

HEATER SYSTEM

1988 Jeep Cherokee

1988 HEATER SYSTEMS
Jeep

DESCRIPTION

Jeep vehicles use a blend-air type heater system. Wrangler models have a constant flow type system with engine coolant continuously flowing through heater core. Cherokee and Comanche use heater control valves. Coolant flow to heater core on these models can be stopped or diverted.

On all models, temperature of heated air entering passenger compartment is controlled by regulating amount of air flowing through heater core and then blending it with a controlled amount of cool air by-passing heater core.

CONTROL PANEL OPERATION

Control panel on all models includes fan switch, sliding temperature control lever and sliding mode lever.

DEFROSTER CONTROL

Defroster control operates heater housing door regulating heater and defroster operation by directing flow of air through defroster hose or floor outlets. When control knob is pushed in, blended air will enter passenger compartment through floor heat duct. When control is pulled completely out, door directs all heated air to windshield defroster outlets. Any intermediate position divides air flow between windshield and floor outlets.

TEMPERATURE CONTROL LEVER (CHEROKEE, COMANCHE & WRANGLER)

Lower control lever operates blend-air door in heater core housing. At full right position, all air is directed through heater core, providing maximum heat flow. At full left position, all air is directed around heater core providing fresh air. Control can be set in any intermediate position to provide a blend of heated and unheated air. With control lever in "COOL" position, water valve will close (except Wrangler). Mode control lever must be in "HEAT" or defroster mode before any air can enter vehicle.

MODE CONTROL LEVER (CHEROKEE & COMANCHE)

Mode control lever includes "BI-LEVEL", "VENT", "HEAT" and "OFF" positions. At far end of scale, a symbol for defroster indicates defrost position. In "BI-LEVEL" position, a mixture of floor heat and defroster air is obtained.

FAN CONTROL

Fan control is a 4-position control switch, regulating blower motor and air flow for heat and defrost. Switch has "LOW", "HIGH" and 2 intermediate positions. Fan will remain on unless mode lever is placed in "OFF" position.

