

Compressor Control System

Description

The compressor control unit has a system designed to protect the compressor belt in the event of a seizure, thereby allowing the alternator to continue operating.

This is done by comparing the engine rpm and the compressor pulley rpm. When there is a difference in rpm that continues for more than 3 seconds, the compressor relays are turned off and the warning light comes on.

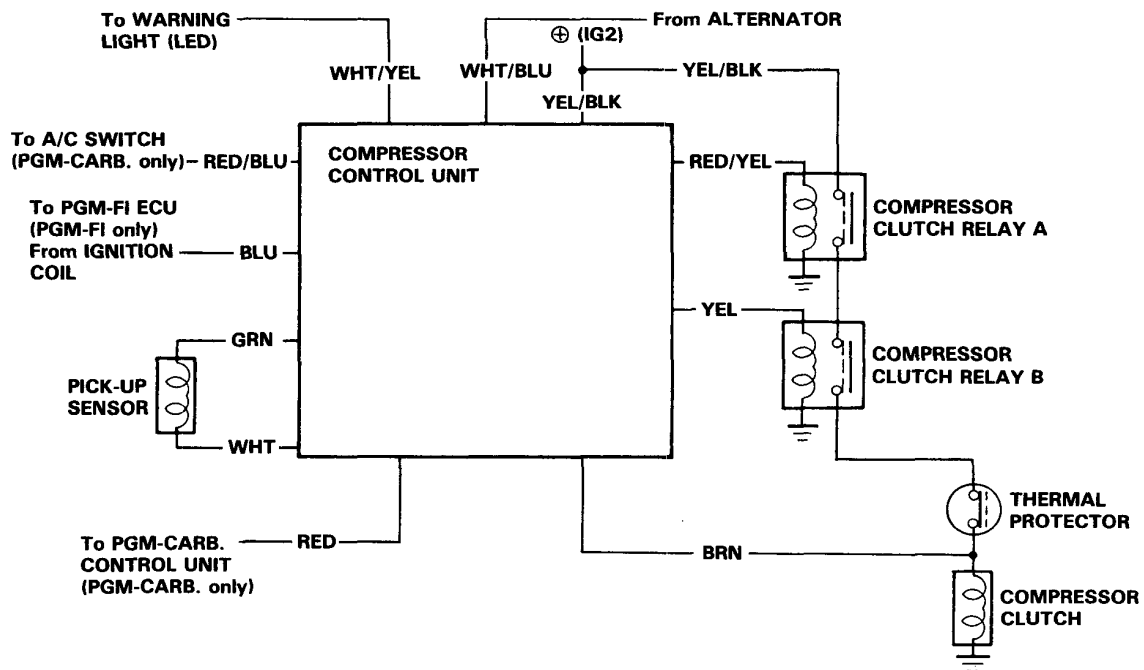
To reset, push the A/C switch off, then push it on again.

NOTE: If the switch is pushed off and on more than twice, it will be necessary to turn off the ignition to reset.



WARNING LIGHT

NOTE: This doesn't show on late model Prelude unless illuminated.

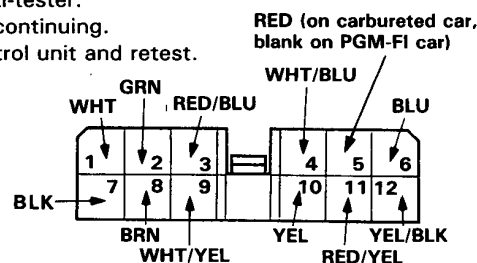




Input Tests

NOTE:

- Make sure all connectors are clean and tight.
- Make all tests from the wire side of the connector with a digital multi-tester.
- Any abnormality found during these tests must be corrected before continuing.
- If all tests produce the desired results, substitute a known-good control unit and retest.



View from wire side.

Perform the following tests with the A/C control unit's 12P connector disconnected, and the ignition switch, blower switch, and A/C switch ON.

WIRE POSITION	CIRCUIT	TEST CONDITION	DESIRED RESULTS	CORRECTIVE ACTION IF DESIRED RESULTS AREN'T OBTAINED
BLK (7)	Ground	Check for continuity to body ground.	Should have continuity.	Repair open to body ground.
YEL/BLK (12)	Power	Check for battery voltage.	Should have battery voltage.	Check #18 fuse; if OK, repair open in YEL/BLK wire.
RED/YEL (11) and YEL (10)	Compressor relay A Compressor relay B	Connect both the RED/YEL (11) and YEL (10) wires to the YEL/BLK (12) wire with jumper wires.	The A/C compressor clutch should click.	Check for an open or short in the RED/YEL or YEL wires.
BLU (6)	Engine speed	Check for battery voltage.	Should have battery voltage.	Check for an open or short in the BLU wire or a faulty coil.
GRN (2) and WHT (1)	Compressor sensor	Check resistance between the GRN and WHT wires (use 20 K scale).	Should be approximately 0.45 to 0.60 ohms on the 20 K scale (450–600 ohms).	Check for open in GRN or WHT wires between the A/C control unit and the compressor pick-up sensor or a faulty pick-up sensor.
BRN (8)	Compressor clutch	Check resistance to body ground.	Should be approximately 4 ohms.	Check for an open in the BRN wire between the A/C control unit and the compressor clutch coil or a faulty compressor clutch.

Perform the following tests with A/C control unit connected, engine running and the A/C system turned ON.

RED/YEL (11)	Compressor relay A	Check for battery voltage.	Should have battery voltage.	Check the connection to the A/C control unit; if OK, substitute a known-good control unit and retest.
YEL (10)	Compressor relay B	Check for battery voltage.	Should have battery voltage.	Check the connection to the A/C control unit; if OK, substitute a known-good control unit and retest.
BRN (8)	Thermal protector	Check for system voltage.	Should have system voltage.	Test thermal protector.