

A/C-HEATER SYSTEM - MANUAL

Article Text

1987 Volkswagen Quantum/Quantum Syncro
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Sunday, March 19, 2000 12:51AM

ARTICLE BEGINNING

1987 Manual A/C-Heater System
VOLKSWAGEN

Quantum

A/C SYSTEM SPECIFICATIONS

SPECIFICATIONS

AA

System Type	Cycling Clutch
Compressor Type	York 2-Cyl.
R-12 Capacity	38 oz.
System Oil Capacity	8.0 oz.
Shut-Off Pressure High	218 psi (15.3 kg/cm ²)
Shut-Off Pressure Low	29 psi (2.0 kg/cm ²)
A/C Belt Deflection (1)	9/16" (15 mm)

(1) - Deflection of belt is midway between A/C compressor pulley
and crankshaft pulley.

AA

DESCRIPTION

The Quantum integrated A/C-heater system is a cycling clutch type. The compressor is cycled off and on by a thermostatic switch to maintain a constant cooling rate. The condenser/radiator cooling fan operates whenever air conditioning is operating.

System components include an evaporator assembly, condenser, expansion valve, control panel, vacuum motor unit, vacuum switch, high and low pressure switches, radiator fan and heater core.

The control panel includes a control lever, a rotary fan switch, and 4 push button controls controlling airflow, air distribution, and heater and A/C operation. The fan switch controls 4 fan speeds.

OPERATION

Fan Switch

The rotary fan switch allows selection of 4 speeds. The fan works as soon as ignition is switched on. The fan can only be switched off when "OFF" button is pushed.

Air Distribution Buttons

The far right button, with a symbol for airflow on it, allows airflow from defroster and upper side vents. The button marked "HEAT" and button marked "BI-LEVEL" allow airflow from lower side, center and floor vents. The button marked "A/C" allows airflow from center and lower side vents. The "OFF" button stops all airflow.

A/C-HEATER SYSTEM - MANUAL

Article Text (p. 2)

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Temperature Control Lever

To turn on heater, move lever to right of intersection of cooling and heating scales. To turn on A/C, move lever to left of intersection of scales.

Vents

When operating, warm air comes out of defroster, upper side, center and floor vents. Cool air comes out of lower side and center vents. Defroster, upper side and floor vents can be opened or closed by operating push buttons.

Defroster

To defrost, push far right control button. Move temperature lever to far right. Close center and lower side vents.

PRESSURE SWITCHES

These switches are connected in series and are mounted on receiver-drier. The low pressure switch opens if high side pressure drops below 29 psi. This protects compressor when there is an excessive loss of R-12. The high pressure switch opens when high side pressure exceeds 218 psi.

RADIATOR FAN

The radiator fan is a 2-speed unit. It is controlled by a thermostatic switch. When air conditioner is in operation, radiator fan runs continuously.

VACUUM & WIRING DIAGRAMS

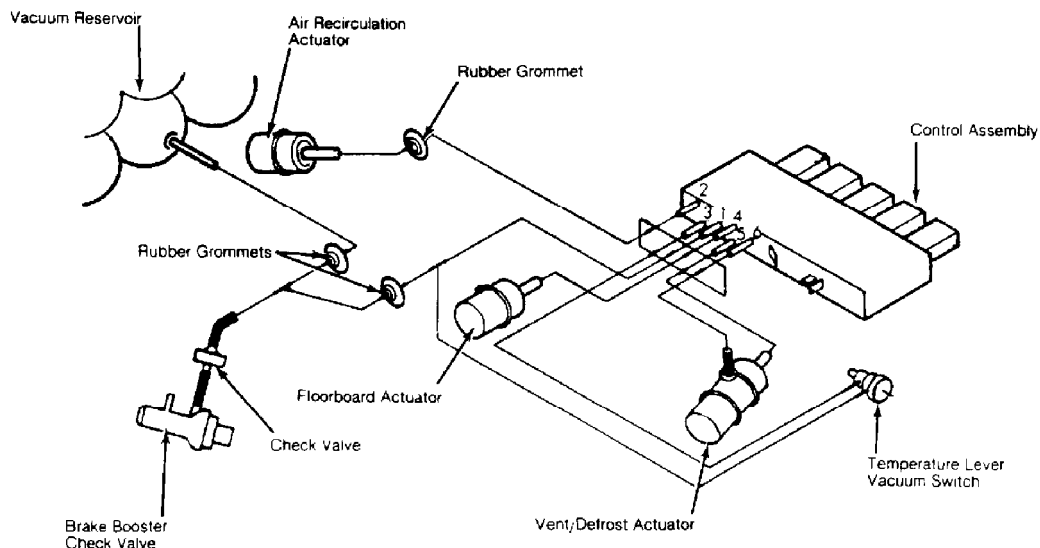


Fig. 1: Quantum Manual A/C-Heater System Vacuum Diagram

A/C-HEATER SYSTEM - MANUAL

Article Text (p. 3)