CONTROL CABLES ADJUSTMENT

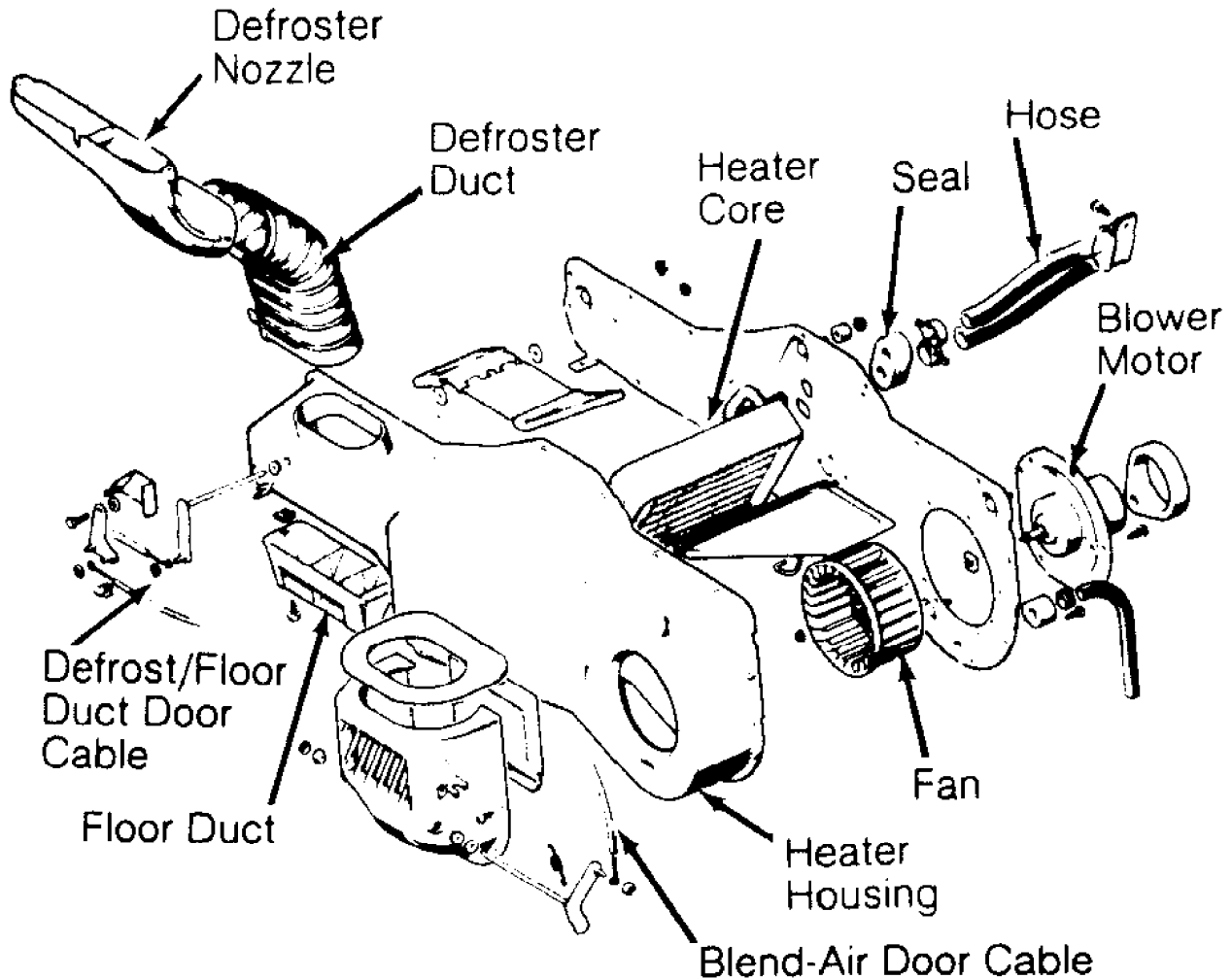
CHEROKEE & COMANCHE

The heater control cable is retained to blend air door lever with a retaining clip and a self-adjusting clip. During installation, self-adjusting clip will locate cable properly when cable is snapped into position on lever.

WRANGLER

The only adjustable cables are the vent door control cables. Since the left cable operates the right cable, the cables must be installed and adjusted in the proper order to maintain the self adjusting mechanism.

With cables connected to heater control panel, connect only the right vent door cable. Open and close right vent door one time, using heater control panel. Connect left side cable and ensure that both vent doors open at the same time.



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Fig. 1: Heater & Defroster Components (Wrangler)
Courtesy of Chrysler Motors.

