2000-06 HVAC

Climate Control - Insight

COMPONENT LOCATION INDEX

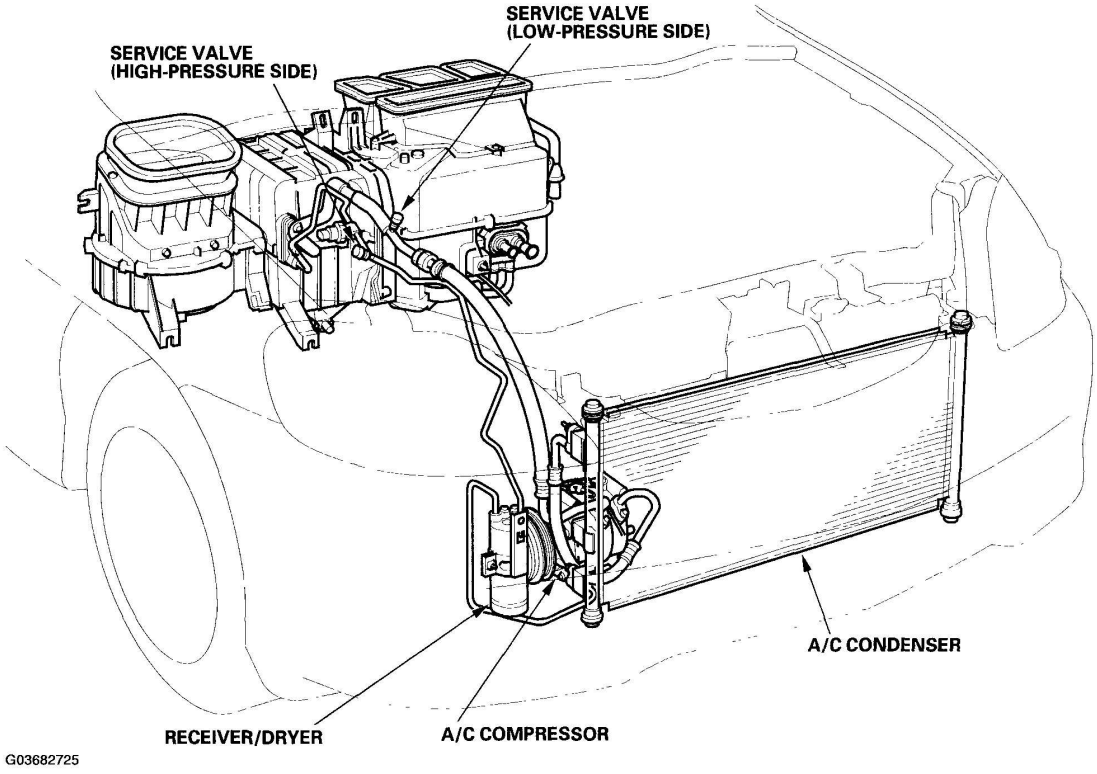


Fig. 1: Locating Climate Control Components (1 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

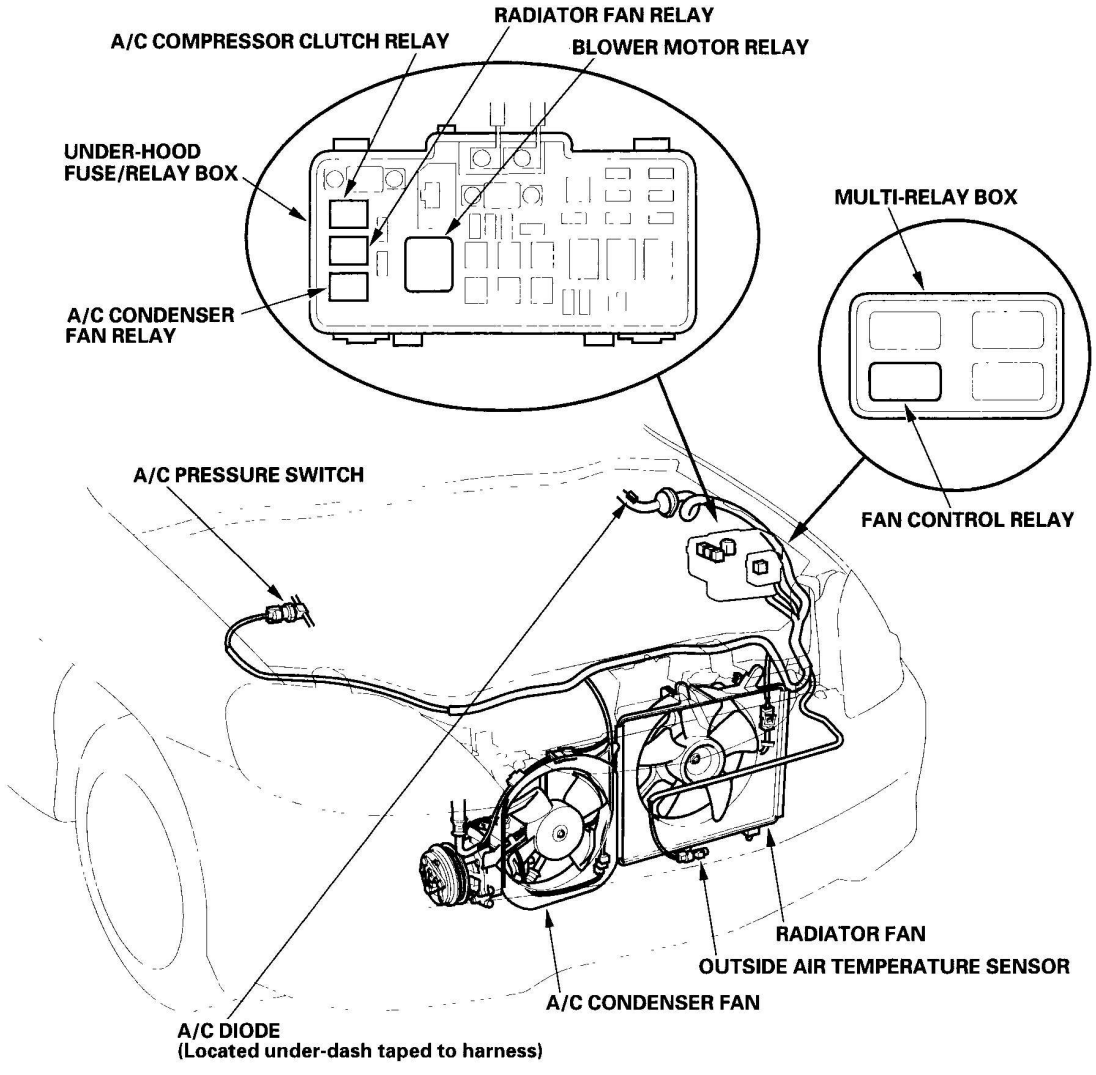


Fig. 2: Locating Climate Control Components (2 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

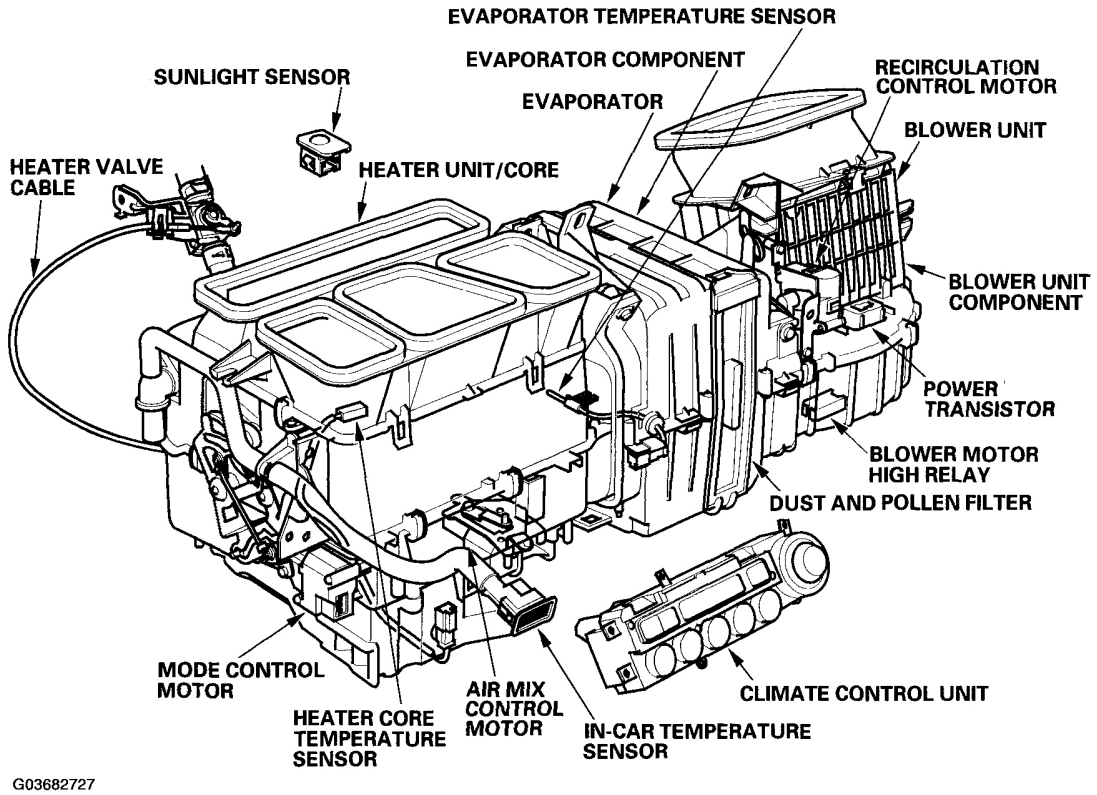


Fig. 3: Locating Climate Control Components (3 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C SERVICE TIPS AND PRECAUTIONS

WARNING:

- **Compressed air mixed with R-134a forms a combustible vapor.**
- **The vapor can burn or explode causing serious injury.**
- **Never use compressed air to pressure test R-134a service equipment or vehicle air conditioning systems.**

CAUTION:

- **Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.**
- **Be careful when connecting service equipment.**

- **Do not breathe refrigerant or vapor.**

The air conditioning system uses HFC-134a (R-134a) refrigerant and polyalkyleneglycol (PAG) refrigerant oil, which are not compatible with CFC-12 (R-12) refrigerant and mineral oil. Do not use R-12 refrigerant or mineral oil in this system, and do not attempt to use R-12 servicing equipment; damage to the air conditioning system or your servicing equipment will result.

Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAE J2210 to remove R-134a from the air conditioning system.

If accidental system discharge occurs, ventilate work area before resuming service.

R-134a service equipment or vehicle air conditioning systems should not be pressure tested or leak tested with compressed air.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

- Always disconnect the negative cable from the battery whenever replacing air conditioning parts.
- Keep moisture and dirt out of the system. When disconnecting any lines, plug or cap the fittings immediately; don't remove the caps or plugs until just before you reconnect each line.
- Before connecting any hose or line, apply a few drops of refrigerant oil to the O-ring.
- When tightening or loosening a fitting, use a second wrench to support the matching fitting.
- When discharging the system, use an R-134a refrigerant recovery/recycling/charging station; don't release refrigerant into the atmosphere.

A/C REFRIGERANT OIL REPLACEMENT

Recommended PAG oil: SANDEN SP-10:

- P/N 38897-P13-A01AH: 120 mL (4 fl.oz)
- P/N 38899-P13-A01: 40mL (1 1/3 fl.oz)

Add the recommended refrigerant oil in the amount listed if you replace any of the following parts.

- To avoid contamination, do not return the oil to the container once dispensed, and never mix it with other refrigerant oils.
- Immediately after using the oil, reinstall the cap on the container, and seal it to avoid moisture absorption.
- Do not spill the refrigerant oil on the vehicle; it may damage the paint; if it gets on the paint, wash it off immediately.

A/C condenser...15 mL (1/2 fl.oz)

Evaporator...35 mL (1 1/6 fl.oz)

Line or hose...10 mL (1/3 fl.oz)

Receiver/Dryer...10 mL (1/3 fl.oz)

Leakage repair...25 mL (5/6 fl.oz)

A/C compressor. For A/C compressor replacement, subtract the volume of oil drained from the removed A/C compressor from 130 mL (4 1/3 fl.oz), and drain the calculated volume of oil from the new A/C compressor: 130 mL (4 1/3 fl.oz) - Volume of removed A/C compressor = Volume to drain from new A/C compressor.

NOTE: Even if no oil is drained from the removed A/C compressor, don't drain more than 50 mL (1 2/3 fl.oz) from the new A/C compressor.

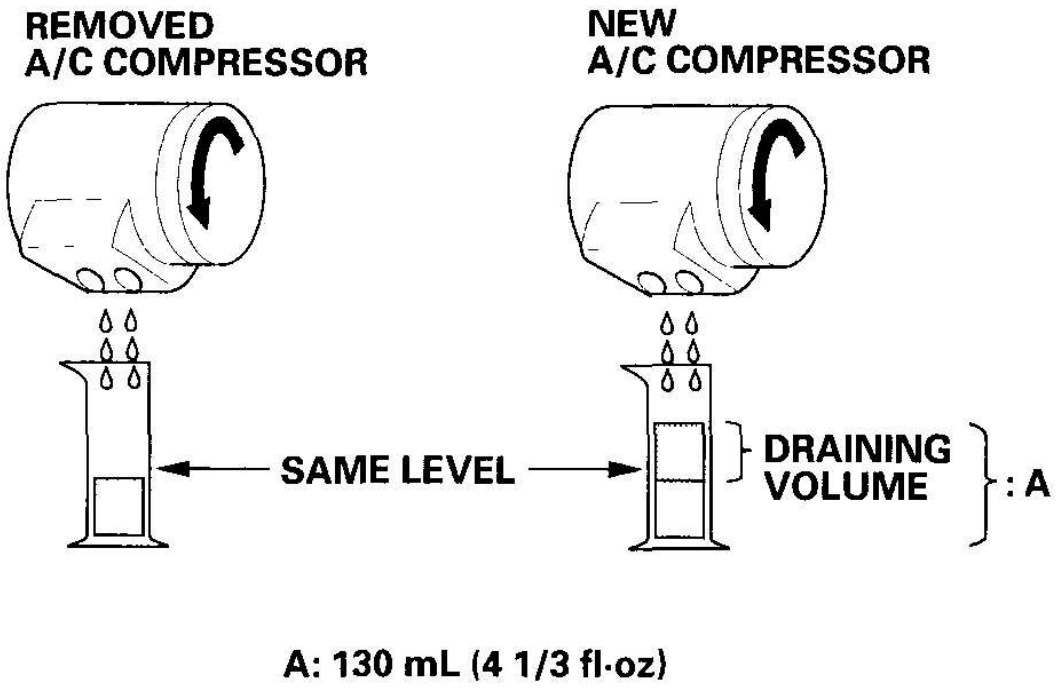
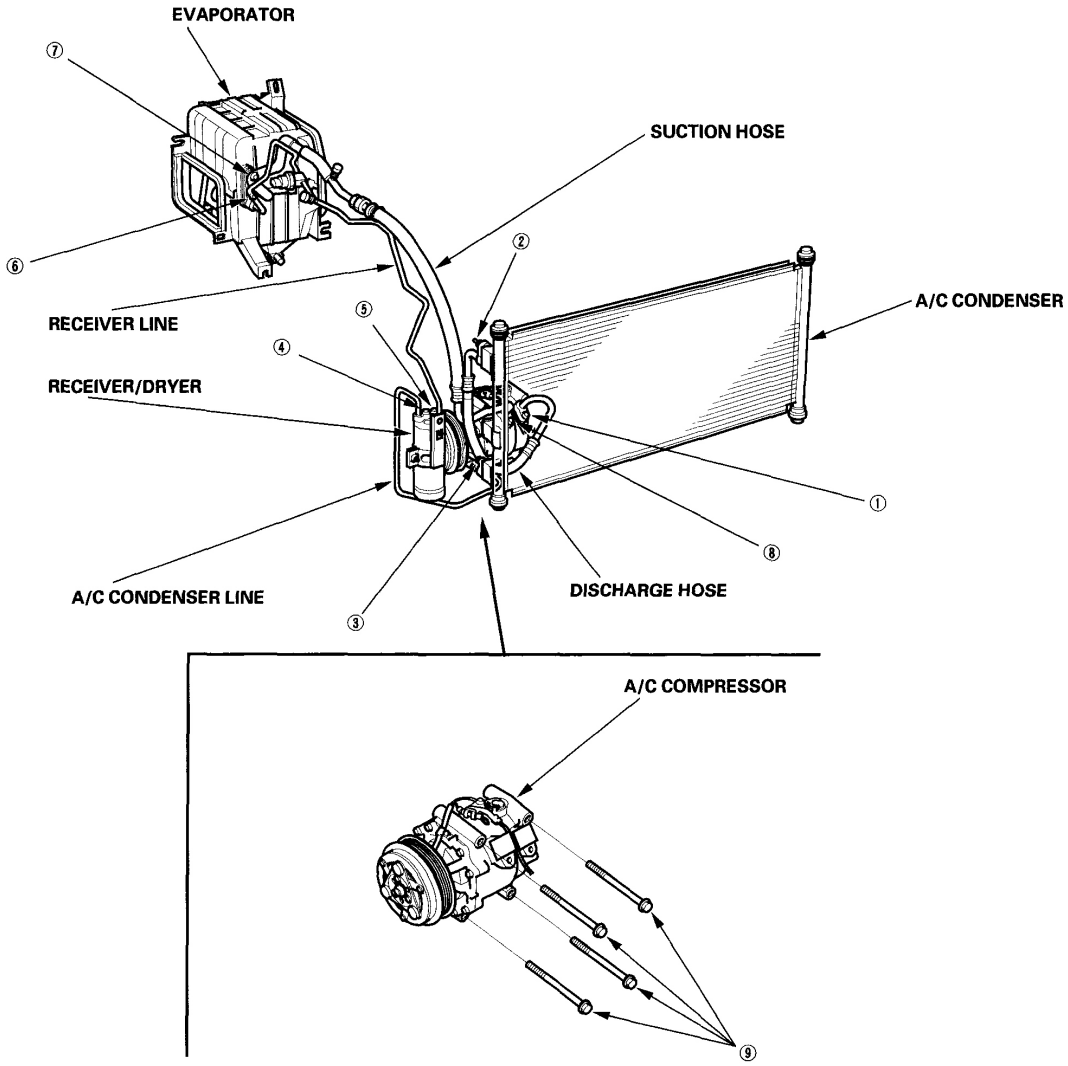


Fig. 4: Identifying A/C Compressor
Courtesy of AMERICAN HONDA MOTOR CO., INC.



① Discharge hose to the A/C compressor (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
② Discharge hose to the A/C condenser (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
③ A/C condenser line to the A/C condenser (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
④ A/C condenser line to the receiver/dryer (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
⑤ Receiver line to the receiver/dryer (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
⑥ Receiver line to the evaporator (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
⑦ Suction hose to the evaporator (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
⑧ Suction hose to the A/C compressor (6 x 1.0 mm) : 9.8 N·m (1.0 kgf·m, 7.2 lbf·ft)
⑨ A/C compressor to the engine block (8 x 1.25 mm) : 22 N·m (2.2 kgf·m, 16 lbf·ft)

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Fig. 5: Identifying A/C Refrigerant Oil
Courtesy of AMERICAN HONDA MOTOR CO., INC.

GENERAL TROUBLESHOOTING INFORMATION

HOW TO RETRIEVE A DTC

The climate control unit has a self-diagnostic function.

To run the self-diagnostic function, do the follo wing:

1. Turn the ignition switch ON (II).
2. Press the AUTO button and then the OFF button.

   Continue to hold both buttons down.

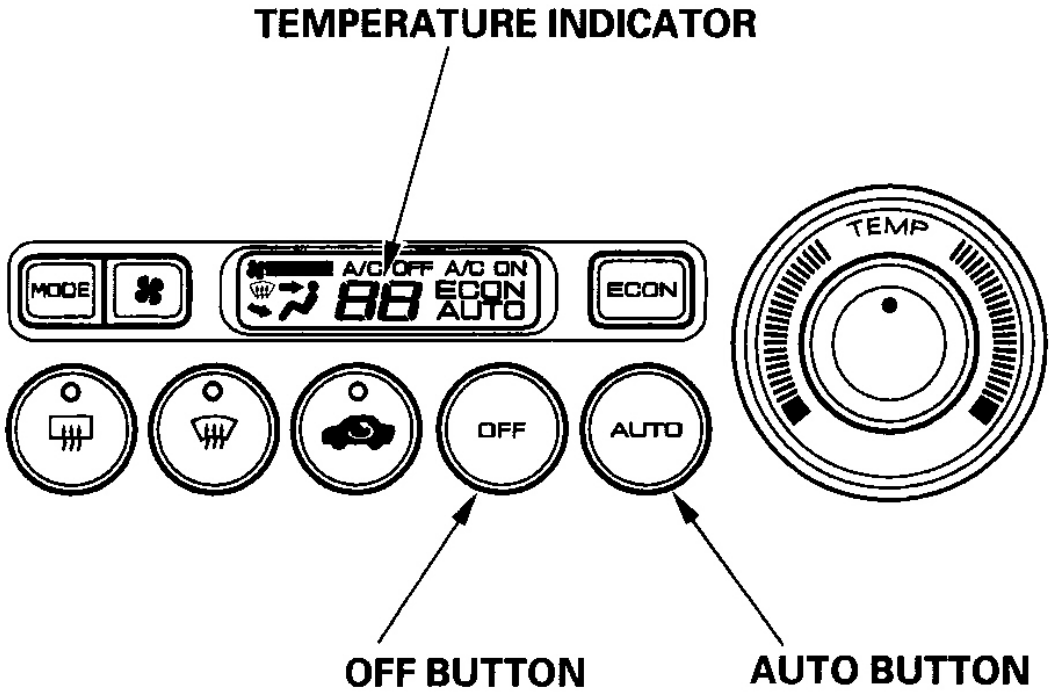


Fig. 6: Identifying Temperature Indicator
Courtesy of AMERICAN HONDA MOTOR CO., INC.

If there is any abnormality in the system, the temperature indicator will light up the segment (A through N) corresponding to the error. The temperature indicator will then alternate every second between displaying "88" (all segments lit) and the error code segment (A through N). To determine the meaning of the DTC, refer to the **DTC TROUBLESHOOTING INDEX** . If there is no abnormality, the segments will not light up.

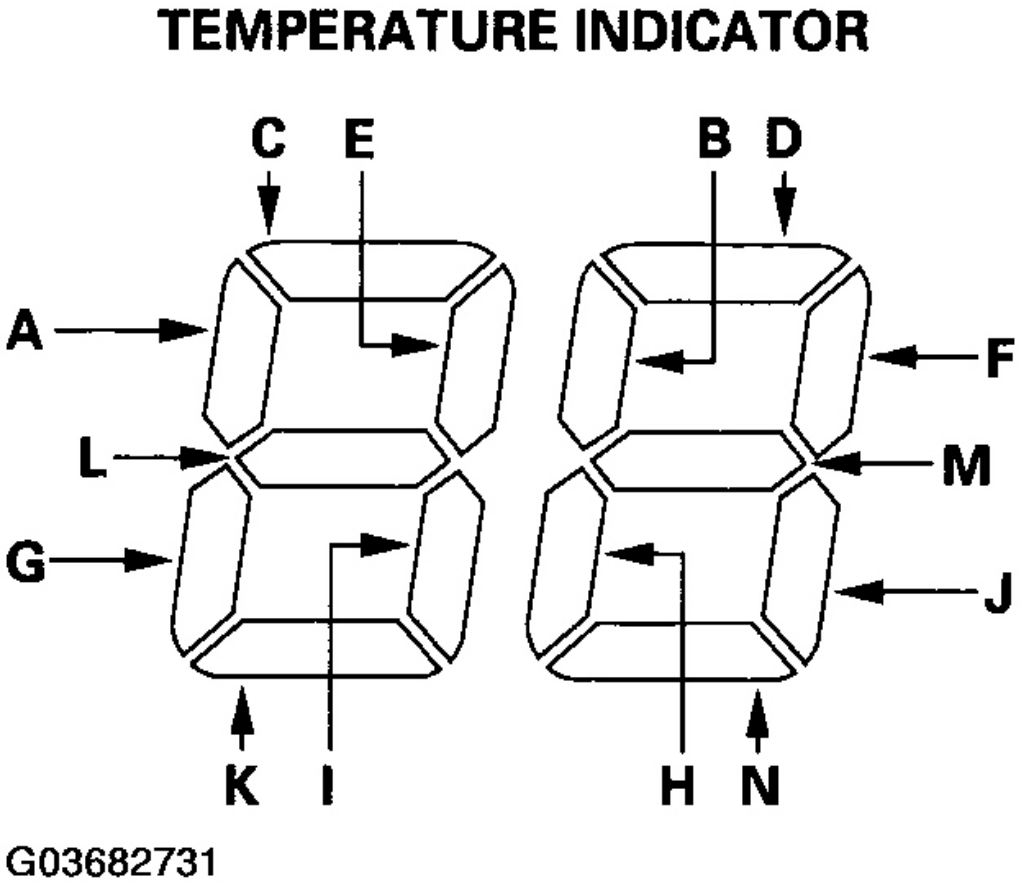


Fig. 7: Identifying Temperature Indicator
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Canceling the self-diagnostic Function

Turn the ignition switch OFF to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other malfunctions.

DISPLAYING SENSOR INPUTS AT THE CLIMATE CONTROL UNIT

The climate control unit has a mode that displays sensor inputs it receives. This mode shows you what the climate control unit is receiving from each of the sensors,

one at a time, and it can help you determine if a sensor is faulty.

Check these items before using the sensor input display mode

1. Turn the ignition switch ON (II), and check the recirculation door function; press the recirculation button to switch from FRESH to RECIRC. The air volume and sound should change slightly.
2. Set the temperature control knob to the desired test temperature. When selecting the test temperatures, note these items:
   - "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC.
   - "Hi" temperature setting will default to MAX HOT, FLOOR, and FRESH.
   - 61 (16) through 88°F (31°C) settings will use the automatic climate control logic.
3. Turn the ignition switch OFF.

To run the sensor input display mode, follow these steps

1. Turn the ignition switch OFF.
2. Press and hold both the AUTO and MODE buttons, then start the engine.
3. After the engine starts, release the buttons. The climate control display will flash the sensor number and then the value for that sensor. Record the value displayed.
4. To advance to the next sensor, press the rear window defogger button.

SENSOR INPUT DISPLAY MODE CHART

Sensor	Item	Displayed Value
1	In-car Temperature	°C
2	Outside Air Temperature	°C
3	Solar Radiation Sensor Value: Dark = 00, Flashlight = 04, Cloudy = 10, Sunny = 65	$kcal/m^2 .h$
4	Engine coolant Temperature	°C

5	Evaporator Outlet Air Temperature	°C
6	Air Mix Opening (Low value indicates cooler air distribution, higher value indicates warmer air distribution.)	% of opening
7	Vent Temperature Air Out (TAO)	°C
8	TAO-Fan (Not important)	V
9	Vehicle Speed (Vehicle must be driven to display speed)	km/h

NOTE:

- **The sensor values will be displayed in degrees Celsius (℃) or an alphanumeric code. Use the chart to convert the value to degrees Fahrenheit (℉).**
- **If the sensor value displays "Er" this indicates there is an open or short in the circuit or sensor. Run the self-diagnostic function to check for DTCs.**
- **If necessary, compare the sensor input display to an alike, known-good vehicle under the same test conditions.**
- **If the sensor is out of the normal range, refer to the sensor test, or substitute the sensor with a known-good, and recheck.**

5. To cancel the sensor input display mode, press the AUTO button, or turn the ignition off.

CELSIUS TO FAHRENHEIT CONVERSION CHART (1 OF 2)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
0	32	10	50	20	68	30	86	40	104
1	34	11	52	21	70	31	88	41	106

2	36	12	54	22	72	32	90	42	108
3	37	13	55	23	73	33	91	43	109
4	39	14	57	24	75	34	93	44	111
5	41	15	59	25	77	35	95	45	113
6	43	16	61	26	79	36	97	46	115
7	45	17	63	27	81	37	99	47	117
8	46	18	64	28	82	38	100	48	118
9	48	19	66	29	84	39	102	49	120

CELSIUS TO FAHRENHEIT CONVERSION CHART (2 OF 2)

°C	°F	°C	°F	°C	°F	°C	°F	°C	°F
50	122	60	140	70	158	80	176	90	194
51	124	61	142	71	160	81	178	91	196
52	126	62	144	72	162	82	180	92	198
53	127	63	145	73	163	83	181	93	199
54	128	64	147	74	165	84	183	94	201
55	131	65	149	75	167	85	185	95	203
56	133	66	151	76	169	86	187	96	205
57	135	67	152	77	170	87	188	97	207
58	136	68	154	78	172	88	190	98	208
59	139	69	158	79	174	89	192	99	210

ALPHANUMERIC CONVERSION CHART

Display Reading (Alphanumeric)	°C	°F	%
A1 thru A9	-1 thru -9	30 thru 16	-1 thru -9
B0 thru B9	-10 thru -19	14 thru -2	-10 thru -19
C0 thru C9	-20 thru -29	-4 thru -20	-20 thru -29
D0 thru D9	-30 thru -39	-22 thru -38	-30 thru -39
E0 thru E9	-40 thru -49	-40 thru -58	-
F0 thru F9	-50 thru -59	-58 thru -74	+100 thru +109

DTC TROUBLESHOOTING INDEX

To retrieve the DTC, you must run the self-diagnostic function (see **GENERAL TROUBLESHOOTING INFORMATION**). In the case of multiple problems, the respective indicator segments will come on. If indicator segments A, C, E, G, I, and L come on at the same time, there may be an open in the common ground wire of the sensors.

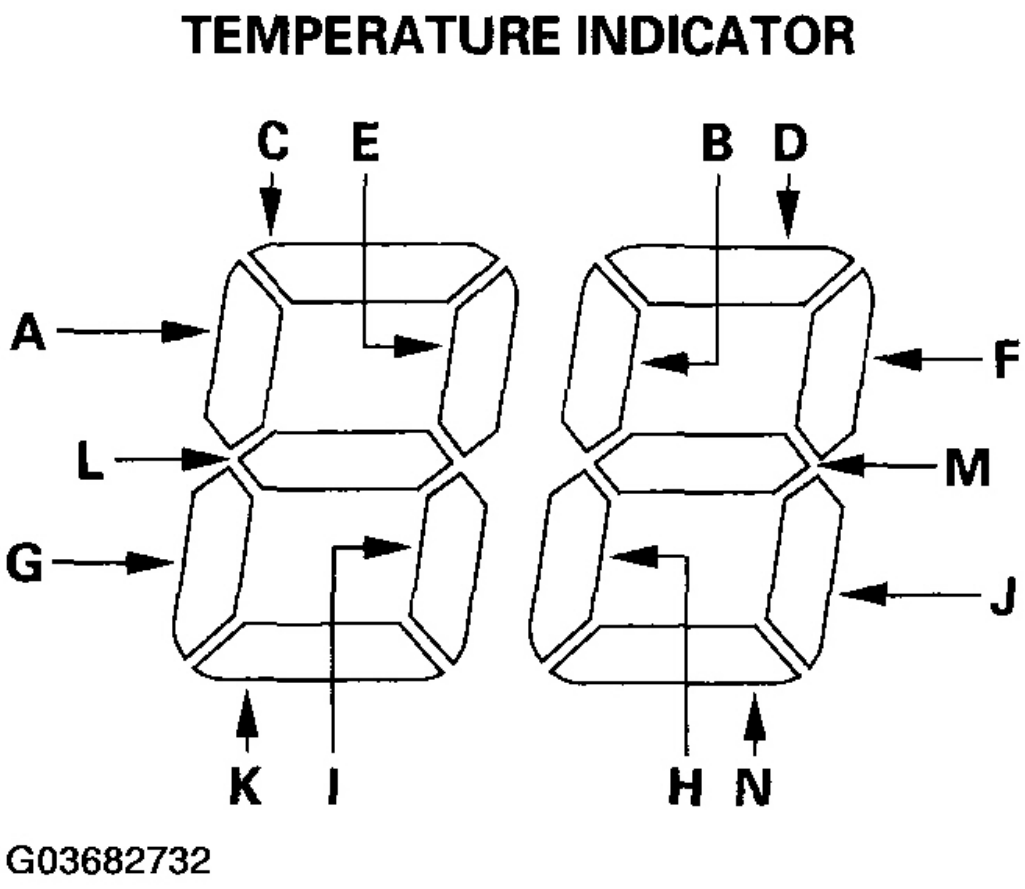


Fig. 8: Identifying Temperature Indicator
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING INDEX

DTC (Temperature Indicator Segment)	Detection Item	Action

A	An open in the in-car temperature sensor circuit	(see **DTC INDICATOR A: AN OPEN IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT**)
B	A short in the in-car temperature sensor circuit	(see **DTC INDICATOR B: A SHORT IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT**)
C	An open in the outside air temperature sensor circuit	(see **DTC INDICATOR C: AN OPEN IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT**)
D	A short in the outside air temperature sensor circuit	(see **DTC INDICATOR D: A SHORT IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT**)
E	An open in the sunlight sensor circuit	(see **DTC INDICATOR E: AN OPEN IN THE SUNLIGHT SENSOR CIRCUIT**)
F	A short in the sunlight sensor circuit	(see **DTC INDICATOR F: A SHORT IN THE SUNLIGHT SENSOR CIRCUIT**)
G	An open in the evaporator temperature sensor circuit	(see **DTC INDICATOR G: AN OPEN IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT**)
H	A short in the evaporator temperature sensor circuit	(see **DTC INDICATOR H: A SHORT IN THE EVAPORATOR**

		TEMPERATURE SENSOR CIRCUIT)
I	An open in the air mix control motor circuit	(see **DTC INDICATOR I: AN OPEN IN THE AIR MIX CONTROL MOTOR CIRCUIT**)
J	A short in the air mix control motor circuit	(see **DTC INDICATOR J: A SHORT IN THE AIR MIX CONTROL MOTOR CIRCUIT**)
K	A problem in the air mix control linkage, doors, or motor	(see **DTC INDICATOR K: A PROBLEM IN THE AIR MIX CONTROL LINKAGE, DOORS, OR MOTOR**)
L	An open in the heater core temperature sensor circuit	(see **DTC INDICATOR L: AN OPEN IN THE HEATER CORE TEMPERATURE SENSOR CIRCUIT**)
M	A short in the heater core temperature sensor circuit	(see **DTC INDICATOR M: A SHORT IN THE HEATER CORE TEMPERATURE SENSOR CIRCUIT**)
N	A problem in the blower motor circuit	(see **DTC INDICATOR N: A PROBLEM IN THE BLOWER MOTOR CIRCUIT**)

SYMPTOM TROUBLESHOOTING INDEX

SYMPTOM TROUBLESHOOTING INDEX

Symptom	Diagnostic procedure	Also check for
Mode control	Mode control motor circuit	

motor does not run, or one or more modes do not work	troubleshooting (see **MODE CONTROL MOTOR CIRCUIT TROUBLESHOOTING**)	• HVAC DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**) • Blown fuse No. 16 (7.5 A) in the under-dash fuse/relay box • Cleanliness and tightness of all connectors
Recirculation control doors do not change between Fresh and Recirculate	Recirculation control motor circuit troubleshooting (see **RECIRCULATION CONTROL MOTOR CIRCUIT TROUBLESHOOTING**)	• HVAC DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**) • Blown fuse No. 16 (7.5 A) in the under-dash fuse/relay box • Cleanliness and tightness of all connectors
Blower, heater controls, and A/C do not work	Climate control power and ground circuit troubleshooting (see **CLIMATE CONTROL POWER AND GROUND CIRCUIT TROUBLESHOOTING**)	• HVAC DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**) • Blown fuse No. 16 (30 A) in the under-hood fuse/relay box, and No. 16 (7.5 A) and No. 18 (7.5 A) in the under-dash fuse/relay box • Poor ground at G404 • Cleanliness and tightness of all connectors
Both fans do not run at low speed	Radiator and A/C condenser fan low speed circuit	• HVAC DTCs (see **GENERAL**

with the A/C on (but the A/C compressor runs with the A/C on)	troubleshooting (see **RADIATOR AND A/C CONDENSER FAN LOW SPEED CIRCUIT TROUBLESHOOTING**)	**TROUBLESHOOTING INFORMATION**) • Blown fuse No. 19 (20 A) in the under-hood fuse/relay box, and No. 16 (7.5 A) in the under-dash fuse/relay box • Poor ground at G301 • Cleanliness and tightness of all connectors
The A/C condenser fan does not run at high speed (but both fans run at low speed and the A/C compressor operates with the A/C on)	A/C condenser fan high speed circuit troubleshooting (see **A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING**)	• HVAC DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**) • Blown fuse No. 16 (7.5 A) in the under-dash fuse/relay box • Poor ground at G301 • Cleanliness and tightness of all connectors
Both fans do not run at high speed with the A/C on (but both fans run at low speed and the A/C compressor operates with the A/C on)	Radiator and A/C condenser fan high speed circuit troubleshooting (see **RADIATOR AND A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING**)	• HVAC DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**) • Cleanliness and tightness of all connectors
The A/C compressor clutch does not engage (but	A/C compressor clutch circuit troubleshooting (see **A/C COMPRESSOR CLUTCH CIRCUIT**	• HVAC DTCs (see **GENERAL TROUBLESHOOTING**

both fans run with the A/C on)	**TROUBLESHOOTING**)	**INFORMATION**) • Blown fuse No. 19 (20 A) in the under-hood fuse/relay box, and No. 16 (7.5 A) in the under-dash fuse/relay box • Cleanliness and tightness of all connectors
A/C system does not come on (both fans and the A/C compressor do not work); heater is OK	A/C pressure switch and evaporator temperature sensor circuit troubleshooting (see **A/C PRESSURE SWITCH AND EVAPORATOR TEMPERATURE SENSOR CIRCUIT TROUBLESHOOTING**)	• HVAC DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**) • Cleanliness and tightness of all connectors

SYSTEM DESCRIPTION

The air conditioning system removes heat from the passenger compartment by circulating refrigerant through the system.

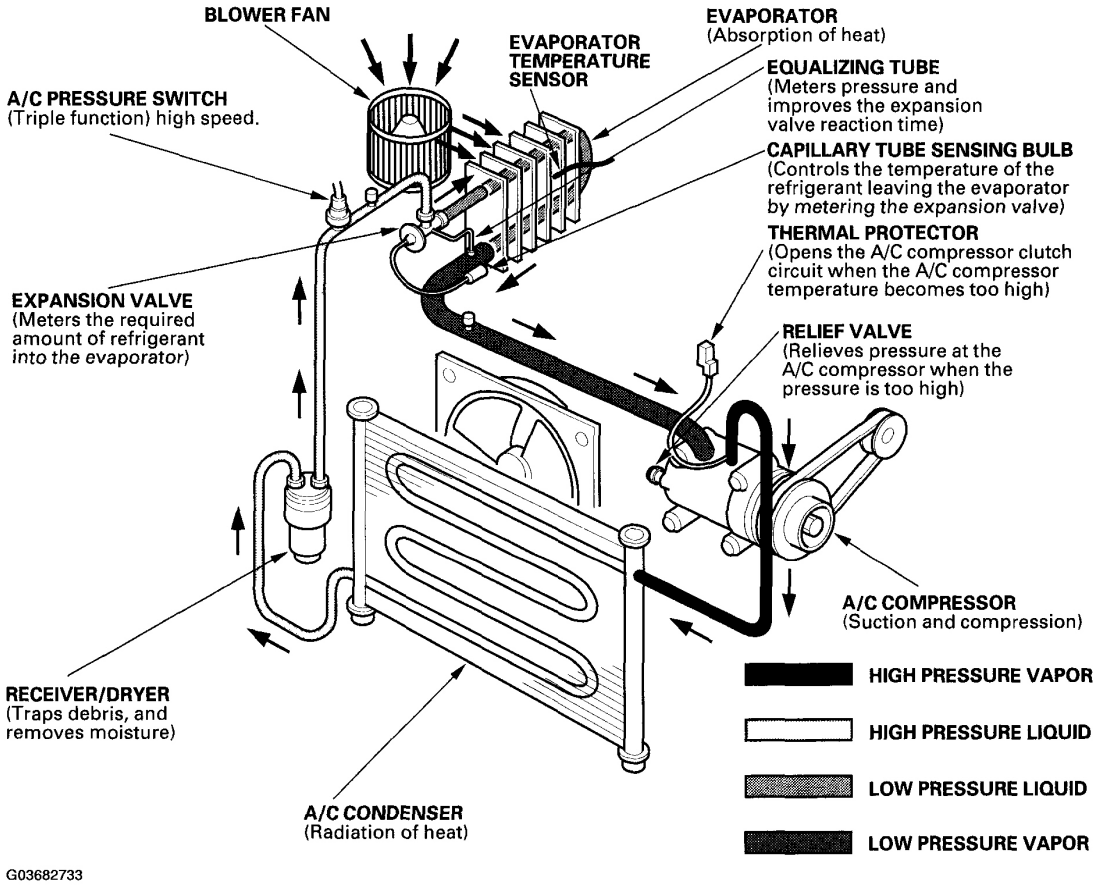


Fig. 9: Climate Control System Description
Courtesy of AMERICAN HONDA MOTOR CO., INC.

This vehicle uses HFC-134a (R-134a) refrigerant which does not contain chlorofluorocarbons. Pay attention to the following service items:

- Do not mix refrigerants CFC-12 (R-12) and HFC-134a (R-134a). They are not compatible.
- Use only the recommended polyalkyleneglycol (PAG) refrigerant oil (SANDEN SP-10) designed for the R-134a A/C compressor. Intermixing the recommended (PAG) refrigerant oil with any other refrigerant oil will result in A/C compressor failure.
- All A/C system parts (A/C compressor, discharge line, suction line, evaporator, A/C condenser, receiver/dryer, expansion valve, O-rings for joints) are designed for refrigerant R-134a. Do not exchange with R-12 parts.

- Use a halogen gas leak detector designed for refrigerant R-134a.
- R-12 and R-134a refrigerant servicing equipment are not interchangeable. Use only a recovery/recycling/charging station that is U.L.-listed and is certified to meet the requirements of SAE J2210 to service R-134a air conditioning system.
- Always recover the refrigerant R-134a with an approved recovery/recycling/charging station before disconnecting any A/C fitting.

A/C PRESSURE SWITCH

The A/C pressure switch consists of a high-low pressure switch (A/C pressure switch A) and a middle pressure switch (A/C pressure switch B).

- High-low pressure switch

  If the refrigerant pressure becomes too high (due to blockage or lack of airflow at the A/C condenser), or too low (due to leakage), the A/C pressure switch stops the A/C request and the signal to the ECM and the A/C compressor stops operating.

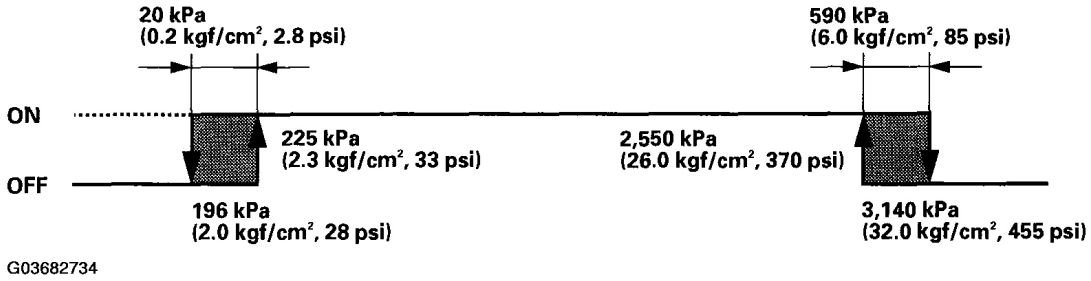


Fig. 10: Identifying High-Low Pressure Switch
Courtesy of AMERICAN HONDA MOTOR CO., INC.

- Middle pressure switch

  If the refrigerant pressure goes above 1,470 kPa (15.0 kgf/cm^2 , 213 psi), the A/C pressure switch closes to signal the ECM to change the speed of the A/C condenser fan and radiator fan (high). When the pressure drops to 1,080 kPa

(11.0 kgf/cm^2 , 156 psi) the switch opens and funs return to low speed.

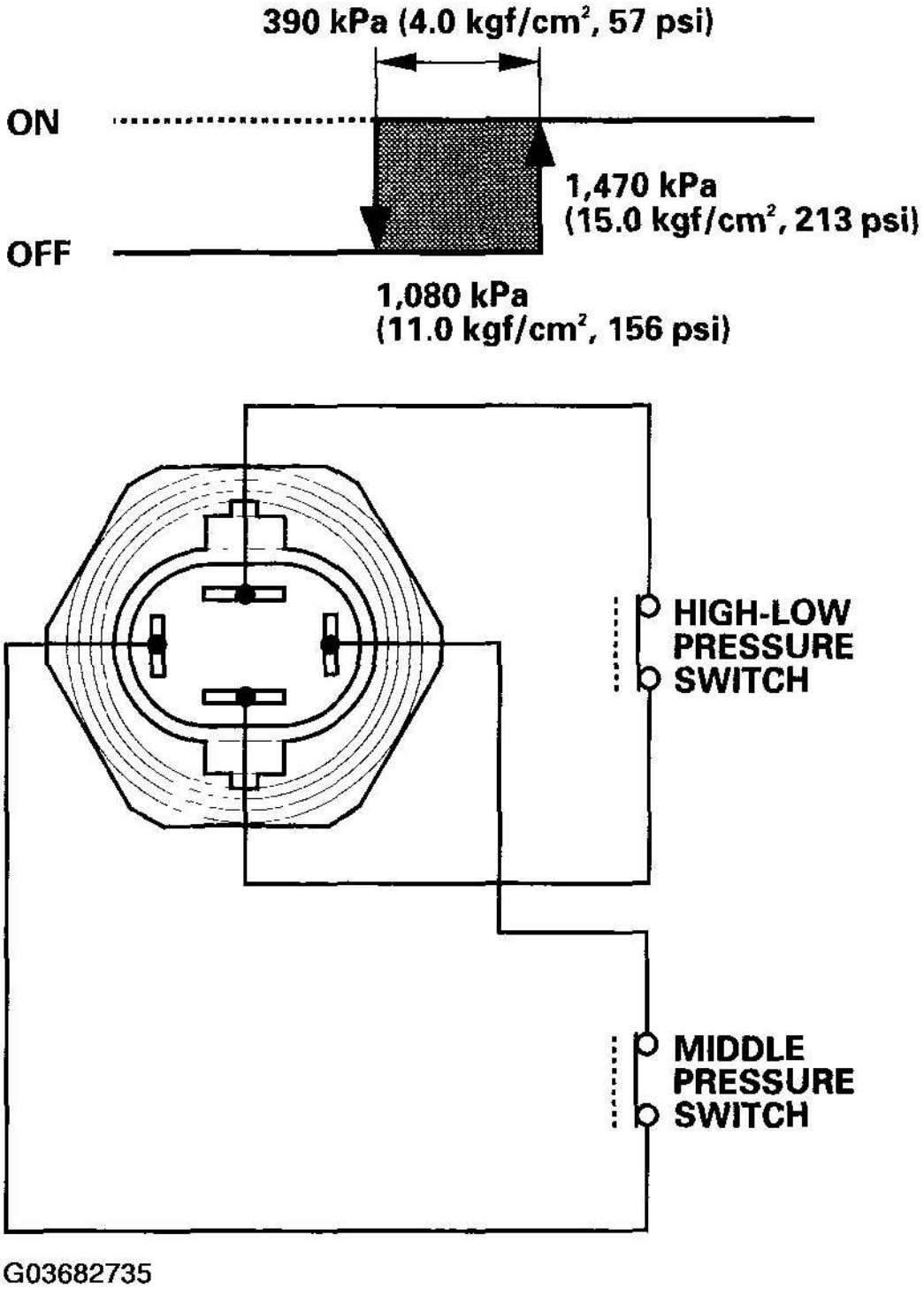


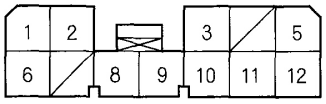
Fig. 11: Identifying Middle Pressure Switch

Courtesy of AMERICAN HONDA MOTOR CO., INC.