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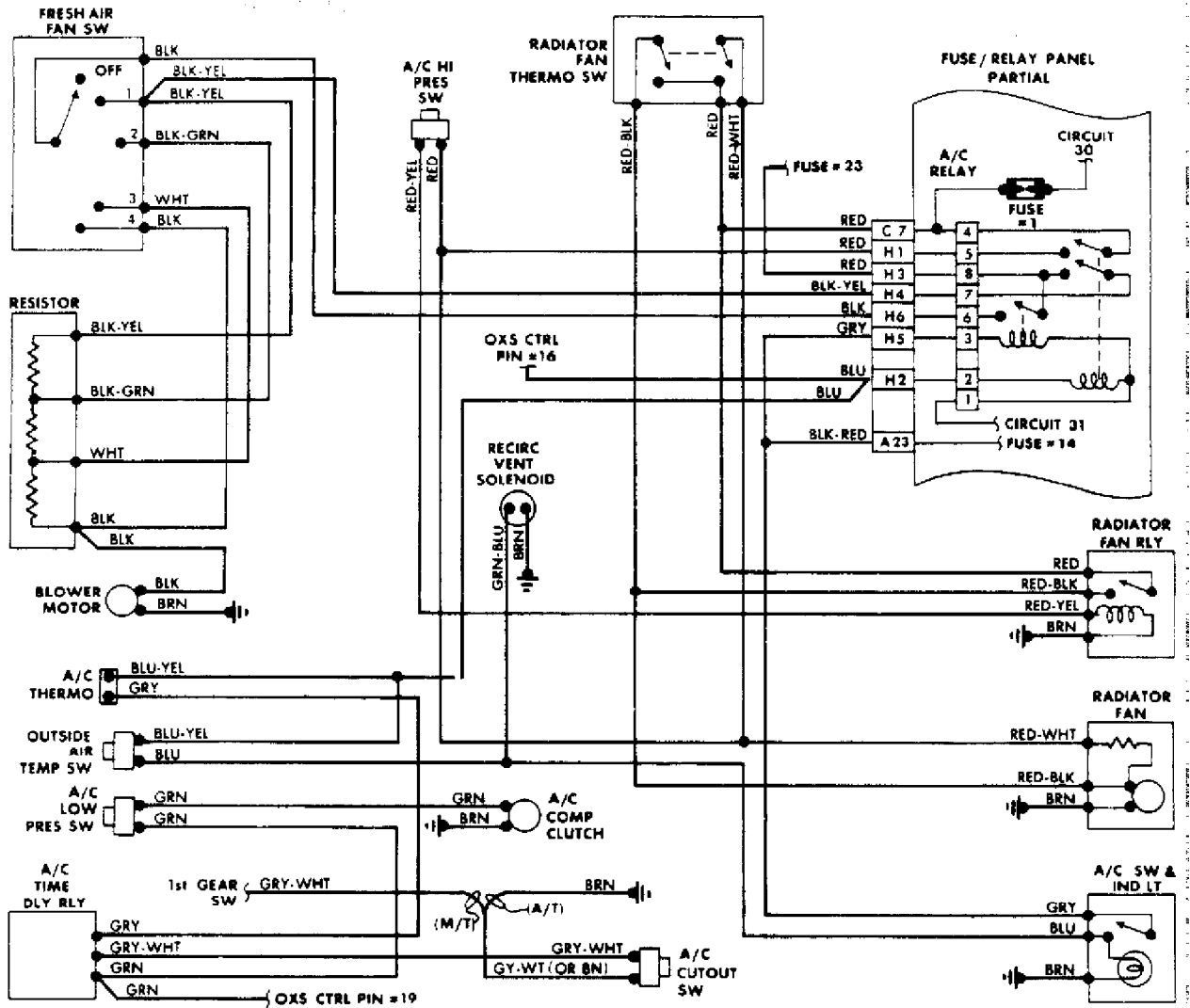


Fig. 2: Quantum Manual A/C-Heater System Wiring Diagram

END OF ARTICLE