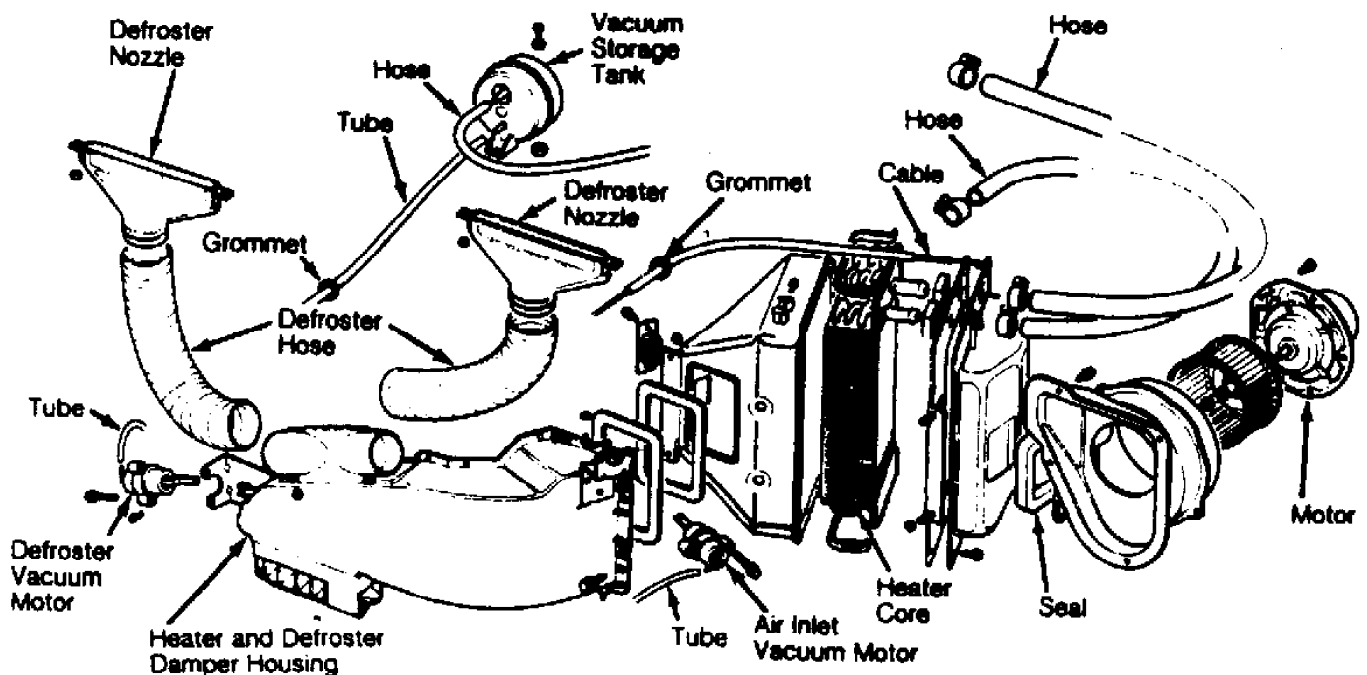


Fig. 2: Typical Heater & Defroster Components
 Courtesy of Chrysler Motors.

BLOWER MOTOR R & I

NOTE: On Cherokee and Comanche, blower motor and fan are removed from engine compartment.

Removal & Installation

1) Remove heater core housing assembly. On all models, remove blower motor electrical connectors. Detach screws retaining blower motor assembly to heater housing. Remove blower motor and fan assembly. On Cherokee and Comanche, detach fan retaining clip from fan hub, if necessary. Remove fan from motor shaft.

2) To install, reverse removal procedure. If removed, ensure ears of retaining clip are over flat surface on motor shaft. Check blower motor and heater operation.

CONTROL PANEL R & I

Removal & Installation

1) Disconnect battery ground. On Cherokee, remove lower instrument panel. On all models, remove instrument panel bezel. On Cherokee, remove clock and radio (if equipped).

2) On all models, remove heater control panel attaching screws. Pull out control panel and disconnect vacuum hoses, wires and cables. Note locations for reassembly reference. Remove control panel. To install, reverse removal procedure.

CONTROL CABLES R & I

REMOVAL (CHEROKEE & COMANCHE)

Remove control panel. Detach cable from heater control panel.

Remove retaining clip and cable self-adjusting clip from blend-air door lever at bottom of blower housing. Remove cable by squeezing tabs with needle nose pliers. Do not break housing.

INSTALLATION

To install, connect cable self-adjusting clip to blend-air door lever, then snap cable into position. Install retaining clip onto blend-air door lever. Route cable to A/C-heater control panel and connect. Install control panel.

REMOVAL & INSTALLATION (WRANGLER)

1) Disconnect cables from vent doors. Disconnect cables from heater control panel levers. Remove cables by squeezing tabs with needle nose pliers.