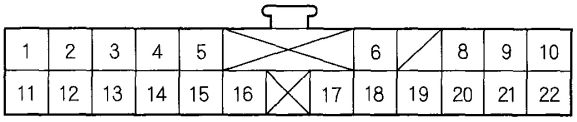
CLIMATE CONTROL UNIT INPUTS AND OUTPUTS

CLIMATE CONTROL UNIT CONNECTORS

CONNECTOR A (12P)



CONNECTOR B (22P)



Wire side of female terminals

CONNECTOR A (○ on Circuit Diagram)

Cavity	Wire color	Signal	
1	RED	GAUGE ASSEMBLY	OUTPUT
2	BLK/YEL	IG2 (Power)	INPUT
3	WHT/RED	+B (Power)	INPUT
4	———	———	———
5	BLU/ORN	BLOWER MOTOR HIGH RELAY	INPUT
6	RED/BLK	TAILLIGHTS RELAY	INPUT
7	———	———	———
8	BLU/RED	POWER TRANSISTOR CONTROL	OUTPUT
9	BLU/BLK	BLOWER FEEDBACK	INPUT
10	BLK	GROUND (G404)	INPUT
11	BLK/YEL	ECM	OUTPUT
12	BRN/YEL	REAR WINDOW DEFOGGER RELAY	OUTPUT

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Fig. 12: Identifying Climate Control Unit Inputs And Outputs (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

CONNECTOR B (□ on Circuit Diagram)

Cavity	Wire color	Signal	
1	PNK	OUTSIDE AIR TEMPERATURE SENSOR	OUTPUT
2	LT BLU	IN-CAR TEMPERATURE SENSOR	OUTPUT
3	BRN	EVAPORATOR TEMPERATURE SENSOR	OUTPUT
4	RED/WHT	HEATER CORE TEMPERATURE SENSOR	INPUT
5	LT GRN	SENSOR COMMON GROUND	OUTPUT
6	BRN/WHT	MODE CONTROL MOTOR GROUND	OUTPUT
7	———	———	———
8	BRN/YEL	ECM	INPUT
9	YEL/RED	MODE VENT	OUTPUT
10	YEL/GRN	MODE HEAT/VENT	OUTPUT
11	ORN	SUNLIGHT SENSOR	OUTPUT
12	PNK/BLK	AIR MIX POTENTIAL	INPUT
13	BLU/WHT	VEHICLE SPEED SENSOR (VSS)	OUTPUT
14	GRY	AIR MIX POTENTIAL +5V	OUTPUT
15	RED/YEL	AIR MIX HOT	OUTPUT
16	GRN/BLK	AIR MIX COOL	OUTPUT
17	RED/WHT	A/C PRESSURE SWITCH	INPUT
18	GRN/YEL	RECIRCULATE	OUTPUT
19	GRN/WHT	FRESH	OUTPUT
20	YEL/BLU	MODE DEF	OUTPUT
21	YEL	MODE HEAT/DEF	OUTPUT
22	YEL/BLK	MODE HEAT	OUTPUT

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Fig. 13: Identifying Climate Control Unit Inputs And Outputs (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

CIRCUIT DIAGRAM

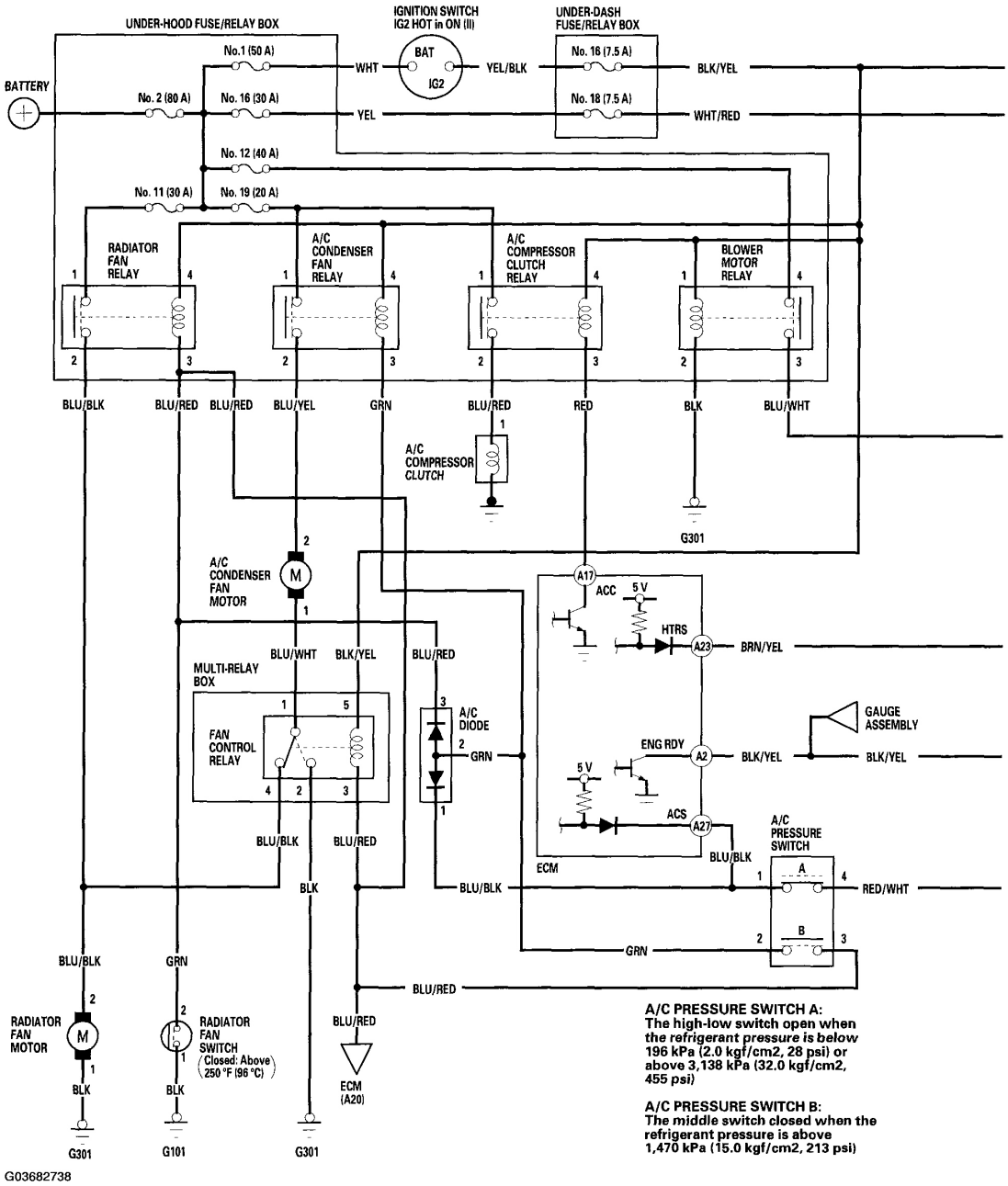
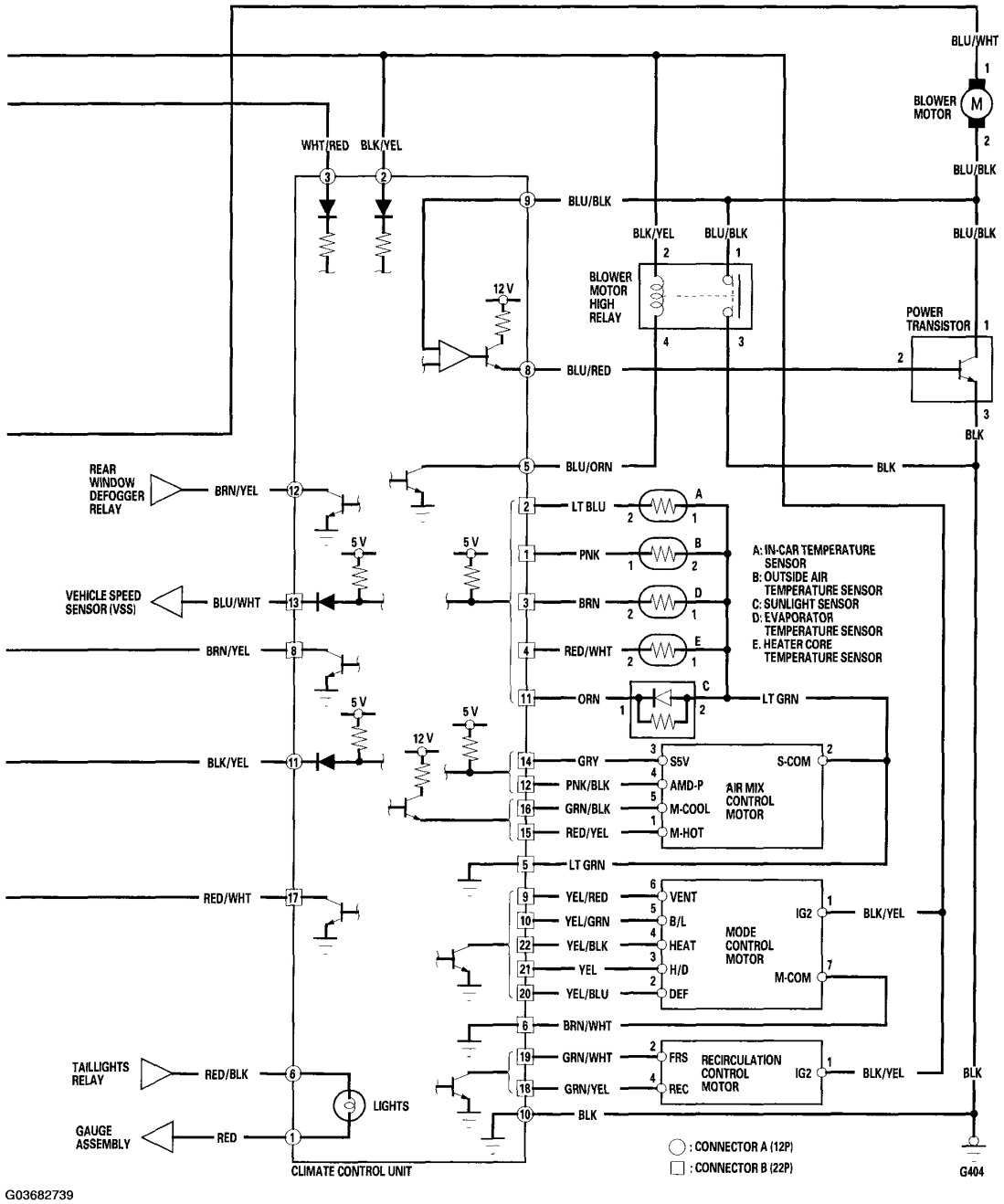


Fig. 14: Climate Control Circuit Diagram (1 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.



G03682739

Fig. 15: Climate Control Circuit Diagram (2 Of 2)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC INDICATOR A: AN OPEN IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT

1. Remove the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR TEST**).
2. Measure the resistance between the No. 1 and No. 2 terminals of the in-car temperature sensor.

   * Check for a change in resistance by heating or cooling the sensor with a hair dryer.

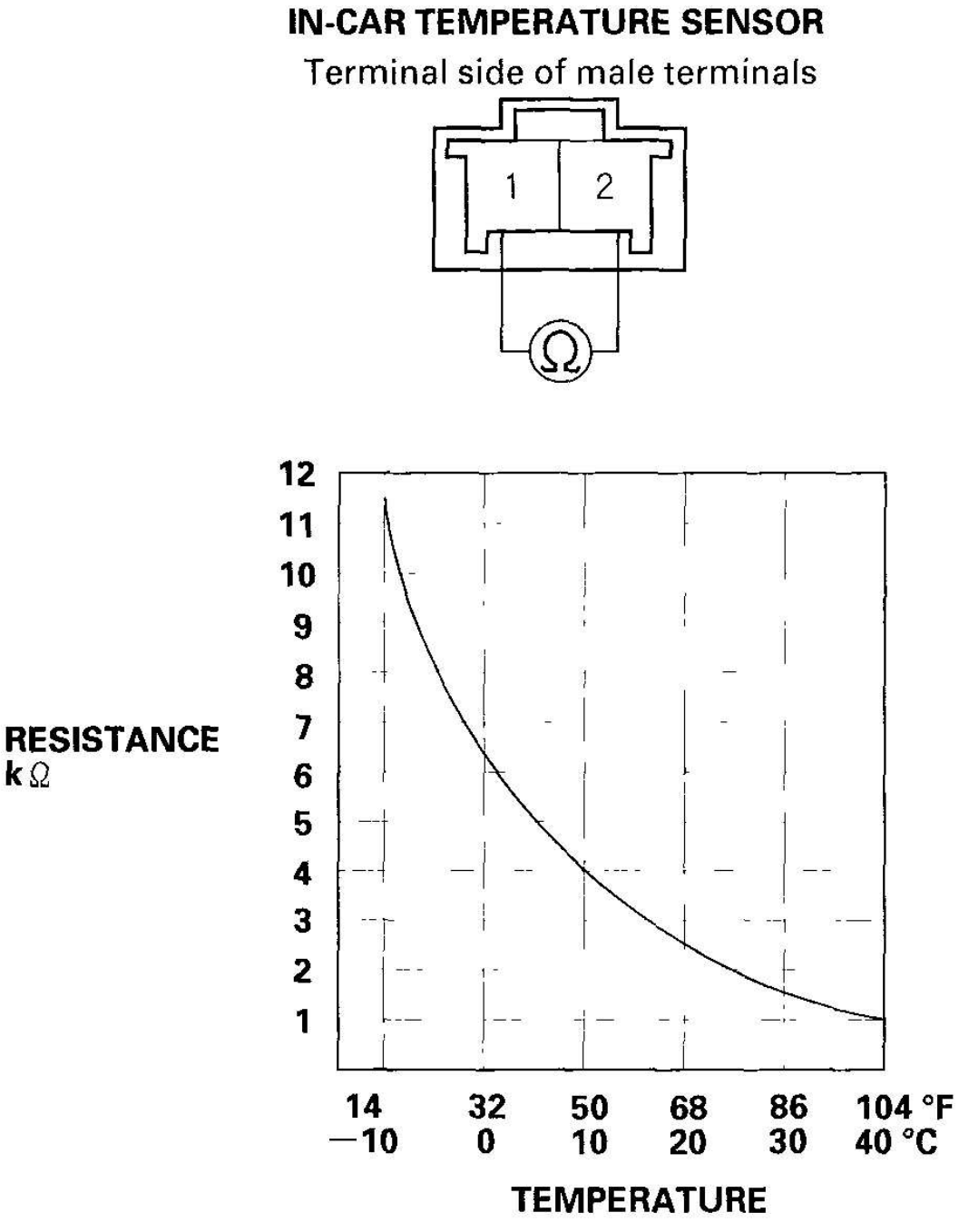


Fig. 16: Measuring Resistance Between No. 1 & 2 Terminals Of In-Car Temperature Sensor

Courtesy of AMERICAN HONDA MOTOR CO., INC.

*** Is the resistance within the specifications shown on the graph?**

YES - Go to step 3.

NO - Replace the in-car temperature sensor.

3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 2 terminal of climate control unit connector B (22P) and the No. 2 terminal of the in-car temperature sensor 2P connector.

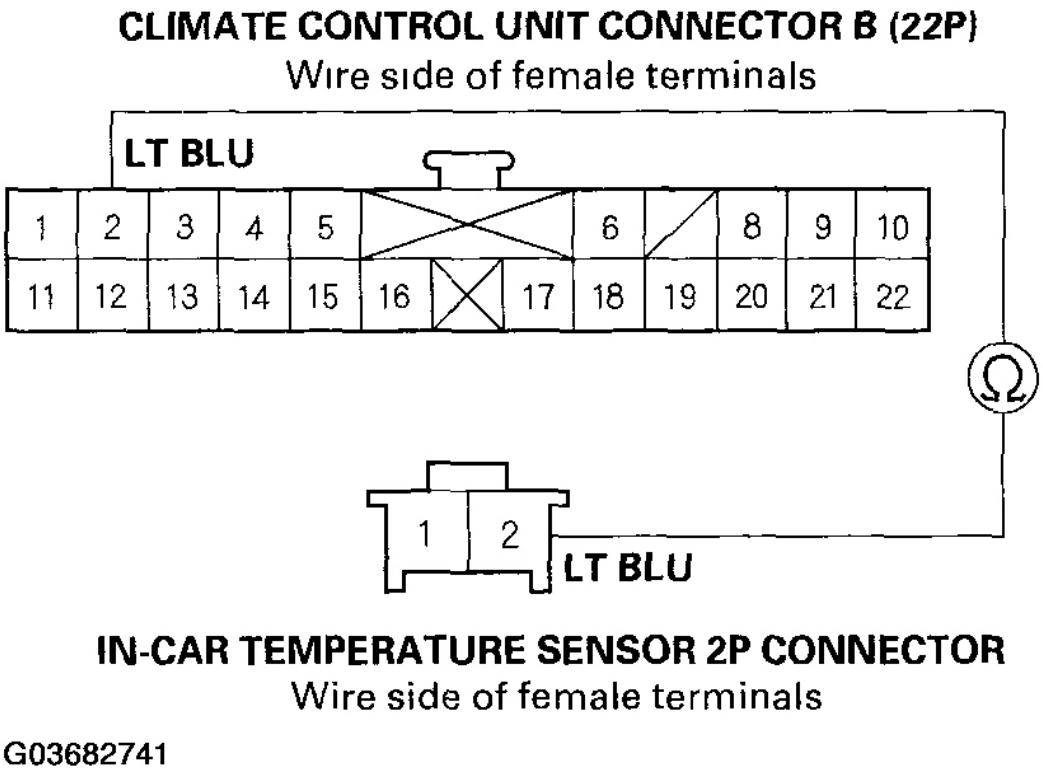


Fig. 17: Checking Continuity Between No. 2 Terminal Of Climate Control Unit Connector B (22P) And No. 2 Terminal Of In-Car Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 5.

NO - Repair open in the wire between the climate control unit and the in-car temperature sensor.

5. Check for continuity between the No. 5 terminal of climate control unit connector B (22P) and the No. 1 terminal of the in-car temperature sensor 2P connector.

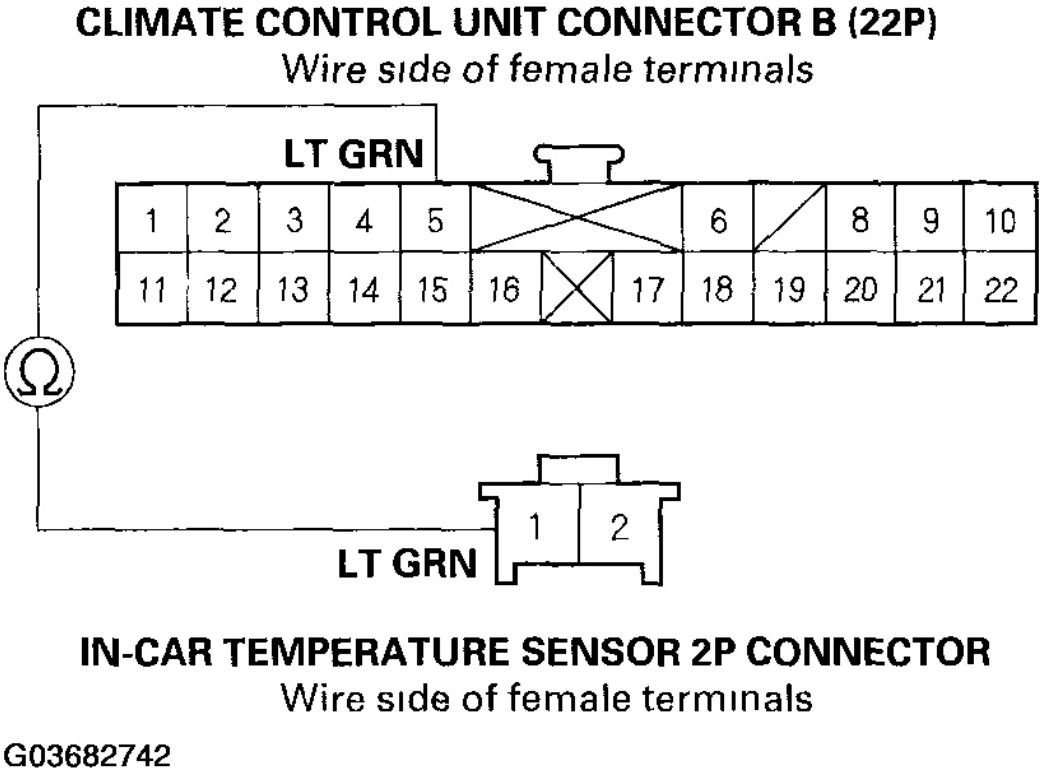


Fig. 18: Checking Continuity Between No. 5 Terminal Of Climate Control Unit Connector B (22P) And No. 1 Terminal Of In-Car Temperature 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit

connector B (22P) and at the in-car temperature sensor 2P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/ indication goes away, replace the original climate control unit.

NO - Repair open in the wire between the climate control unit and the in-car temperature sensor.

DTC INDICATOR B: A SHORT IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT

1. Remove the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR TEST**).
2. Test the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR TEST**).

Is the in-car temperature sensor OK?

YES - Go to step 3.

NO - Replace the in-car temperature sensor.

3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 2 terminal of climate control unit connector B (22P) and body ground.

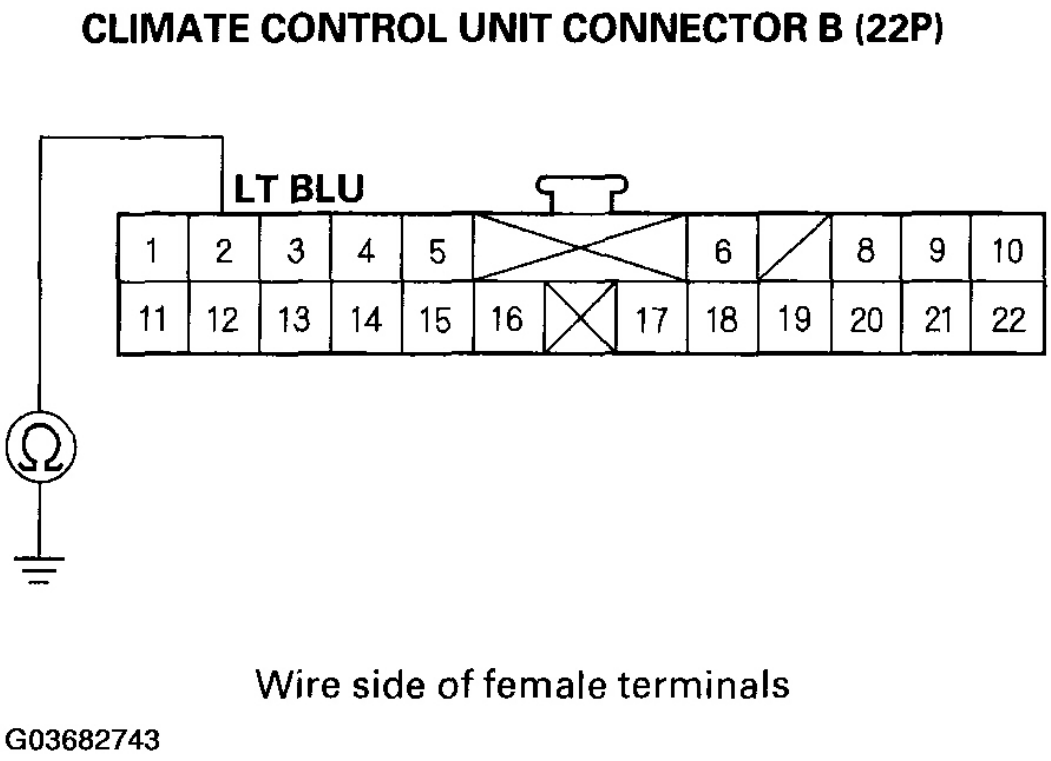


Fig. 19: Checking Continuity Between No. 2 Terminal Of Climate Control Unit Connector B (22P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the in-car temperature sensor.

NO - Substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

DTC INDICATOR C: AN OPEN IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT

NOTE: This code can cause the auto idle stop function not to work with the climate control on.

1. Remove the outside air temperature sensor (see **OUTSIDE AIR**

TEMPERATURE SENSOR TEST).

2. Measure the resistance between the No. 1 and No. 2 terminals of the outside air temperature sensor.

   * Dip the sensor in ice water, and measure resistance. Then pour warm water on the sensor, and check for a change in resistance.

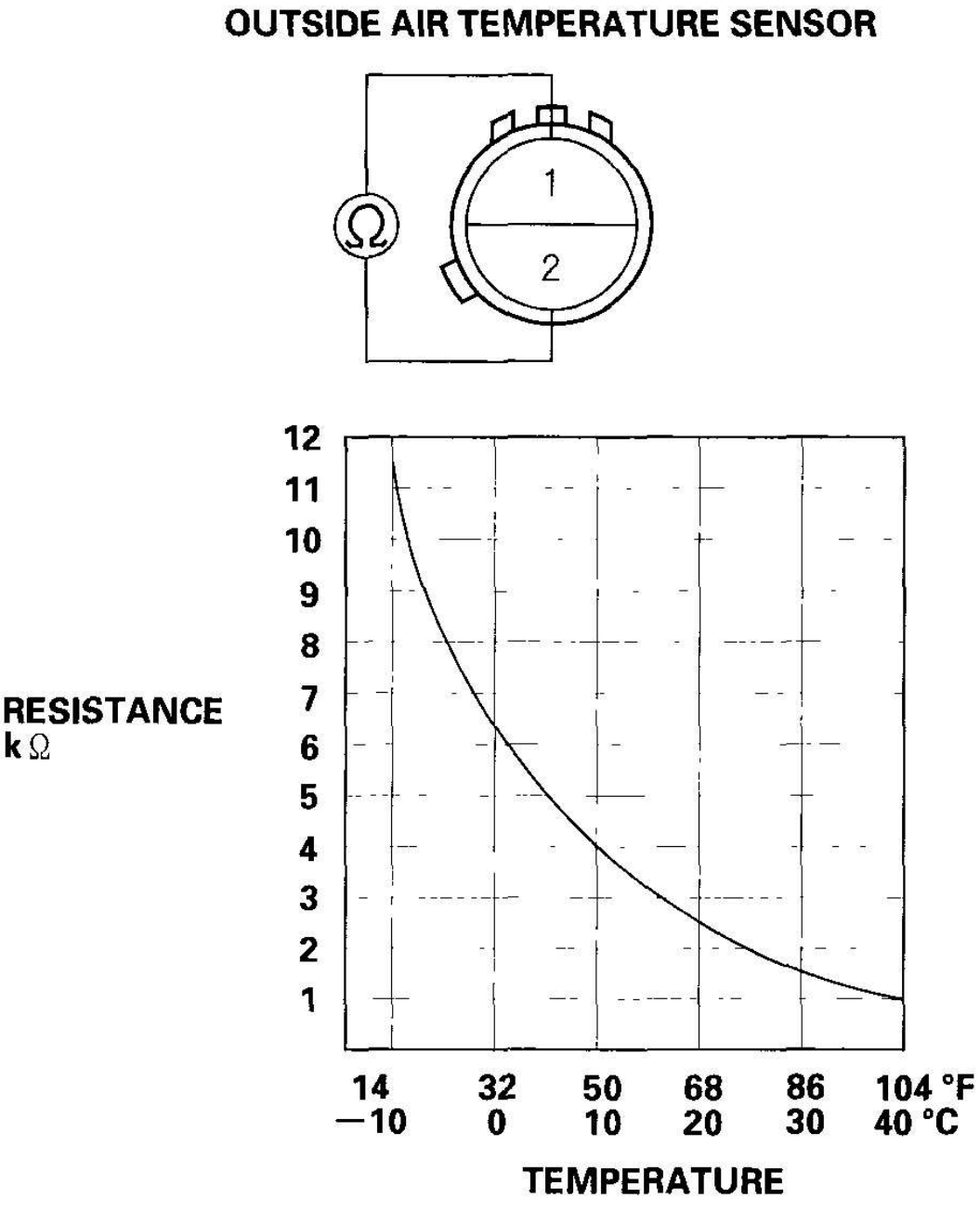


Fig. 20: Dipping Sensor In Ice Water
Courtesy of AMERICAN HONDA MOTOR CO., INC.

*** Is the resistance within the specifications shown on the graph?**

YES - Go to step 3.

NO - Replace the outside air temperature sensor.

3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 1 terminal of climate control unit connector B (22P) and the No. 1 terminal of the outside air temperature sensor 2P connector.

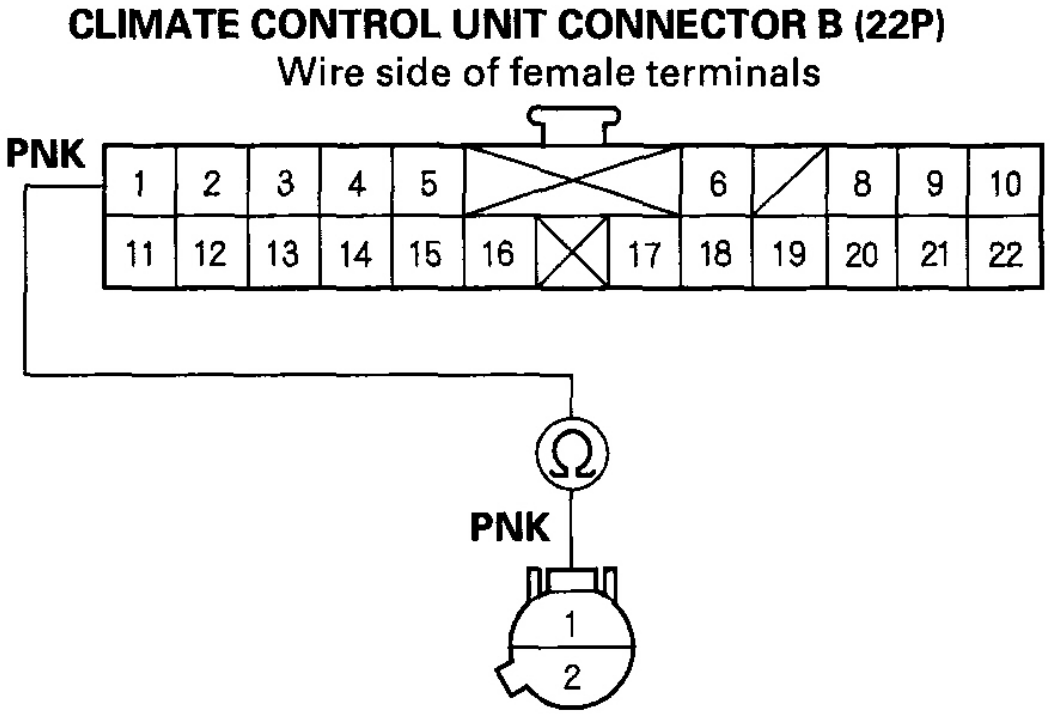


Fig. 21: Checking Continuity Between No. 1 Terminal Of Climate Control Unit Connector B (22P) And No. 1 Terminal Of Outside Air Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 5.

NO - Repair open in the wire between the climate control unit and the outside air temperature sensor.

5. Check for continuity between the No. 5 terminal of climate control unit connector B (22P) and the No. 2 terminal of the outside air temperature sensor 2P connector.

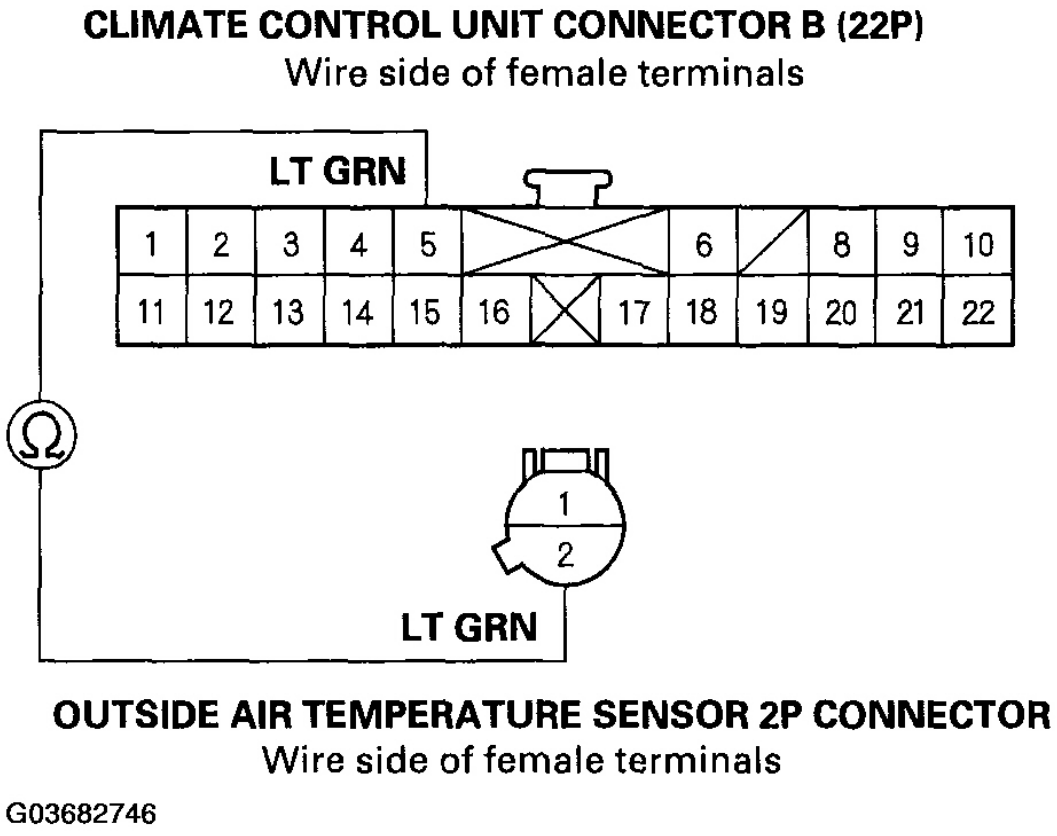


Fig. 22: Checking Continuity Between No. 5 Terminal Of Climate Control Unit Connector B (22P) And No. 2 Terminal Of Outside Air Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit

connector B (22P) and at the outside air temperature sensor 2P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair open in the wire between the climate control unit and the outside air temperature sensor.

DTC INDICATOR D: A SHORT IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT

1. Remove the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR TEST**).
2. Test the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR TEST**).

Is the outside temperature sensor OK?

YES - Go to step 3.

NO - Replace the outside air temperature sensor.

3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 1 terminal of climate control unit connector B (22P) and body ground.

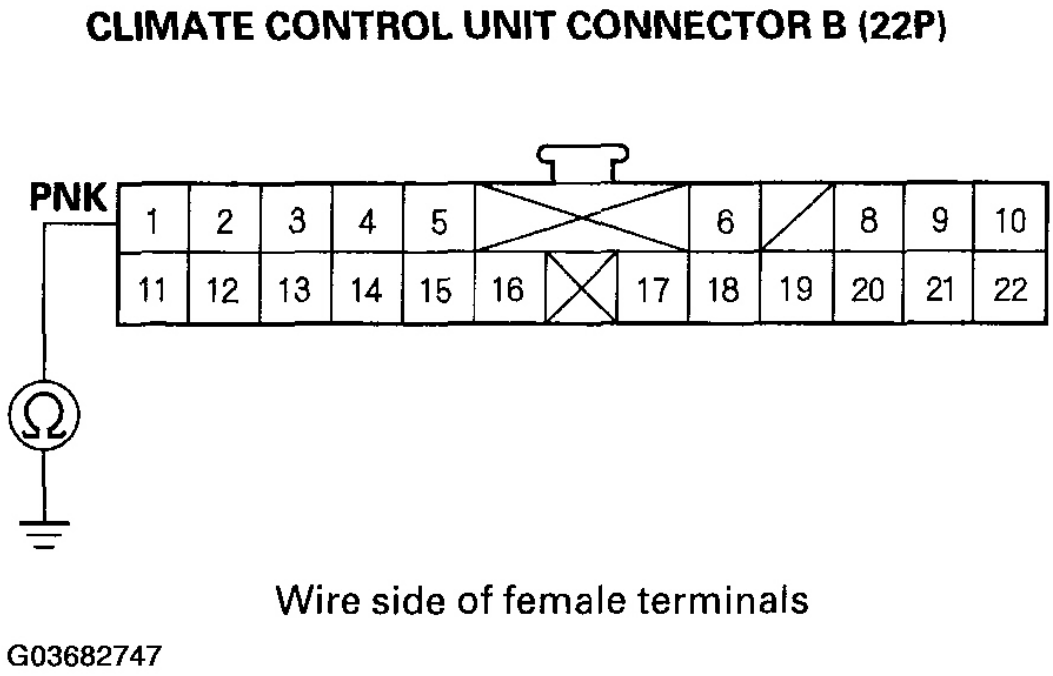


Fig. 23: Checking Continuity Between No. 1 Terminal Of Climate Control Unit Connector B (22P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the outside air temperature sensor.

NO - Substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

DTC INDICATOR E: AN OPEN IN THE SUNLIGHT SENSOR CIRCUIT

1. Disconnect the sunlight sensor 2P connector.
2. Disconnect climate control unit connector B (22P).
3. Check for continuity between the No. 11 terminal of climate control unit connector B (22P) and the No. 1 terminal of the sunlight sensor 2P connector.

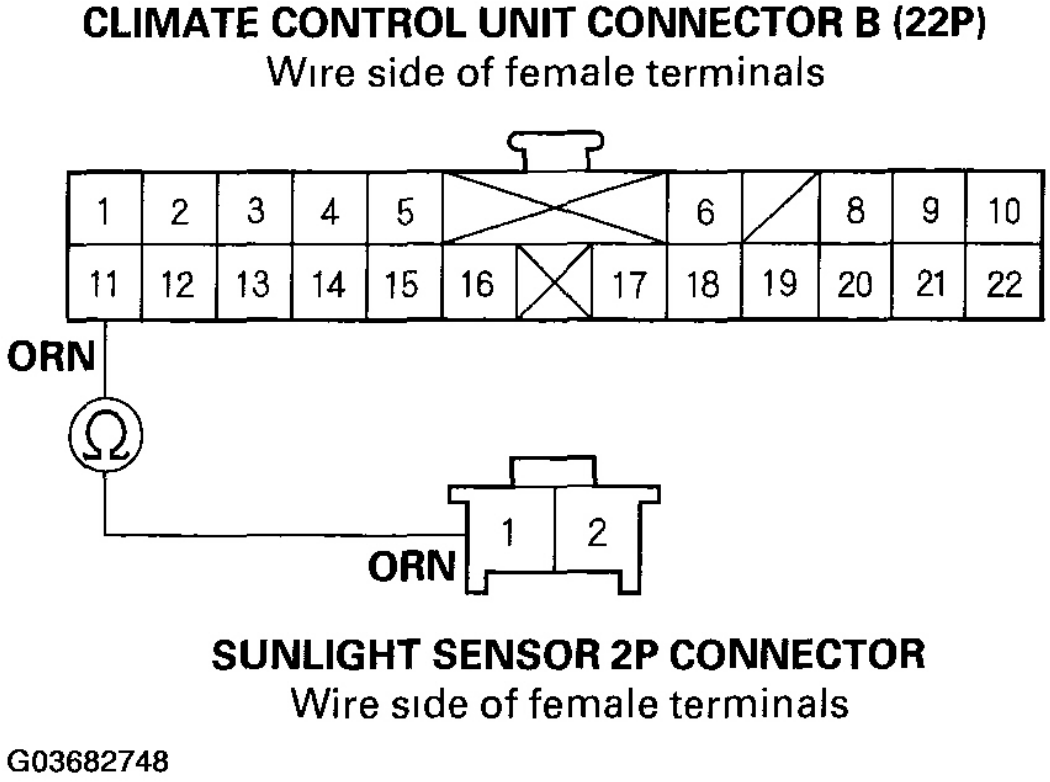


Fig. 24: Checking Continuity Between No. 11 Terminal Of Climate Control Unit Connector B (22P) And No. 1 Terminal Of Sunlight Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 4.

NO - Repair open in the wire between the climate control unit and the sunlight sensor.

4. Check for continuity between the No. 5 terminal of climate control unit connector B (22P) and the No. 2 terminal of the sunlight sensor 2P connector.

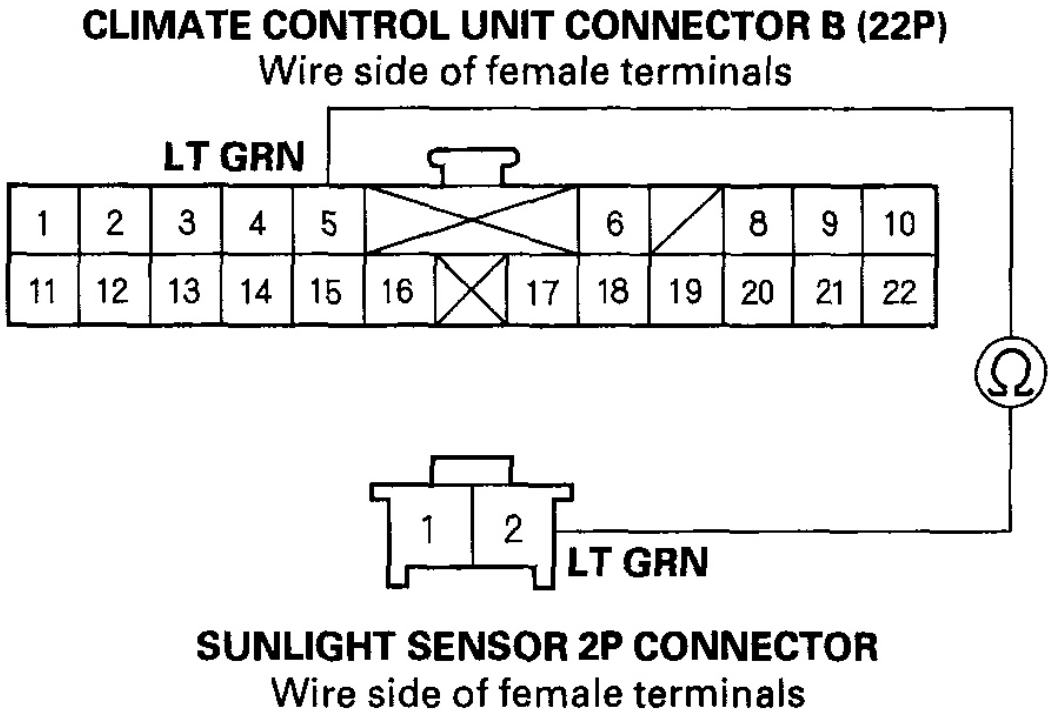


Fig. 25: Checking Continuity Between No. 5 Terminal Of Climate Control Unit Connector B (22P) And No. 2 Terminal Of Sunlight Sensor Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 5.

NO - Repair open in the wire between the climate control unit and the outside air temperature sensor.

5. Reconnect climate control unit connector B (22P).
6. Reconnect the sunlight sensor 2P connector.
7. Test the sunlight sensor (see **SUNLIGHT SENSOR TEST**).

Is the sunlight sensor OK?

YES - Check for loose wires or poor connections at climate control unit connector B (22P) and at the sunlight sensor 2P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Replace the sunlight sensor.

DTC INDICATOR F: A SHORT IN THE SUNLIGHT SENSOR CIRCUIT

1. Disconnect the sunlight sensor 2P connector.
2. Disconnect the climate control unit connector B (22P).
3. Check for continuity between the No. 11 terminal of climate control unit connector B (22P) and body ground.

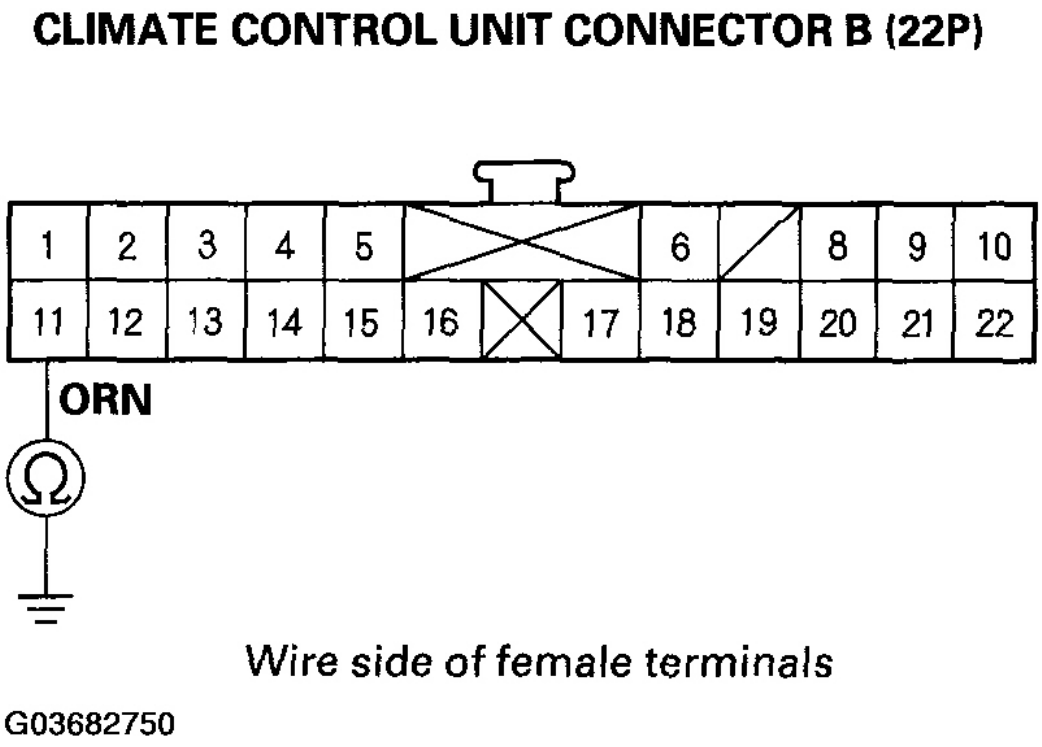


Fig. 26: Checking Continuity Between No. 11 Terminal Of Climate Control Unit Connector B (22P) And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the sunlight sensor.

NO - Go to step 4.

4. Reconnect climate control unit connector B (22P).
5. Reconnect the sunlight sensor 2P connector.
6. Test the sunlight sensor (see **SUNLIGHT SENSOR TEST**).

Is the sunlight sensor OK?

YES - Substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Replace the sunlight sensor.

DTC INDICATOR G: AN OPEN IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT

1. Disconnect the evaporator temperature sensor 2P connector.
2. Measure the resistance between the No. 1 and No. 2 terminals of the evaporator temperature sensor.

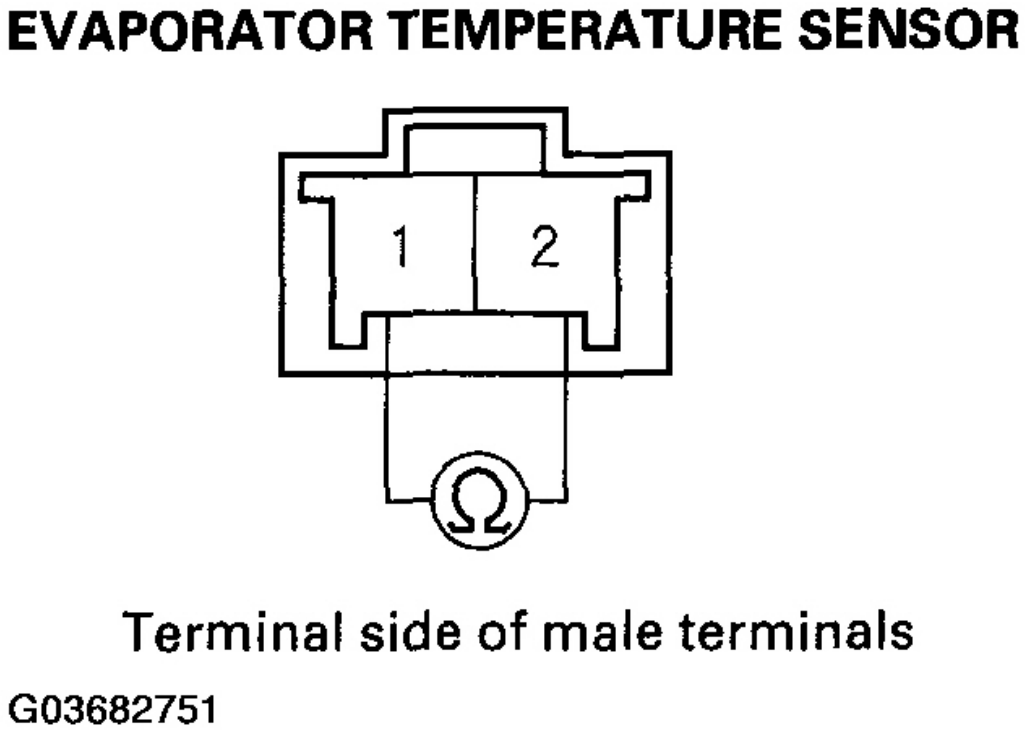


Fig. 27: Measuring Resistance Between No. 1 & 2 Terminals Of Evaporator Temperature Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

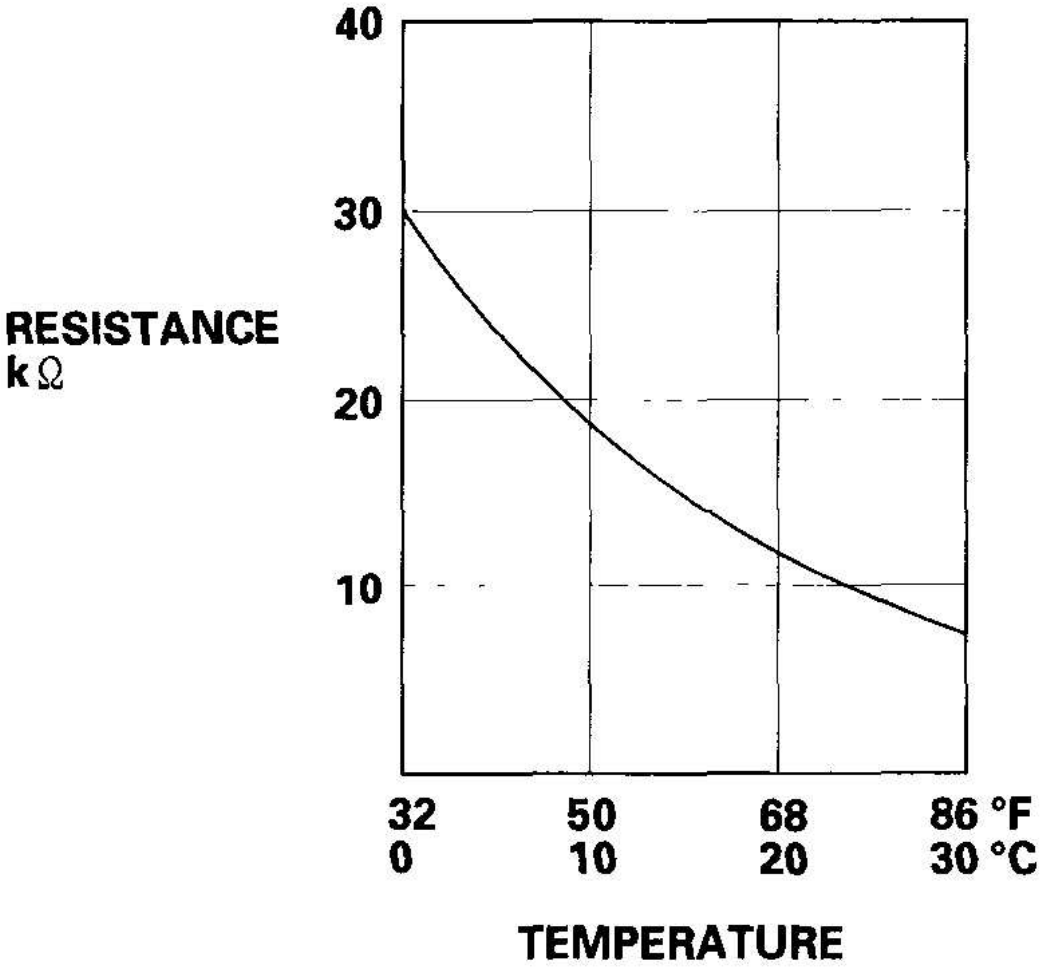


Fig. 28: Measuring Resistance To Temperature Graph
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the resistance within the specifications shown Fig. 28 ?

YES - Go to step 3.

NO - Replace the evaporator temperature sensor.

3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 3 terminal of climate control unit connector B (22P) and the No. 2 terminal of the evaporator temperature sensor

2P connector.

