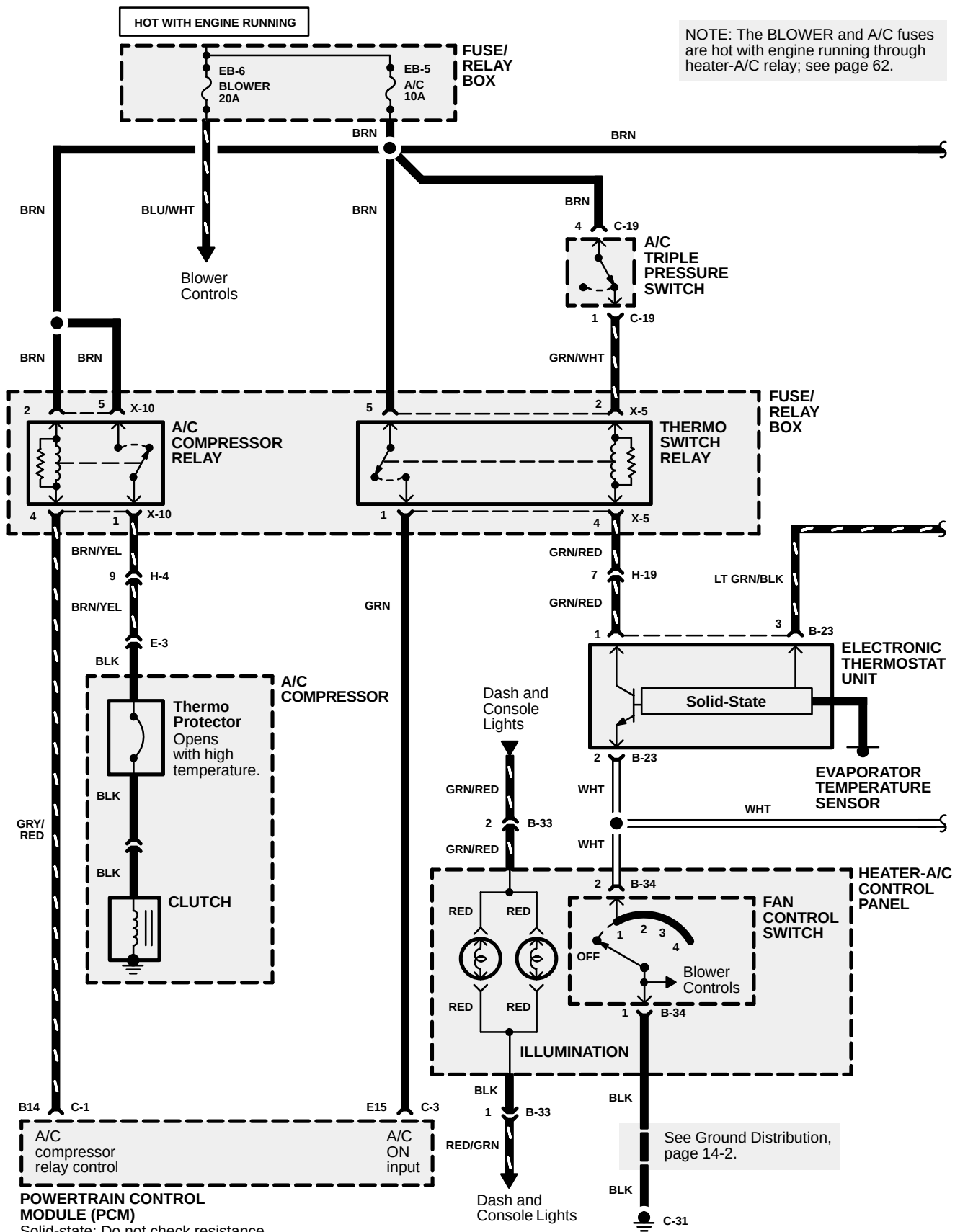


AIR CONDITIONER: COMPRESSOR CONTROL

Component Index

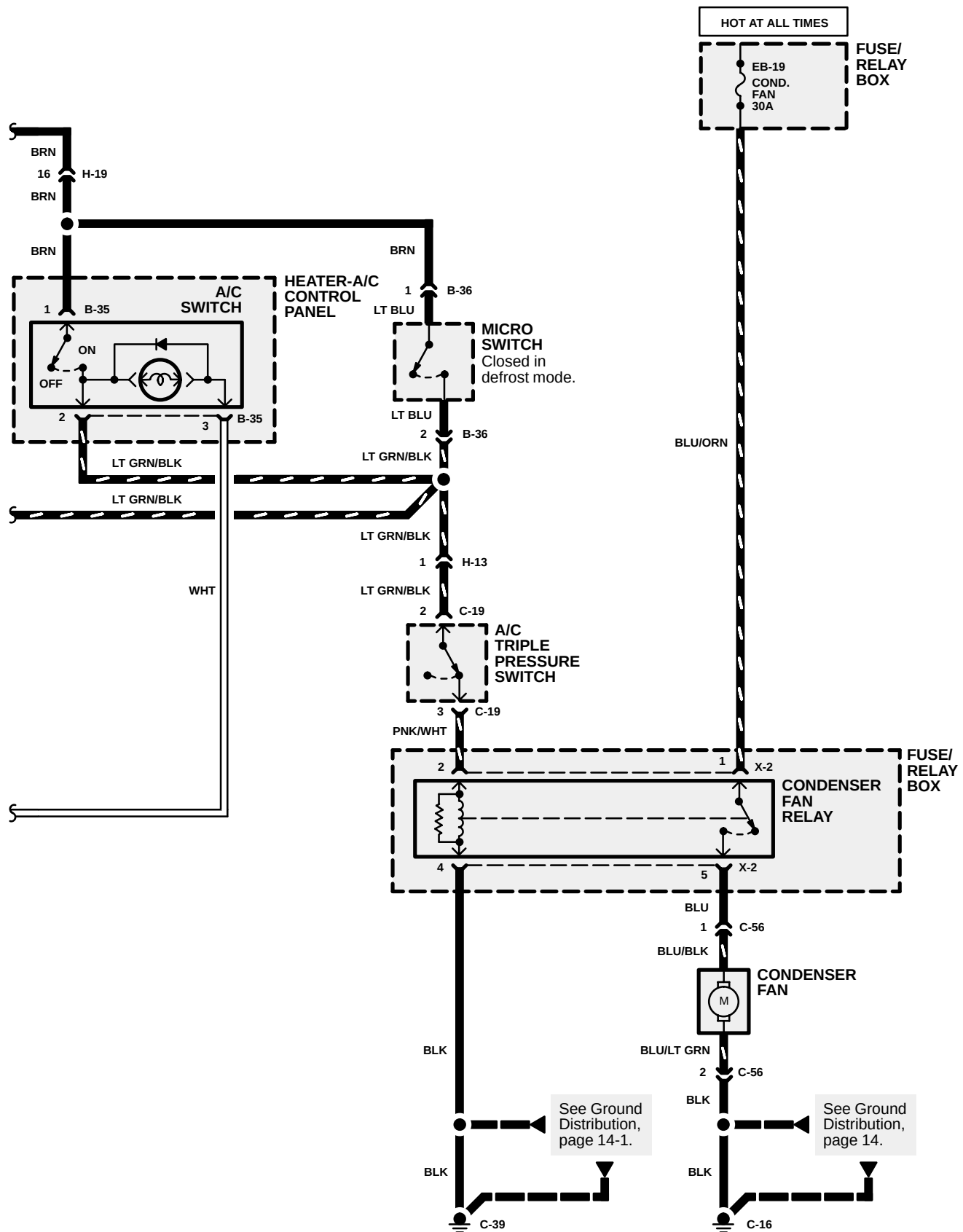
- A/C Compressor Relay
- A/C Switch
- A/C Thermo Relay
- A/C Thermo Switch
- A/C Triple Pressure Switch
- Condenser Fan
- Condenser Fan Relay
- Electronic Thermostat Unit
- Fuse/Relay Box
- Micro Switch
- Powertrain Control Module (PCM)

Circuit Schematic



AIR CONDITIONER: COMPRESSOR CONTROL

Circuit Schematic



AIR CONDITIONER: COMPRESSOR CONTROL

Component Location Index

(Refer to Section 201 for photographs.)

