disconnect the blower motor lead wire connector and ground wire. The ground wire is secured to the package tray panel with a screw and lockwasher.

8. Remove the blower and valve assembly from the vehicle.

9. Remove four snap rivets retaining the valve assembly to the blower housing and separate the two parts.

10. Remove three nuts and washers and slide the blower motor and wheel from the blower housing.

11. Loosen the set screw and remove the blower wheel from the blower motor shaft.

Installation

1. Transfer the blower wheel to the new motor and install the motor and wheel in the housing.

2. Connect the valve assembly and blower housing.

3. Position the blower and valve assembly and connect the inlet and discharge airducts, and the motor lead and ground wire (Fig. 5).

4. Install the blower assembly mounting screws.

5. Install the lower rear support mounting brackets.

6. Install the spare tire.