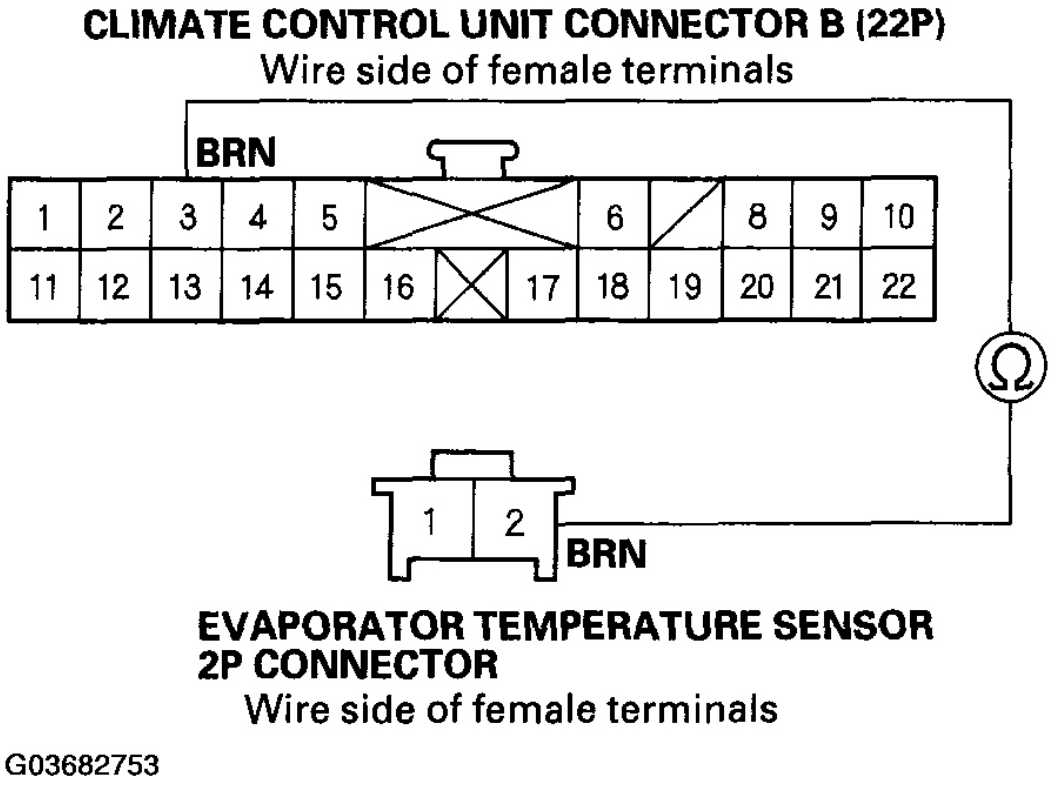


Fig. 29: Checking Continuity Between No. 3 Terminal Of Climate Control Unit Connector B (22P) And No. 2 Terminal Of Evaporator Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 5.

NO - Repair open in the wire between the climate control unit and the evaporator temperature sensor.

5. Check for continuity between the No. 5 terminal of the climate control unit connector B (22P) and the No. 1 terminal of the evaporator temperature sensor 2P connector.

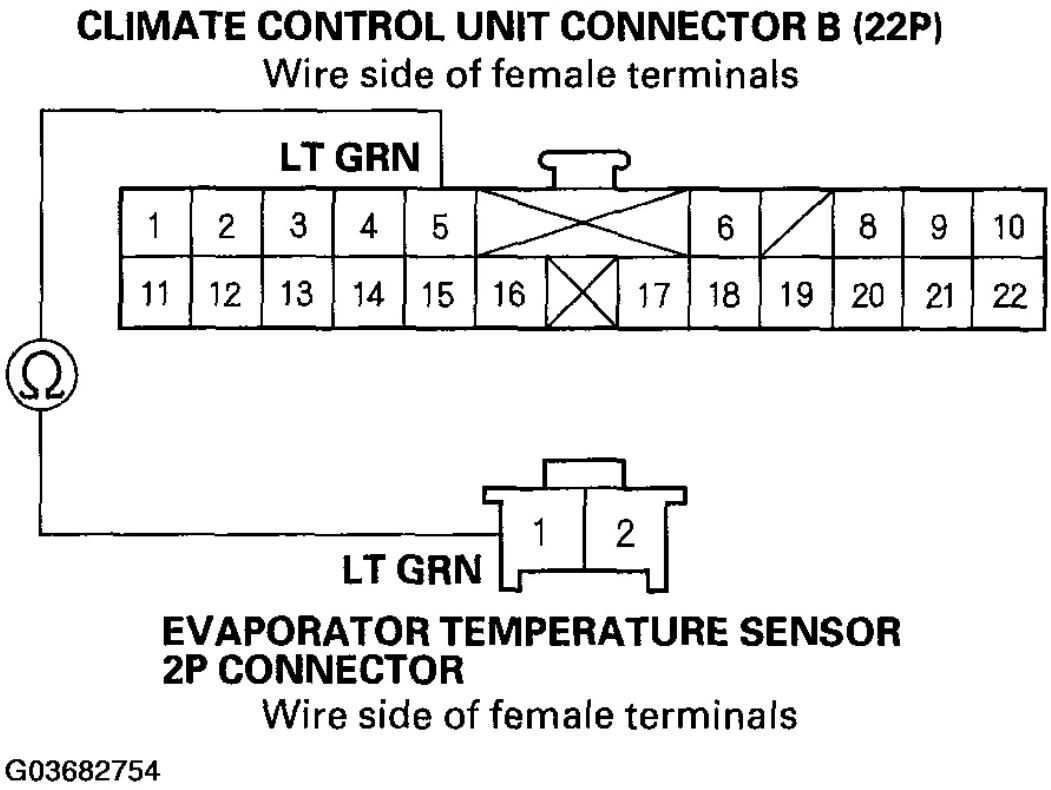


Fig. 30: Checking Continuity Between No. 5 Terminal Of Climate Control Unit Connector B (22P) And No. 1 Terminal Of Evaporator Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit connector B (22P) and at the evaporator temperature sensor 2P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair open in the wire between the climate control unit and the evaporator temperature sensor.

DTC INDICATOR H: A SHORT IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT

1. Disconnect the evaporator temperature sensor 2P connector.
2. Test the evaporator temperature sensor (see **EVAPORATOR TEMPERATURE SENSOR TEST**).

   Is the evaporator temperature sensor OK?

   YES - Go to step 3.

   NO - Replace the evaporator temperature sensor.
3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 3 terminal of climate control unit connector B (22P) and body ground.

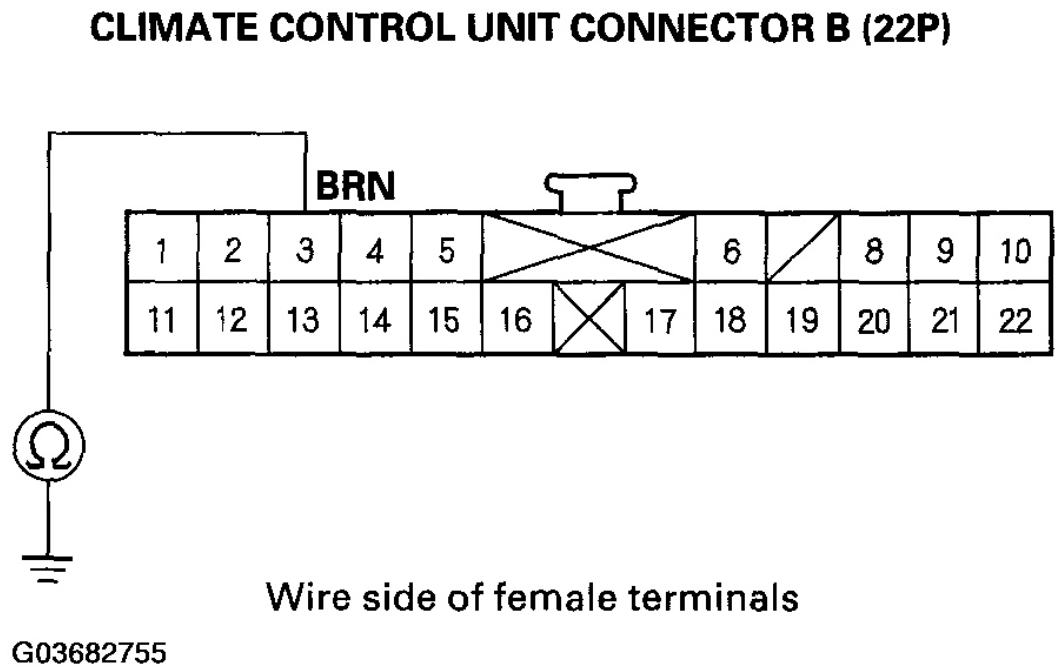


Fig. 31: Checking Continuity Between No. 3 Terminal Of Climate Control Unit Connector B (22P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the evaporator temperature sensor.

NO - Substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

DTC INDICATOR I: AN OPEN IN THE AIR MIX CONTROL MOTOR CIRCUIT

1. Disconnect the air mix control motor 5P connector.
2. Disconnect climate control unit connector B (22P).
3. Check for continuity between following terminals of climate control unit connector B (22P) and the air mix control motor 5P connector.

CLIMATE CONTROL UNIT CONNECTOR B (22P) AND AIR MIX CONTROL MOTOR 5P CONNECTOR

22P:	5P:
No. 5	No. 2
No. 12	No. 4
No. 14	No. 3
No. 15	No. 1
No. 16	No. 5

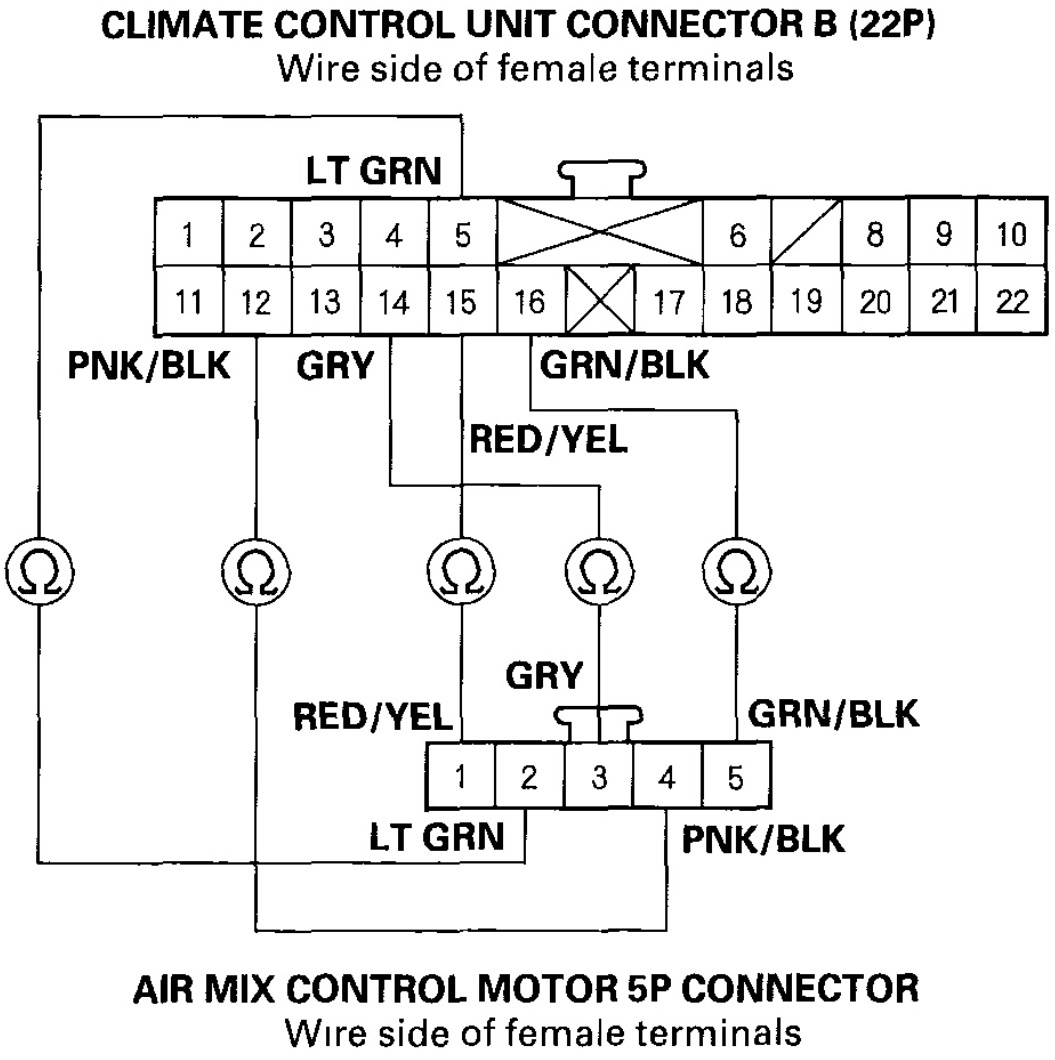


Fig. 32: Checking Continuity Between Terminals Of Climate Control And Air Mix Control Motor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Test the air mix control motor (see **AIR MIX CONTROL MOTOR TEST**). If the motor is OK, check for loose wires or poor connections at climate control unit connector B (22P) and at the air mix

control motor 5P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair any open in the wire(s) between the climate control unit and the air mix control motor.

DTC INDICATOR J: A SHORT IN THE AIR MIX CONTROL MOTOR CIRCUIT

1. Disconnect the air mix control motor 5P connector.
2. Disconnect climate control unit connector B (22P).
3. Check for continuity between body ground and climate control unit connector B (22P) terminals No. 5, 12, 14, 15, and 16 individually.

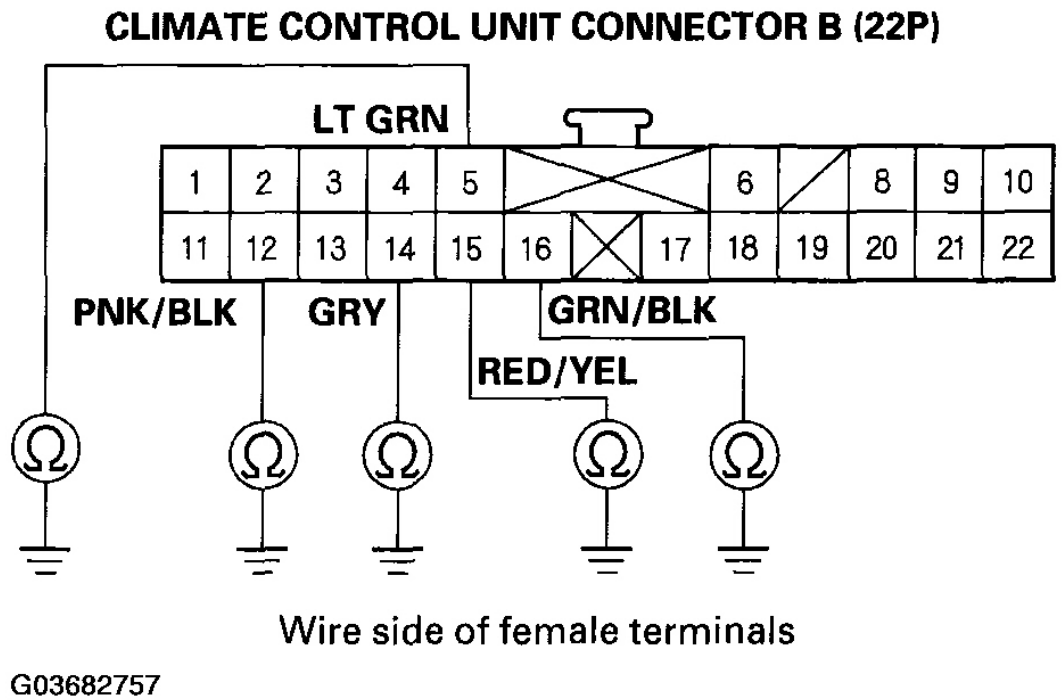


Fig. 33: Checking Continuity Between Body Ground And Climate Control Unit Connector B (22P) Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair any short to body ground in the wire(s) between the climate control unit and the air mix control motor.

NO - Go to step 4.

4. Turn the ignition switch ON (II), and check the same terminals for voltage.

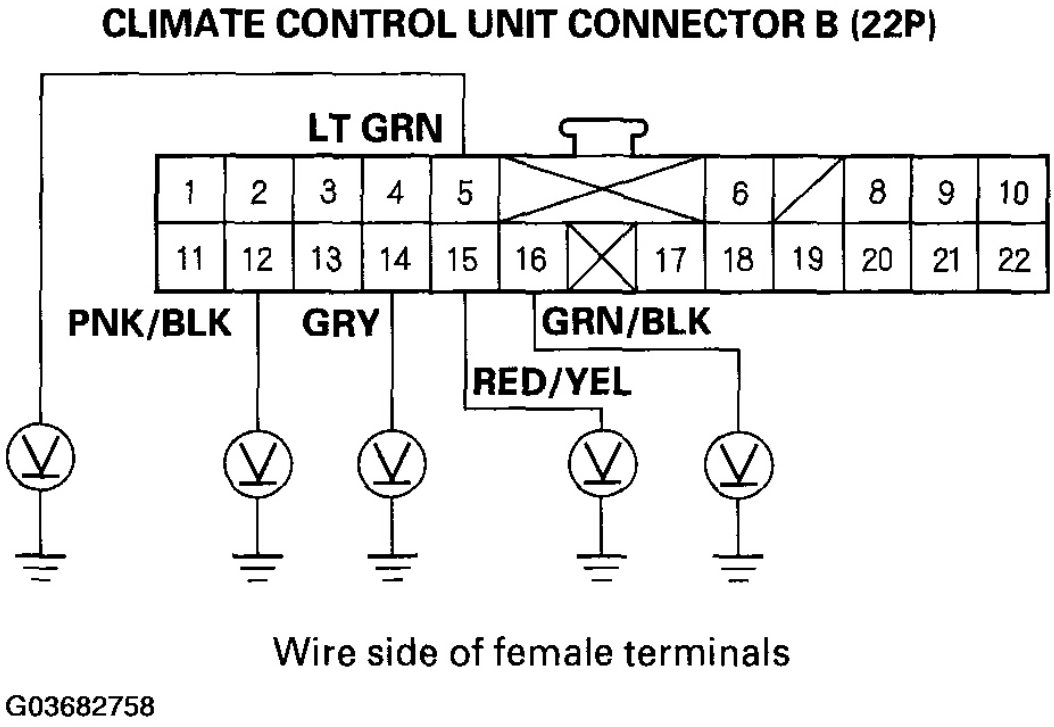


Fig. 34: Checking Climate Control Unit Connector B (22P) Terminals Turning Ignition Switch ON (II)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there any voltage?

YES - Repair any short to power in the wire(s) between the climate control unit and the air mix control motor. This short may also damage the climate control unit. Repair the short to power before replacing the climate control unit.

NO - Test the air mix control motor (see **AIR MIX CONTROL MOTOR TEST**). If the motor is OK, substitute a known-good climate

control unit, and recheck. If the symptom/ indication goes away, replace the original climate control unit.

DTC INDICATOR K: A PROBLEM IN THE AIR MIX CONTROL LINKAGE, DOORS, OR MOTOR

1. Test the air mix control motor (see **AIR MIX CONTROL MOTOR TEST**).

   Is the air mix control motor OK?

   YES - Substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

   NO - Go to step 2.
2. Remove the air mix control motor (see **AIR MIX CONTROL MOTOR TEST**).
3. Check the air mix control linkage and doors for smooth movement.

   Do the air mix control linkage and doors move smoothly?

   YES - Replace the air mix control motor.

   NO - Repair the air mix control linkage and doors.

DTC INDICATOR L: AN OPEN IN THE HEATER CORE TEMPERATURE SENSOR CIRCUIT

NOTE: This code can cause the auto idle stop function not to work with the climate control on.

1. Disconnect the heater core temperature sensor 2P connector.
2. Measure the resistance between the No. 1 and No. 2 terminals of the heater core temperature sensor.

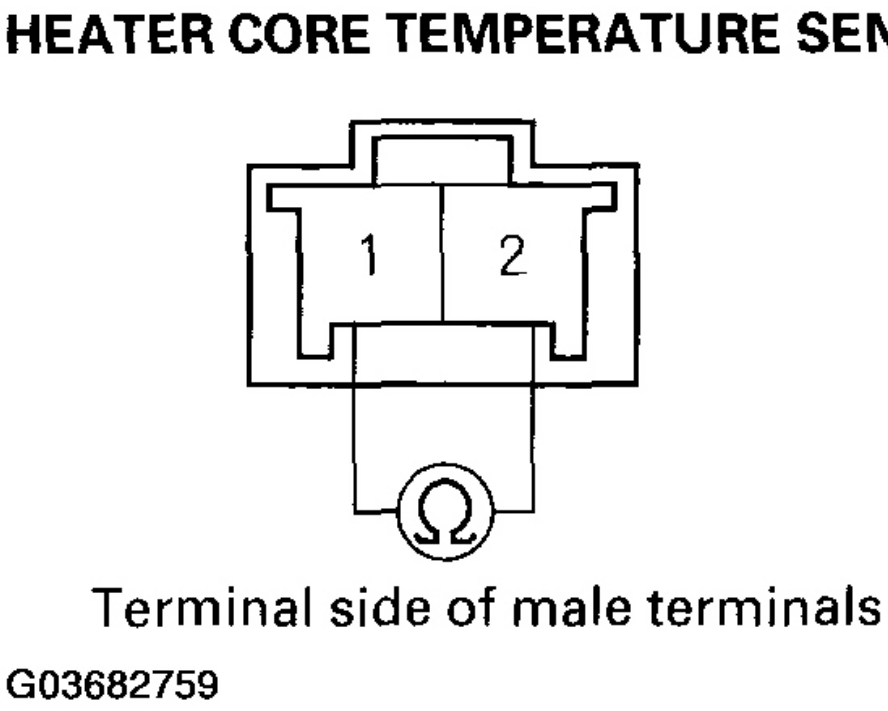


Fig. 35: Measuring Resistance Between No. 1 & 2 Terminals Of Heater Core Temperature Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

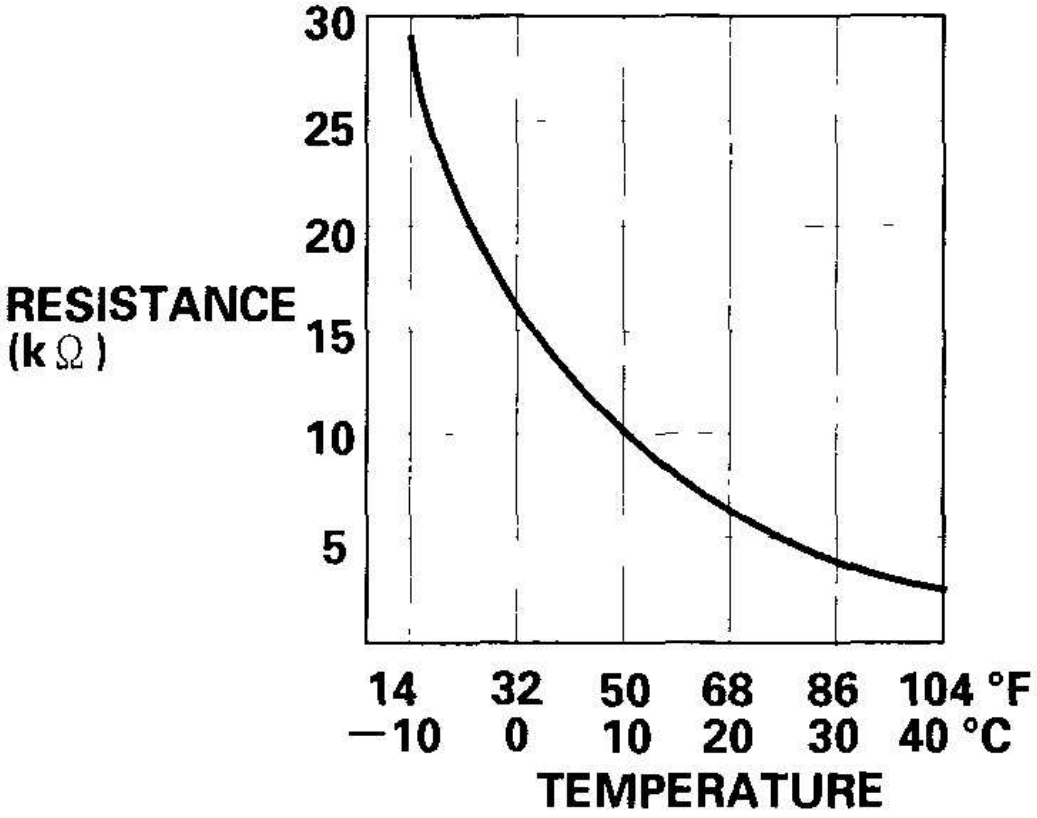


Fig. 36: Measuring Resistance To Temperature Graph
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the resistance within the specifications shown in Fig. 36 ?

YES - Go to step 3.

NO - Replace the heater core temperature sensor.

3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 4 terminal of climate control unit connector B (22P) and the No. 2 terminal of the heater core temperature sensor 2P connector.

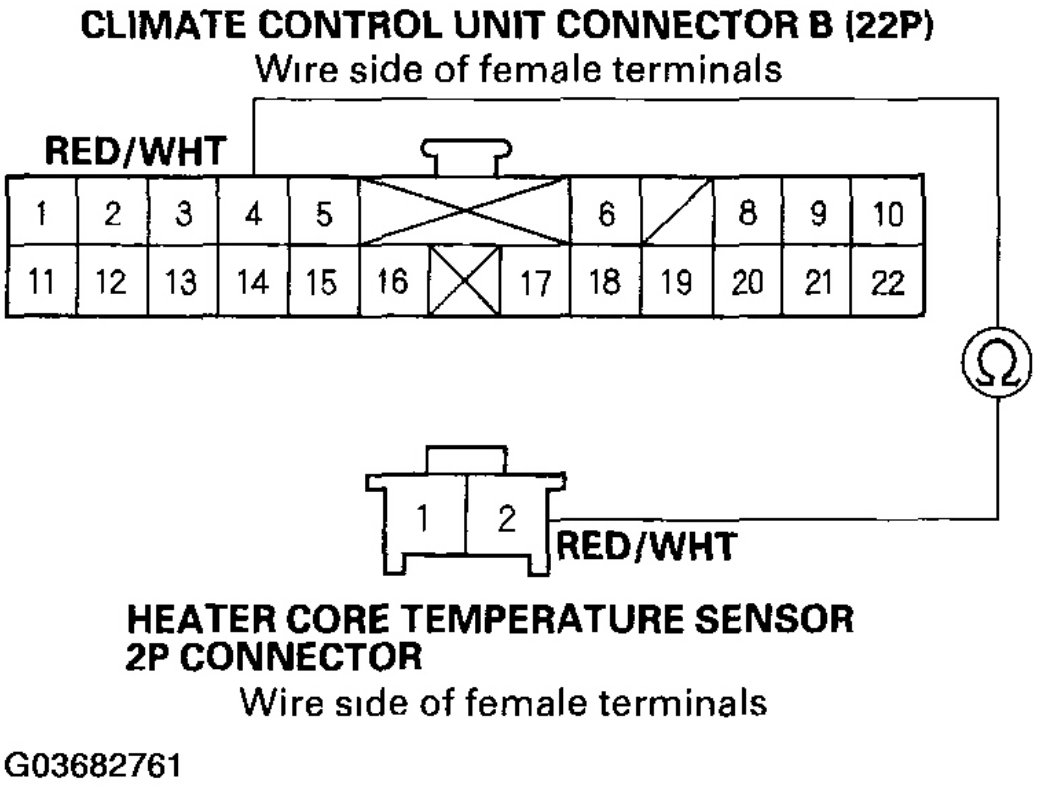


Fig. 37: Checking Continuity Between No. 4 Terminal Of Climate Control Unit Connector B (22P) And No. 2 Terminal Of Heater Core Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 5.

NO - Repair open in the wire between the climate control unit and the heater core temperature sensor.

5. Check for continuity between the No. 5 terminal of climate control unit connector B (22P) and the No. 1 terminal of the heater core temperature sensor 2P connector.

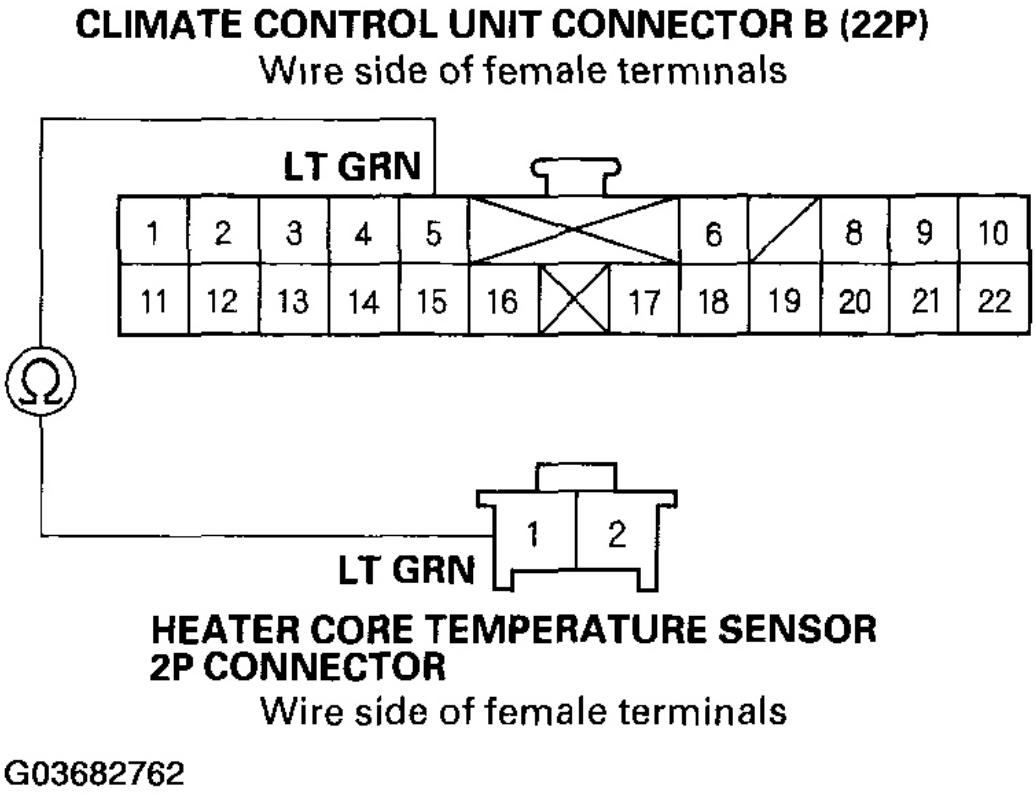


Fig. 38: Checking Continuity Between No. 5 Terminal Of Climate Control Unit Connector B (22P) And No. 1 Terminal Of Heater Core Temperature Sensor 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit connector B (22P) and at the heater core temperature sensor 2P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair open in the wire between the climate control unit and the heater core temperature sensor.

DTC INDICATOR M: A SHORT IN THE HEATER CORE TEMPERATURE SENSOR CIRCUIT

1. Disconnect the heater core temperature sensor 2P connector.
2. Test the heater core temperature sensor (see **HEATER CORE TEMPERATURE SENSOR TEST**).

   Is the heater core temperature sensor OK?

   YES - Go to step 3.

   NO - Replace the heater core temperature sensor.
3. Disconnect climate control unit connector B (22P).
4. Check for continuity between the No. 4 terminal of climate control unit connector B (22P) and body ground.

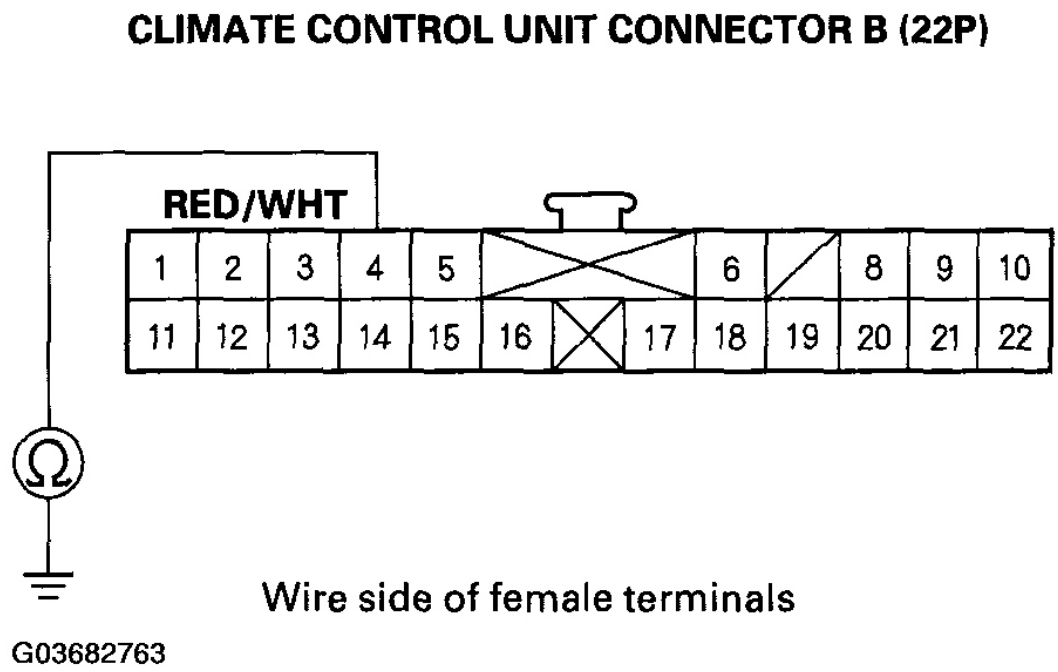


Fig. 39: Checking Continuity Between No. 4 Terminal Of Climate Control Unit Connector B (22P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the heater core temperature sensor.

NO - Substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

DTC INDICATOR N: A PROBLEM IN THE BLOWER MOTOR CIRCUIT

1. Turn the ignition switch ON (II), and turn the blower fan speed knob to HIGH.

Does the blower motor run?

YES - Go to step 2.

NO - Go to step 14 .

2. Turn the ignition switch OFF, then disconnect the power transistor 3P connector.
3. Check for continuity between the No. 3 terminal of the power transistor 3P connector and body ground.

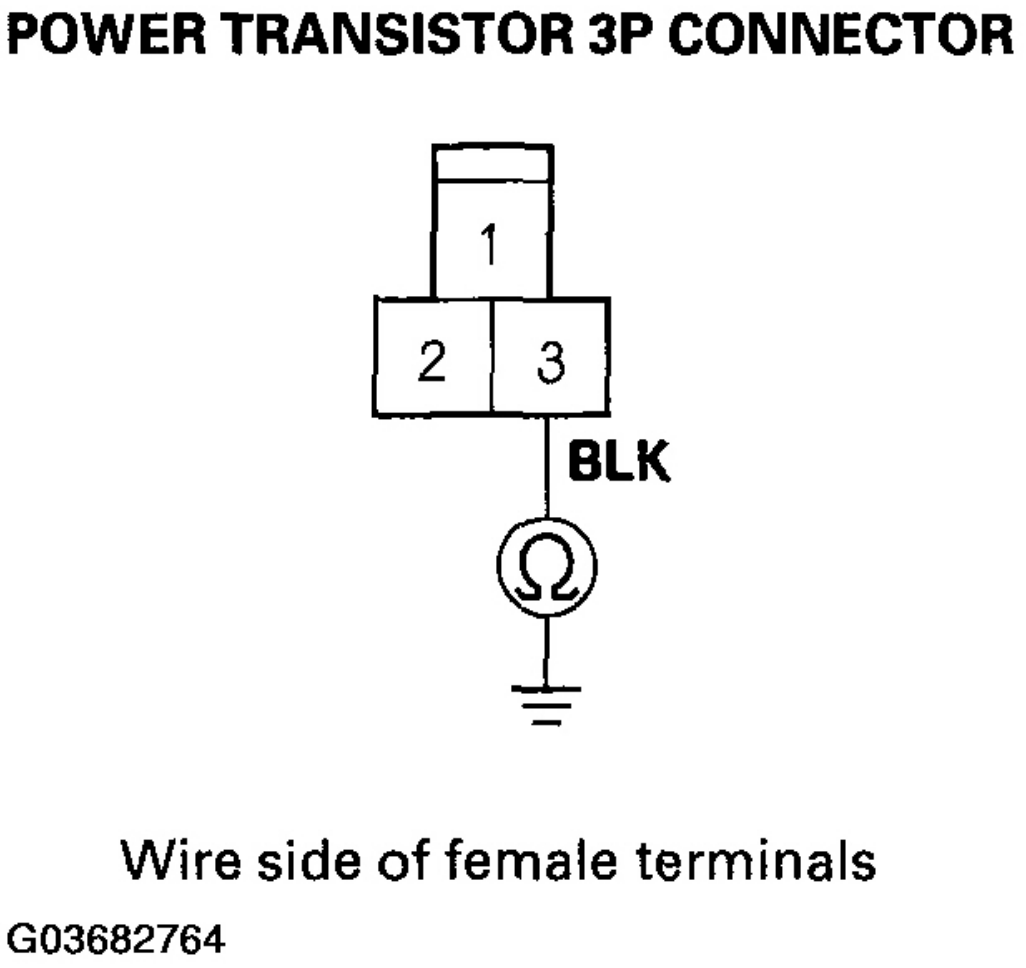


Fig. 40: Checking Continuity Between No. 3 Terminal Of Power Transistor 3P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 4.

NO - Check for an open in the wire between the power transistor and body ground. If the wire is OK, check for poor ground at G404.

4. Connect the No. 1 and No. 3 terminals of the power transistor 3P connector

with a jumper wire.

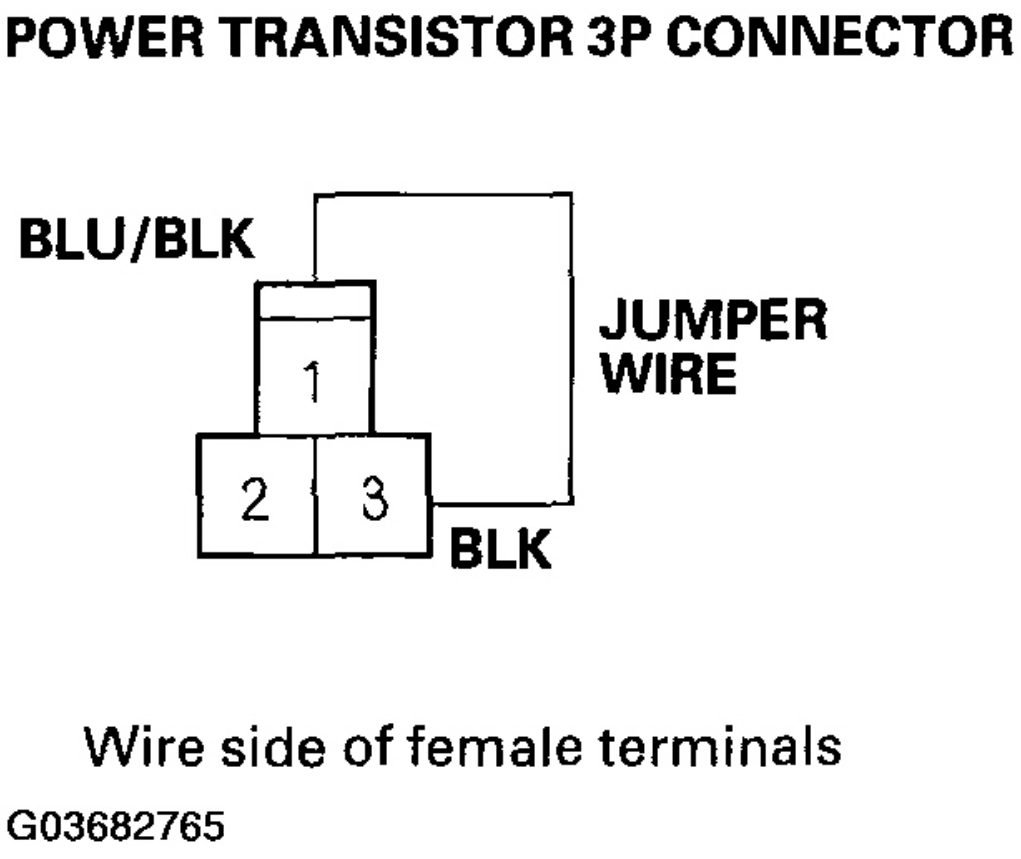


Fig. 41: Connecting No. 1 & 3 Terminals Of Power Transistor 3P Connector With A Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Turn the ignition switch ON (II).

Does the blower motor run at high speed?

YES - Go to step 6.

NO - Repair open in the wire between the power transistor and the blower motor.

6. Turn the ignition switch OFF.
7. Disconnect the jumper wire.
8. Disconnect climate control unit connector A (12P).
9. Check for continuity between the No. 8 terminal of climate control unit connector A (12P) and the No. 2 terminal of the power transistor 3P connector.

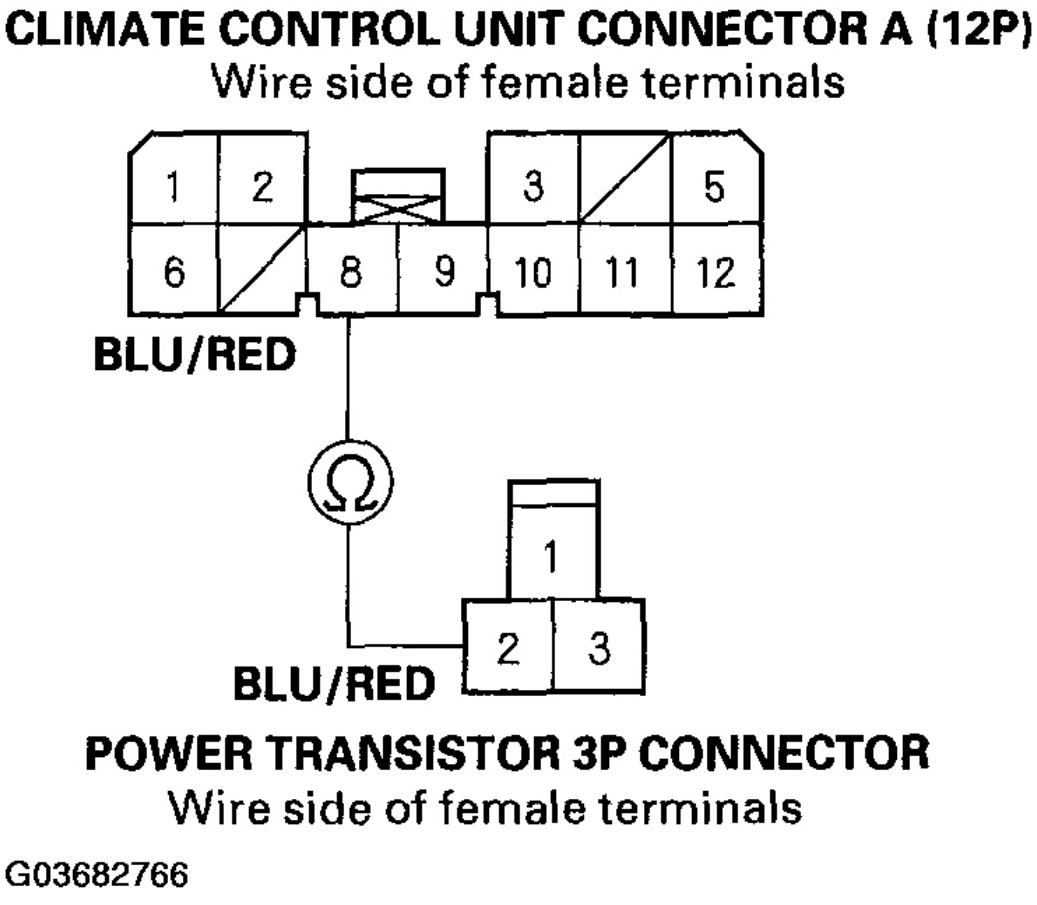


Fig. 42: Checking Continuity Between No. 8 Terminal Of Climate Control Unit Connector A (12P) And No. 2 Terminal Of Power Transistor 3P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 10.

NO - Repair open in the wire between the climate control unit and the power transistor.

10. Check for continuity between the No. 8 terminal of climate control unit connector A (12P) and body ground.

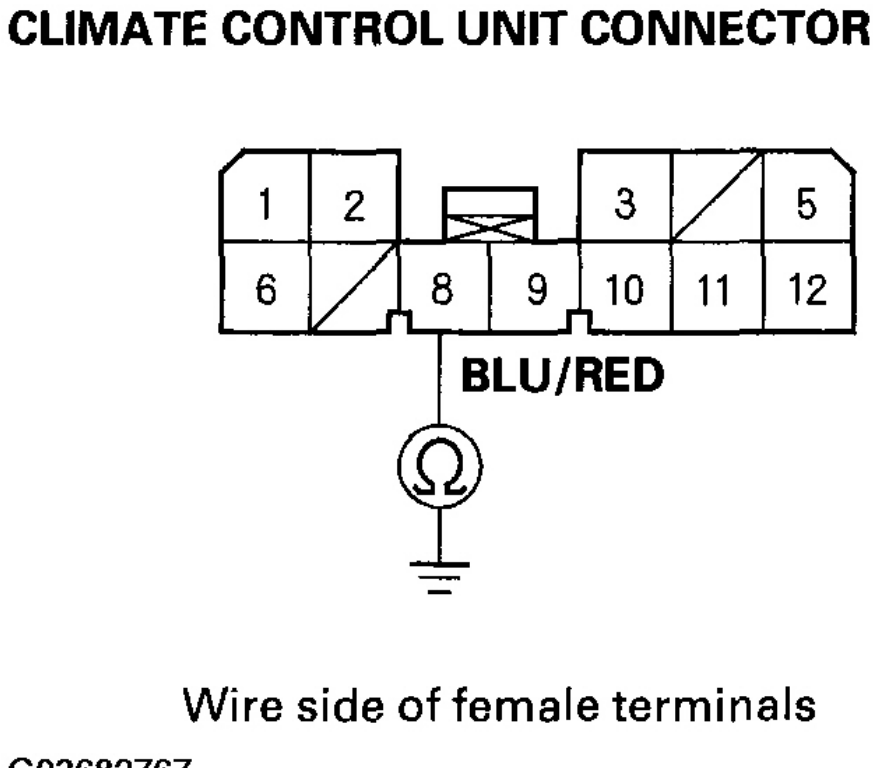


Fig. 43: Checking Continuity Between No. 8 Terminal Of Climate Control Unit Connector A (12P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the power transistor.

NO - Go to step 11.

11. Check for continuity between the No. 9 terminal of climate control unit connector A (12P) and the No. 1 terminal of the power transistor 3P connector.

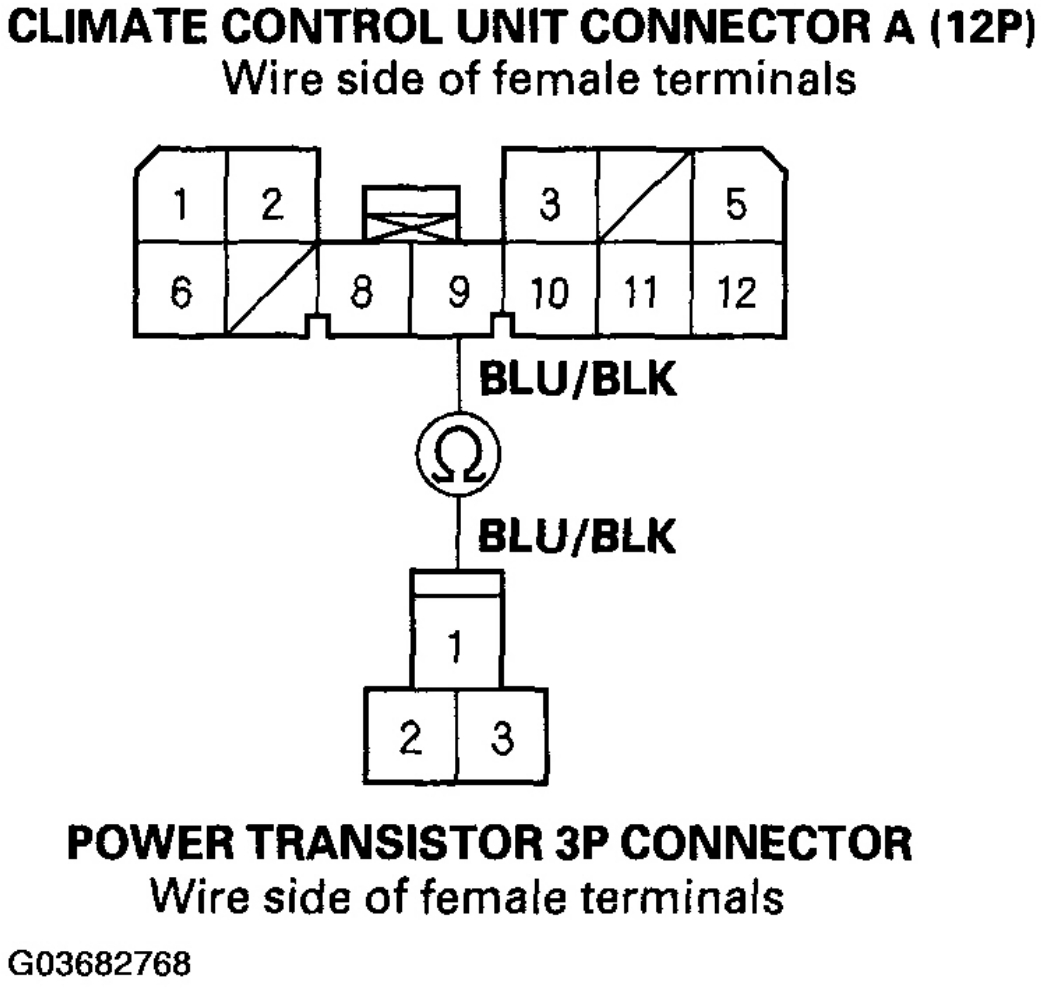


Fig. 44: Checking Continuity Between No. 9 Terminal Of Climate Control Connector A (12P) And No. 1 Terminal Of Power Transistor 3P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 12.

NO - Repair open in the wire between the climate control unit and the power transistor.

12. Reconnect climate control unit connector A (12P).
13. Test the power transistor (see **POWER TRANSISTOR TEST**).

Is the power transistor OK?

YES - Check for loose wires or poor connections at climate control unit connector A (12P) and at the power transistor 3P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Replace the power transistor.

14. Turn the ignition switch OFF, and check the No. 12 (40 A) fuse in the under-hood fuse/relay box and the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

Are the fuses OK?

YES - Go to step 15.

NO - Replace the fuse(s), and recheck.