<u>Component</u>	<u>Photo No.</u>
A/C Compressor Relay	Right side of engine compartment, in fuse/relay 20
A/C Switch	On heater/A/C control panel
A/C Thermo Relay	Right side of engine compartment, in fuse/relay 21
A/C Thermo Switch	In A/C compressor
A/C Triple Pressure Switch . . .	Behind left side of radiator grille 7
Condenser Fan	On right front of radiator 9
Condenser Fan Relay	Right side of engine compartment, in fuse/relay 19
Electronic Thermostat Unit . . .	Right side of I/P, behind glove box 55
Fuse/Relay Box	Right side of engine compartment, on inner 18
Micro Switch	On heater/A/C panel
Powertrain Control Module (PCM)	Behind front console 52
<u>Connector</u>	
B-33 (2-CLR)	Behind center of I/P 51
B-36 (2-WHT)	Behind center of I/P 51
C-56 (2-BLK)	Behind front grille, below condenser fan 9
E-3 (1-BLK)	Lower left side of engine compartment 5
H-4 (16-BLU)	Left rear of engine compartment on bracket 15
H-13 (22-WHT)	Behind left side of I/P, above left kick panel on 42
H-19 (22-WHT)	Behind I/P right side panel 58
<u>Ground</u>	
C-16	Left rear of engine compartment, on inner fender panel 16
C-31	Behind right kick panel 57
C-39	Right rear of engine compartment on inner fender 23

AIR CONDITIONER: COMPRESSOR CONTROL

Circuit Operation

Electronic Thermostat

The electronic thermostat senses the temperature of cool air from the evaporator by means of the evaporator temperature sensor. This information determines whether the thermostat will provide ground to the thermo switch relay. When the temperature becomes too low, ground is not provided.

OFF: Below $1.0 \pm 0.5^{\circ}\text{C}$ ($33.8 \pm 0.9^{\circ}\text{F}$)
ON: Above $3.5 \pm 0.3^{\circ}\text{C}$ ($38.3 \pm 0.5^{\circ}\text{F}$)

A/C Compressor Clutch

With the engine running, battery voltage is applied to the A/C switch, the micro switch, the A/C triple pressure switch, and the coil of the A/C compressor relay. When you press the A/C switch or set the controls to defrost, battery voltage is applied to the electronic thermostat. The solid-state switch in the electronic thermostat closes, providing a path to ground for the thermo switch relay, with the fan control switch in any position except OFF. Voltage is also applied through the A/C triple pressure switch to the coil of the thermo switch relay. This closes the thermo switch relay contacts, applying battery voltage to the A/C ON input of the Powertrain Control Module (PCM). The PCM then provides ground for the A/C compressor relay. The A/C compressor

relay contacts close, applying battery voltage to the compressor clutch through the closed contacts of the A/C thermo-switch. If either the A/C thermo-switch or A/C triple pressure switch opens, the compressor clutch disengages.

A/C Triple Pressure Switch

To prevent compressor damage, the triple pressure switch will open if system pressure is too low or too high: 176.5 ± 19.6 kpa (156.4 ± 17.7 psi.) or above 2942 ± 196.1 kpa (426.6 ± 28.4 psi). The medium pressure switch will close when system pressure exceeds 1471 ± 98.1 kPa (213.3 ± 14.2 psi), turning on the condenser fan.

Condenser Fan

With the engine running, battery voltage is applied to the A/C switch. When the A/C switch is pressed, battery voltage is then applied through the A/C triple pressure switch to the coil side of the condenser fan relay, which is continually grounded. Once the relay is energized, the contacts close, allowing battery voltage from the COND. FAN fuse to be applied to the condenser fan. The motor, being grounded continually, is energized, and the fan is activated.