2) Connect and adjust cables as described in ADJUSTMENTS section of this article

HEATER CORE R & I

REMOVAL & INSTALLATION (CHEROKEE & COMANCHE)

1) Disconnect battery ground. Drain cooling system. Disconnect heater hoses at heater core inlet and outlet tubes. Disconnect blower motor wires and vent tube. Remove console (if equipped). Remove lower instrument panel.

2) Disconnect electrical connectors from blower motor resistors. Disconnect vacuum hose at vacuum motor. Cut plastic retaining strap holding blower housing to heater core housing.

3) Disconnect and remove heater control cable. Detach clip at rear of blower housing flange and remove retaining screws. Remove housing mounting nuts from studs on engine compartment side of dash panel. Remove right kick panel.

4) Remove instrument panel support bolt. Gently pull on right side of dash, then rotate housing downward and toward rear of vehicle to disengage housing studs from dash panel. Remove blower housing. Detach retaining screws and remove heater core by pulling it straight out of housing.

5) To install, reverse removal procedure. Ensure seal is cemented in place to prevent movement when blower assembly is installed. Connect heater hoses and fill cooling system.

REMOVAL & INSTALLATION (WRANGLER)

1) Disconnect battery ground. Drain about 2 quarts of coolant from radiator. Disconnect heater hoses at heater core inlet and outlet tubes. Disconnect vent door cables. Disconnect blower motor wires. Disconnect defroster duct.

2) Remove nuts attaching heater housing studs to engine compartment side of dash panel. Remove heater housing assembly by tilting it downward, to disengage it from defroster duct.

3) Pull heater housing rearward and out from under instrument panel. Remove heater housing cover from heater housing assembly. Remove heater core from housing.