15. Connect the No. 2 terminal of the blower motor 2P connector to body ground with a jumper wire.

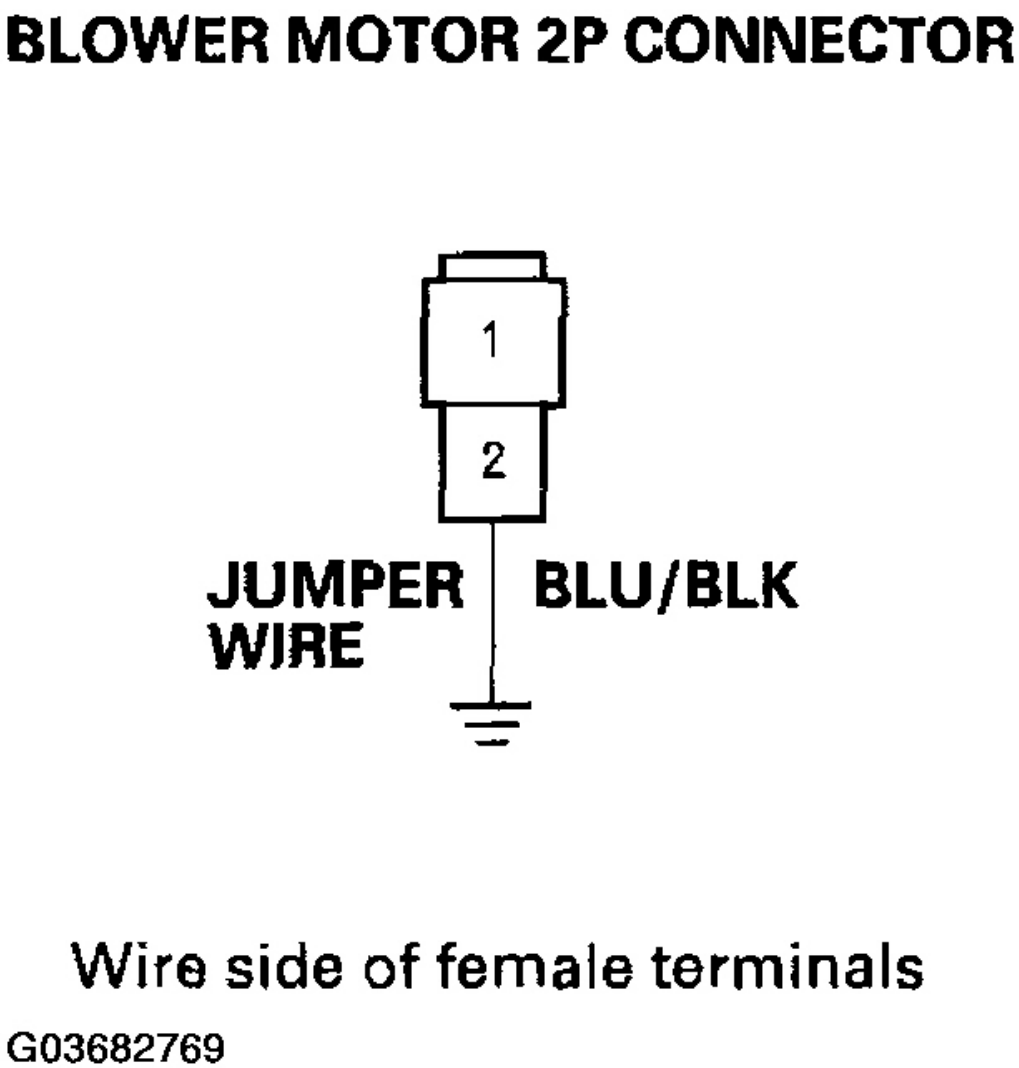


Fig. 45: Connecting No. 2 Terminal Of Blower Motor 2P Connector To Body Ground With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

16. Turn the ignition switch ON (II).

Does the blower motor run?

YES - Go to step 17.

NO - Go to step 30 .

17. Turn the ignition switch OFF.
18. Disconnect the jumper wire.
19. Remove the blower motor high relay, and test it (see **NORMALLY-OPEN TYPE B**).

Is the relay OK?

YES - Go to step 20.

NO - Replace the blower motor high relay.

20. Connect the No. 1 terminal of the blower motor high relay 4P connector to body ground with a jumper wire.

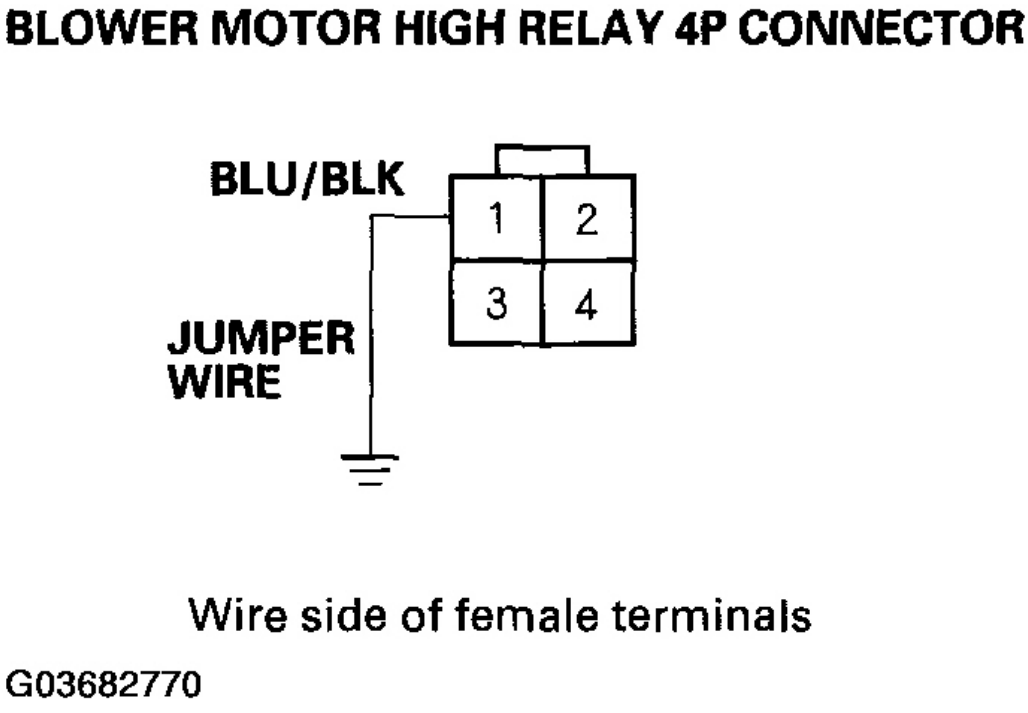


Fig. 46: Connecting No. 1 Terminal Of Blower Motor High Relay 4P Connector To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

21. Turn the ignition switch ON (II).

    Does the blower motor run?

    YES - Go to step 22.

    NO - Repair open in the wire between the blower motor high relay and the blower motor.
22. Turn the ignition switch OFF.
23. Disconnect the jumper wire.
24. Turn the ignition switch ON (II).
25. Measure the voltage between the No. 2 terminal of the blower motor high relay 4P connector and body ground.

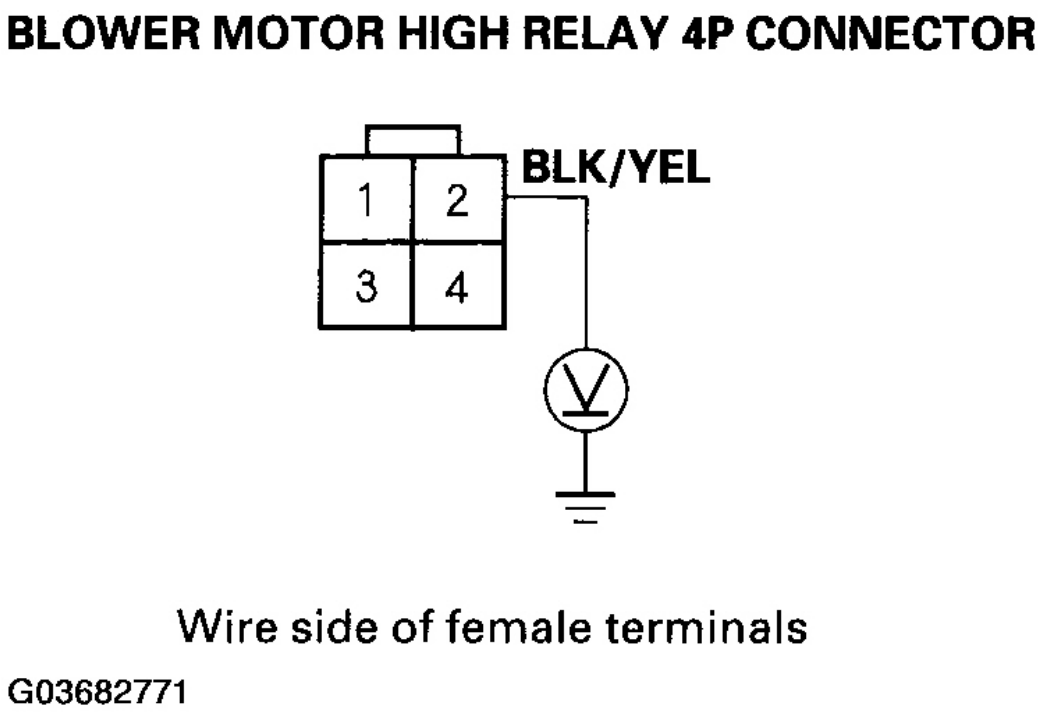


Fig. 47: Measuring Voltage Between No. 2 Of Blower Motor High Relay

4P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 26.

NO - Repair open in the wire between the blower motor high relay and the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

26. Turn the ignition switch OFF.
27. Check for continuity between the No. 3 terminal of the blower motor high relay 4P connector and body ground.

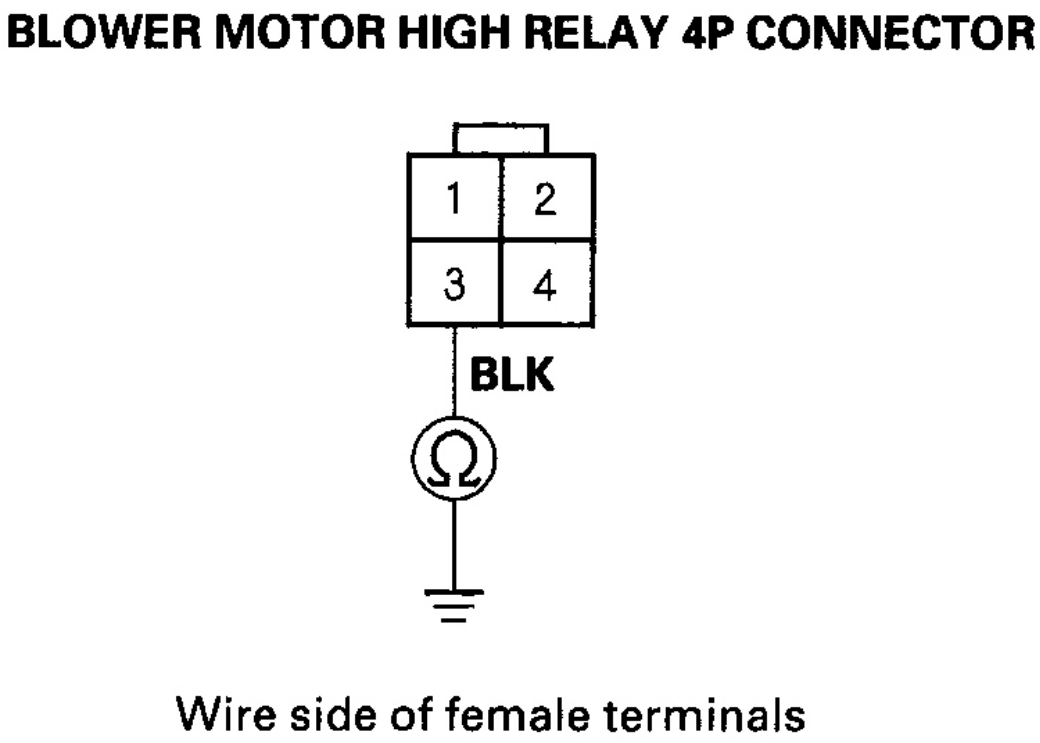


Fig. 48: Checking Continuity Between No. 3 Terminal Of Blower Motor High Relay 4P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 28.

NO - Check for an open in the wire between the blower motor high relay and body ground. If the wire is OK, check for poor ground at G404.

28. Disconnect climate control unit connector A (12P).
29. Check for continuity between the No. 5 terminal of climate control unit connector A (12P) and the No. 4 terminal of the blower motor high relay 4P connector.

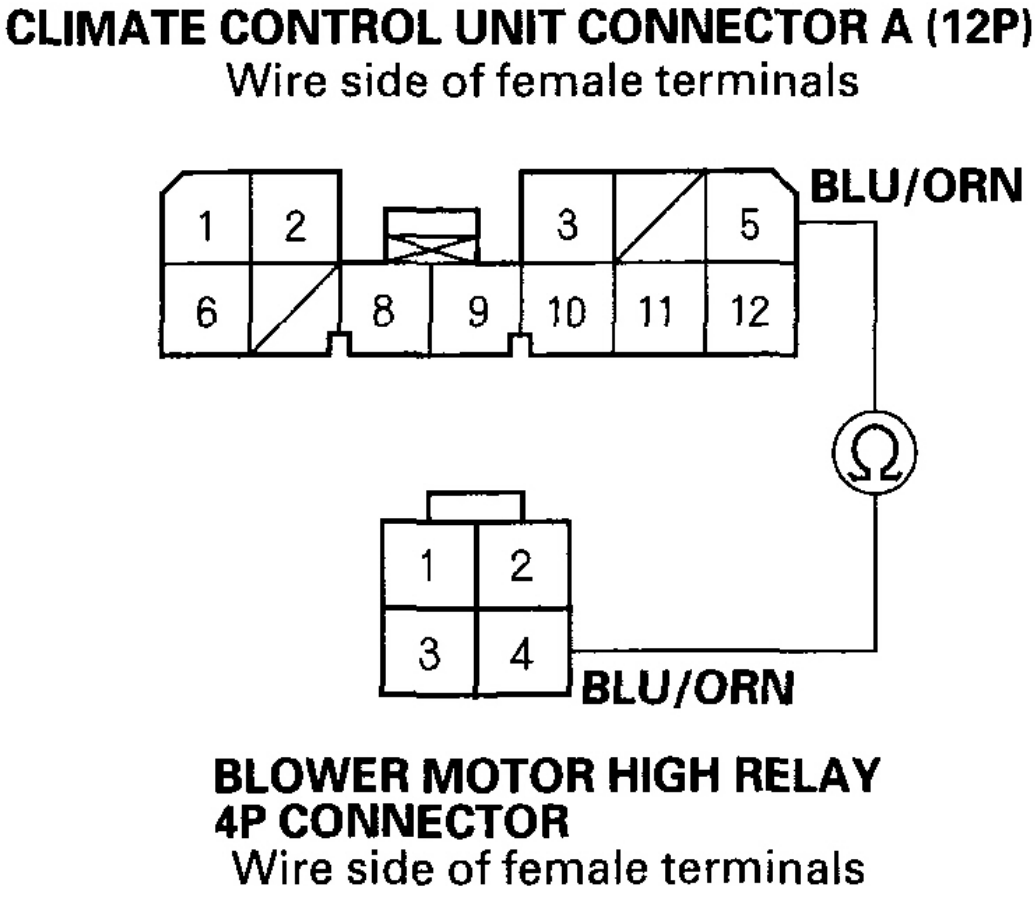


Fig. 49: Checking Continuity Between No. 5 Terminal Of Climate Control

Unit Connector A (12P) And No. 4 Terminal Of Blower Motor High Relay 4P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit connector A (12P) and at the blower motor high relay 4P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair open in the wire between the climate control unit and the blower motor high relay.

30. Disconnect the jumper wire.
31. Disconnect the blower motor 2P connector.
32. Measure the voltage between the No. 1 terminal of the blower motor 2P connector and body ground.

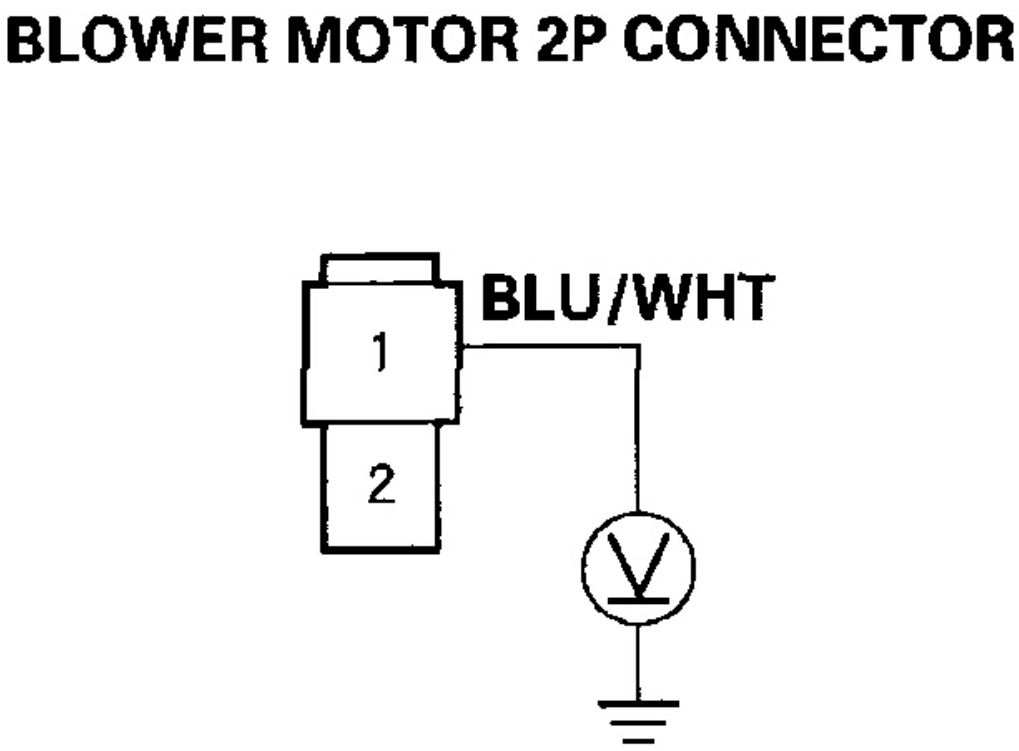


Fig. 50: Measuring Voltage Between No. 1 Terminal Of Blower Motor 2P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Replace the blower motor.

NO - Go to step 33.

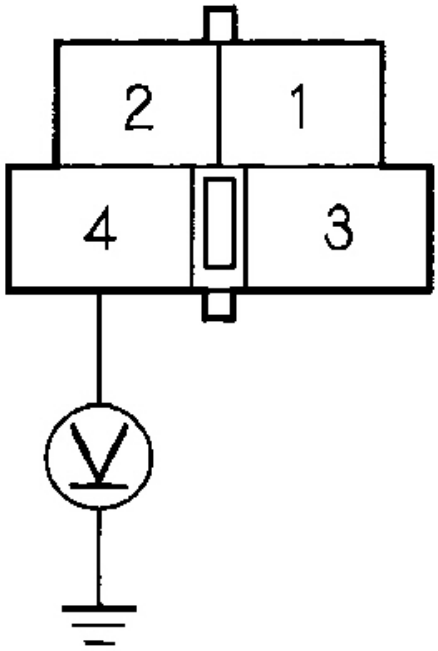
33. Turn the ignition switch OFF.
34. Remove the blower motor relay from the under-hood fuse/relay box, and test it (see **NORMALLY-OPEN TYPE B**).

    Is the relay OK?

    YES - Go to step 35.

    NO - Replace the blower motor relay.
35. Measure the voltage between the No. 4 terminal of the blower motor relay 4P socket and body ground.

BLOWER MOTOR RELAY 4P SOCKET



G03682775

Fig. 51: Measuring Voltage Between No. 4 Terminal Of Blower Motor Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 36.

NO - Replace the under-hood fuse/relay box.

36. Turn the ignition switch ON (II).
37. Measure the voltage between the No. 1 terminal of the blower motor relay 4P socket and body ground.

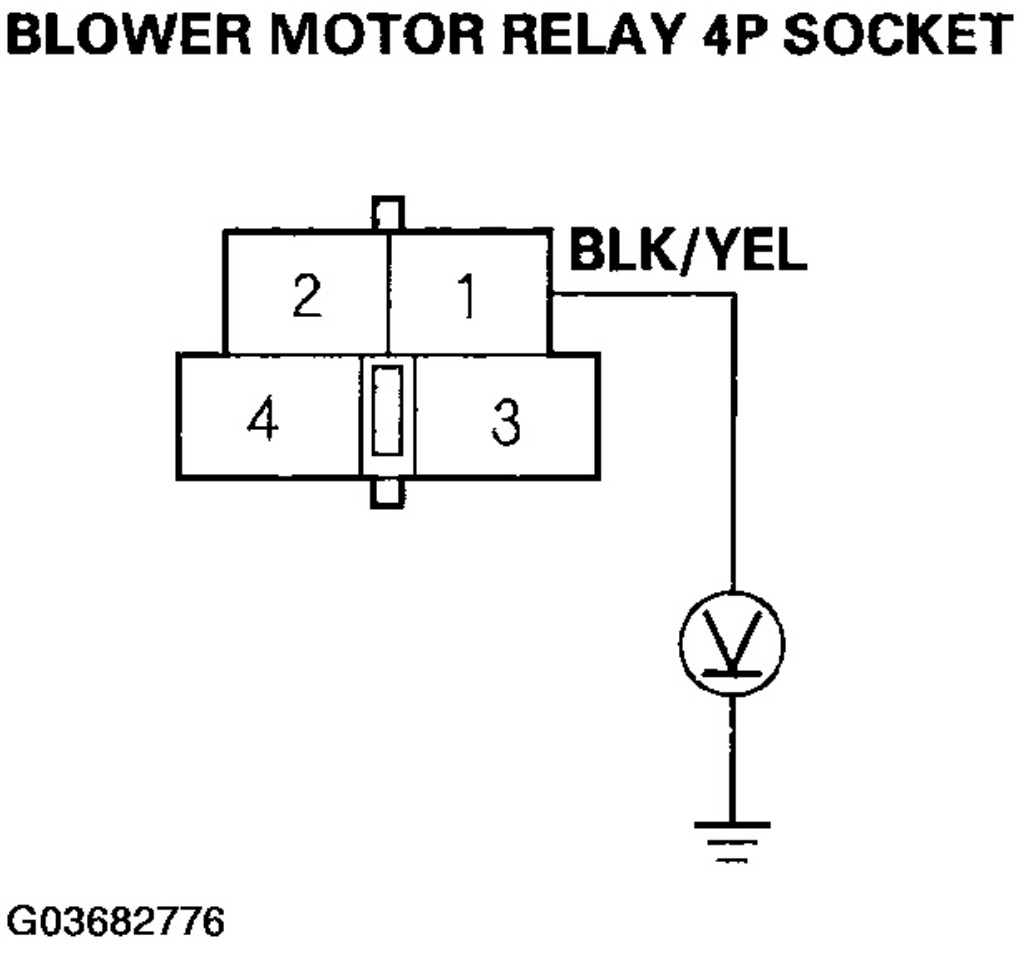


Fig. 52: Measuring Voltage Between No. 1 Terminal Of Blower Motor Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 38.

NO - Repair open in the BLK/YEL wire between the No. 16 (7.5 A) fuse in the under-dash fuse/relay box and the blower motor relay.

38. Turn the ignition switch OFF.

39. Check for continuity between the No. 2 terminal of the blower motor relay 4P socket and body ground.

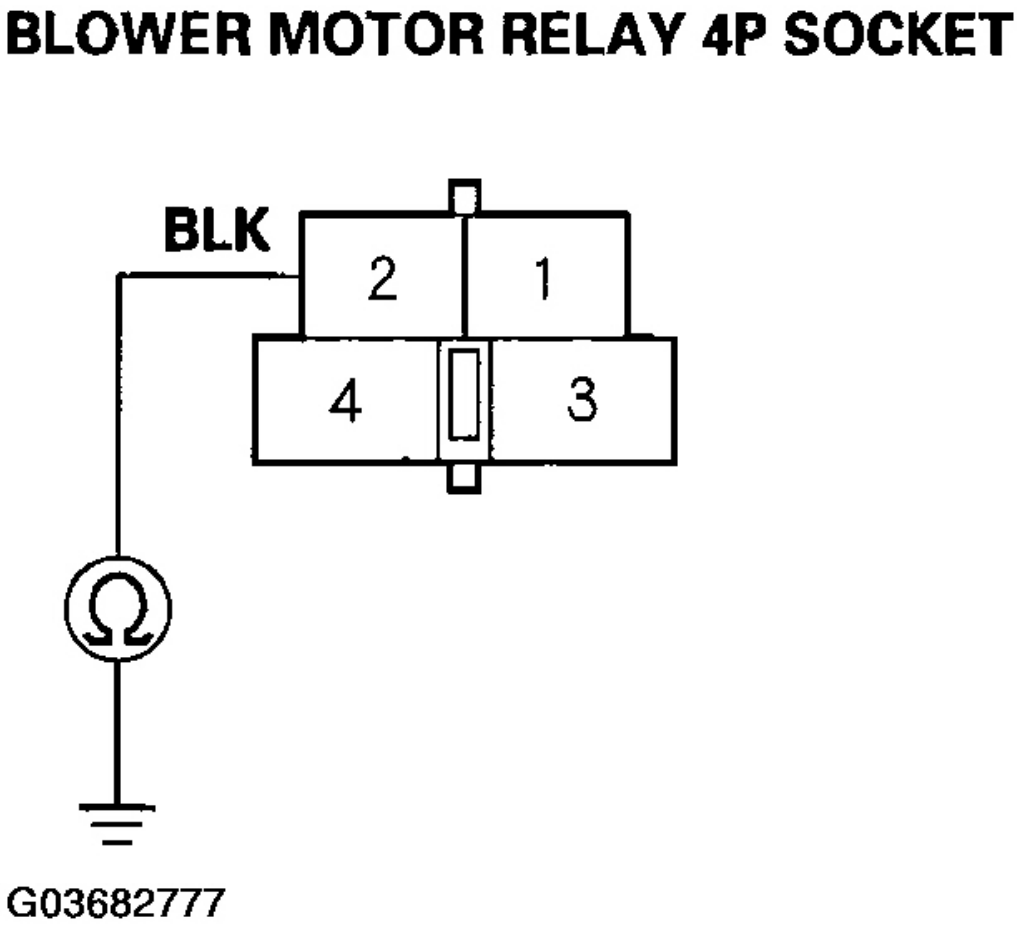


Fig. 53: Checking Continuity Between No. 2 Terminal Of Blower Motor Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair open in the BLU/WHT wire between the blower motor relay and the blower motor.

NO - Check for an open in the wire between the blower motor relay and body ground. If the wire is OK, check for poor ground at G301.

MODE CONTROL MOTOR CIRCUIT TROUBLESHOOTING

1. Check the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

   Is the fuse OK?

   YES - Go to step 2.

   NO - Replace the fuse, and recheck.
2. Disconnect the mode control motor 7P connector.
3. Turn the ignition switch ON (II).
4. Measure the voltage between the No. 1 terminal of the mode control motor 7P connector and body ground.

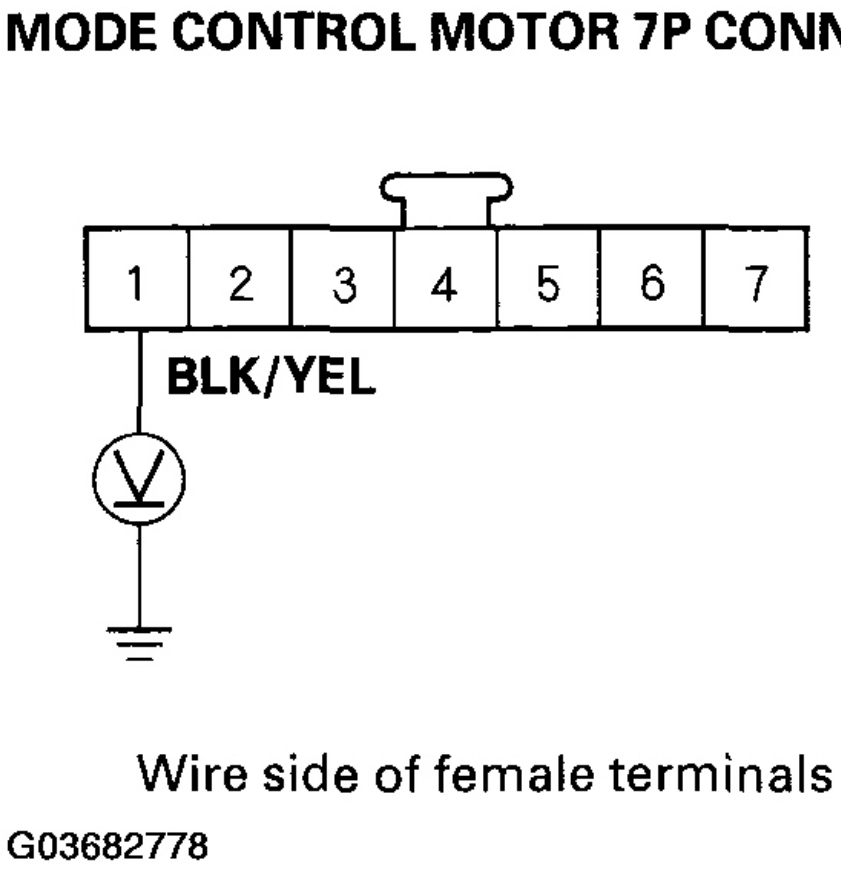


Fig. 54: Measuring Voltage Between No. 1 Terminal Of Mode Control Motor 7P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 5.

NO - Repair open in the wire between the mode control motor and the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

5. Turn the ignition switch OFF.
6. Test the mode control motor (see **MODE CONTROL MOTOR TEST**).

Is the mode control motor OK?

YES - Go to step 7.

NO - Go to step 12 .

7. Disconnect climate control unit connector B (22P).
8. Check for continuity between the No. 6, 9, 10, 20, 21, and No. 22 terminals of climate control unit connector B (22P) and body ground individually.

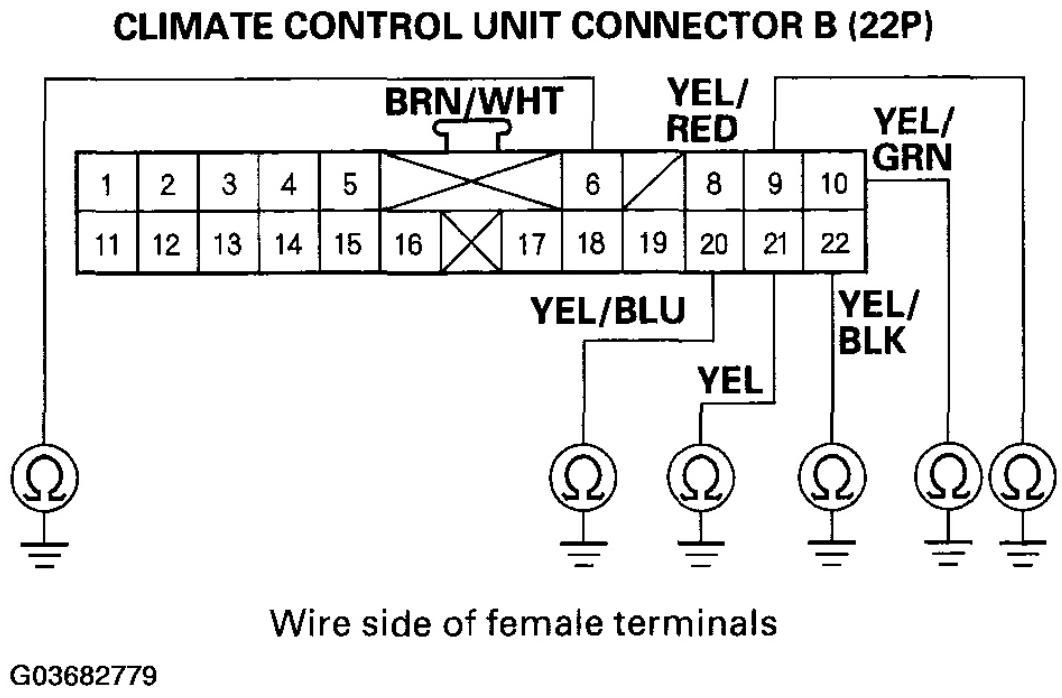


Fig. 55: Checking Continuity Terminals Of Climate Control Unit Connector B (22P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair any short to body ground in the wire(s) between the climate control unit and the mode control motor.

NO - Go to step 9.

9. Turn the ignition switch ON (II), and check the same terminals for voltage.

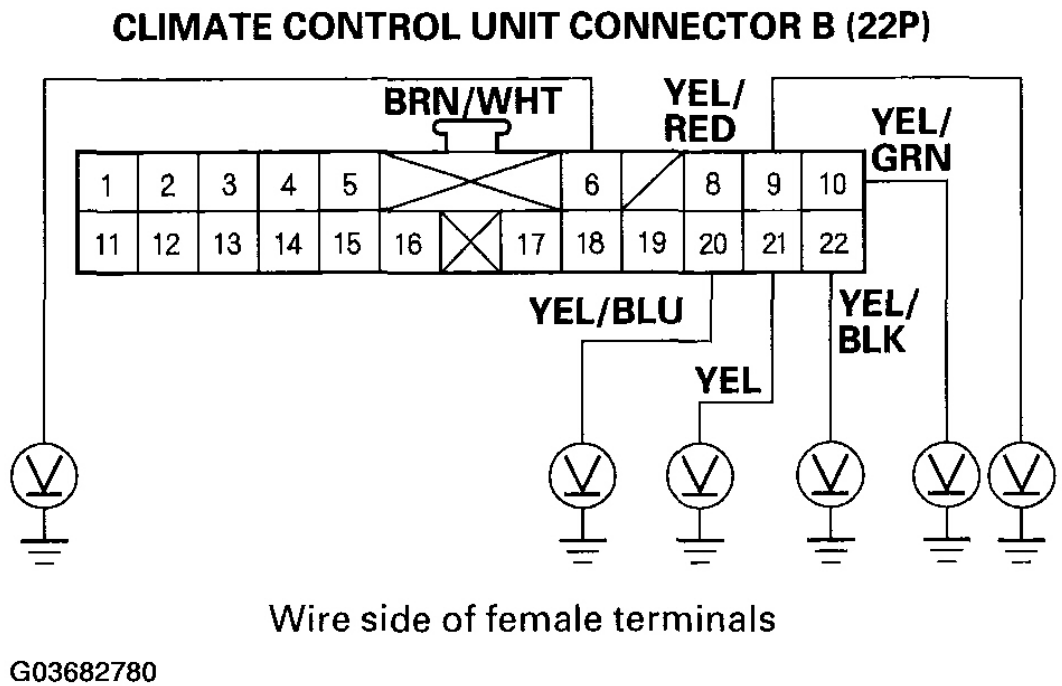


Fig. 56: Checking Terminals Of Climate Control Unit Connector B (22P) Turning Ignition Switch ON (II)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there any voltage?

YES - Repair any short to power in the wire(s) between the climate control unit and the mode control motor. This short may also damage the climate control unit. Repair the short to power before replacing the climate control unit.

NO - Go to step 10.

10. Turn the ignition switch OFF.
11. Check for continuity between the following terminals of climate control unit connector B (22P) and the mode control motor 7P connector.

CLIMATE CONTROL UNIT CONNECTOR B (22P) AND MODE CONTROL MOTOR 7P CONNECTOR

22P:	7P:
No. 6	No. 7
No. 9	No. 6
No. 10	No. 5
No. 20	No. 2
No. 21	No. 3
No. 22	No. 4

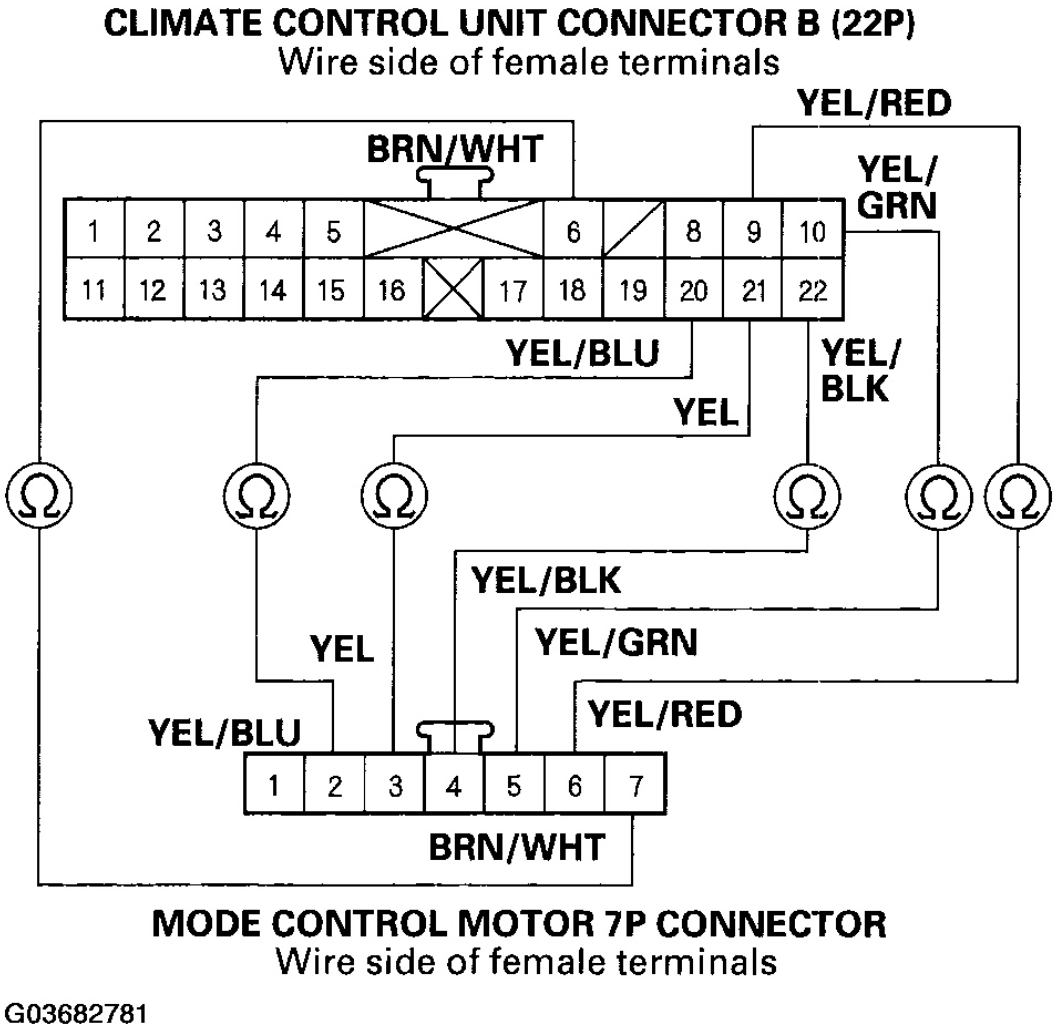


Fig. 57: Checking Continuity Between Terminals Of Climate Control Unit Connector B (22P) And Mode Control Motor 7P Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit connector B (22P) and at mode control motor 7P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair any open in the wire(s) between the climate control unit and the mode control motor.

12. Remove the mode control motor (see **MODE CONTROL MOTOR TEST**).
13. Check the mode control linkage and doors for smooth movement.

Do the mode control linkage and doors move smoothly?

YES - Replace the mode control motor.

NO - Repair the mode control linkage or doors.

RECIRCULATION CONTROL MOTOR CIRCUIT TROUBLESHOOTING

1. Check the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

Is the fuse OK?

YES - Go to step 2.

NO - Replace the fuse, and recheck.

2. Disconnect the recirculation control motor 4P connector.
3. Turn the ignition switch ON (II).
4. Measure the voltage between the No. 1 terminal of the recirculation control motor 4P connector and body ground.

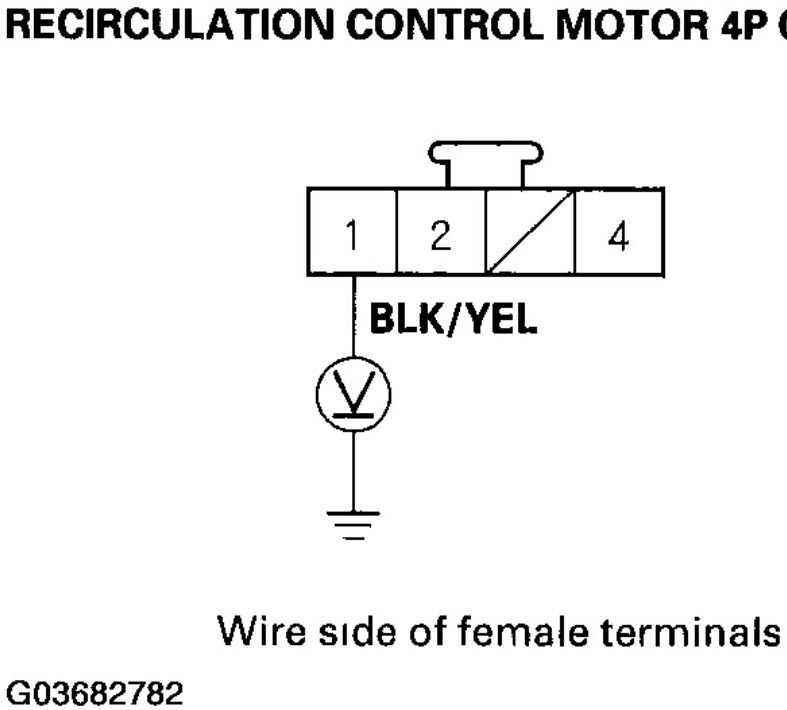


Fig. 58: Measuring Voltage Between No. 1 Terminal Of Recirculation Control Motor 4P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 5.

NO - Repair open in the wire between the recirculation control motor and the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

5. Turn the ignition switch OFF.
6. Test the recirculation control motor (see **RECIRCULATION CONTROL MOTOR TEST**).

Is the recirculation control motor OK?

YES - Go to step 7.

NO - Go to step 12 .

7. Disconnect climate control unit connector B (22P).
8. Check for continuity between the No. 18 and No. 19 terminals of climate control unit connector B (22P) and body ground individually.

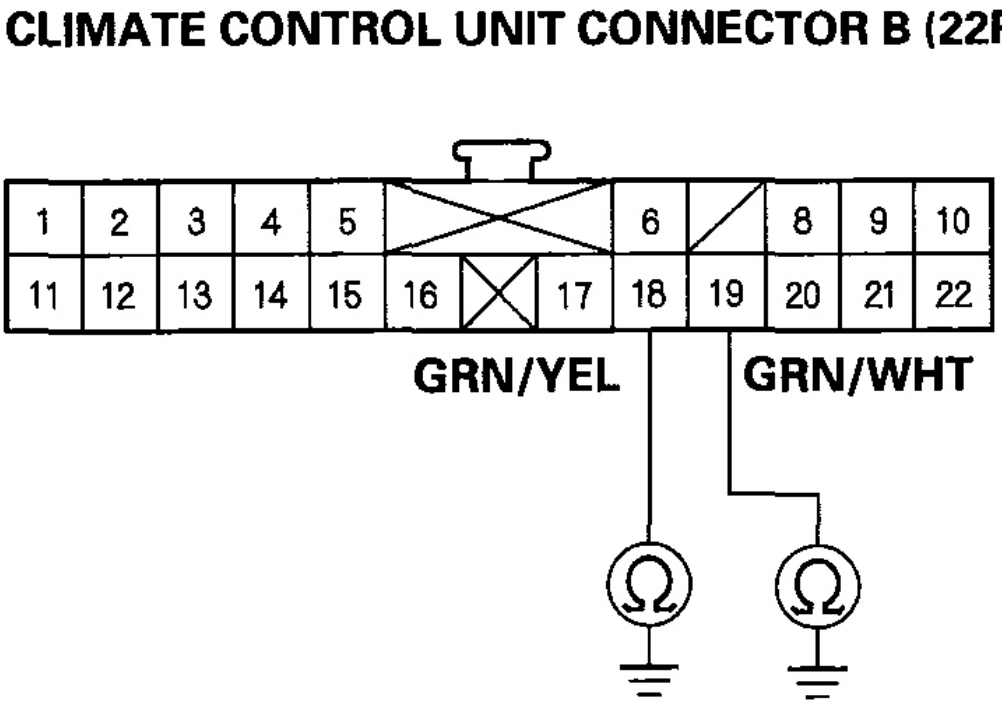


Fig. 59: Checking Terminals Between No. 18 & 19 Of Climate Control Unit Connector B (22P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair any short to body ground in the wire(s) between the climate control unit and the recirculation control motor.

NO - Go to step 9.

9. Turn the ignition switch ON (II), and check the same terminals for voltage.

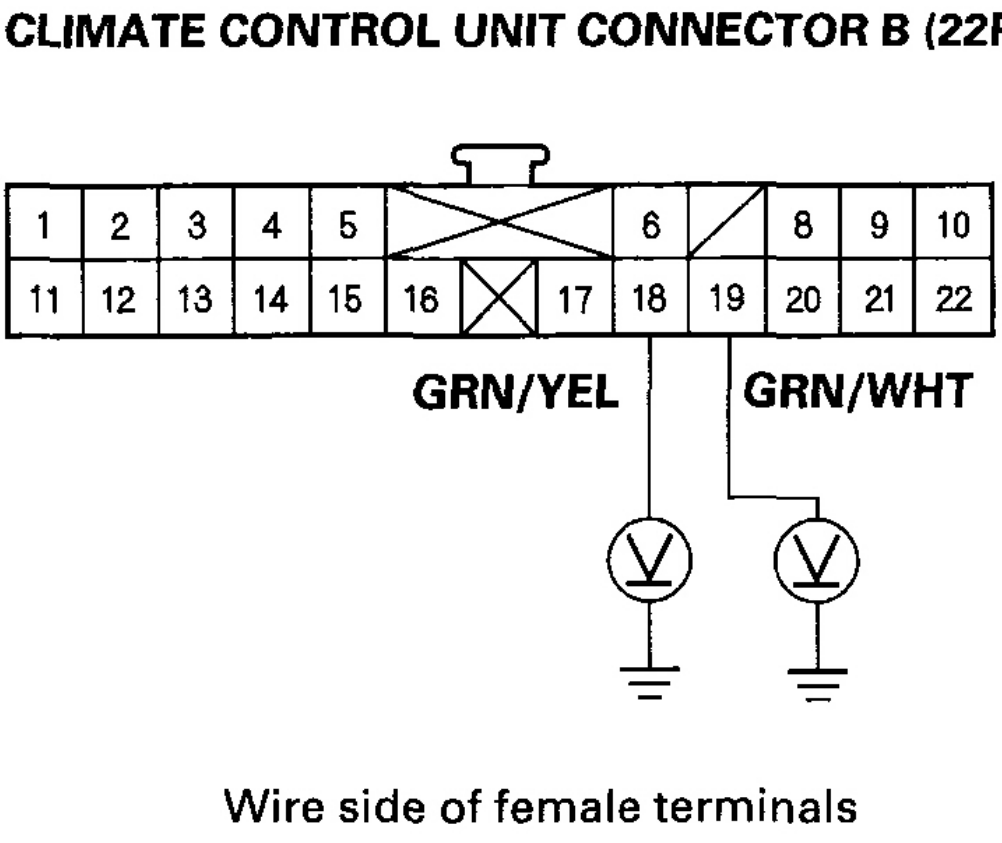


Fig. 60: Checking Terminals Between No. 18 & 19 of Climate Control Unit Connector B (22P) Turning Ignition Switch ON (II)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there any voltage?

YES - Repair any short to power in the wire(s) between the climate control unit and the recirculation control motor. This short may also damage the climate control unit. Repair the short to power before replacing the climate control unit.

NO - Go to step 10.

10. Turn the ignition switch OFF.
11. Check for continuity between the following terminals of climate control unit connector B (22P) and the recirculation control motor 4P connector.

CLIMATE CONTROL UNIT CONNECTOR B (22P) AND RECIRCULATION CONTROL MOTOR 4P CONNECTOR

22P:	4P:
No. 18	No. 4
No. 19	No. 2

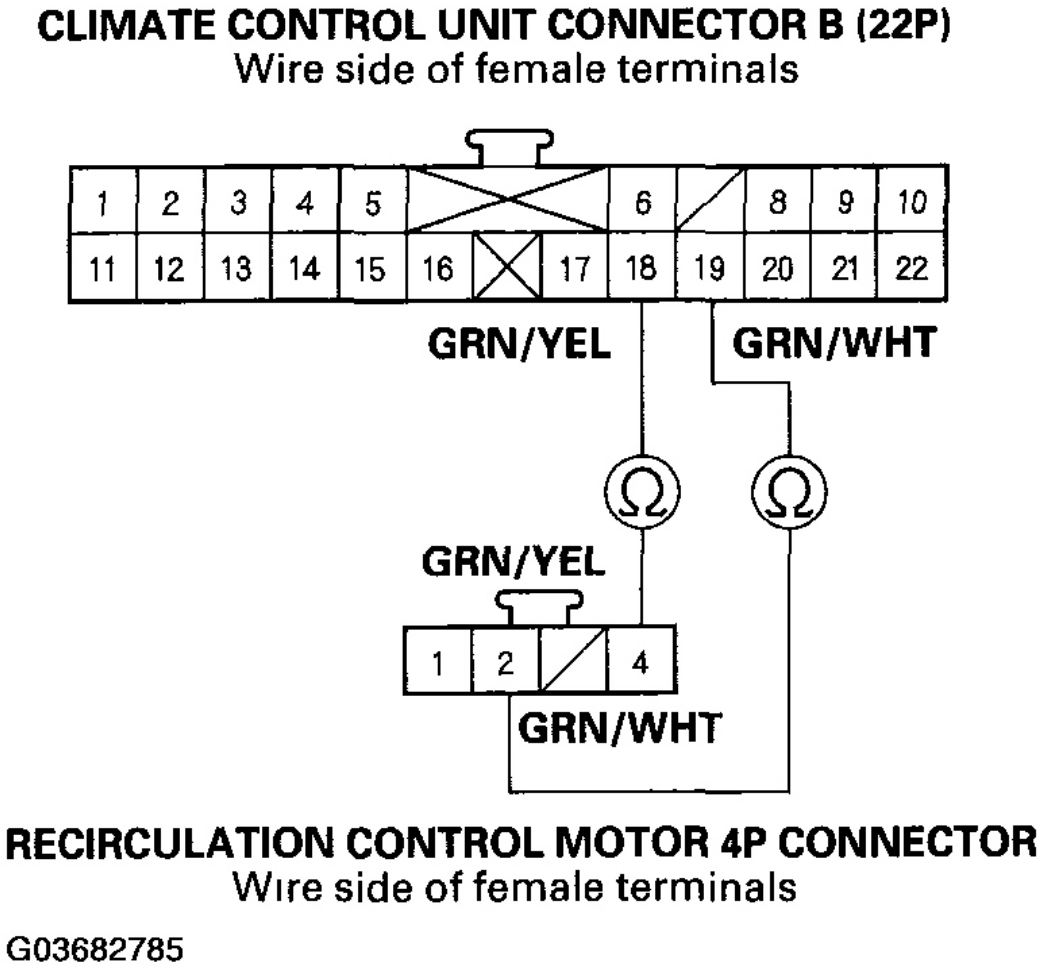


Fig. 61: Checking Continuity Between Terminals Climate Control Unit Connector B (22P) And Recirculation Control Motor 4P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit connector B (22P) and at recirculation control motor 4P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair any open in the wire(s) between the climate control unit and the recirculation control motor.

12. Remove the recirculation control motor (see **RECIRCULATION CONTROL MOTOR TEST**).
13. Check the recirculation control linkage and door for smooth movement.

Do the recirculation control linkage and door move smoothly?

YES - Replace the recirculation control motor.

NO - Repair the recirculation control linkage or door.

CLIMATE CONTROL POWER AND GROUND CIRCUIT TROUBLESHOOTING

1. Check the No. 16 (30 A) fuse in the under-hood fuse/relay box, and the No. 16 (7.5 A) and No. 18 (7.5 A) fuses in the under-dash fuse/relay box.

Are the fuses OK?

YES - Go to step 2.

NO - Replace the fuse(s), and recheck.

2. Disconnect climate control unit connector A (12P).
3. Turn the ignition switch ON (II).
4. Measure the voltage between the No. 2 terminal of climate control unit connector A (12P) and body ground.

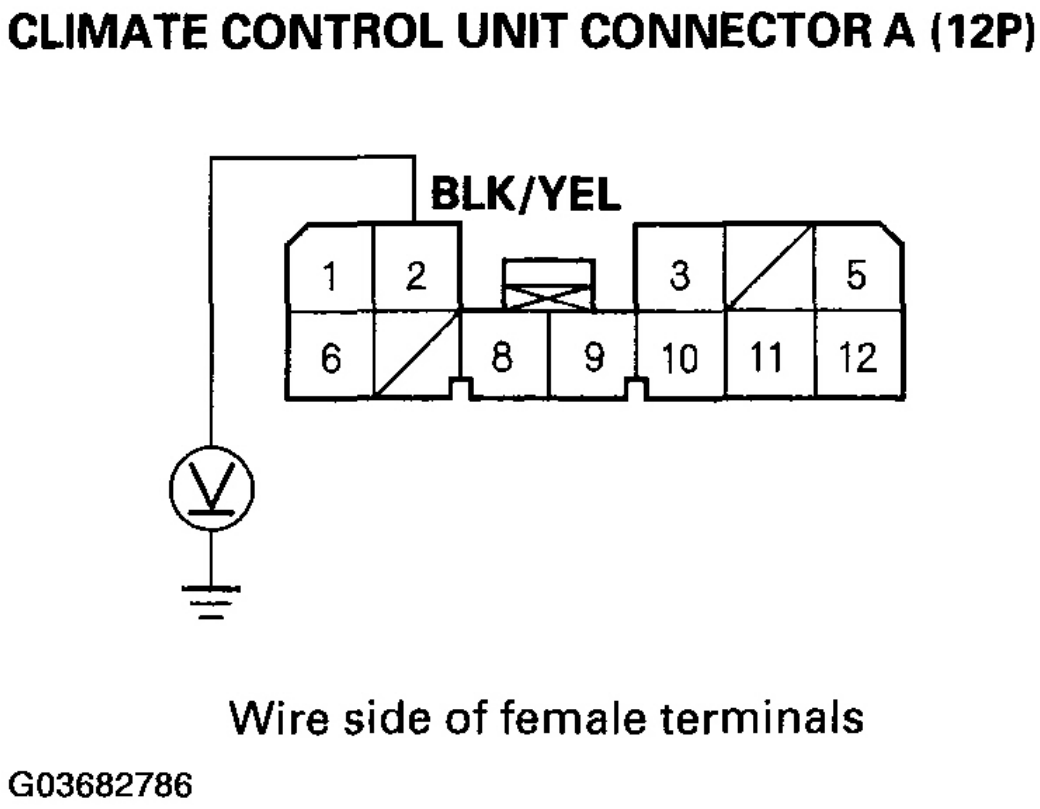


Fig. 62: Measuring Voltage Between No. 2 Terminal Of Climate Control Unit Connector A (12P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 5.

NO - Repair open in the wire between the No. 16 (7.5 A) fuse in the under-dash fuse/relay box and the climate control unit.

5. Turn the ignition switch OFF.
6. Measure the voltage between the No. 3 terminal of climate control unit connector A (12P) and body ground.

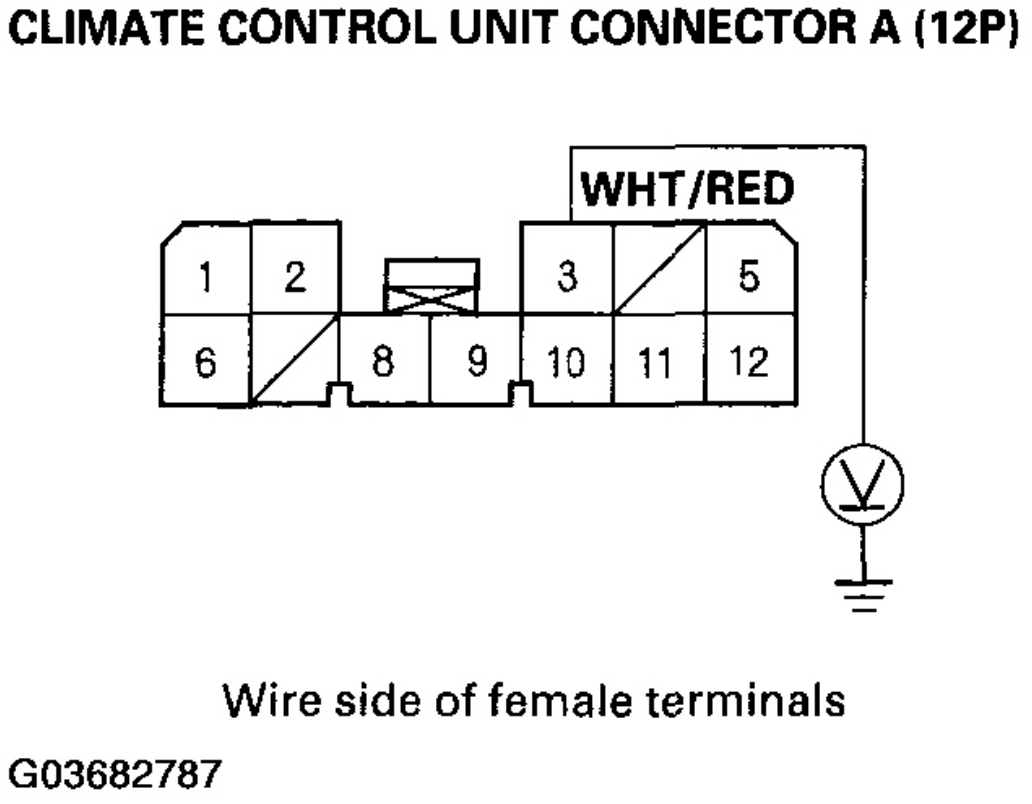


Fig. 63: Measuring Voltage Between No. 3 Terminal Of Climate Control Unit Connector A (12P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 7.

NO - Repair open in the wire between the No. 18 (7.5 A) fuse in the under-dash fuse/relay box and the climate control unit.

7. Check for continuity between the No. 10 terminal of climate control unit connector A (12P) and body ground.

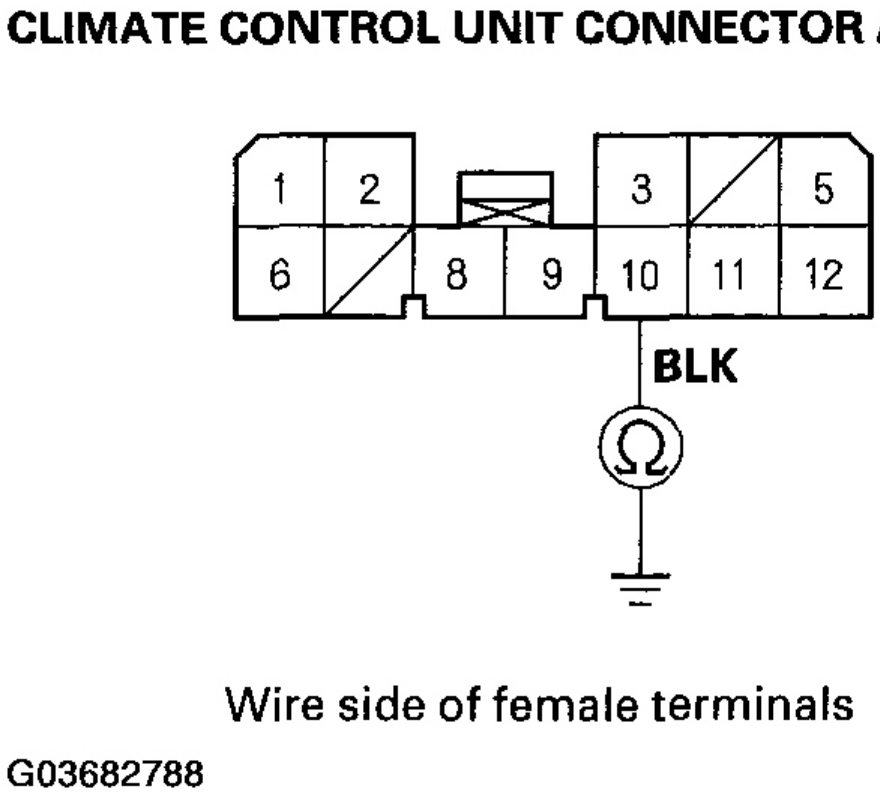


Fig. 64: Checking Continuity Between No. 10 Terminal Of Climate Control Unit Connector A (12P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at climate control unit connector A (12P). If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Check for an open in the wire between the climate control unit and body ground. If the wire is OK, check for poor ground at G404.

RADIATOR AND A/C CONDENSER FAN LOW SPEED CIRCUIT TROUBLESHOOTING

NOTE:

- **Do not use this troubleshooting procedure if the A/C compressor is inoperative. Refer to the SYMPTOM TROUBLESHOOTING INDEX .**
- **Before performing symptom troubleshooting, check for powertrain DTCs (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Check the No. 19 (20 A) fuse in the under-hood fuse/relay box, and the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

   Are the fuses OK?

   YES - Go to step 2.

   NO - Replace the fuse(s), and recheck.
2. Remove the A/C condenser fan relay from the under-hood fuse/relay box, and test it (see **POWER RELAY TEST**).

   Is the relay OK?

   YES - Go to step 3.

   NO - Replace the A/C condenser fan relay.
3. Measure the voltage between the No. 1 terminal of the A/C condenser fan relay 4P socket and body ground.

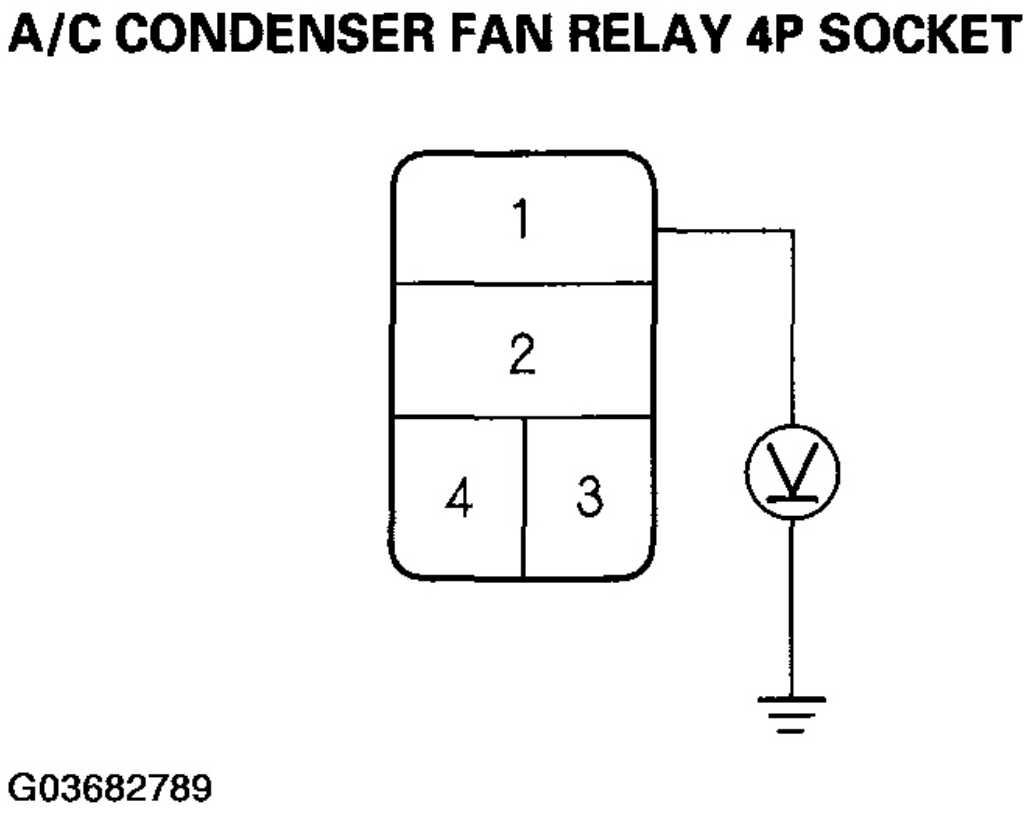


Fig. 65: Measuring Voltage Between No. 1 Terminal Of A/C Condenser Fan Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 4.

NO - Replace the under-hood fuse/relay box.

4. Connect the No. 1 and No. 2 terminals of the A/C condenser fan relay 4P socket with a jumper wire.

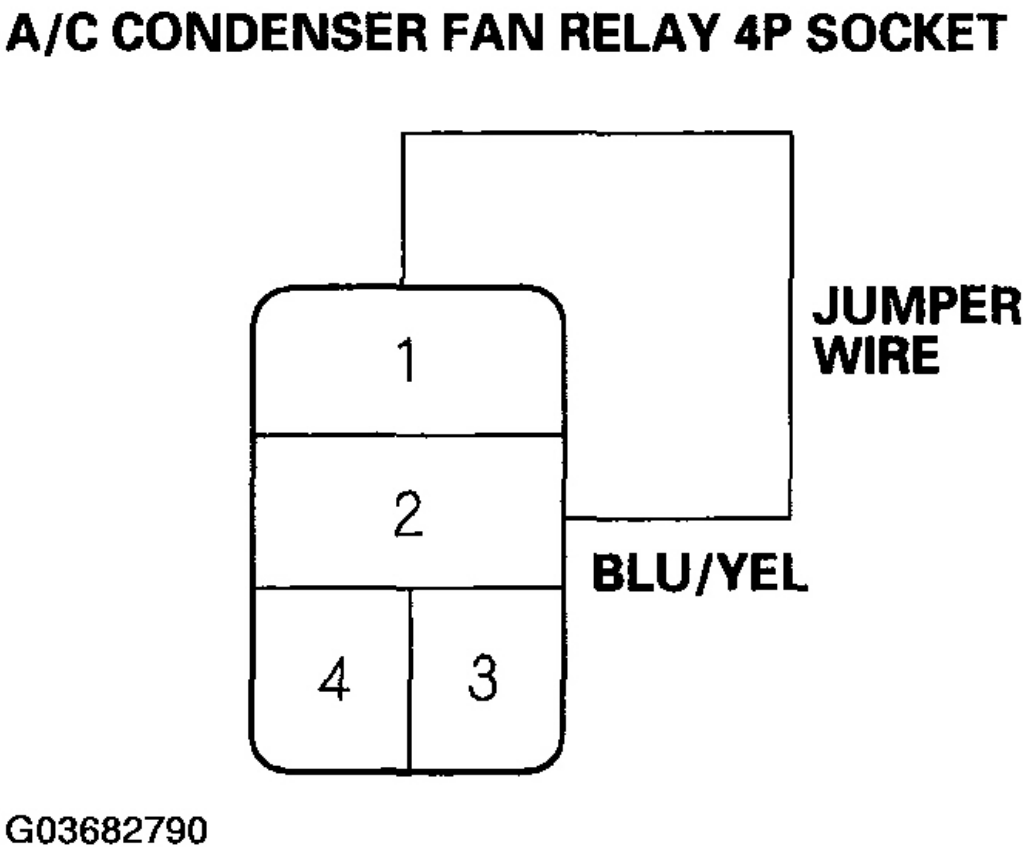


Fig. 66: Connecting No. 1 & 2 Terminals Of A/C Condenser Fan Relay 4P Socket With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the A/C condenser fan run?

YES - Go to step 5.

NO - Go to step 13 .

5. Disconnect the jumper wire.
6. Turn the ignition switch ON (II).
7. Measure the voltage between the No. 4 terminal of the A/C condenser fan relay 4P socket and body ground.

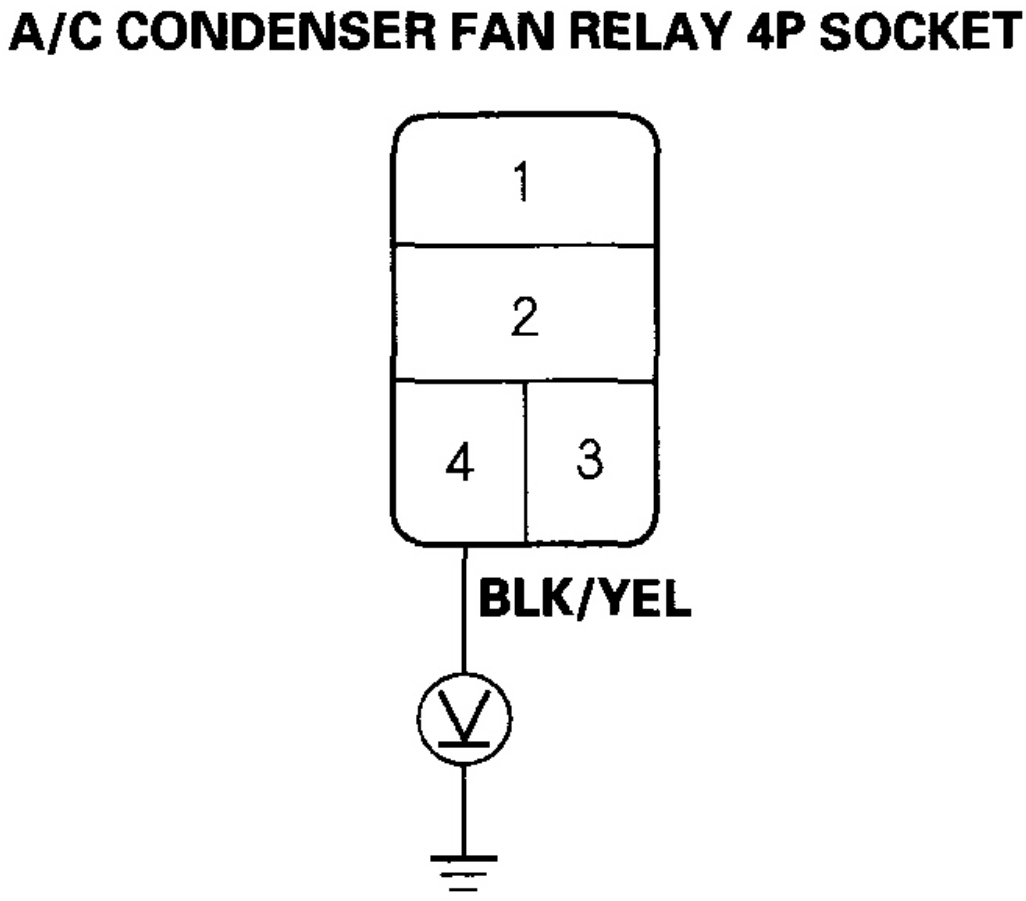


Fig. 67: Measuring Voltage Between No. 4 Terminal Of A/C Condenser Fan Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 8.

NO - Repair open in the BLK/YEL wire between the No. 16 (7.5 A) fuse in the under-dash fuse/relay box and the A/C condenser fan relay.

8. Reinstall the A/C condenser fan relay.

9. Remove the A/C diode from the left side of dash.
10. On the A/C diode, check for current flow in both directions between the No. 1 and No. 2 terminals, and between the No. 2 and No. 3 terminals.

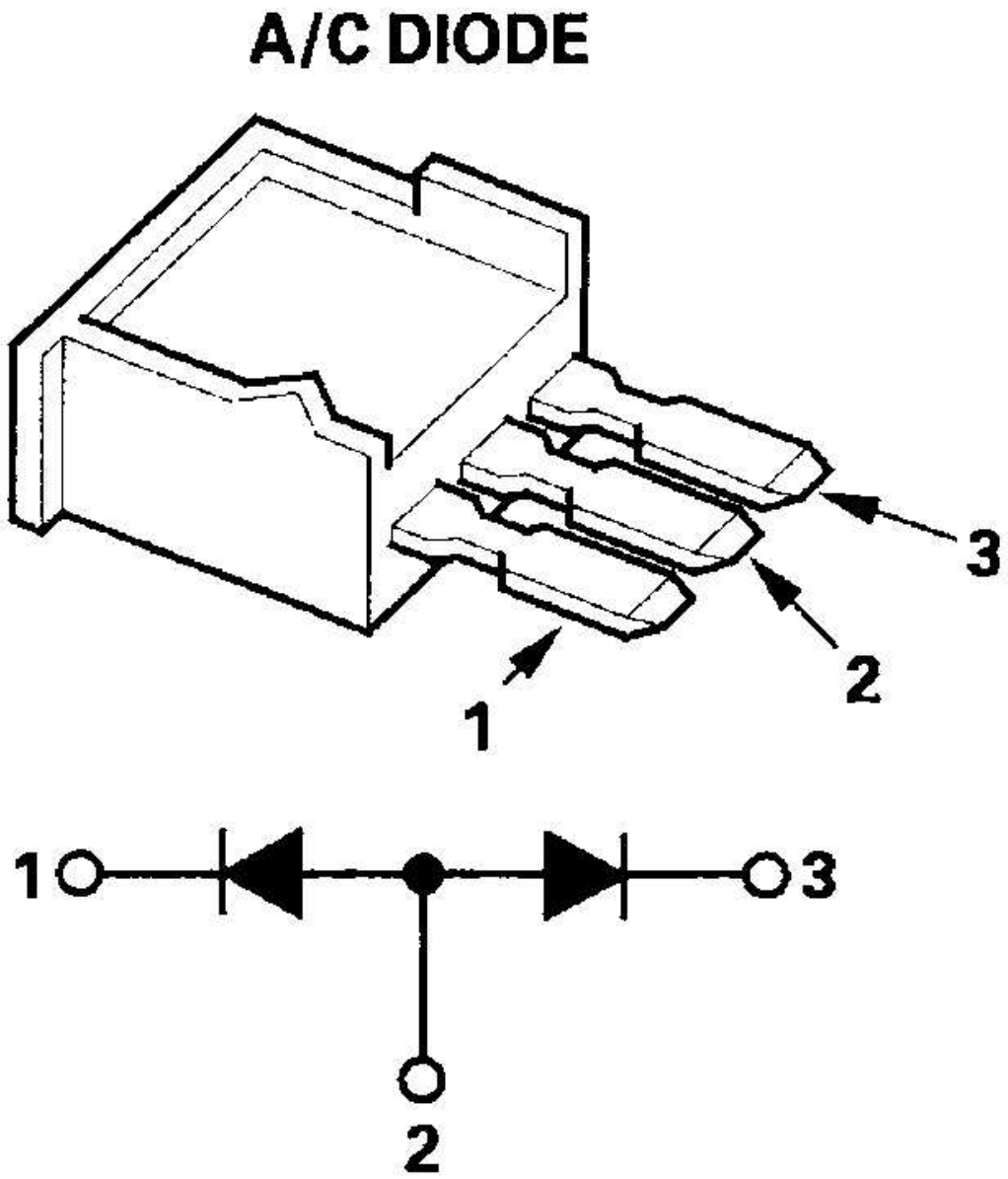


Fig. 68: Checking Current Flow In Both Direction Of A/C Diode
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does current flow match the diagram?

YES - Go to step 11.

NO - Replace the A/C diode.

11. Turn the ignition switch ON (II).
12. Measure the voltage between the No. 2 terminal of the A/C diode 3P connector and body ground.

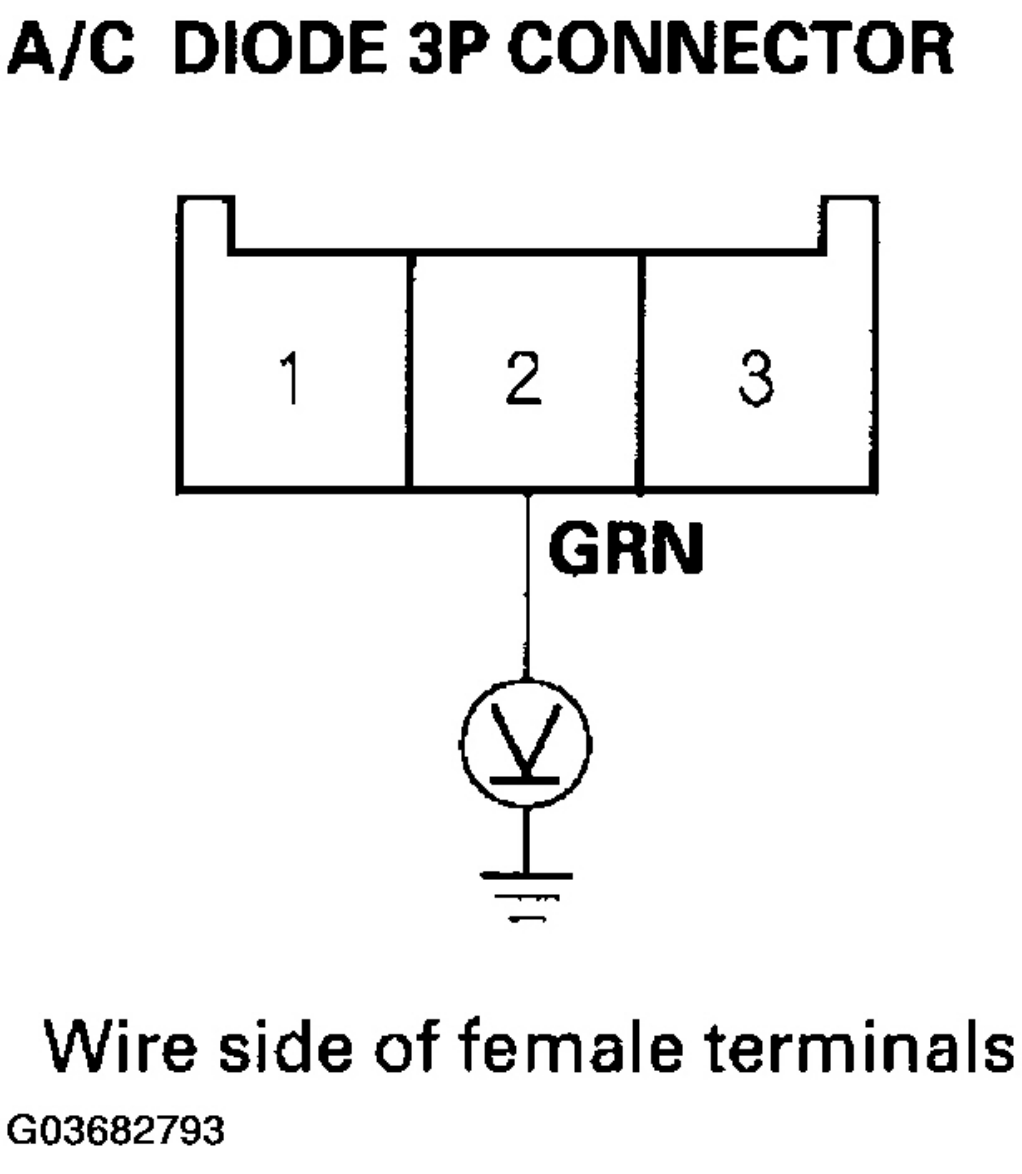


Fig. 69: Measuring Voltage Between No. 2 Terminal Of A/C Diode 3P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

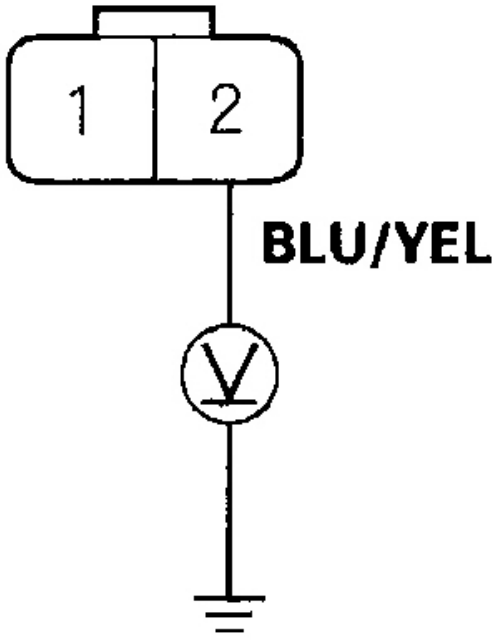
YES - Repair open in the wire between the A/C diode and the A/C

pressure switch.

NO - Repair open in the wire between the A/C condenser fan relay and the A/C diode.

13. Disconnect the jumper wire.
14. Reinstall the A/C condenser fan relay.
15. Disconnect the A/C condenser fan 2P connector.
16. Turn the ignition switch ON (II), then turn the A/C and fan switches ON.
17. Measure the voltage between the No. 2 terminal of the A/C condenser fan 2P connector and body ground.

A/C CONDENSER FAN 2P CONNECTOR



Wire side of female terminals

G03682794

Fig. 70: Measuring Voltage Between No. 2 Terminal Of A/C Condenser Fan 2P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 18.

NO - Repair open in the wire between the A/C condenser fan relay and the A/C condenser fan.

18. Turn the A/C and fan switches OFF, then turn the ignition switch OFF.
19. Reconnect the A/C condenser fan 2P connector.
20. Connect the No.1 terminal of the A/C condenser fan 2P connector to body ground with a jumper wire.

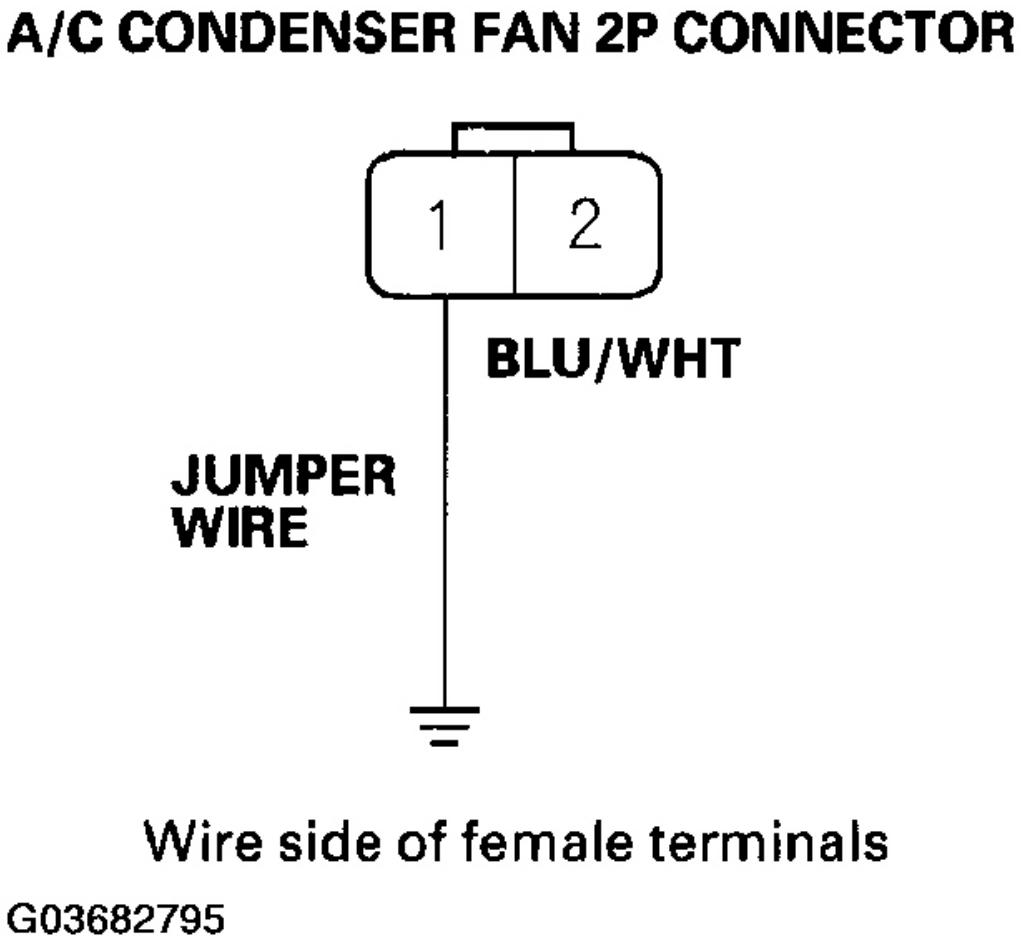


Fig. 71: Connecting No. 1 Terminal Of A/C Condenser Fan 2P Connector To Body Ground With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

21. Turn the ignition switch ON (II), then turn the A/C and fan switches ON.

    Does the A/C condenser fan run?

    YES - Go to step 22.
    NO - Replace the A/C condenser fan motor.

22. Turn the A/C and fan switches OFF, then turn the ignition switch OFF.

23. Disconnect the jumper wire.
24. Remove the fan control relay from the multi-relay box, and test it (see **FIVE-TERMINAL TYPE**).

    Is the relay OK?

    YES - Go to step 25.

    NO - Replace the fan control relay.
25. Turn the ignition switch ON (II), then turn the A/C and fan switches ON.
26. Measure the voltage between the No. 1 terminal of the fan control relay 5P socket and body ground.

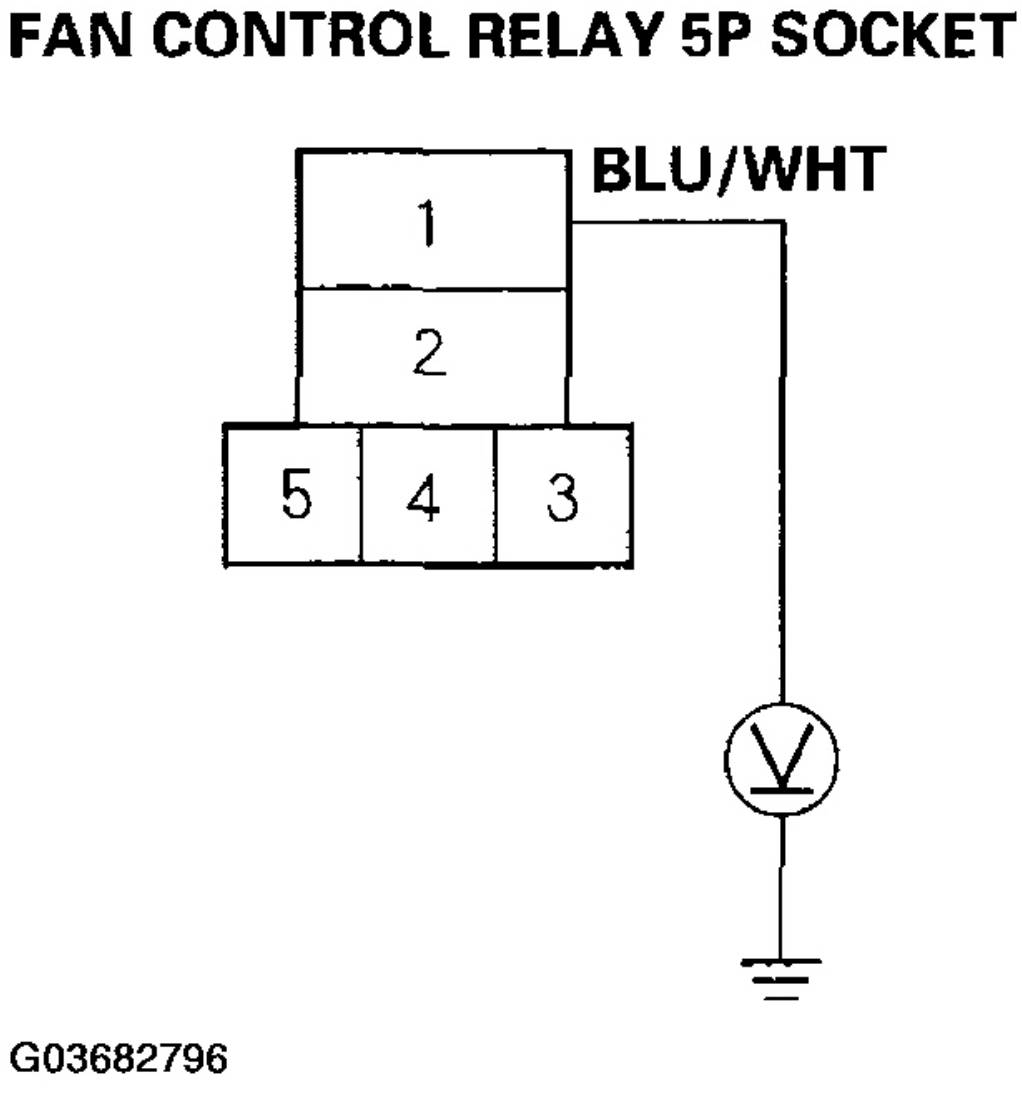


Fig. 72: Measuring Voltage Between No. 1 Terminal Of Fan Control Relay 5P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 27.

NO - Repair open in the BLU/WHT wire between the A/C condenser fan

and the fan control relay.

27. Turn the A/C and fan switches OFF, then turn the ignition switch OFF.
28. Disconnect the radiator fan 2P connector.
29. Check for continuity between the No. 4 terminal of the fan control relay 5P socket and the No. 2 terminal of the radiator fan 2P connector.

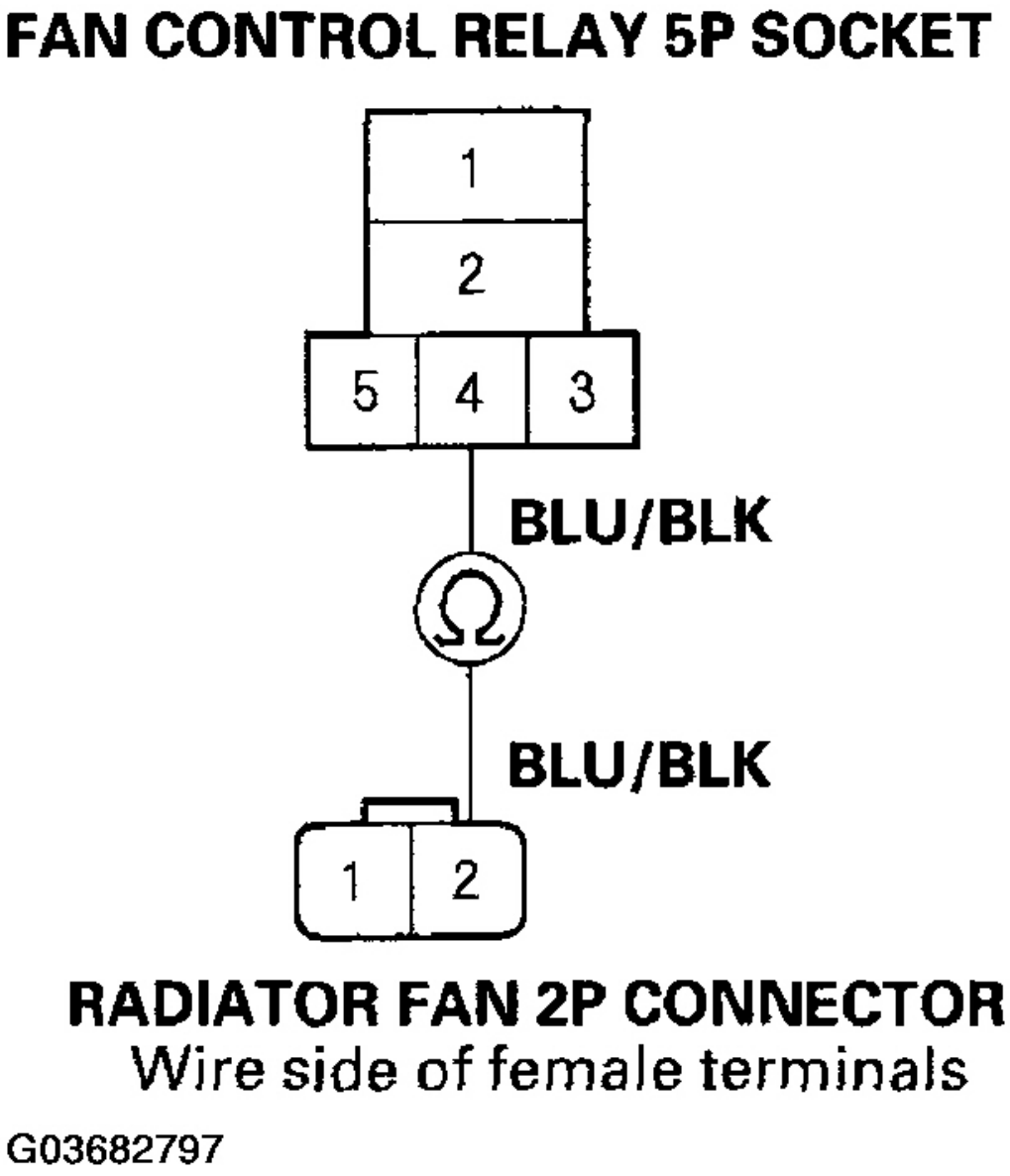


Fig. 73: Checking Continuity Between No. 4 Terminal Of Fan Control Relay 5P Socket And No. 2 Terminal Of Radiator Fan 2P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

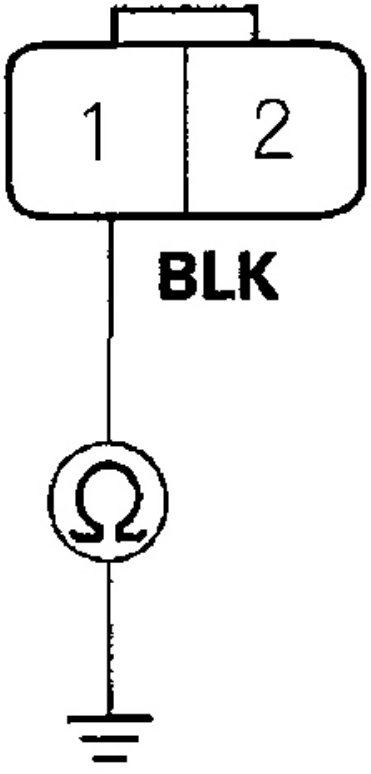
Is there continuity?

YES - Go to step 30.

NO - Repair open in the wire between the fan control relay and the radiator fan.

30. Check for continuity between the No. 1 terminal of the radiator fan 2P connector and body ground.

RADIATOR FAN 2P CONNECTOR



Wire side of female terminals

G03682798

Fig. 74: Checking Continuity Between No. 1 Terminal Of Radiator Fan 2P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Replace the radiator fan motor.

NO - Check for an open in the wire between the radiator fan and body ground. If the wire is OK, check for poor ground at G301.

A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING

NOTE:

- **Do not use this troubleshooting procedure if the radiator fan and/or the A/C compressor is inoperative.**

  Refer to the SYMPTOM TROUBLESHOOTING INDEX .

- **Before performing symptom troubleshooting, check for powertrain DTCs (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Check the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

   Is the fuse OK?

   YES - Go to step 2.

   NO - Replace the fuse, and recheck.
2. Remove the fan control relay from the multi-relay box, and test it (see **NORMALLY-OPEN TYPE B**).

   Is the relay OK?

   YES - Go to step 3.

   NO - Replace the fan control relay.
3. Turn the ignition switch ON (II).
4. Measure the voltage between the No. 5 terminal of the fan control relay 5P

socket and body ground.

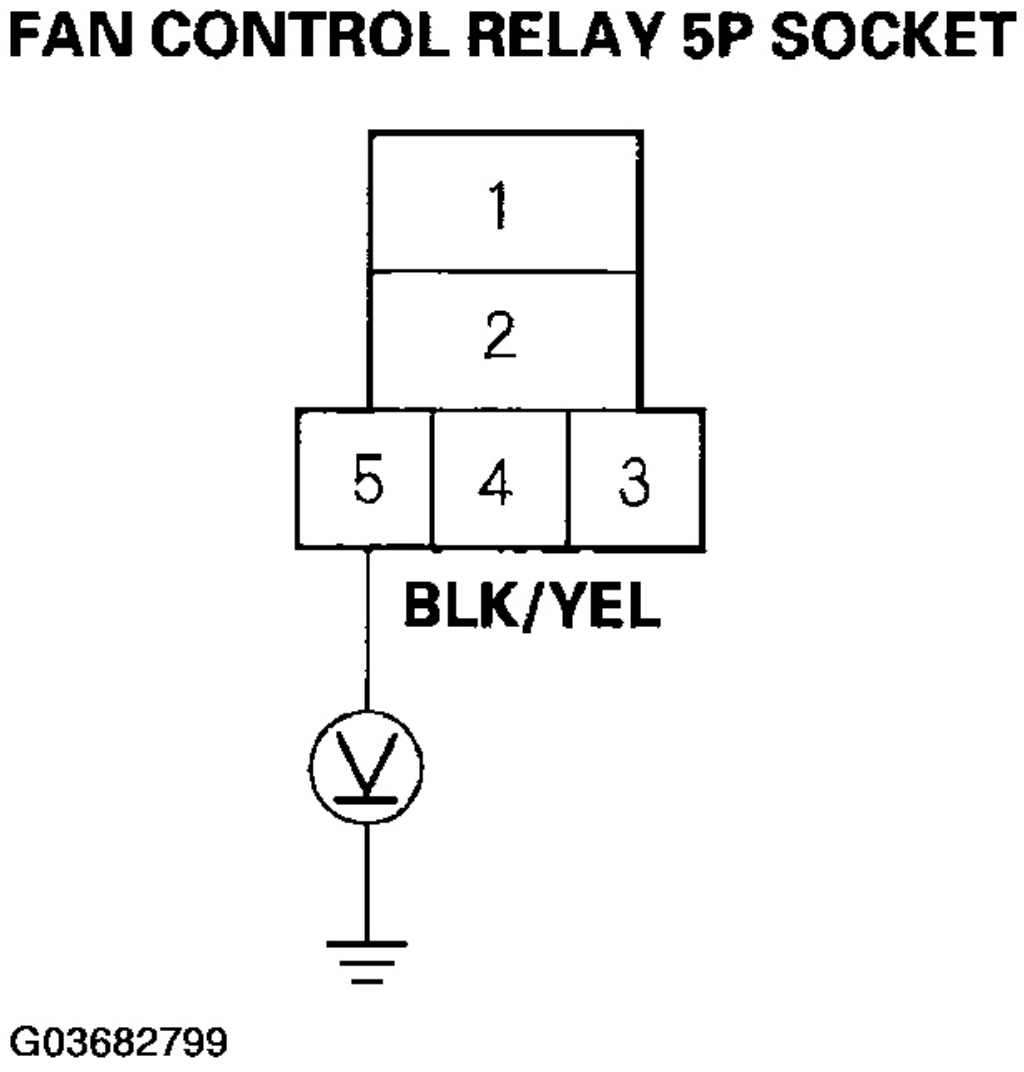


Fig. 75: Measuring Voltage Between No. 5 Terminal Of Fan Control Relay 5P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 5.

NO - Repair open in the BLK/YEL wire between the No. 16 (7.5 A) fuse in the under-dash fuse/relay box and the fan control relay.

5. Turn the ignition switch OFF.
6. Check for continuity between the No. 2 terminal of the fan control relay 5P socket and body ground.

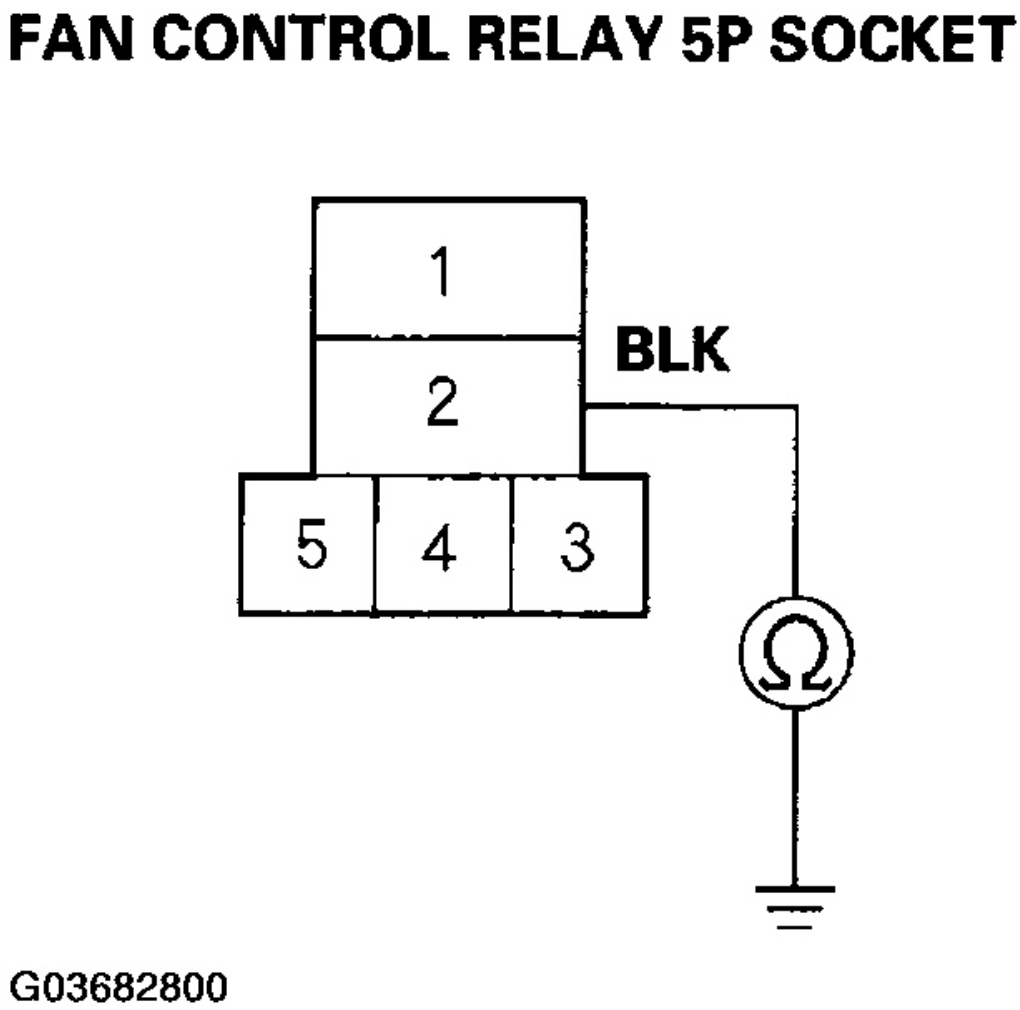


Fig. 76: Checking Continuity Between No. 2 Terminal Of Fan Control Relay 5P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair open in the wire between the fan control relay and the A/C pressure switch.

NO - Check for an open in the wire between the fan control relay and body ground. If the wire is OK, check for poor ground at G301.

RADIATOR AND A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING

NOTE:

- **Do not use this troubleshooting procedure if only one fan is inoperative, or if the A/C compressor is inoperative. Refer to the SYMPTOM TROUBLESHOOTING INDEX .**
- **Before performing symptom troubleshooting, check for powertrain DTCs (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Disconnect the A/C pressure switch 4P connector.
2. Turn the ignition switch ON (II).
3. Measure the voltage between the No. 3 terminal of the A/C pressure switch 4P connector and body ground.