HEATER SYSTEM OPERATION CHART & VACUUM DIAGRAM

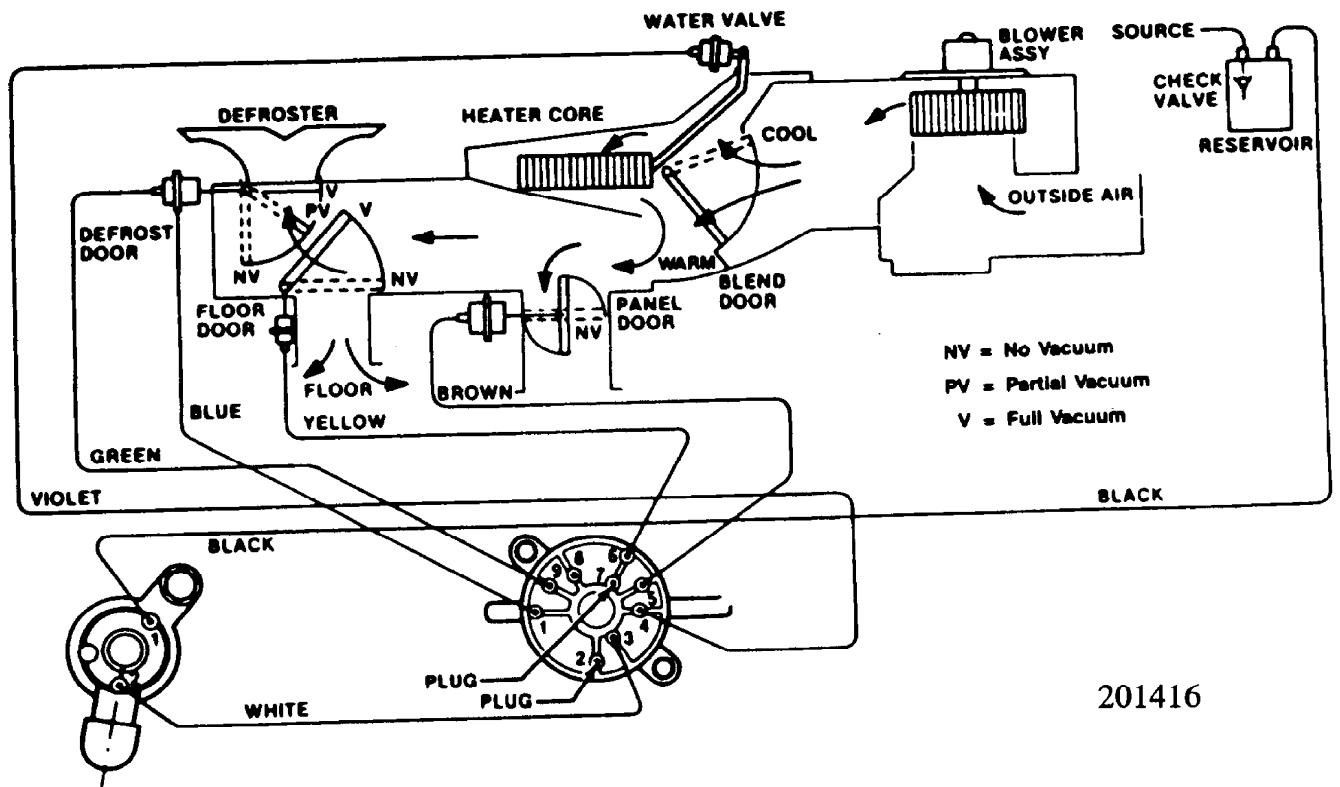
HEATER SYSTEM OPERATION TABLE

MODE						
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LEVER POSITION	AIR DISCHARGE	BLOWER SPEEDS	PANEL DOOR	FLOOR DOOR	DEFROST DOOR	WATER VALVE
Off	Closed	None	Closed	Closed	Closed	Closed
Vent	Panel Registers	4	Open	Closed	Closed	Closed
Bi-Level	Panel Registers and Floor With Def. Bleed	4	Open	Open	Bleed	Open (1)
Heat	Floor With Def. Bleed	4	Closed	Open	Bleed	Open (1)
Def.	Defroster	4	Closed	Closed	Open	Open (1)

(1) - Water valve closes in full "COOL" temperature lever position.

HEATER CONTROL SYSTEM VACUUM SCHEMATIC



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Fig. 3: Heater Control System Vacuum Diagram