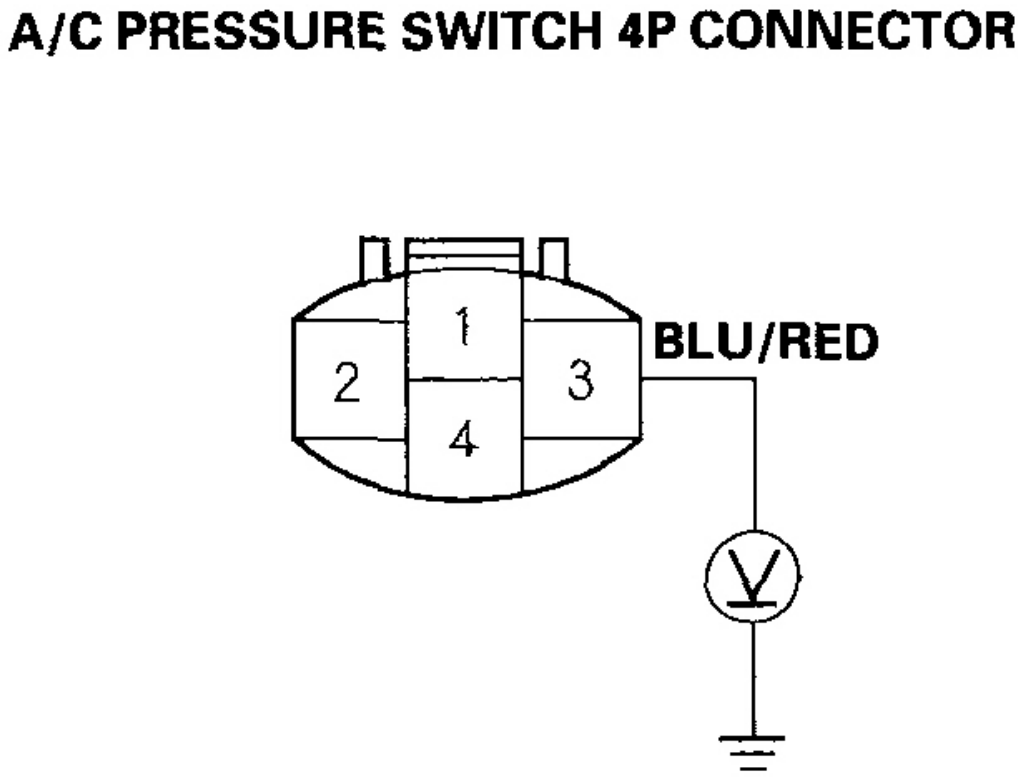


Fig. 77: Measuring Voltage Between No. 3 Terminal Of A/C Pressure Switch 4P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 4.

NO - Repair open in the wire between the radiator fan relay, the fan control relay and the A/C pressure switch.

4. Measure the voltage between the No. 2 terminal of the A/C pressure switch 4P connector and body ground.

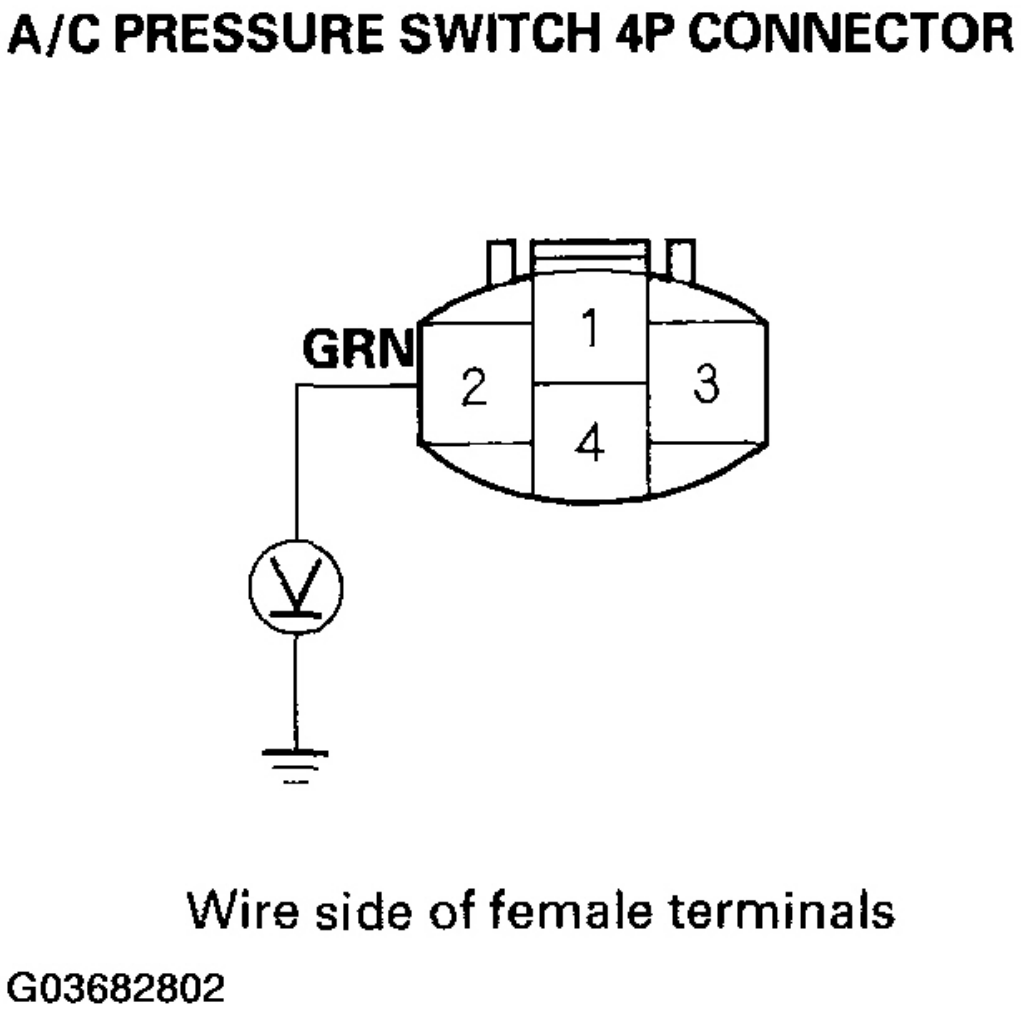


Fig. 78: Measuring Voltage Between No. 2 Terminal Of A/C Pressure Switch 4P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Replace the A/C pressure switch.

NO - Repair open in the wire between the A/C pressure switch and the A/C diode.

A/C COMPRESSOR CLUTCH CIRCUIT TROUBLESHOOTING

NOTE:

- **Do not use this troubleshooting procedure if the fans are also inoperative with the A/C on. Refer to the SYMPTOM TROUBLESHOOTING INDEX .**
- **Before performing symptom troubleshooting, check for powertrain DTCs (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Check the No. 19 (20 A) fuse in the under-hood fuse/relay box and the No. 16 (7.5 A) fuse in the under-dash fuse/relay box.

   Are the fuses OK?

   YES - Go to step 2.

   NO - Replace the fuse(s), and recheck.
2. Check the engine coolant temperature, the throttle position, and the idle speed (use the HDS PGM-FI data list if possible).

   ECT SENSOR REFERENCE CHART

ECT sensor	187-212 °F (86-100 °C)
TP sensor	About 0.5 V
RPM	More than 900

   Is the engine coolant temperature, throttle position, or idle speed OK?

   YES - Go to step 3.

   NO - Troubleshoot and repair the cause of the high engine coolant temperature, low idle, or excessively high throttle position sensor reading.
3. Remove the A/C compressor clutch relay from the under-hood fuse/relay box, and test it (see **POWER RELAY TEST**).

Is the relay OK?

YES - Go to step 4.

NO - Replace the A/C compressor clutch relay.

4. Measure the voltage between the No. 1 terminal of the A/C compressor clutch relay 4P socket and body ground.

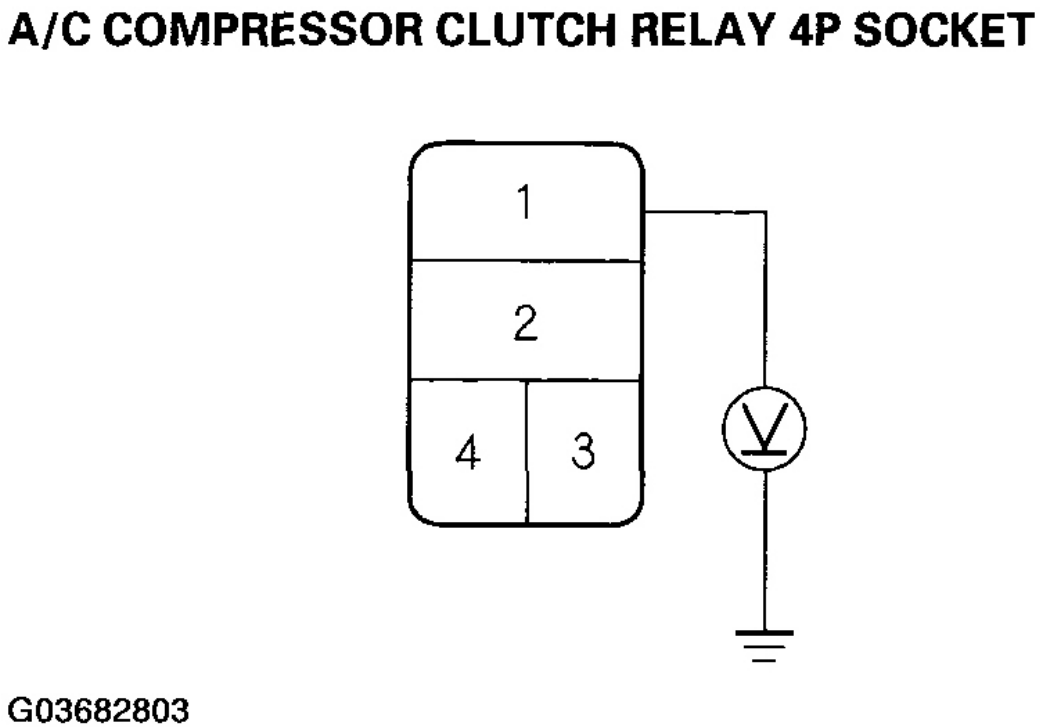


Fig. 79: Measuring Voltage Between No. 1 Terminal Of A/C Compressor Clutch Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 5.

NO - Replace the under-hood fuse/relay box.

5. Connect the No. 1 and No. 2 terminals of the A/C compressor clutch relay 4P

socket with a jumper wire.

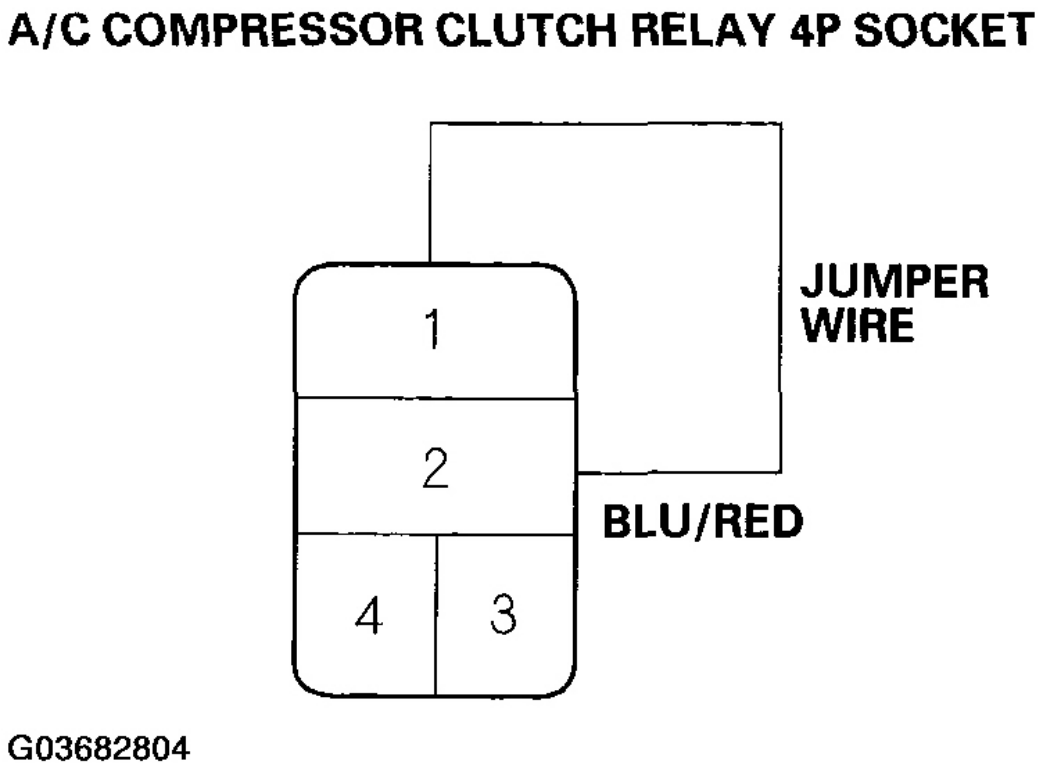


Fig. 80: Connecting Terminals No. 1 & 2 Of A/C Compressor Clutch Relay 4P Socket With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the A/C compressor clutch click?

YES - Go to step 6.
NO - Go to step 15 .

6. Disconnect the jumper wire.
7. Turn the ignition switch ON (II).
8. Measure the voltage between the No. 4 terminal of the A/C compressor clutch relay 4P socket and body ground.

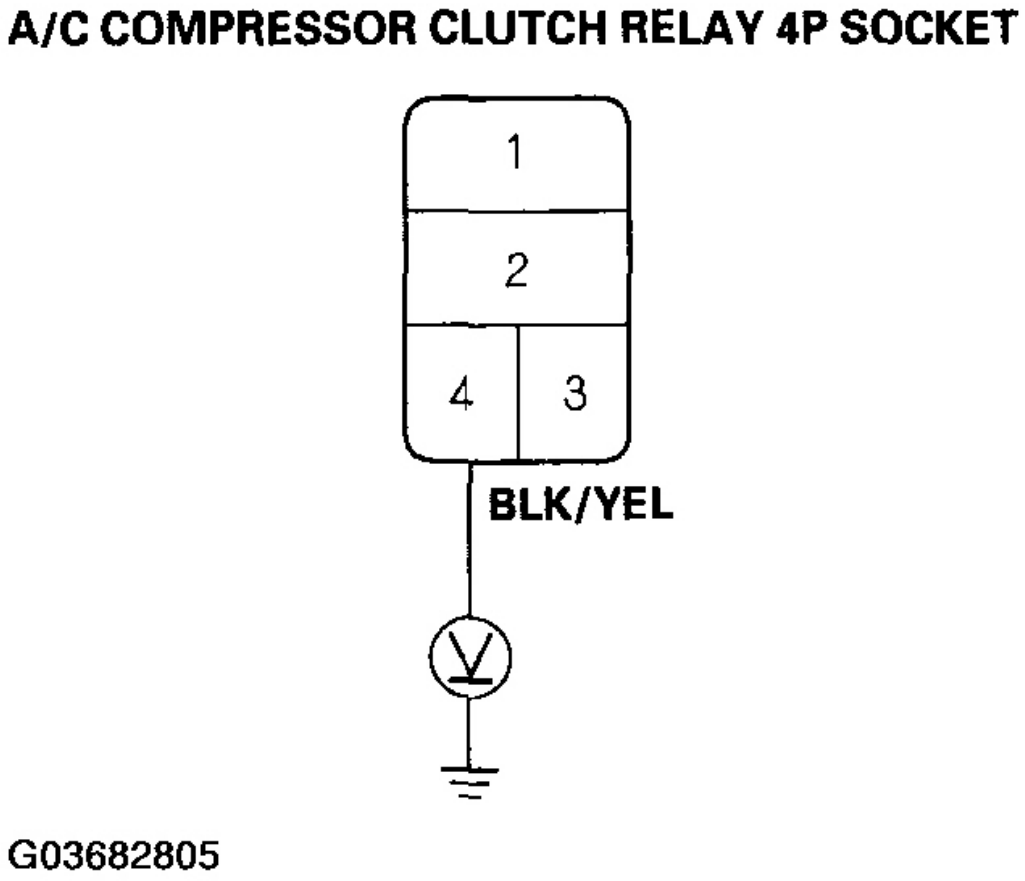


Fig. 81: Measuring Voltage Between No. 4 Terminal Of A/C Compressor Clutch Relay 4P Socket And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 9.

NO - Repair open in the BLK/YEL wire between the No. 16 (7.5 A) fuse in the under-dash fuse/relay box and the A/C compressor clutch relay.

9. Turn the ignition switch OFF.
10. Reinstall the A/C compressor clutch relay.
11. Make sure the A/C switch is OFF.

12. Turn the ignition switch ON (II).
13. Using the backprobe set, measure the voltage between the No. 17 terminal of ECM connector A (32P) and body ground with the ECM connectors connected.

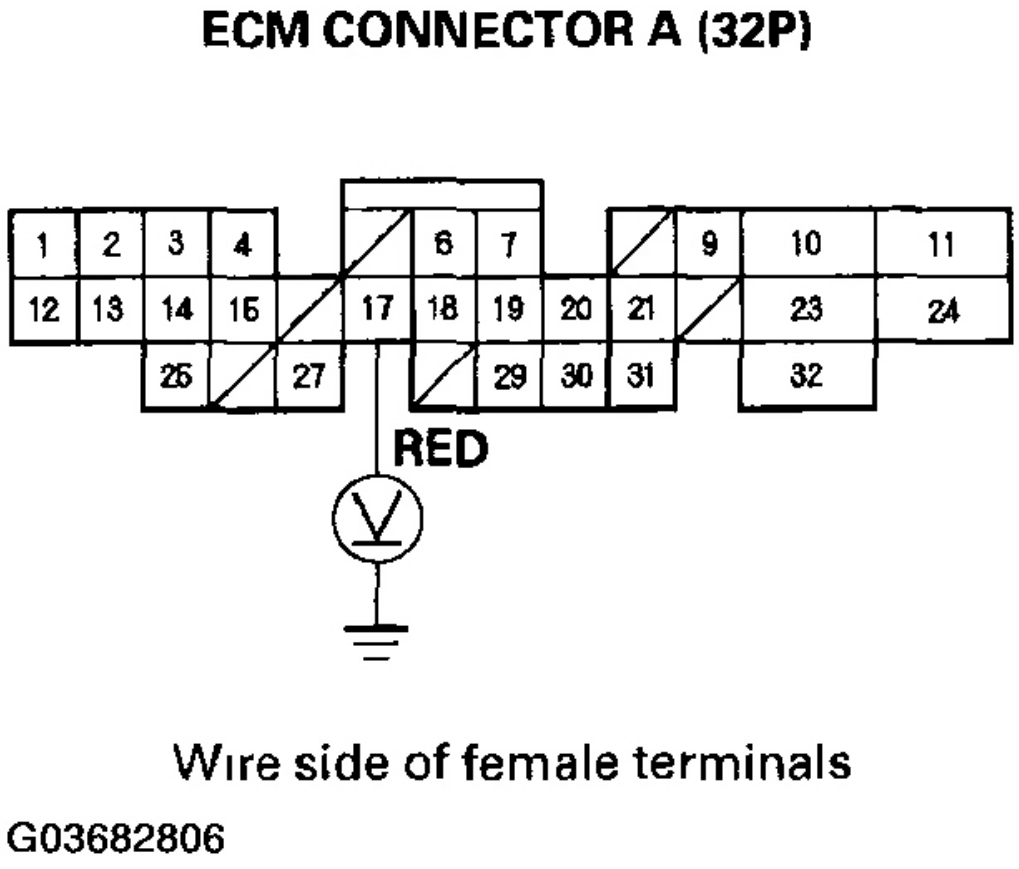


Fig. 82: Measuring Voltage Between No. 17 Of ECM Connector A (32P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 14.

NO - Repair open in the wire between the A/C compressor clutch relay and the ECM.

14. Using the backprobe set, measure the voltage between the No. 27 terminal of ECM connector A (32P) and body ground with the ECM connectors connected.

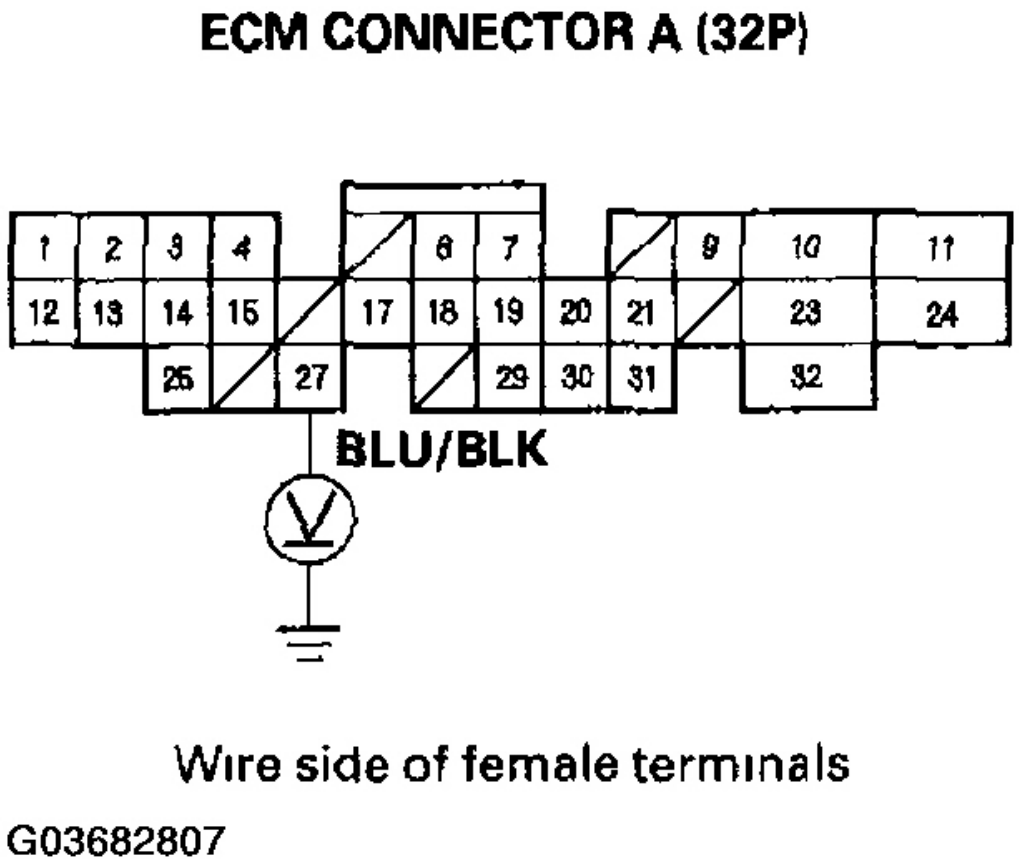


Fig. 83: Measuring Voltage Between No. 27 Terminal Of ECM Connector A (32P) And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Check for loose wires or poor connections at ECM connector A

(32P). If the connections are good, substitute a known-good ECM, and recheck. If the symptom/indication goes away, replace the original ECM.

NO - Repair open in the wire between the ECM and the A/C pressure switch.

15. Disconnect the jumper wire.
16. Disconnect the A/C compressor clutch 1P connector.
17. Check for continuity between the No. 2 terminal of the A/C compressor clutch relay 4P socket and the No. 1 terminal of the A/C compressor clutch 1P connector.

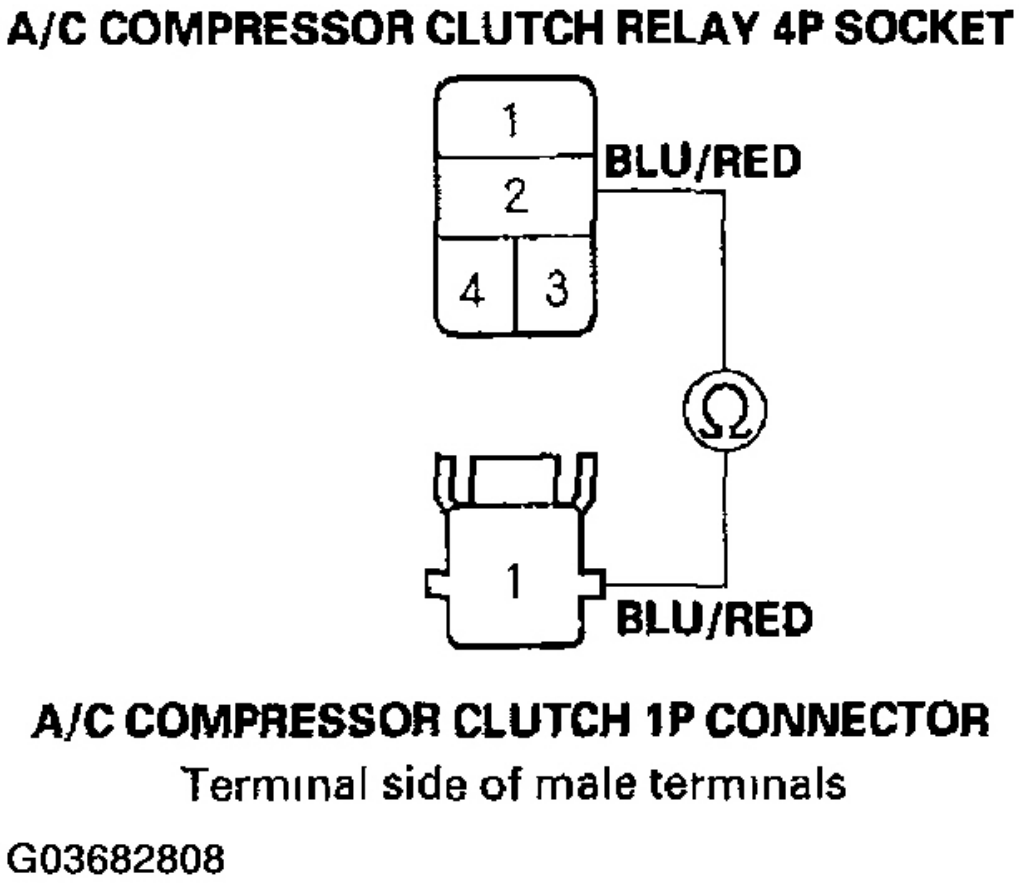


Fig. 84: Checking Continuity Between No. 2 Terminal Of A/C Compressor

Clutch Relay 4P Socket And No. 1 Of A/C Compressor Clutch 1P Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check the A/C compressor clutch clearance, the thermal protector, and the A/C compressor clutch field coil (see **A/C COMPRESSOR CLUTCH CHECK**).

NO - Repair open in the wire between the A/C compressor clutch relay and the A/C compressor clutch.

A/C PRESSURE SWITCH AND EVAPORATOR TEMPERATURE SENSOR CIRCUIT TROUBLESHOOTING

NOTE:

- **Do not use this troubleshooting procedure if any of the following items are operative; A/C condenser fan, radiator fan, A/C compressor, or if the heater is inoperative. Refer to the SYMPTOM TROUBLESHOOTING INDEX .**
- **Before performing symptom troubleshooting, check for powertrain DTCs (see GENERAL TROUBLESHOOTING INFORMATION).**

1. Disconnect the A/C pressure switch 4P connector.
2. Turn the ignition switch ON (II).
3. Measure the voltage between the No. 1 terminal of the A/C pressure switch 4P connector and body ground.

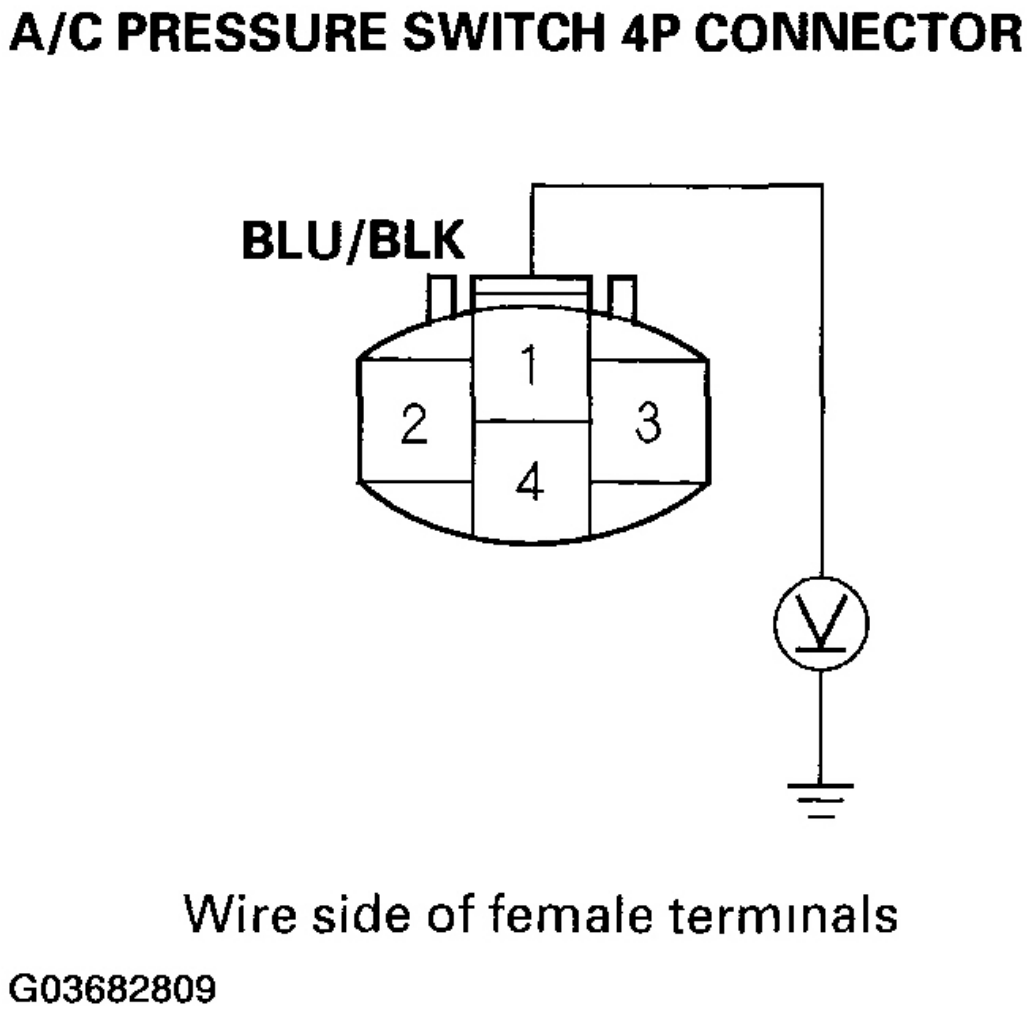


Fig. 85: Measuring Voltage Between No. 1 Terminal Of A/C Pressure Switch 4P Connector And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 4.

NO - Repair open in the wire between the A/C diode, the ECM and the A/C pressure switch.

4. Turn the ignition switch OFF.
5. Check for continuity between the No. 1 and No. 4 terminals of the A/C pressure switch.

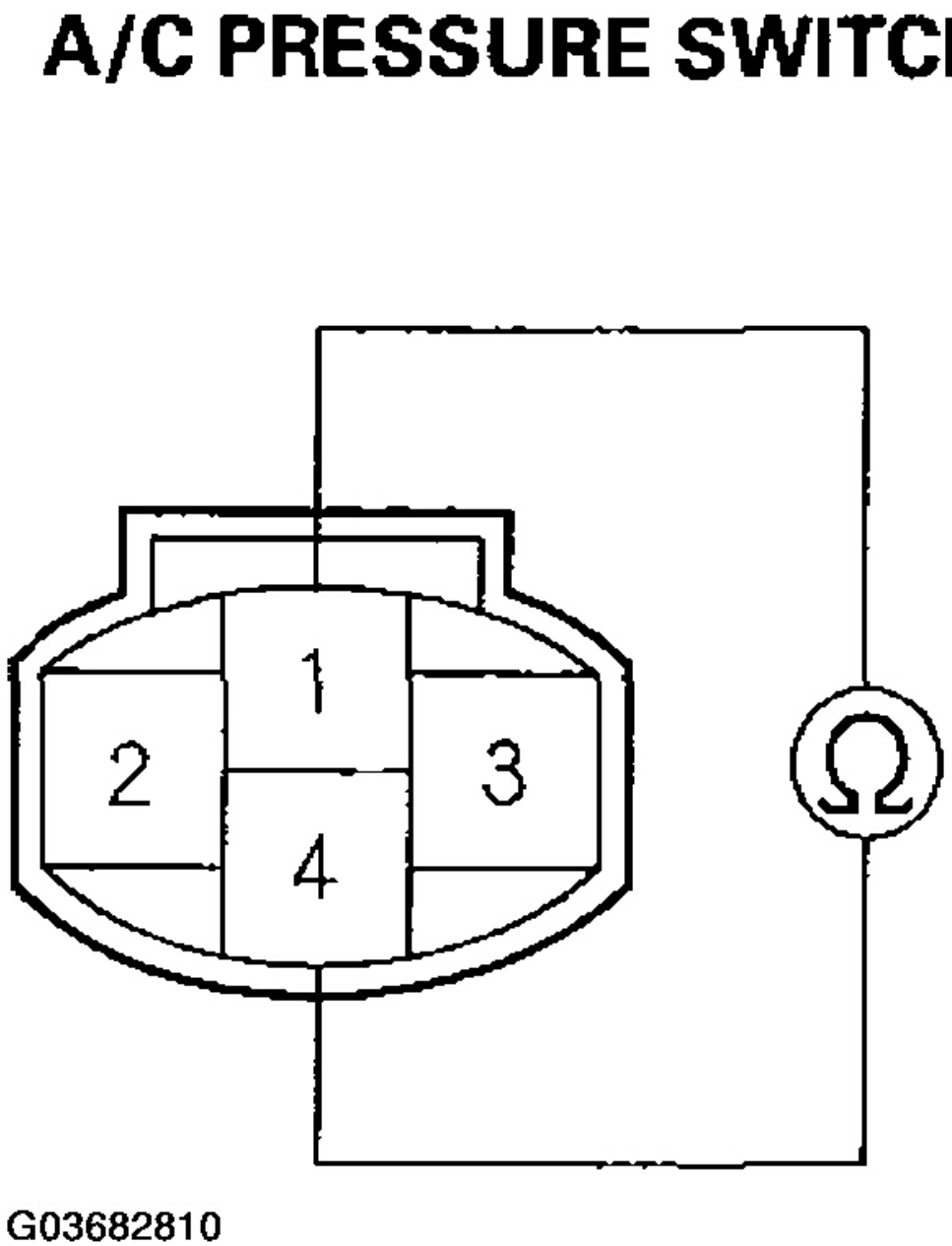


Fig. 86: Checking Continuity Between No. 1 & 4 Terminal Of A/C Pressure Switch
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 6.

NO - Go to step 15 .

6. Reconnect the A/C pressure switch 4P connector.
7. Disconnect climate control unit connector B (22P).
8. Turn the ignition switch ON (II).
9. Measure the voltage between the No. 17 terminal of climate control unit connector B (22P) and body ground.

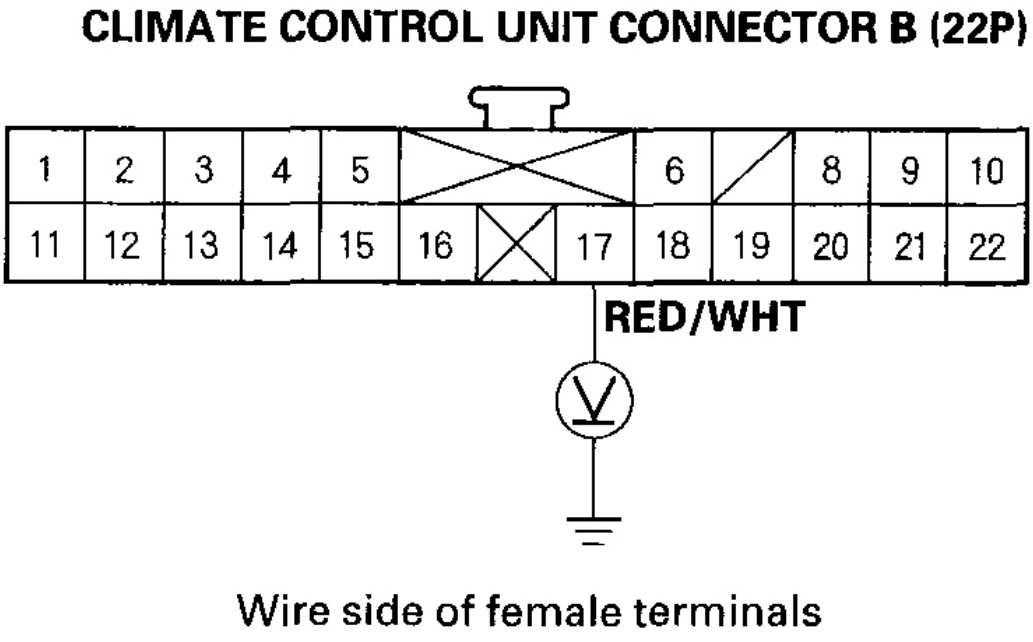


Fig. 87: Measuring Voltage Between No. 17 Terminal Of Climate Control Unit Connector B (22P) And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there 5 V or more?

YES - Go to step 10.

NO - Repair open in the wire between the climate control unit and the A/C pressure switch.

10. Turn the ignition switch OFF.
11. Measure the resistance between the No. 3 and No. 5 terminals of the climate control unit connector B (22P).

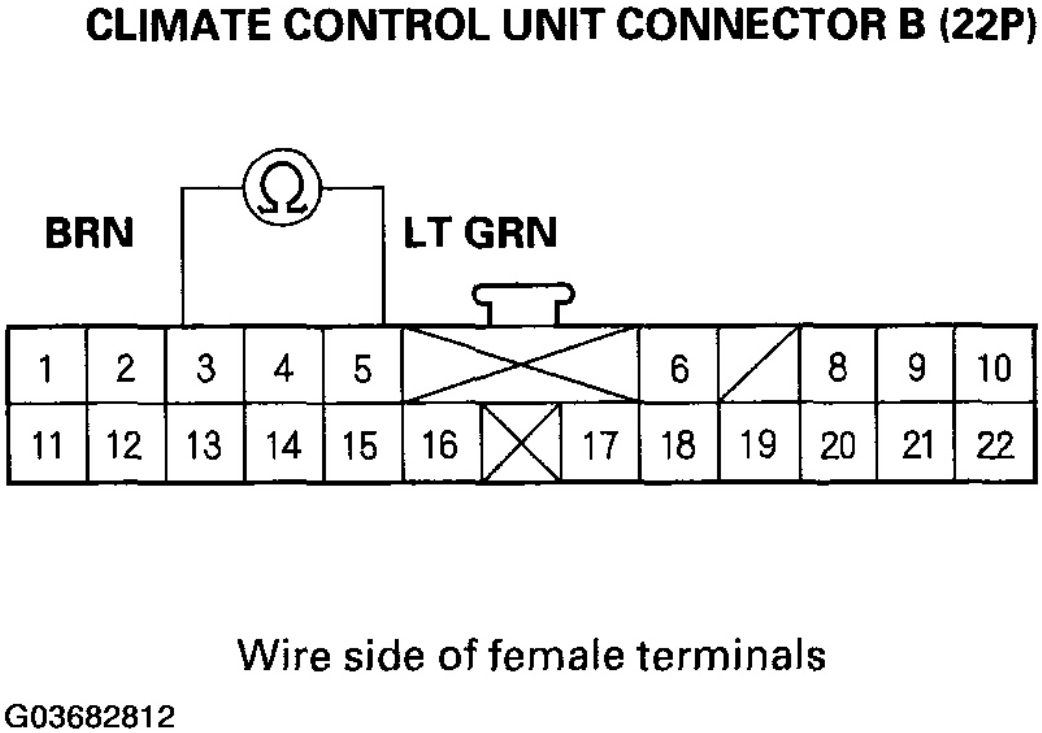


Fig. 88: Measuring Resistance Between No. 3 & 5 Terminals Of Climate Control Unit Connector B (22P)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is the resistance less than 24 kohm?

YES - Go to step 12.

NO - Test the evaporator temperature sensor (see **EVAPORATOR TEMPERATURE SENSOR TEST**).

12. Reconnect the climate control unit connector B (22P).
13. Turn the ignition switch ON (II).
14. Check the blower motor operation at several speeds.

Does the blower motor operate at all speeds?

YES - Check for loose wires or poor connections at the climate control unit connector B (22P) and at the A/C pressure switch 4P connector. If the connections are good, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair the problem in the blower motor circuit.

15. Check for proper A/C system pressure.

Is the pressure within specifications?

YES - Replace the A/C pressure switch.

NO - Repair the A/C pressure problem.

IN-CAR TEMPERATURE SENSOR TEST

Check for a change in resistance by heating or cooling the sensor with a hair dryer.

Compare the resistance reading between the No. 1 and No. 2 terminals of the in-car temperature sensor with the specifications shown in **Fig. 89** ; the resistance should be within the specifications.

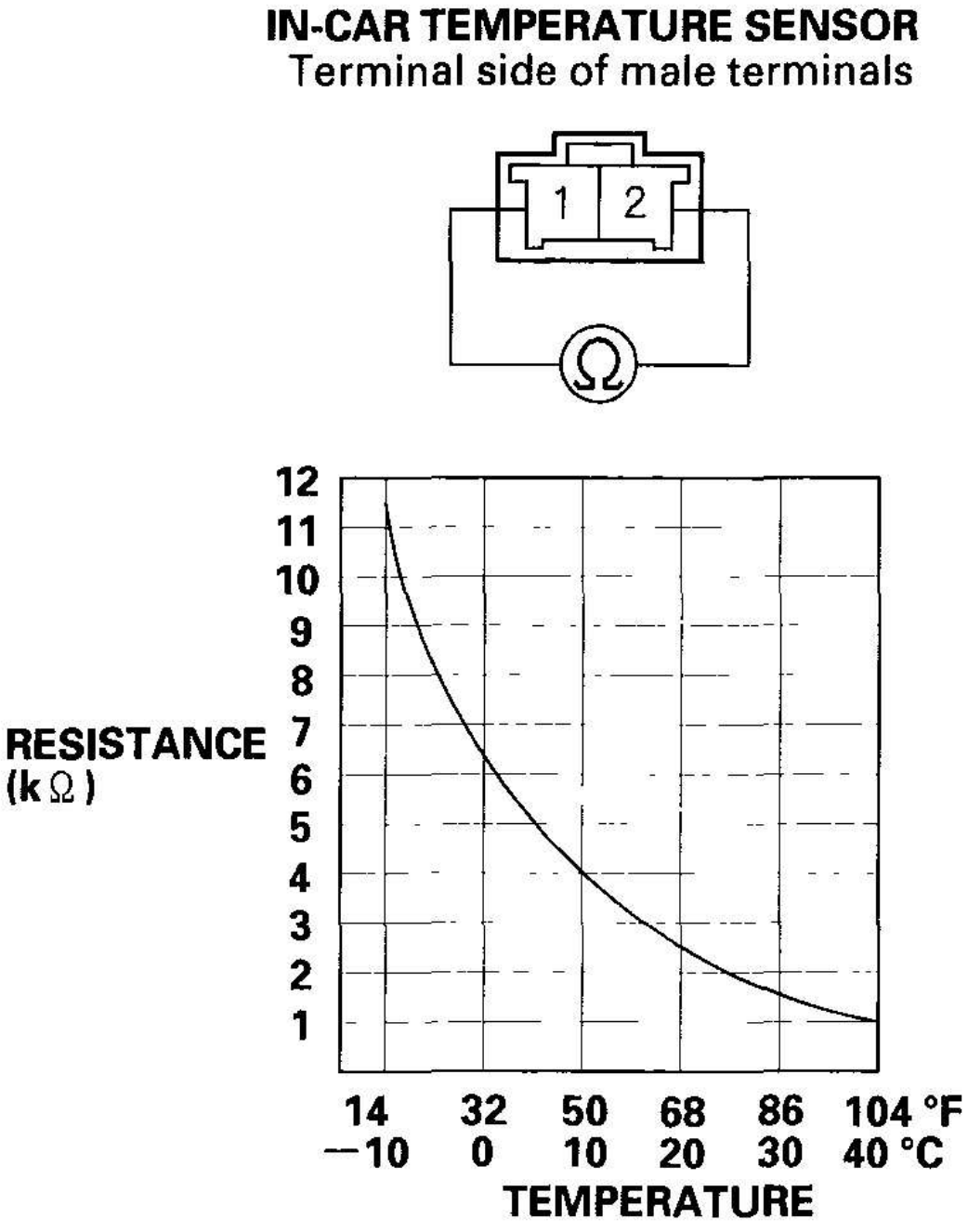


Fig. 89: Comparing Resistance Reading Between No. 1 & 2 Terminals Of In-Car Temperature Sensor

Courtesy of AMERICAN HONDA MOTOR CO., INC.

IN-CAR TEMPERATURE SENSOR REPLACEMENT

1. Remove the in-car temperature sensor (A) from the dashboard, then disconnect the 2P connector (B) and the air hose (C). Be careful not to damage the sensor or the dashboard.

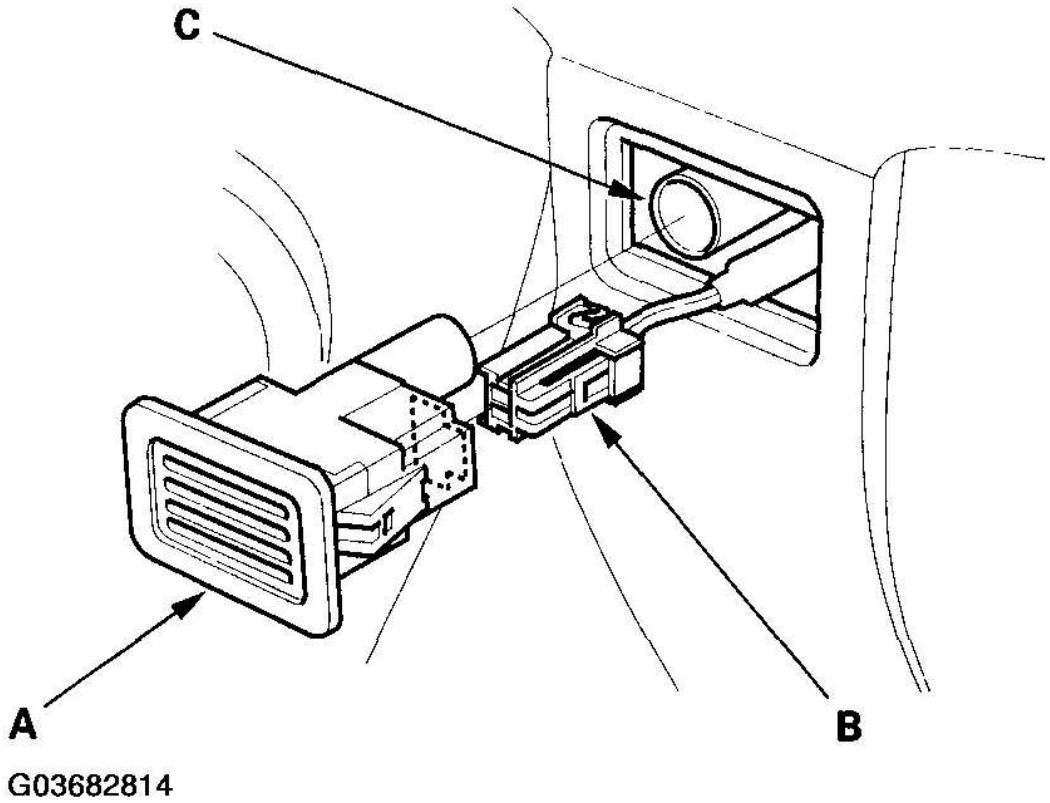


Fig. 90: Removing In-Car Temperature Sensor From Dashboard
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Install the sensor in the reverse order of removal. Be sure to connect the air hose securely.

SUNLIGHT SENSOR TEST

Turn the ignition switch ON (II). Measure the voltage between the terminals with the (+) probe on the No. 1 terminal and the (-) probe on the No. 2 terminal with the 2P connector connected. The voltage reading will not change under the light of a flashlight or a fluorescent lamp. Voltage should be:

- 3.6-3.7 V or more with the sensor out of direct sunlight.
- 3.6-3.5 V or less with the sensor in direct sunlight.

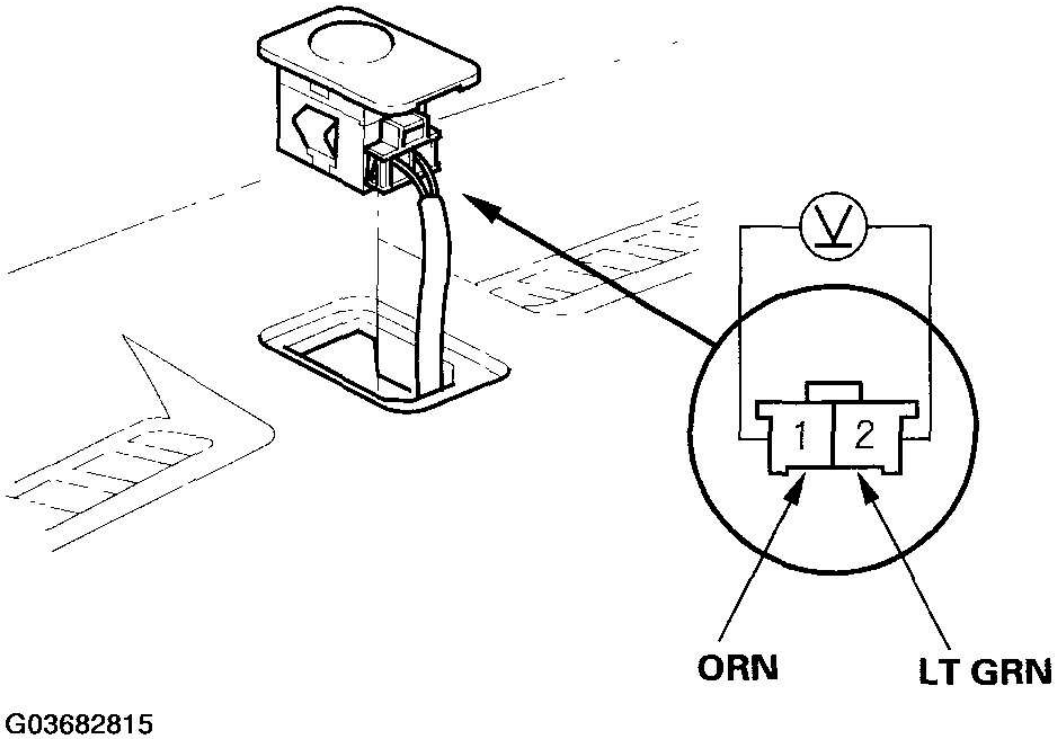


Fig. 91: Measuring Voltage Between Terminal Of Sunlight Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

SUNLIGHT SENSOR REPLACEMENT

1. Remove the sunlight sensor from the dashboard, then disconnect the 2P connector. Be careful not to damage the sensor or the dashboard.

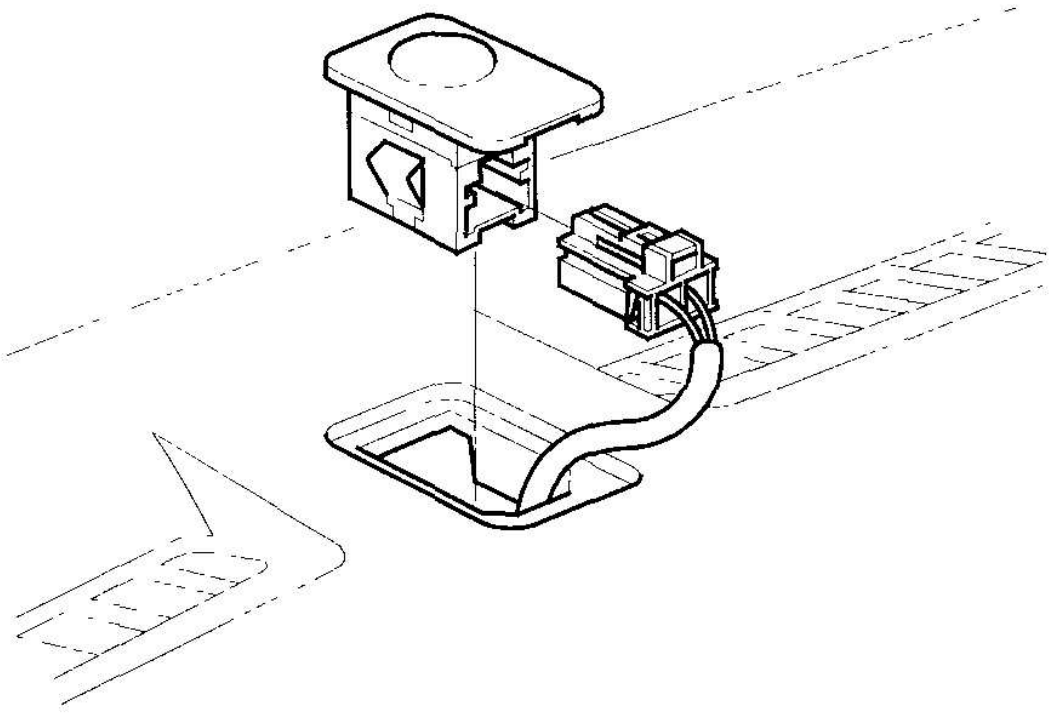


Fig. 92: Removing Sunlight Sensor From Dashboard
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Install the sensor in the reverse order of removal.

EVAPORATOR TEMPERATURE SENSOR TEST

1. Dip the sensor in ice water, and measure the resistance between its terminals.

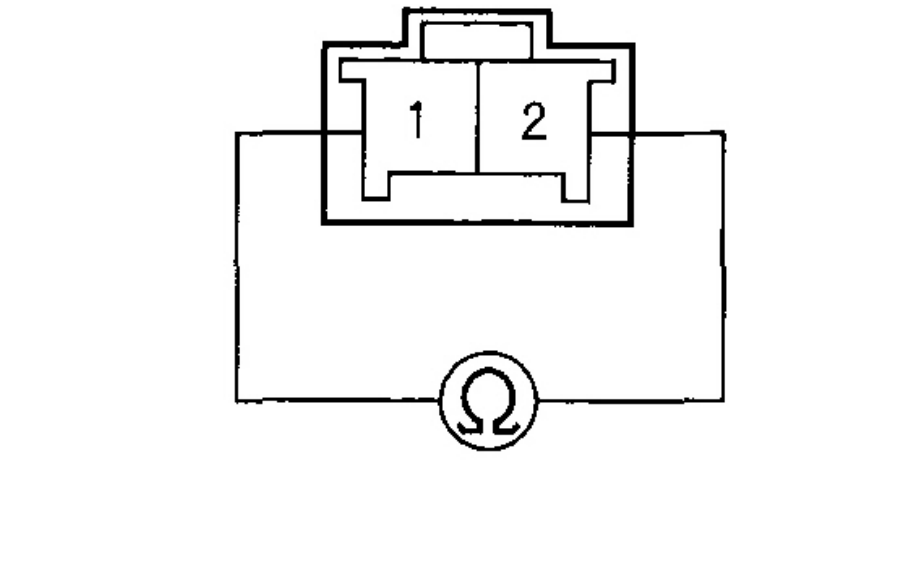


Fig. 93: Measuring Resistance Between Terminals Of Evaporator Temperature Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Then pour warm water on the sensor, and check for a change in resistance.
3. Compare the resistance readings with the specifications shown in **Fig. 94** ; the resistance should be within the specifications.

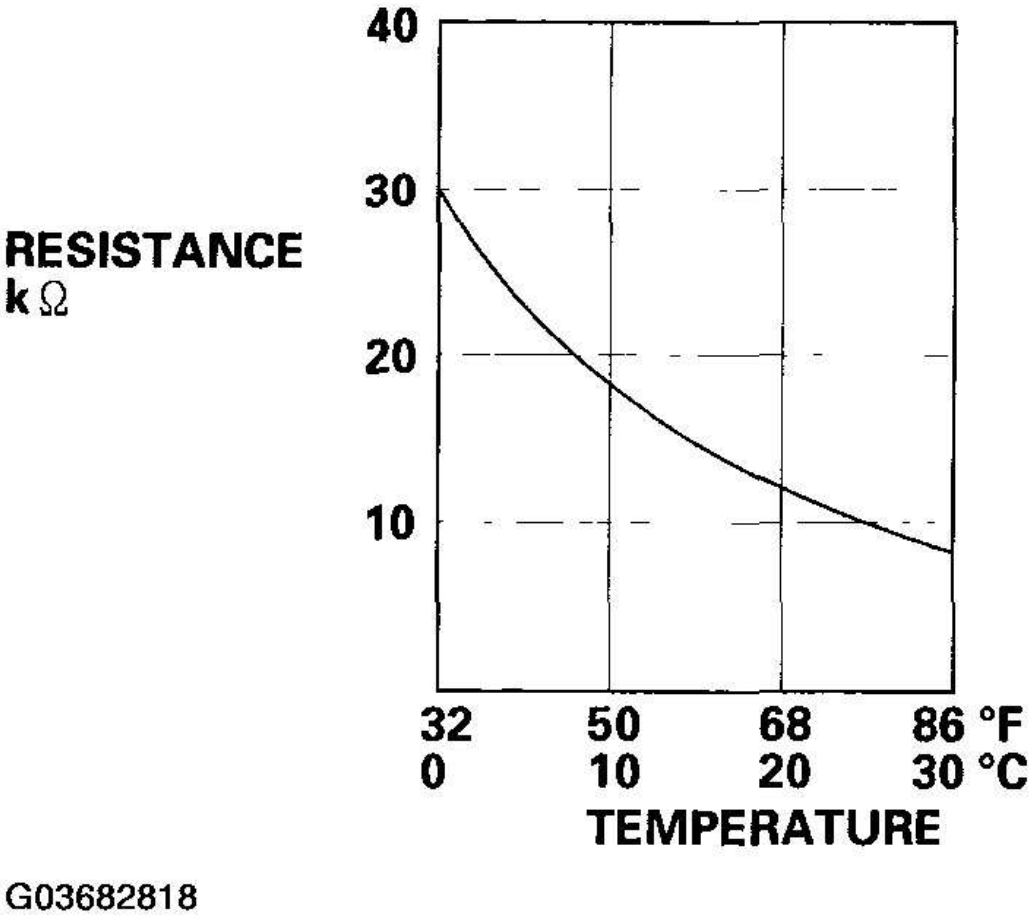


Fig. 94: Comparing Resistance To Temperature
Courtesy of AMERICAN HONDA MOTOR CO., INC.

CLIMATE CONTROL UNIT REMOVAL AND INSTALLATION

1. Remove the instrument panel with the climate control unit (see **INSTRUMENT PANEL REMOVAL/INSTALLATION**).
2. Remove the self-tapping screws and the climate control unit (A) from the instrument panel (B).

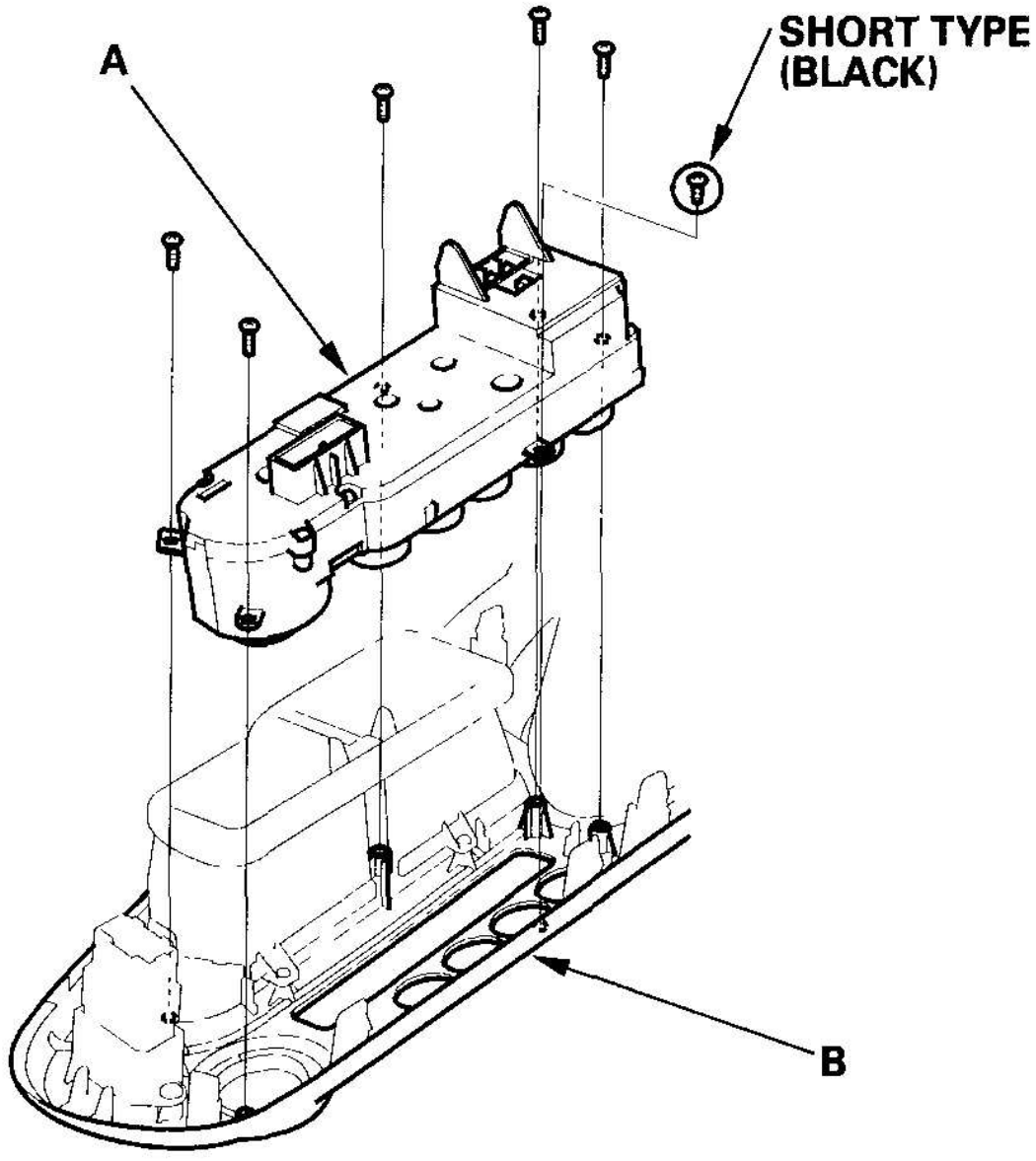


Fig. 95: Removing Self-Tapping Screws And Climate Control Unit From Instrument Panel
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the control unit in the reverse order of removal, and note these items:
   - Be sure to install the short black self-tapping screw in the position shown.

If a longer screw is used, it will damage the instrument panel.

- After installation, operate the control unit controls to see whether it works properly.

4. Run the self-diagnostic function to confirm that there are no problems in the system (see **GENERAL TROUBLESHOOTING INFORMATION**).

DUST AND POLLEN FILTER REPLACEMENT

The dust and pollen filter should be replaced every 30,000 miles (48,000 km) or 24 months whichever comes first. Replace the filter more often if the airflow is less than usual, or if the vehicle is driven in areas that have high concentrations of soot from industry or diesel powered vehicles.

1. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**) and the center lower cover (see **CENTER LOWER COVER REMOVAL/INSTALLATION**).
2. Cut the plastic cross brace in the glove box opening with diagonal cutters in the area shown in **Fig. 96** , and discard it.

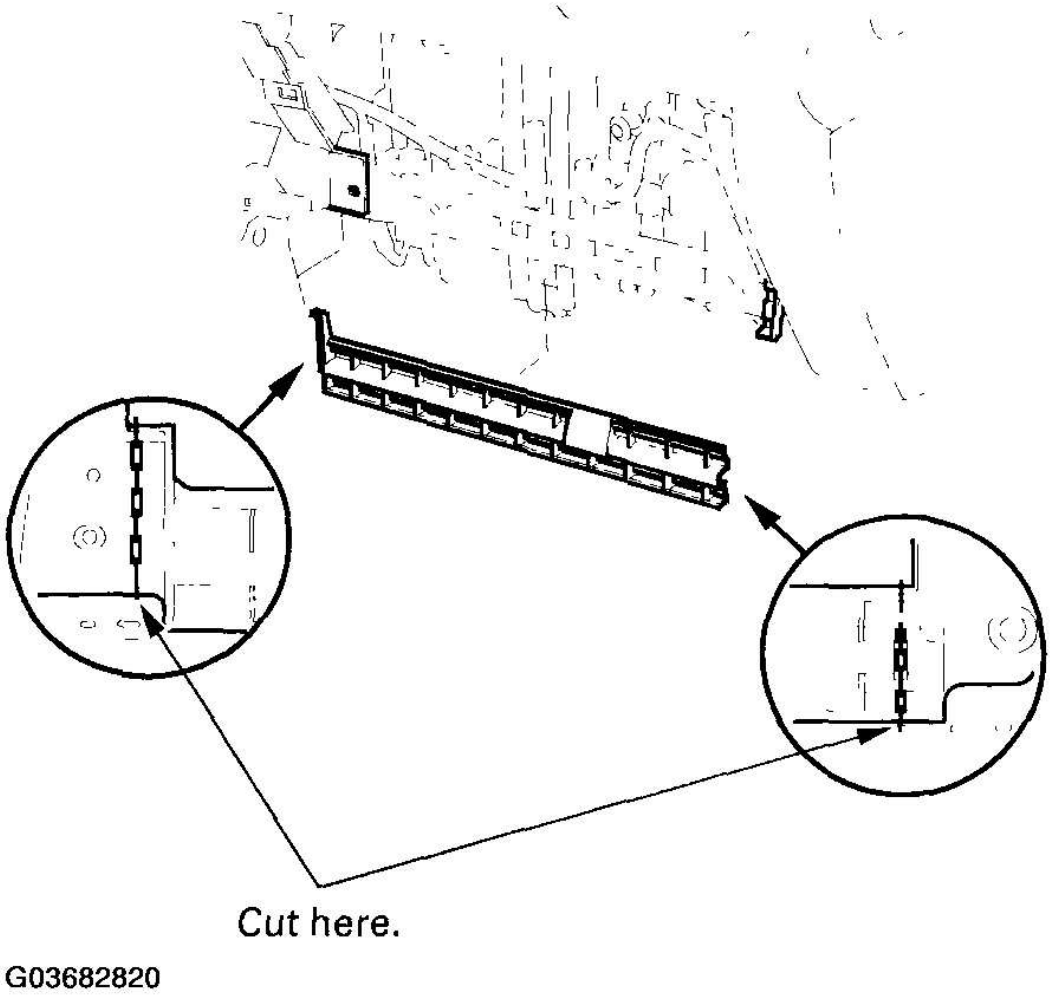


Fig. 96: Cutting Plastic Cross Brace In Glove Box Opening With Diagonal Cutters
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the bolts and the glove box frame.

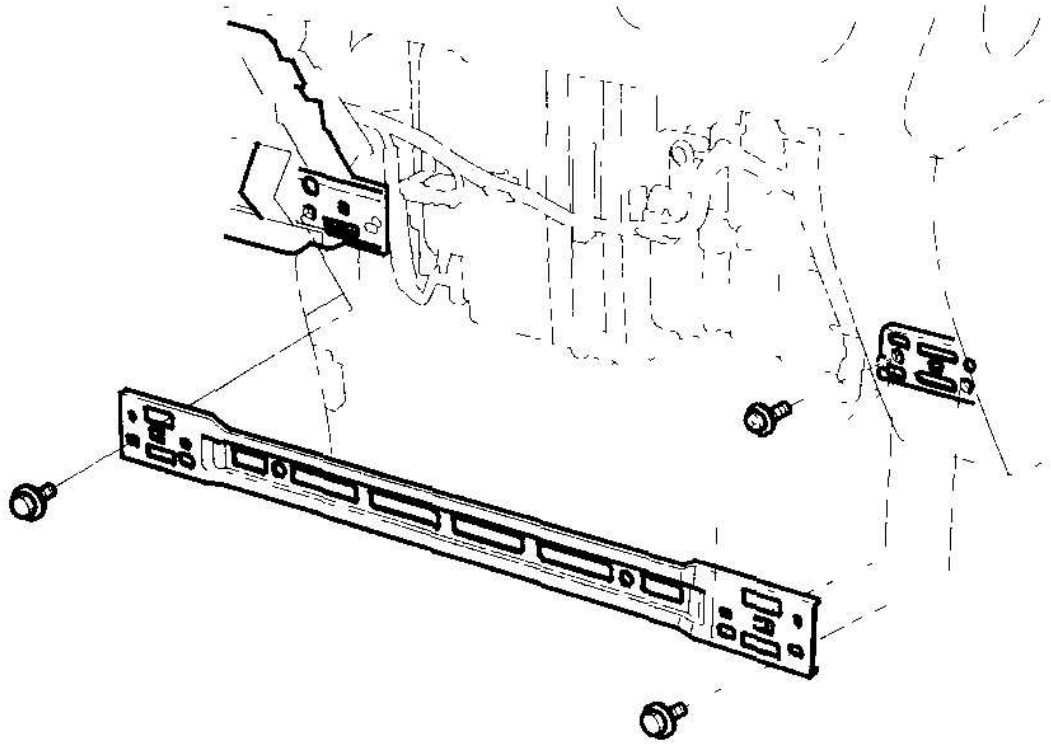


Fig. 97: Removing Glove Box Frame
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the filter lid (A) from the evaporator, then remove the dust and pollen filter (B) by pulling it.

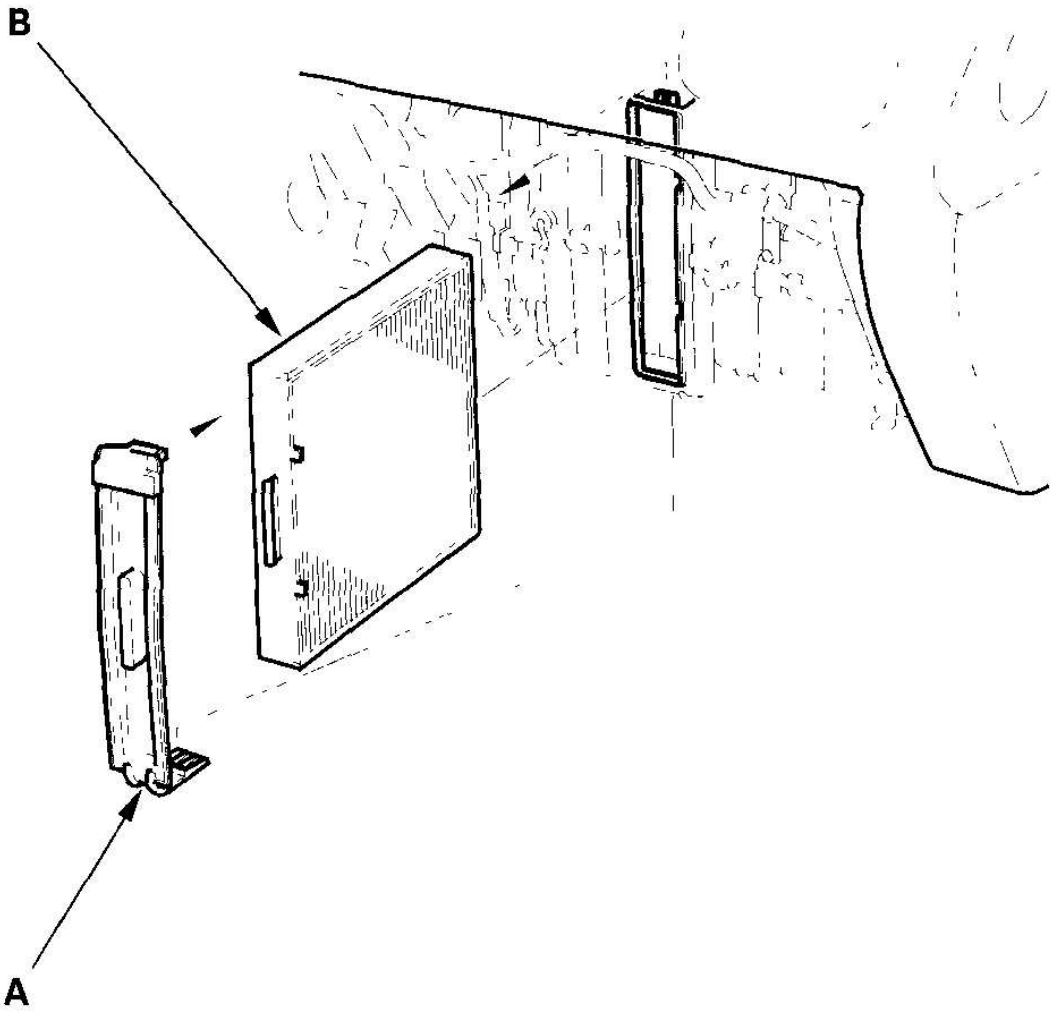


Fig. 98: Removing Filter Lid From Evaporator
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Remove the filter (A) from the housing (B), and replace the filter.

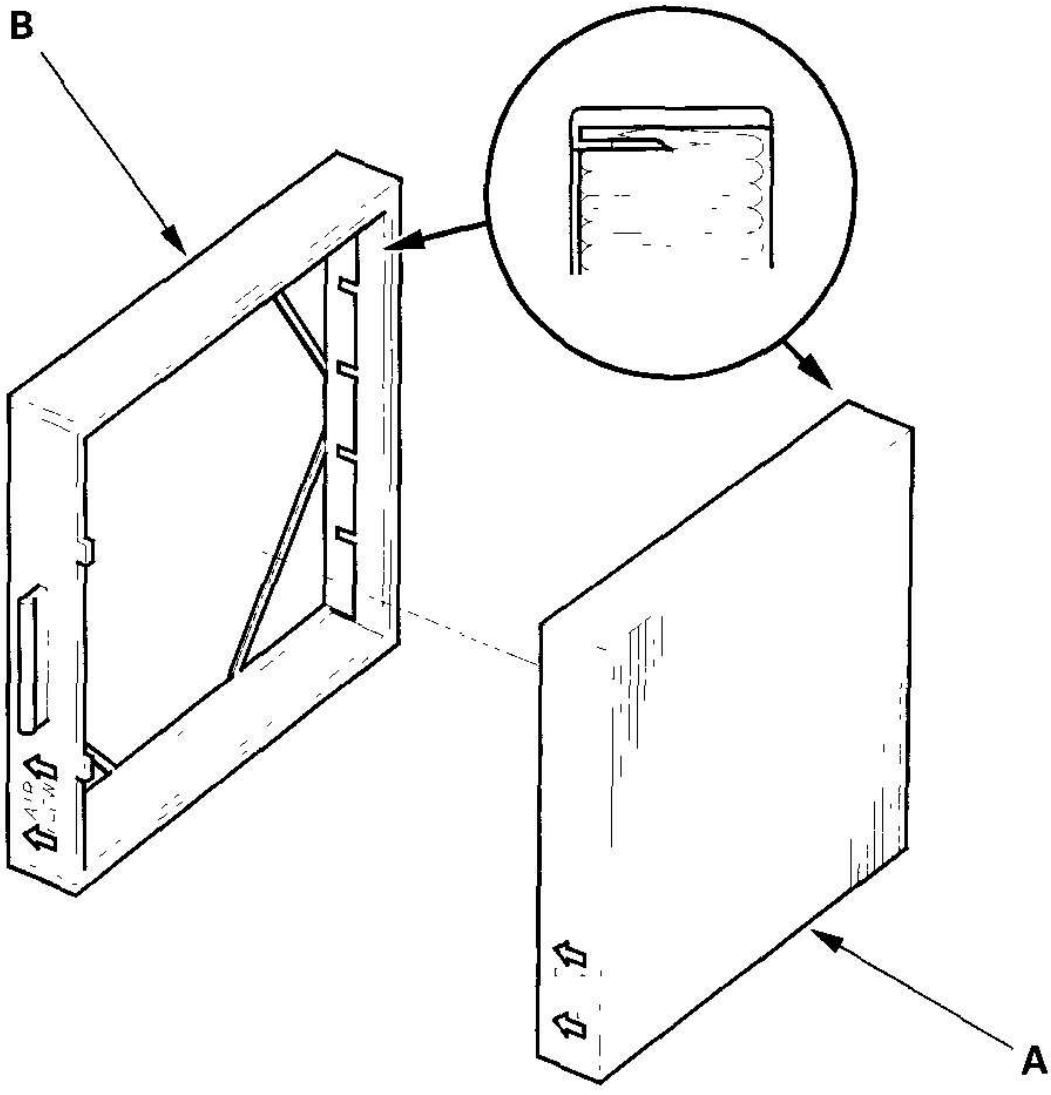


Fig. 99: Removing Filter From Housing
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the filter in the reverse order of removal.

EVAPORATOR REMOVAL AND INSTALLATION

1. Recover the refrigerant with a recovery/recycling/charging station (see

REFRIGERANT RECOVERY).

2. Remove the bolt, then disconnect the suction line (A) and receiver line (B) from the evaporator. Plug or cap the lines immediately after disconnecting them to avoid moisture and dust contamination.

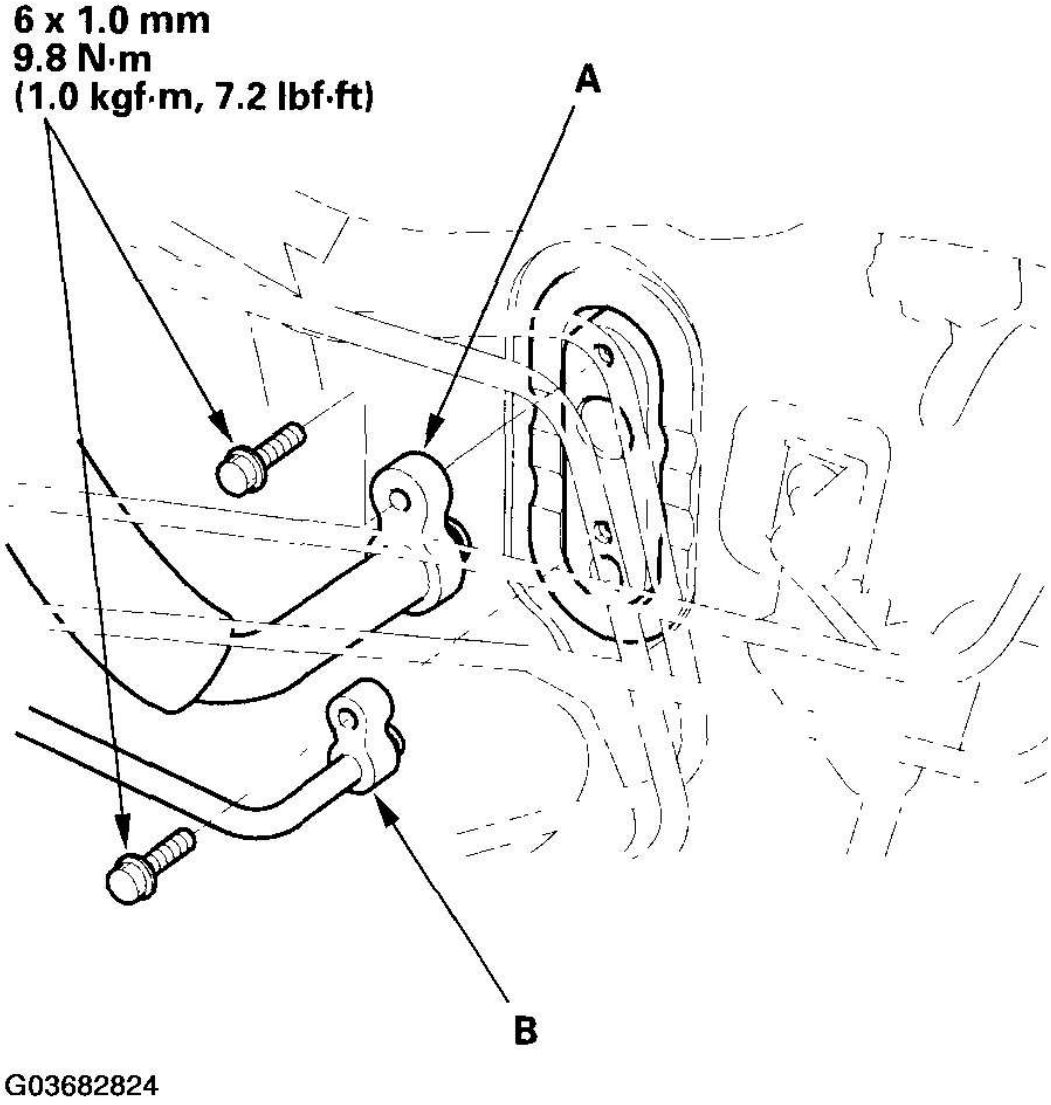


Fig. 100: Disconnecting Suction Line And Receiver Line From Evaporator
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**)

and the center lower cover (see **CENTER LOWER COVER REMOVAL/INSTALLATION**).

4. Remove the plastic cross brace, then remove the glove box frame (see step 2 in **DUST AND POLLEN FILTER REPLACEMENT**).
5. Disconnect the connector (A) from the evaporator temperature sensor, then remove the wire harness (B). Remove the drain hose (C), the self-tapping screws, the mounting bolts, and the evaporator (D).

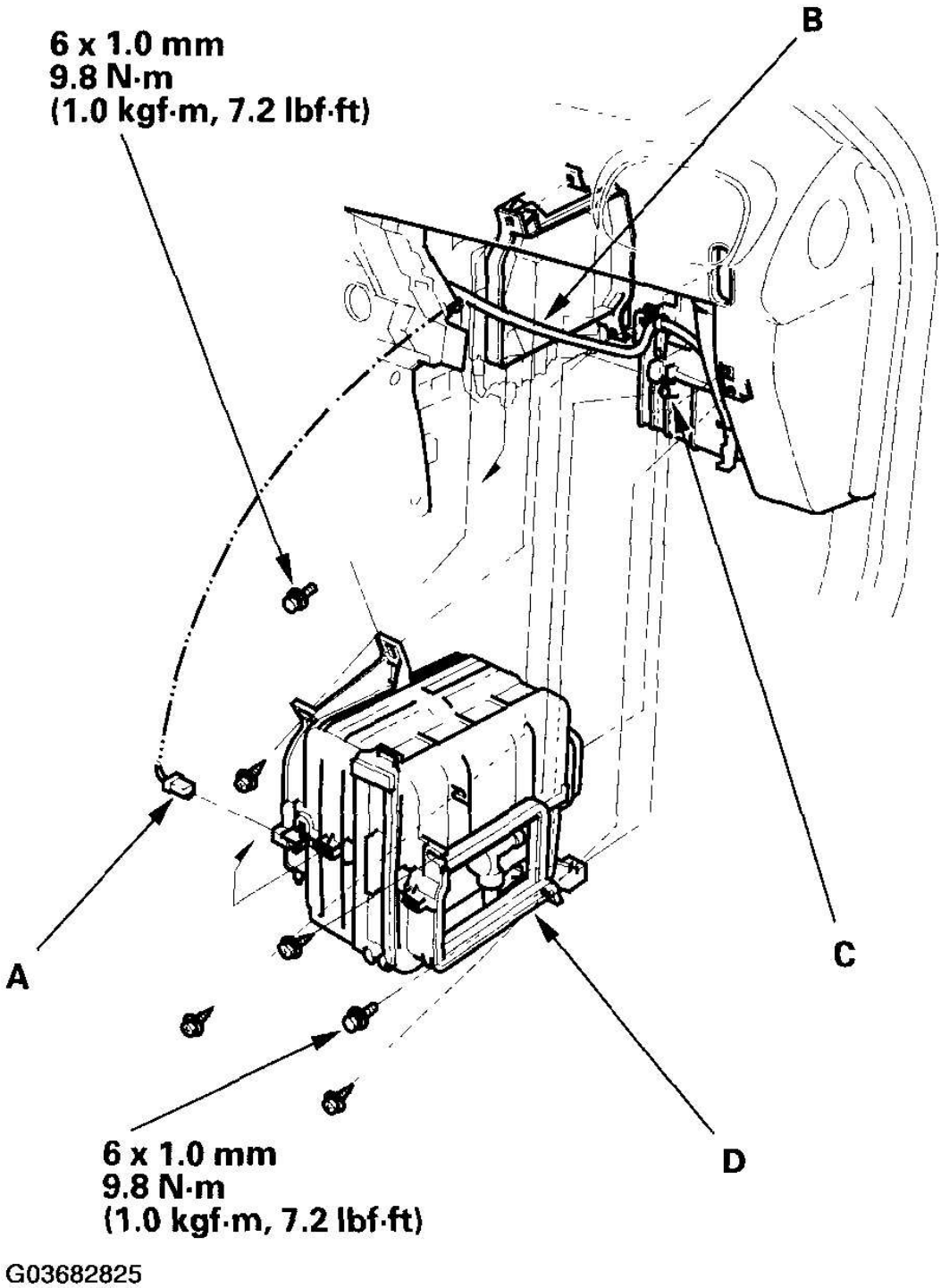


Fig. 101: Disconnecting Connector From Evaporator Temperature Sensor
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Install the evaporator in the reverse order of removal, and note these items:
   - If you're installing a new evaporator, add refrigerant oil (SANDEN SP-10) (see **A/C SERVICE TIPS AND PRECAUTIONS**).
   - Replace the O-rings with new ones at each fitting, and apply a thin coat of refrigerant oil before installing them. Be sure to use the correct O-rings for HFC-134a (R-134a) to avoid leakage.
   - Immediately after using the oil, reinstall the cap on the container, and seal it to avoid moisture absorption.
   - Do not spill the refrigerant oil on the vehicle; it may damage the paint. If the refrigerant oil contacts the paint, wash it off immediately.
   - Make sure that there is no air leakage.
   - Charge the system (see **SYSTEM CHARGING**).

EVAPORATOR COMPONENT REPLACEMENT

1. Remove the filter lid (A), then pull out the dust and pollen filter (B).

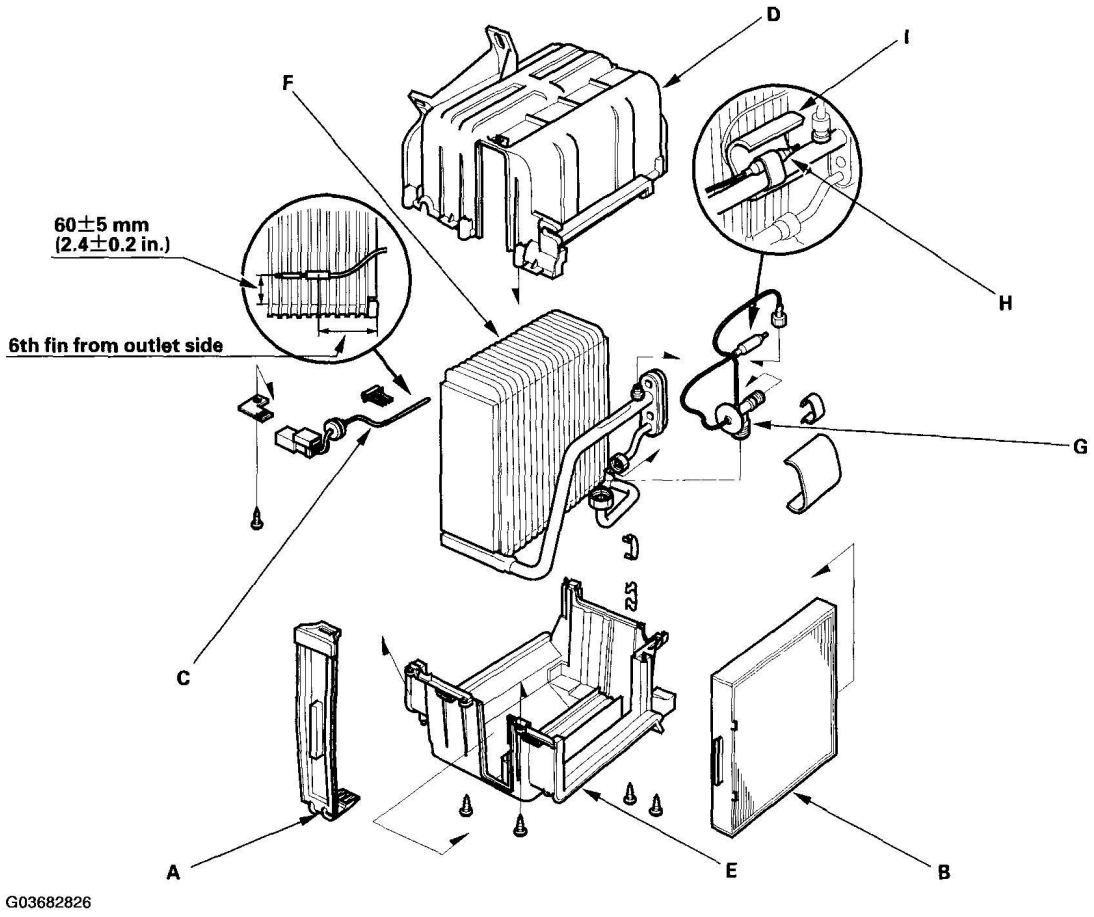


Fig. 102: Removing Filter Lid
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Pull out the evaporator temperature sensor (C) from the evaporator fins.
3. Remove the screws, carefully separate the upper housing (D) from the lower housing (E), then remove the evaporator core (F).
4. If necessary, remove the expansion valve (G). Use a second wrench to hold the other fitting on the valve so the evaporator line won't twist. Leave the first fitting loosely connected so you can use it to hold the valve while you loosen the second fitting.
5. Reassemble in the reverse order of disassembly, and note these items:
    - Replace the O-rings with new ones at each fitting, and apply a thin coat of refrigerant oil before installing them. Be sure to use the correct O-rings for HFC-134a (R-134a) to avoid leakage.

- Immediately after using the oil, reinstall the cap on the container and seal it to avoid moisture absorption.
- Install the capillary tube (H) directly against the outlet line, and wrap it with electrical tape (I).
- Reinstall the evaporator temperature sensor in its original location.
- Make sure no air is leaking from the upper housing and the lower housing fitting.

A/C COMPRESSOR REPLACEMENT

NOTE: If the IMA battery level gauge (BAT) displays no Segments: Remove the No. 15 EPS (40 A) fuse from the under-hood fuse/relay box. Start the engine, and hold it between 3,500 RPM and 4,000 RPM without load (in Park or neutral) until the BAT displays at least three segments. Then reinstall the No. 15 (40 A) fuse.

1. If the A/C compressor is marginally operable, run the engine at idle speed, and let the air conditioning work for a few minutes, then shut the engine off.
2. Recover the refrigerant with a recovery/recycling/charging station (see **REFRIGERANT RECOVERY**).
3. Remove the splash shield (see step 24 in **ENGINE ASSEMBLY**).
4. Remove the water pump-A/C compressor belt (see step 17 in **ENGINE ASSEMBLY**).
5. Remove the bolts, then disconnect the suction line (A) and discharge line (B) from the A/C compressor. Plug or cap the lines immediately after disconnecting them to avoid moisture and dust contamination.

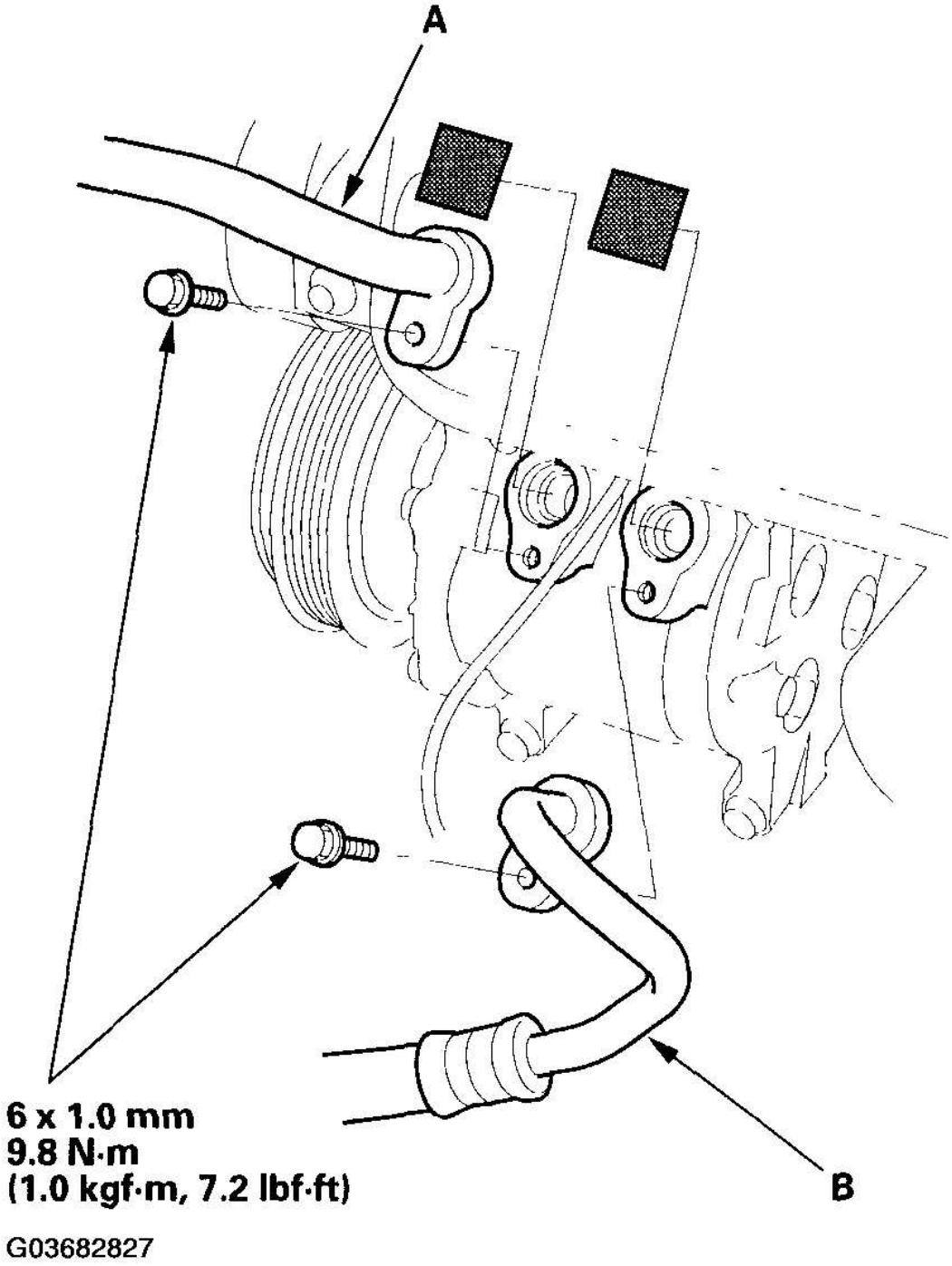


Fig. 103: Disconnecting Suction Line And Discharge Line From A/C Compressor

Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Disconnect the A/C compressor clutch connector, then remove the mounting bolts and the A/C compressor.

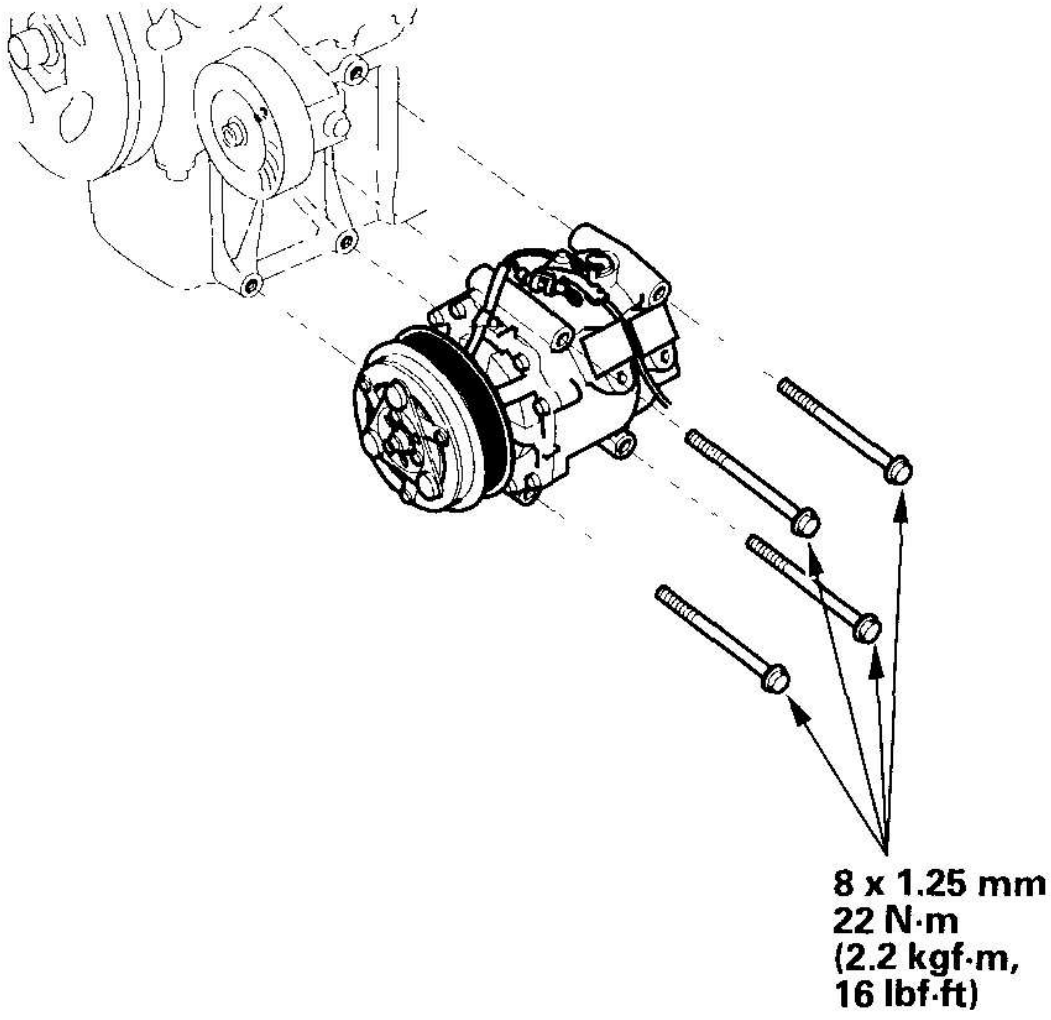


Fig. 104: Disconnecting A/C Compressor Clutch Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the A/C compressor in the reverse order of removal, and note these items:

- If you're installing a new A/C compressor, you must calculate the amount of refrigerant oil to be removed from it (see **A/C SERVICE TIPS AND PRECAUTIONS**).
- Replace the O-rings with new ones at each fitting, and apply a thin coat of refrigerant oil before installing them. Be sure to use the correct O-rings for HFC-134a (R-134a) to avoid leakage.
- Use refrigerant oil (SANDEN SP-10) for HFC-134a SANDEN spiral type A/C compressor only.
- To avoid contamination, do not return the oil to the container once dispensed, and never mix it with other refrigerant oils.
- Immediately after using the oil, reinstall the cap on the container, and seal it to avoid moisture absorption.
- Do not spill the refrigerant oil on the vehicle; it may damage the paint. If the refrigerant oil contacts the paint, wash it off immediately.
- Adjust the water pump-A/C compressor belt (see **WATER PUMP-A/C COMPRESSOR BELT INSPECTION AND**).
- Charge the system (see **SYSTEM CHARGING**).
- Do the ECM idle learn procedure (see **ECM IDLE LEARN PROCEDURE**).

A/C COMPRESSOR CLUTCH CHECK

1. Check the pressure parts of the armature plate for discoloration, peeling or other damage. If there is damage, replace the clutch set (see **A/C COMPRESSOR CLUTCH OVERHAUL**).
2. Check the rotor pulley bearing play and drag by rotating the rotor pulley by hand. Replace the clutch set with a new one if it is noisy or has excessive play/drag (see **A/C COMPRESSOR CLUTCH OVERHAUL**).

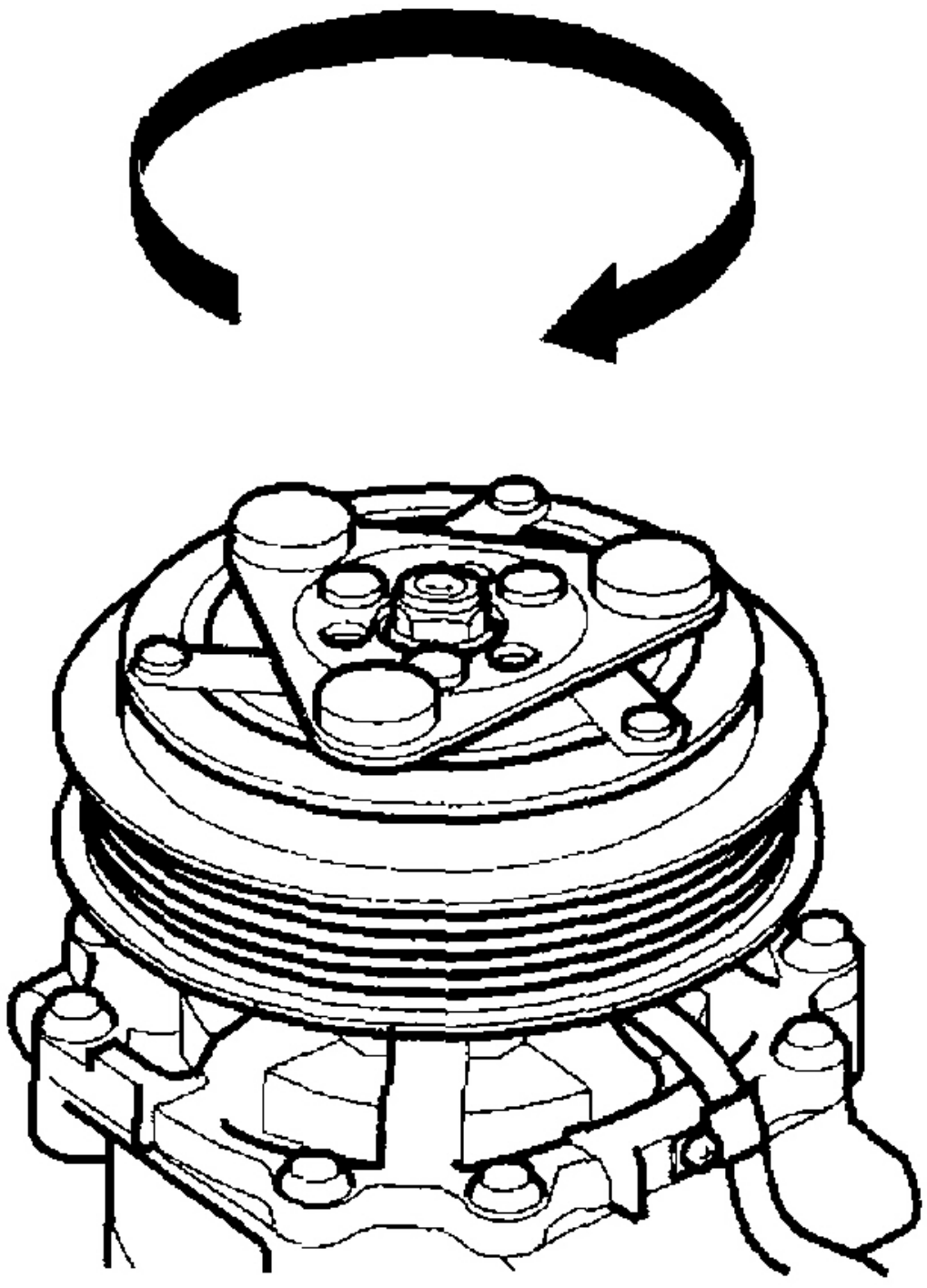


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Fig. 105: Checking Rotor Pulley Bearing Play And Dragging
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Measure the clearance between the rotor pulley (A) and the armature plate (B) all the way around. If the clearance is not within specified limits, remove the armature plate (see **A/C COMPRESSOR CLUTCH OVERHAUL**) and add or remove shims as needed to increase or decrease clearance.