WIRING DIAGRAMS

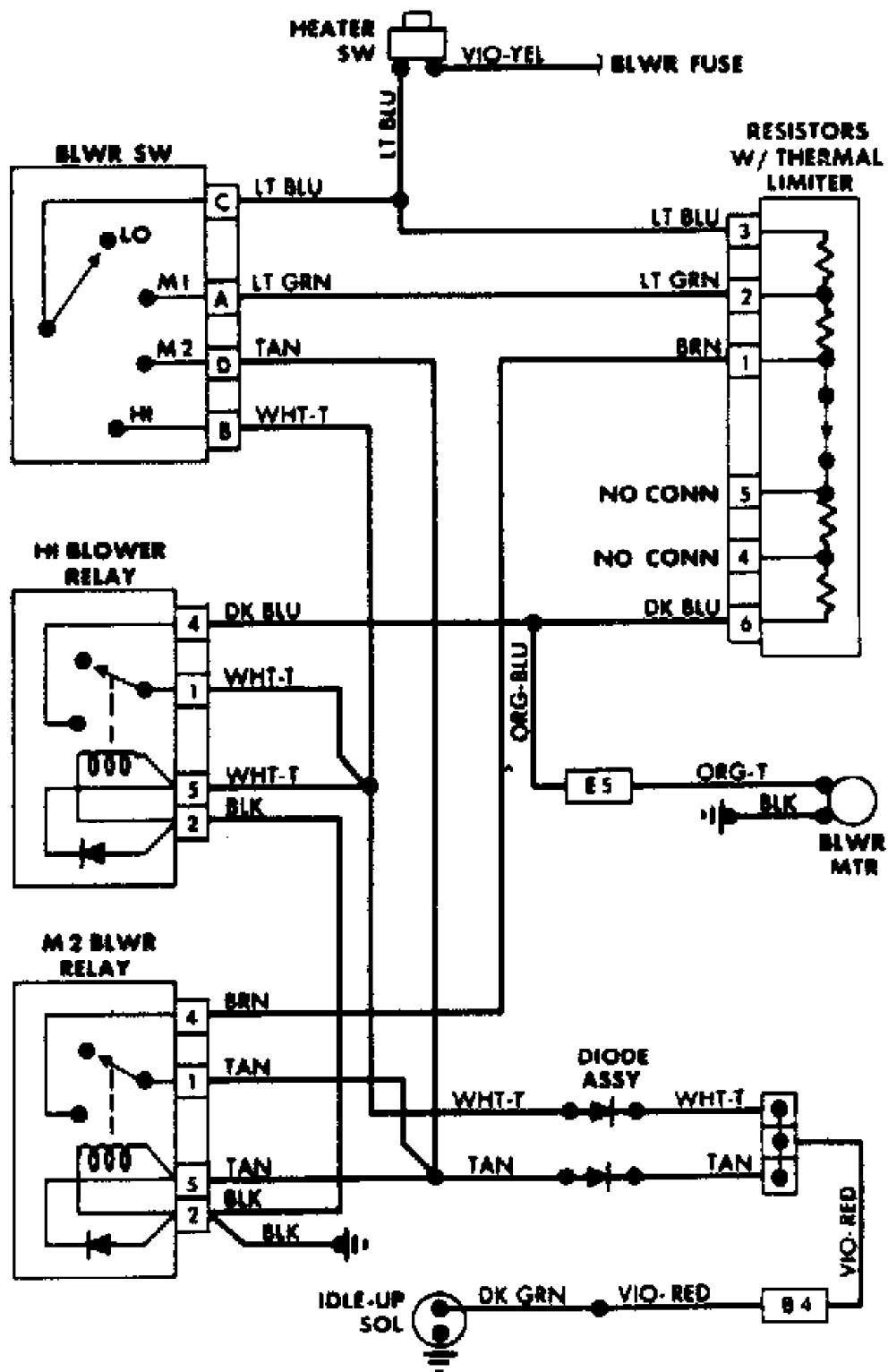


Fig. 4: Heater Wiring Diagram (Comanche Diesel)

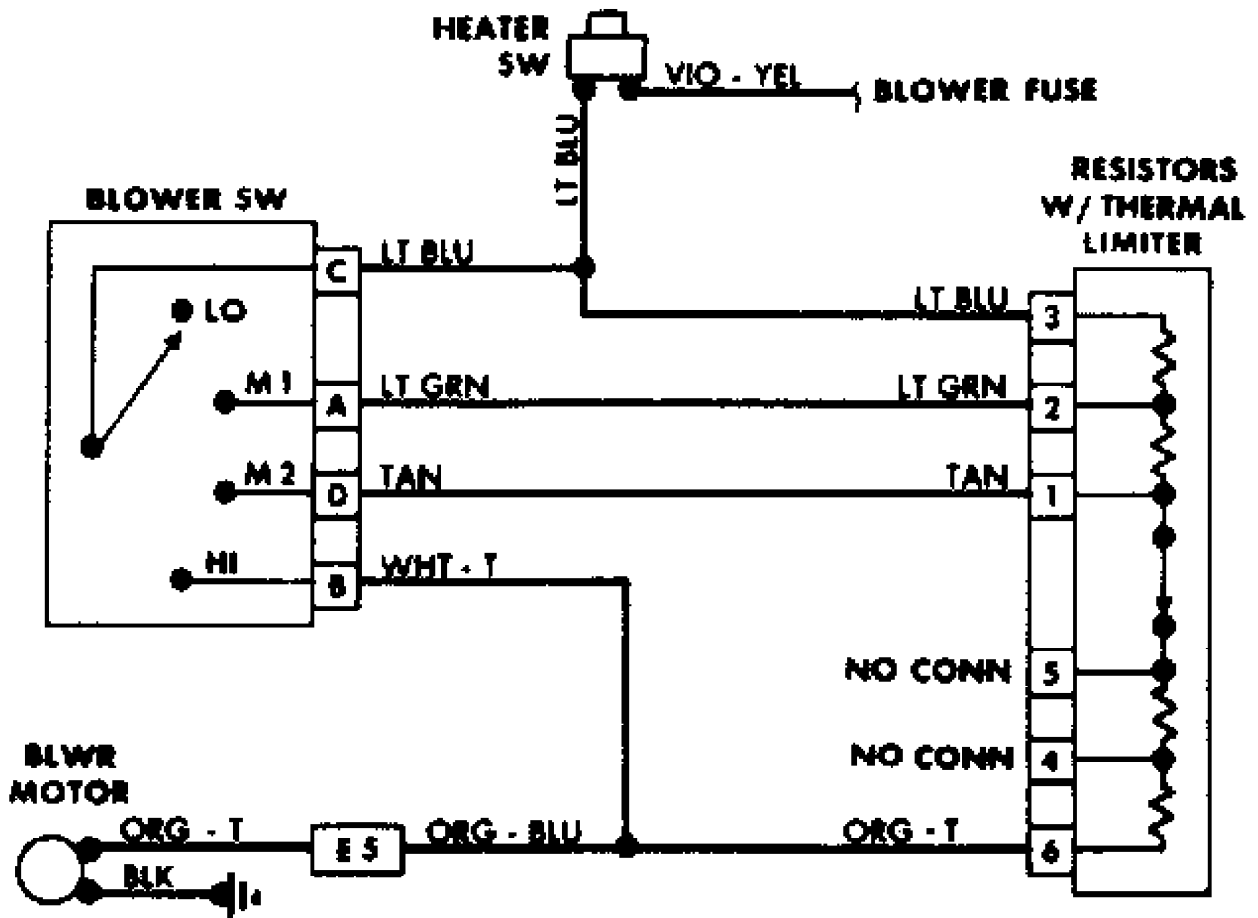


Fig. 5: Heater Wiring Diagram (Comanche Gas)

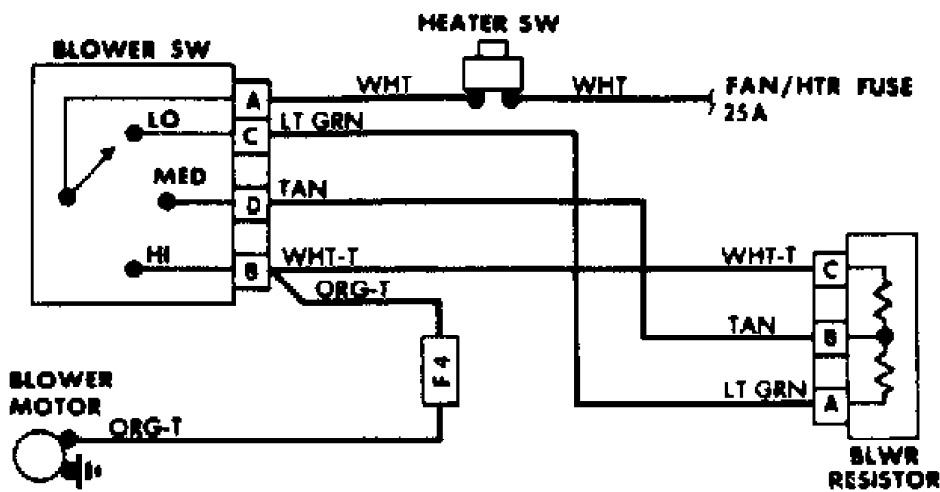


Fig. 6: Heater Wiring Diagram (Wrangler)