   Clearance: 0.35-0.65 mm (0.014-0.026 in.)

   NOTE: The shims are available in four thicknesses: 0.1 mm, 0.2 mm, 0.4 mm, and 0.5 mm.

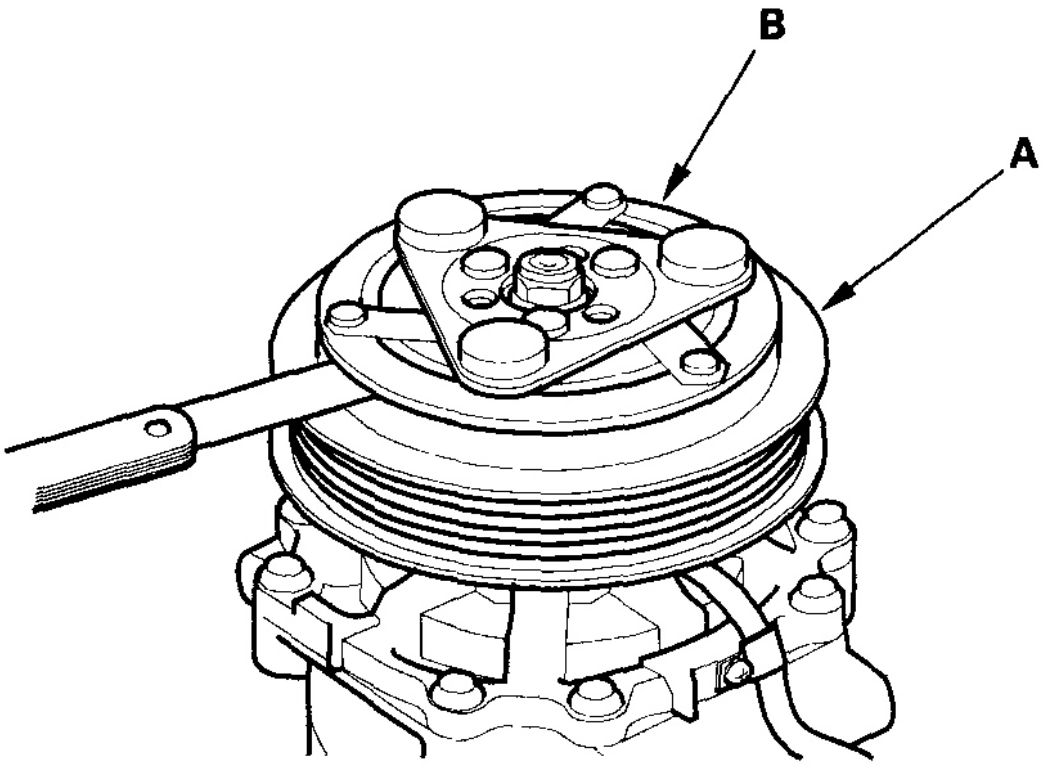

Fig. 106: Measuring Clearance Between Rotor Pulley And Armature Plate
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Release the field coil connector from the holder, then disconnect it. Check the thermal protector for continuity. If there is no continuity, replace the thermal protector (see **A/C COMPRESSOR THERMAL PROTECTOR REPLACEMENT**).

NOTE: The thermal protector will have no continuity above 252 to 262°F (122 to 128°C). When the temperature drops below 241 to 219°F (116 to 104°C), the thermal prot ector will have continuity.

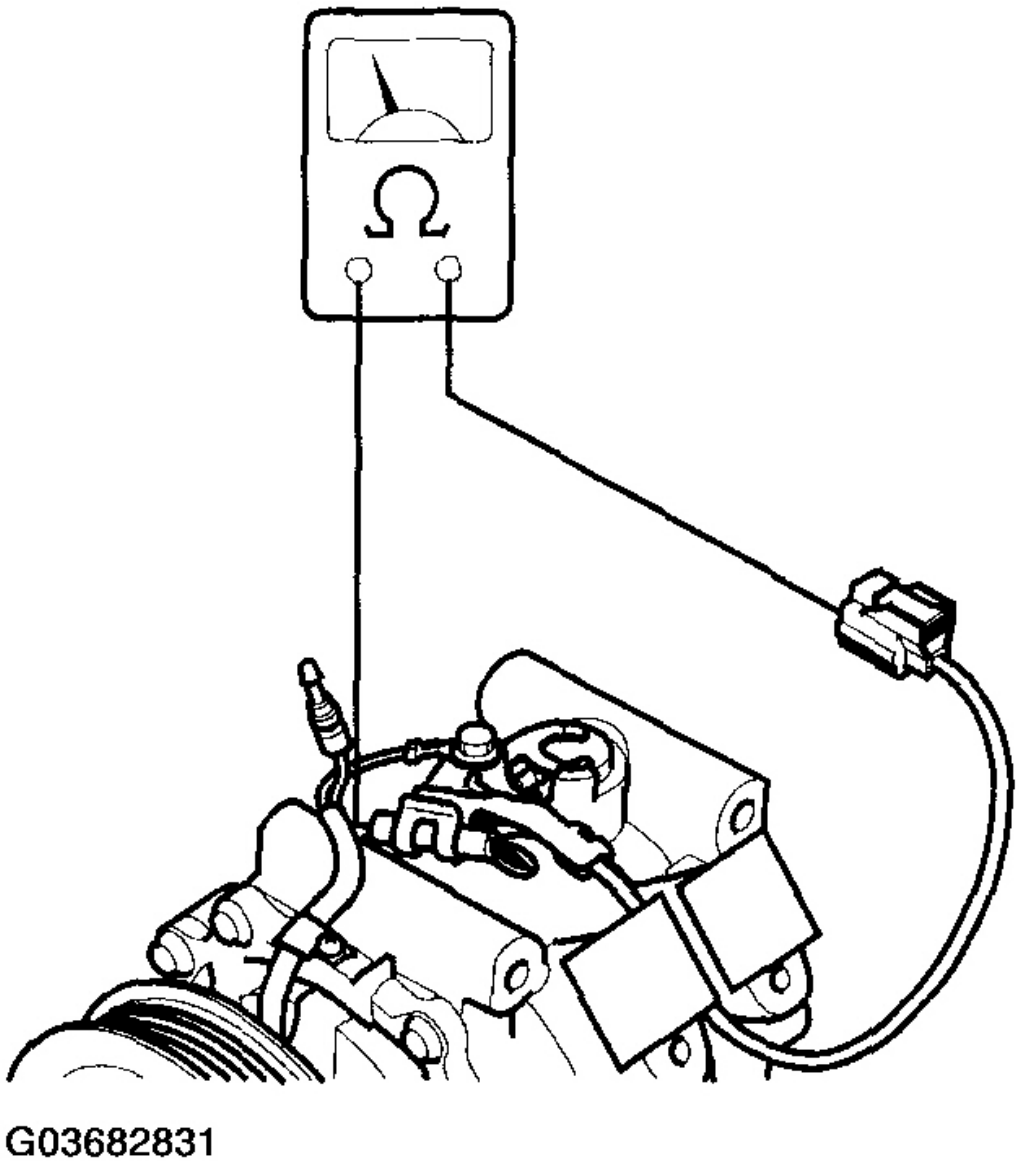

Fig. 107: Checking Thermal Protector For Continuity
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Check resistance of the field coil. If resistance is not within specifications, replace the field coil (see **A/C COMPRESSOR CLUTCH OVERHAUL**).

Field Coil Resistance: 3.05-3.35 ohm at 68°F (20°C)

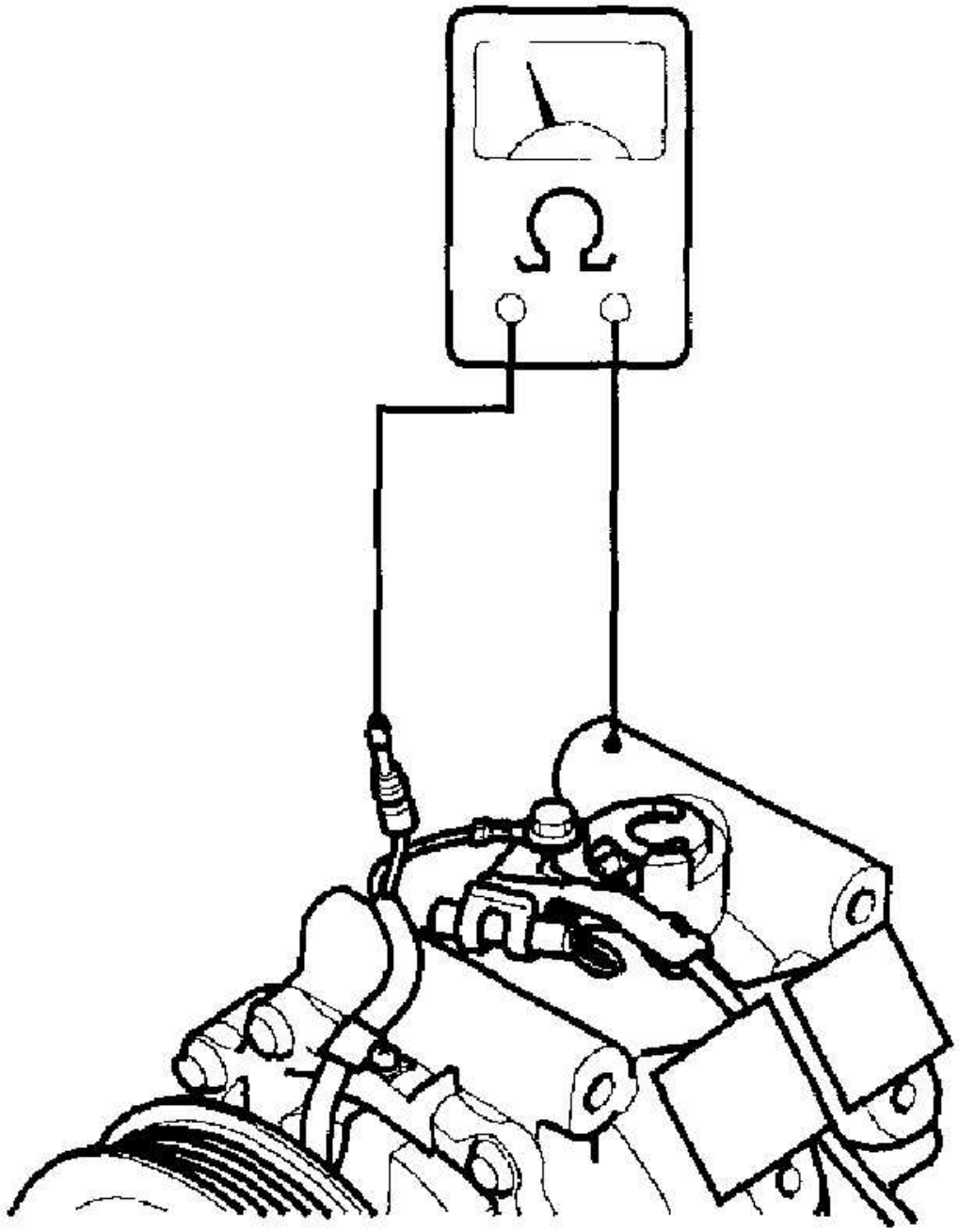

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Fig. 108: Checking Resistance Of Field Coil
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C COMPRESSOR CLUTCH OVERHAUL

Special Tools Required

A/C clutch holder, Robinair 10204 or Kent-Moore J37872,or Honda Tool and equipment KMT-J33939, commercially available

1. Remove the center nut (A) while holding the armature plate with the commercially available A/C clutch holder (B).

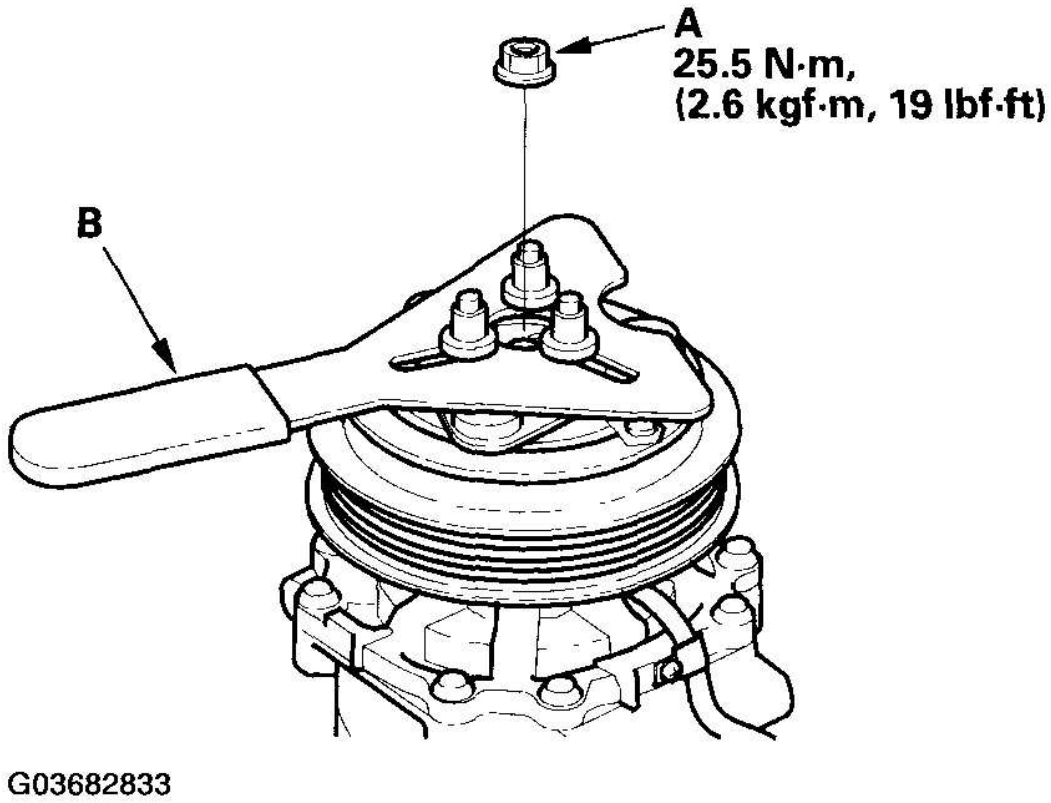

Fig. 109: Removing Center Nut Holding Armature Plate With Commercially Available A/C Clutch Holder
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the armature plate (A) and shim(s) (B), taking care not to lose the shim(s). If the clutch needs adjustment, increase or decrease the number and thickness of shims as necessary, then reinstall the armature plate, and recheck its clearance (see **A/C COMPRESSOR CLUTCH CHECK**).

NOTE: The shims are available in four thickness: 0.1 mm, 0.2 mm, 0.4 mm, and 0.5 mm.

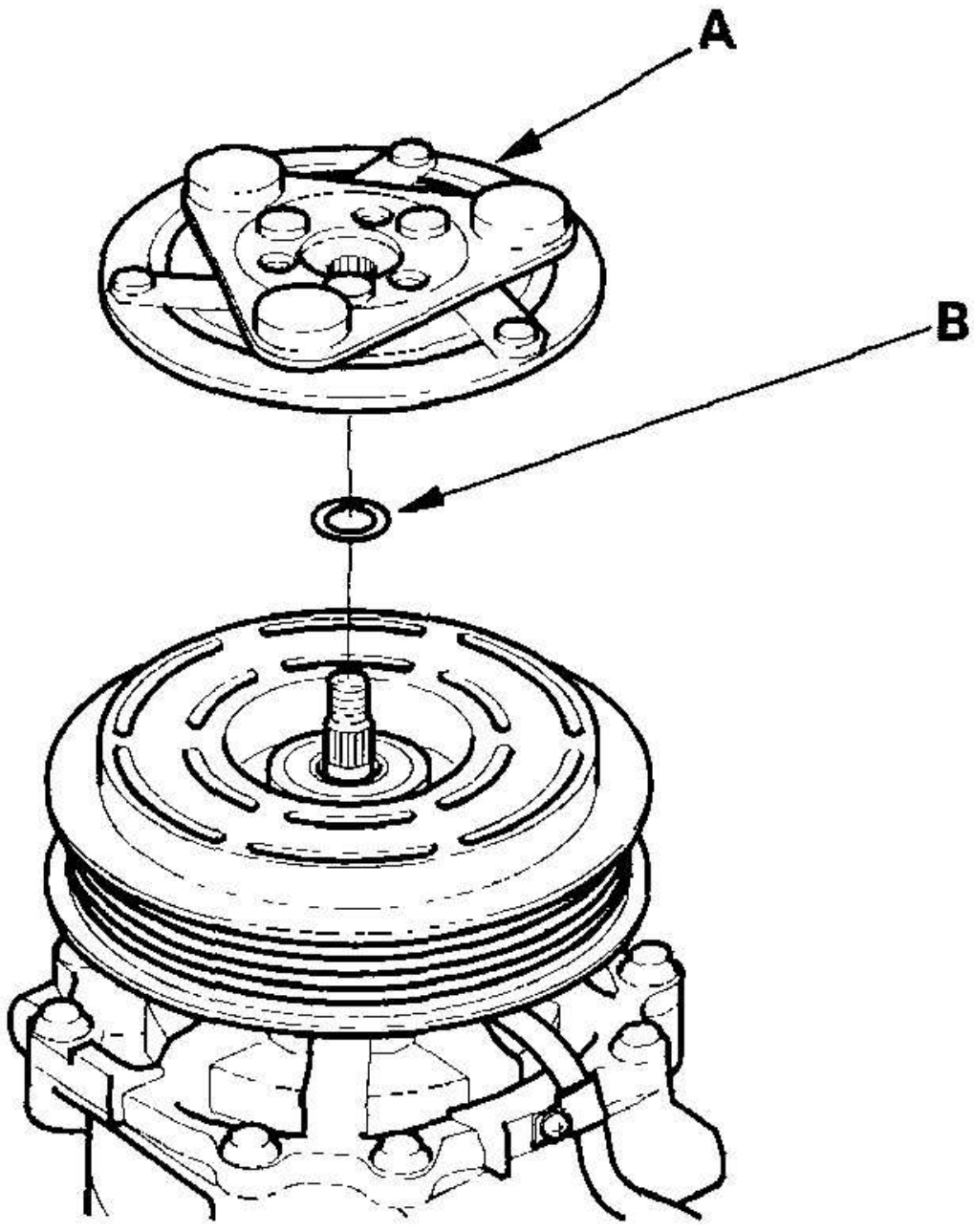

Fig. 110: Removing Armature Plate And Shim(s)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If you are replacing the field coil, remove the snap ring (A) with snap ring pliers, then remove the rotor pulley (B). Be careful not to damage the rotor pulley or the A/C compressor.

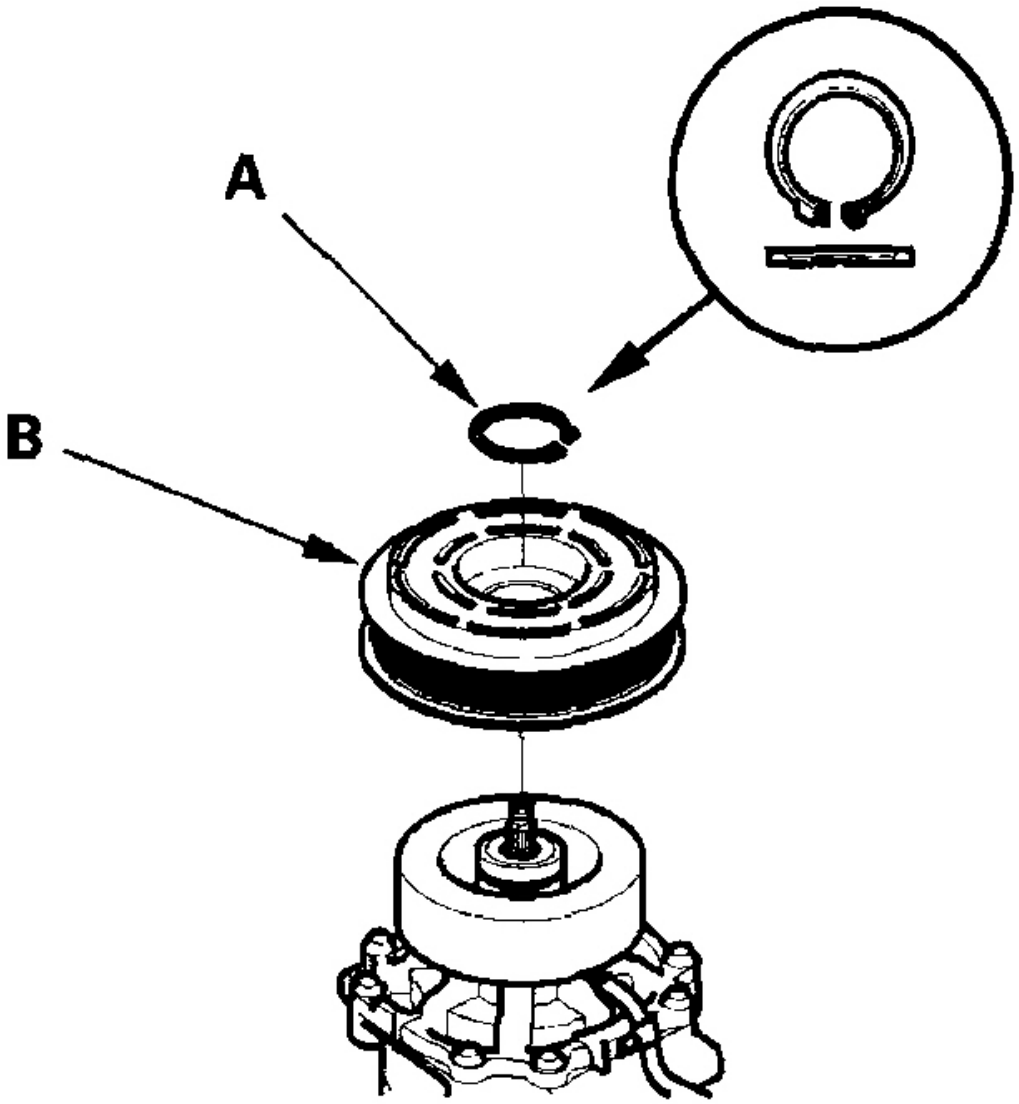

Fig. 111: Removing Snap Ring With Snap Ring Pliers
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the bolt and field coil ground terminal (A), then disconnect the field coil connector (B). Loosen the clamp screw (C) to free the field coil wire. Remove the snap ring (D) with snap ring pliers, then remove the field coil (E). Be careful not to damage the field coil or the A/C compressor.

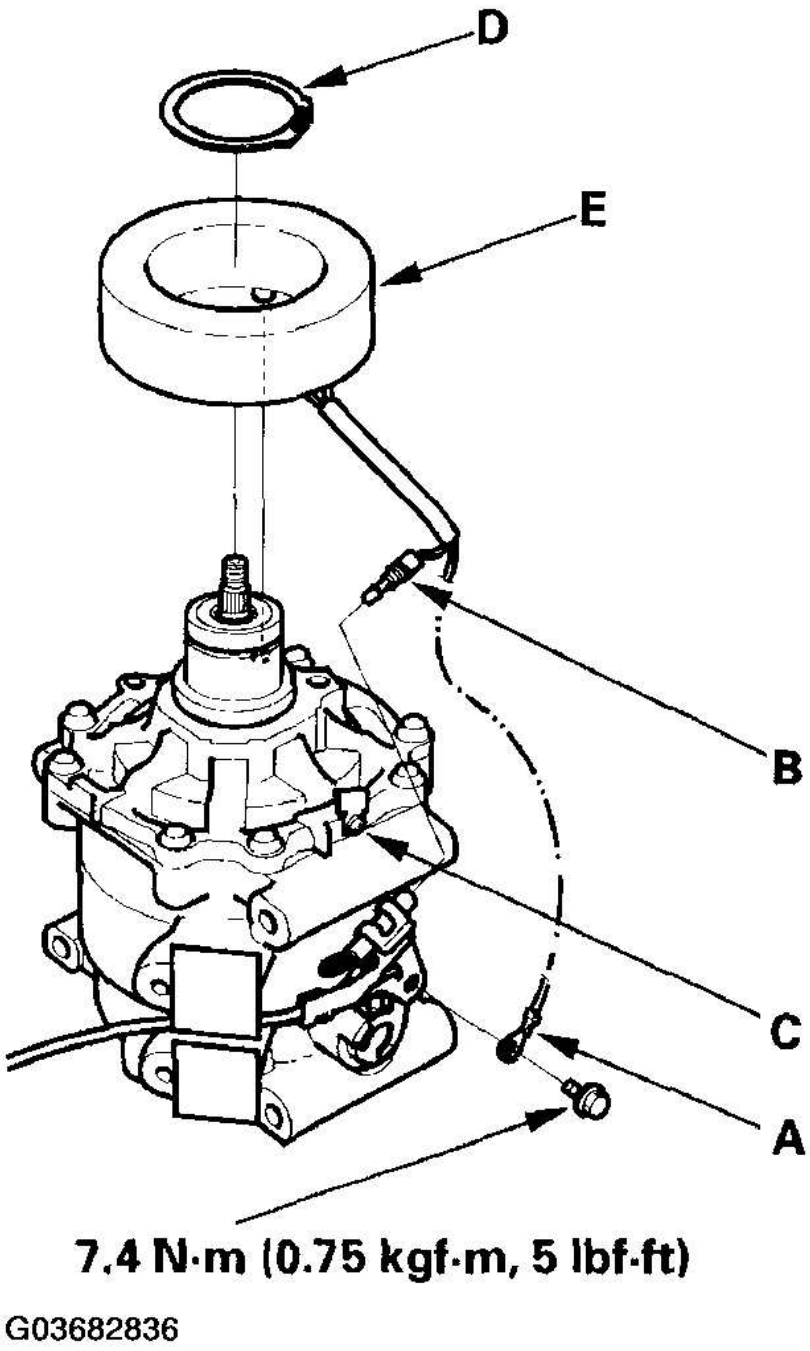

Fig. 112: Removing Field Coil Ground Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Reassemble the clutch in the reverse order of disassembly, and note these items:
   - Install the field coil with the wire side facing down, and align the boss on the field coil with the hole in the A/C compressor.
   - Clean the rotor pulley and A/C compressor sliding surfaces with contact cleaner or other non-petroleum solvent.
   - Install new snap rings, note the installation direction, and make sure they are fully seated in the groove.
   - Make sure that the rotor pulley turns smoothly after it's reassembled.
   - Route and clamp the wires properly or they can be damaged by the rotor pulley.

A/C COMPRESSOR THERMAL PROTECTOR REPLACEMENT

1. Remove the bolt, the ground terminal (A) and the holder (B). Disconnect the field coil connector (C), then remove the thermal protector (D).

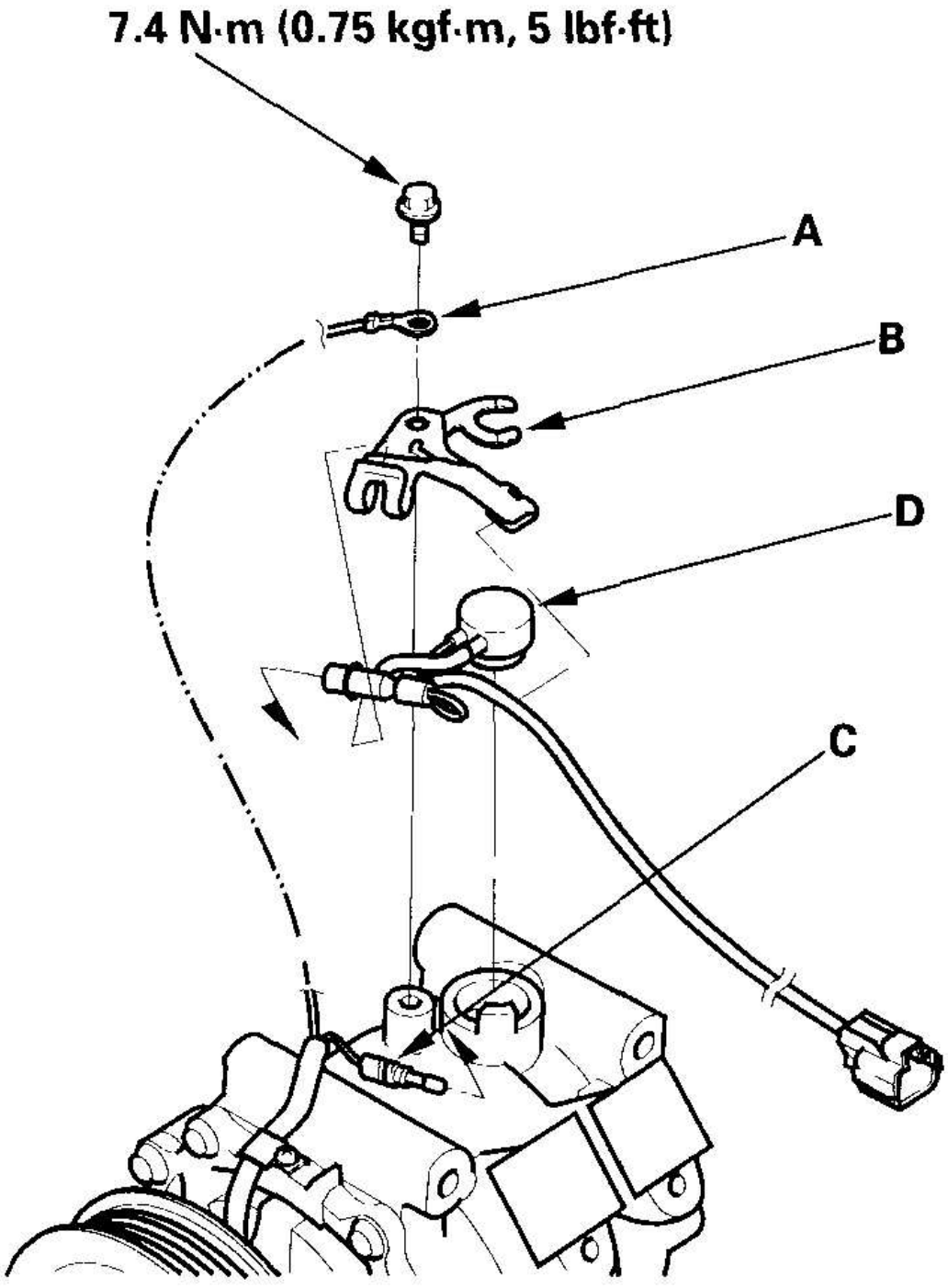

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Fig. 113: Removing Ground Terminal And Holder
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Replace the thermal protector (A) with a new one, and apply silicone sealant (B) to the bottom of the thermal protector.

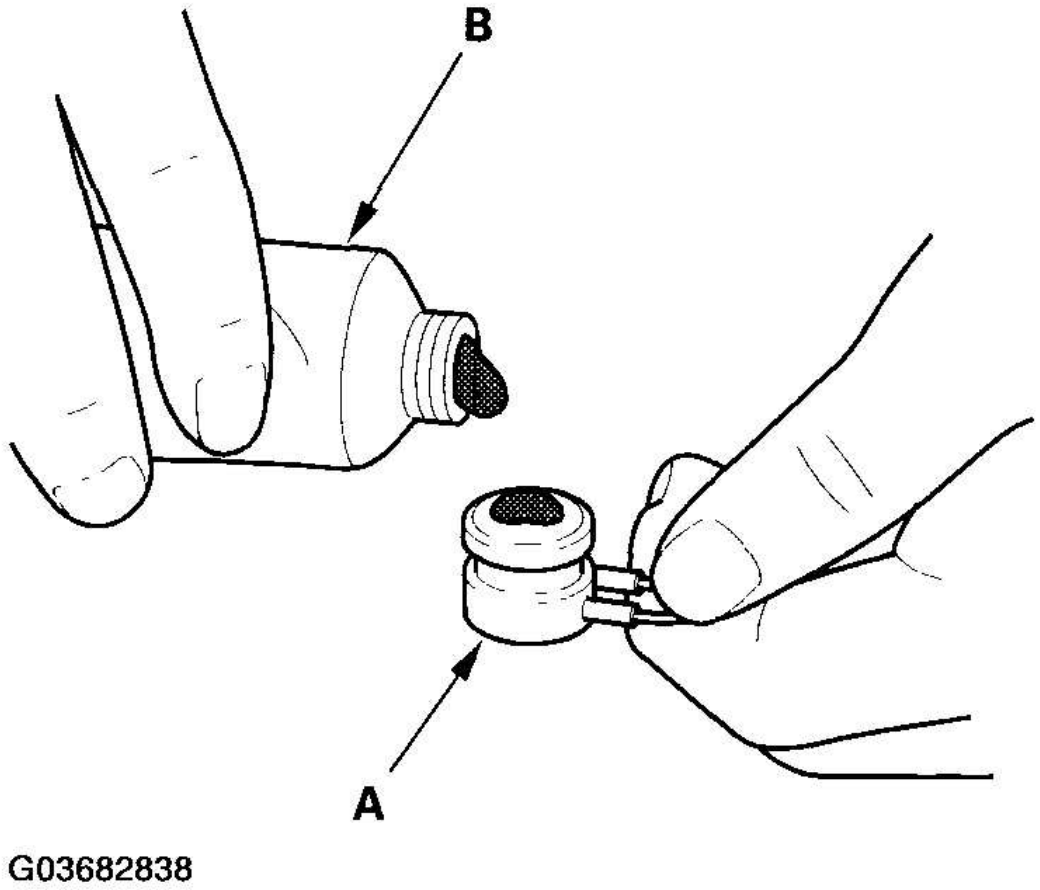

Fig. 114: Applying Silicone Sealant To Bottom Of Thermal Protector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the protector in the reverse order of removal.

A/C COMPRESSOR RELIEF VALVE REPLACEMENT

1. Recover the refrigerant with a recovery/recycling/charging station (see

REFRIGERANT RECOVERY).

2. Remove the relief valve (A) and the O-ring (B). Plug the opening to keep foreign matter from entering the system and the A/C compressor oil from running out.

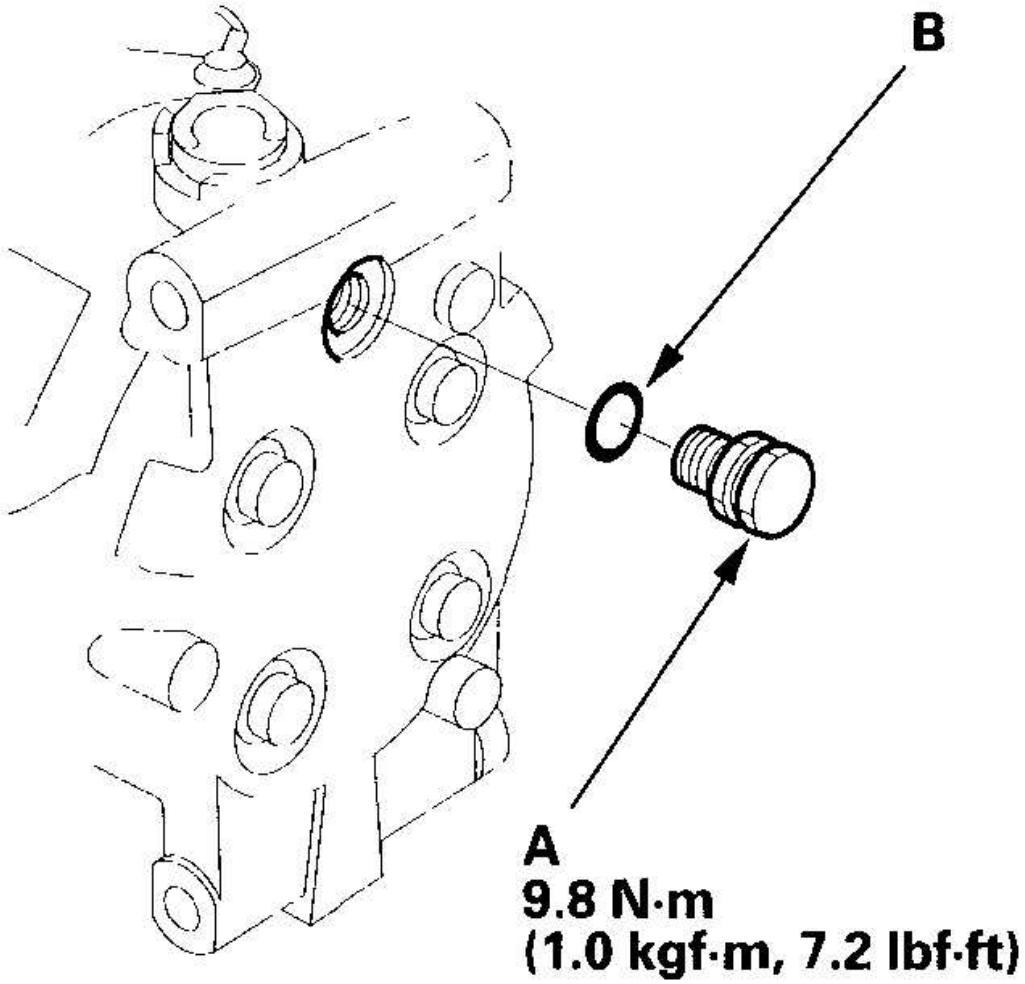

Fig. 115: Removing Relief Valve And O-Ring
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Clean the mating surfaces.
4. Replace the O-ring with a new one at the relief valve, and apply a thin coat of refrigerant oil before installing it.
5. Remove the plug, and install and tighten the relief valve.
6. Charge the system (see **SYSTEM CHARGING**).

A/C CONDENSER REPLACEMENT

1. Recover the refrigerant with a recovery/recycling/charging station (see **REFRIGERANT RECOVERY**).
2. Remove the splash shield (see step 24 in **ENGINE ASSEMBLY**).
3. Remove the bolt and the nut, then disconnect the A/C condenser line (A) and the discharge line (B) from the A/C condenser. Plug or cap the lines immediately after disconnecting them to avoid moisture and dust contamination.

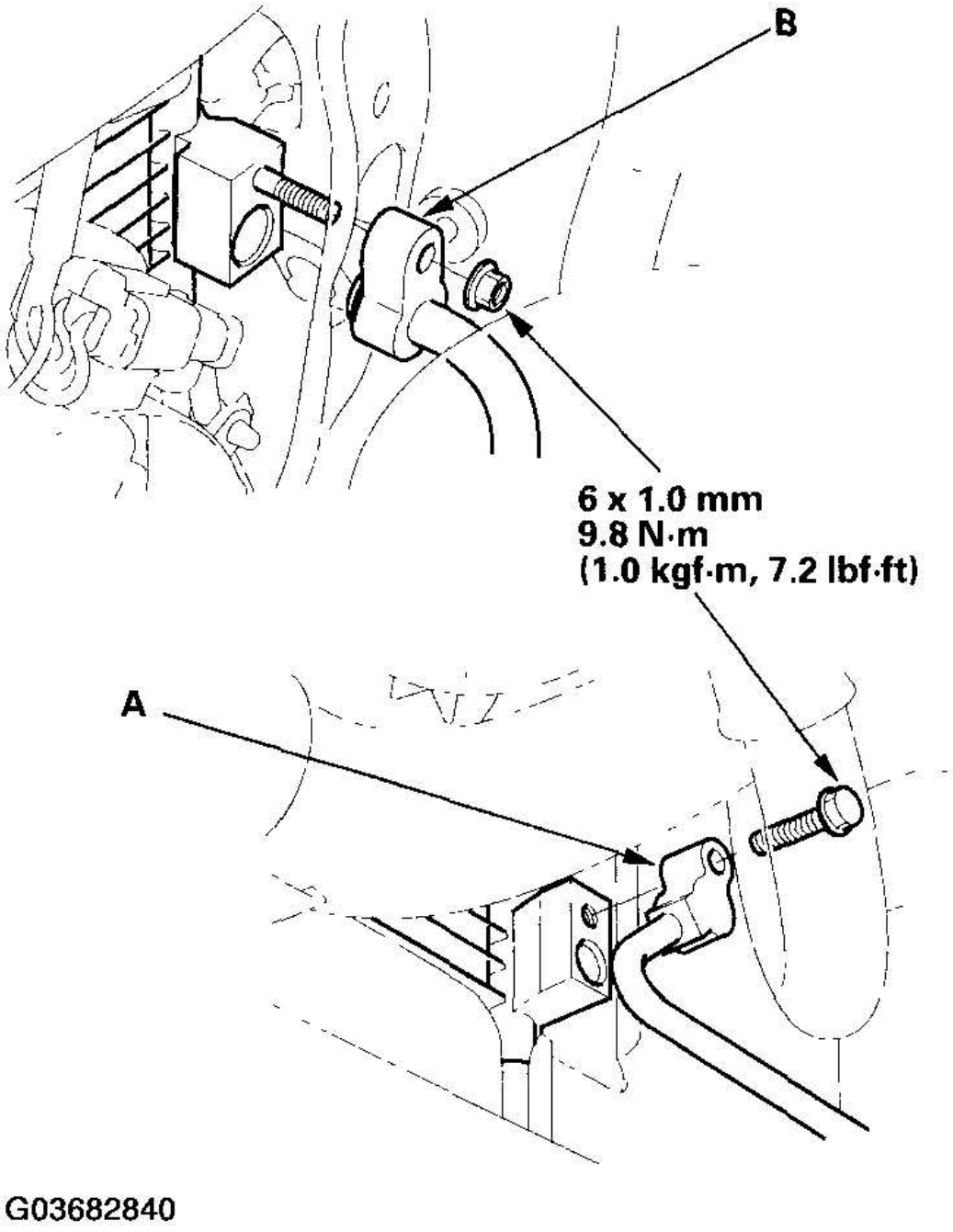

Fig. 116: Disconnecting A/C Condenser Line And Discharge Line From A/C Condenser
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the front bumper (see **FRONT BUMPER REMOVAL/INSTALLATION**).
5. Remove the clips and the A/C condenser shroud (A). Remove the bolts, then remove the wire harness clips (B) and the center upper beam (C).

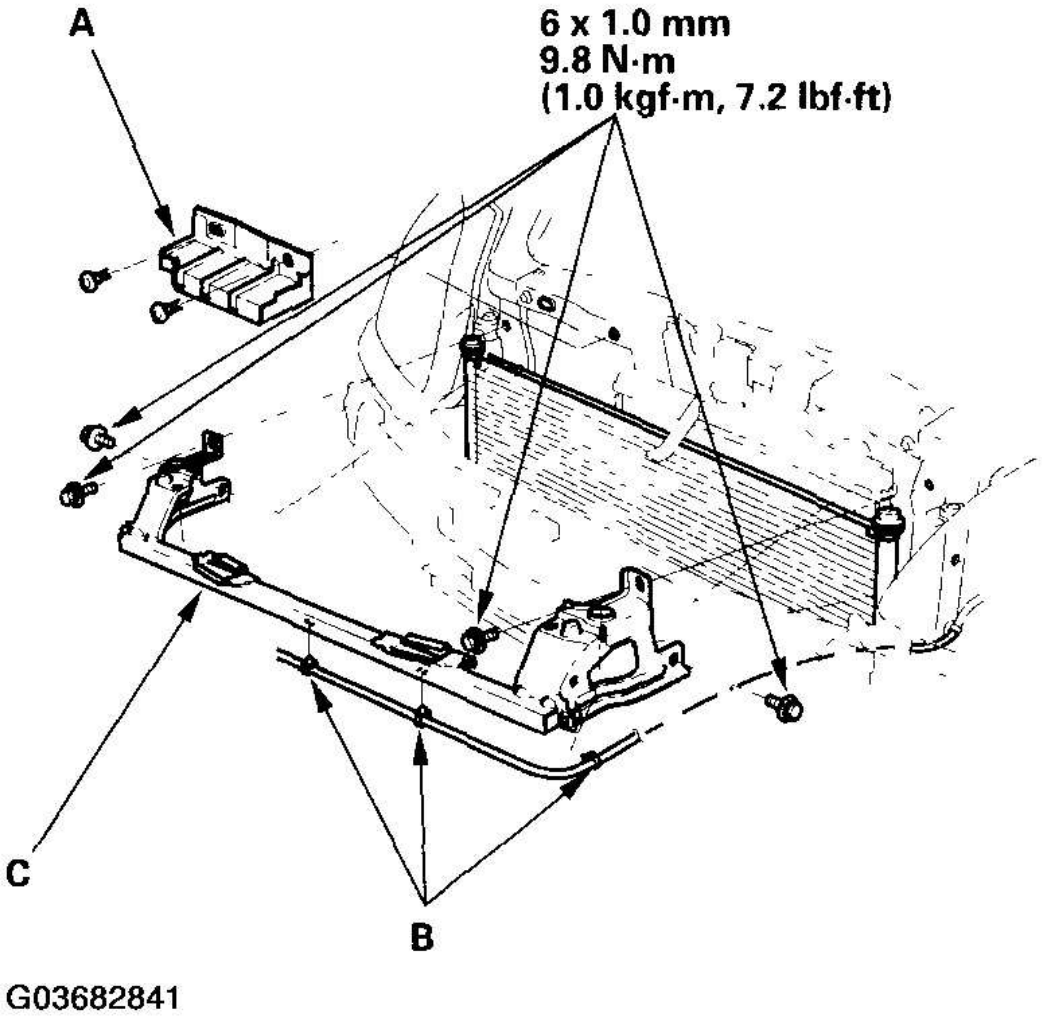

Fig. 117: Removing Clips And A/C Condenser Shroud
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Disconnect the A/C condenser fan connector (A), and remove the A/C compressor clutch connector (B) from the A/C condenser fan shroud. Remove

the A/C condenser (C) by lifting it up. Be careful not to damage the radiator or the A/C condenser fins when removing the A/C condenser.

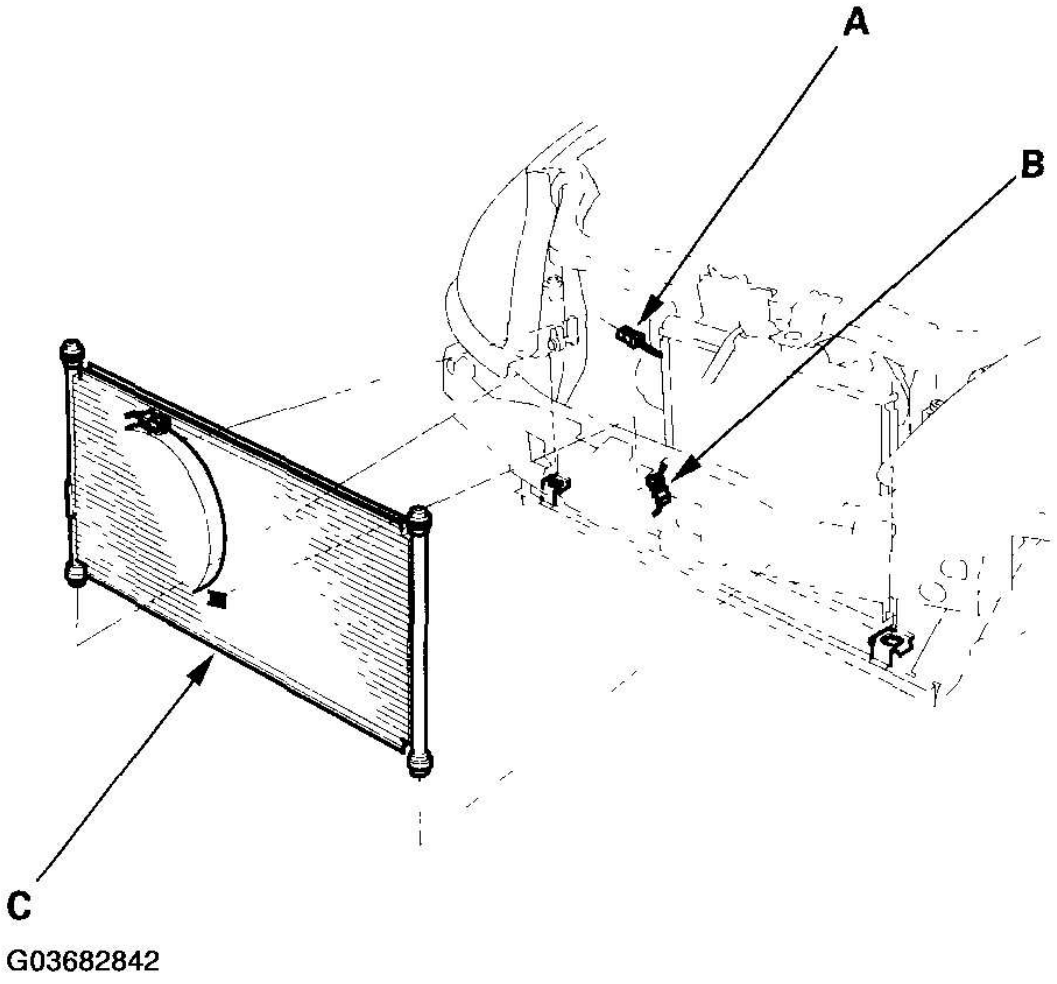

Fig. 118: Disconnecting A/C Condenser Fan Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the A/C condenser in the reverse order of removal, and note these items:
   - If you're installing a new A/C condenser, add refrigerant oil (SANDENI SP-10) (see **A/C SERVICE TIPS AND PRECAUTIONS**).
   - Replace the O-ring with new ones at each fitting, and apply a thin coat of refrigerant oil before installing them. Be sure to use the correct O-rings for

HFC-134a (R-134a) to avoid leakage.

- Immediately after using the oil, reinstall the cap on the container, and seal it to avoid moisture absorption.
- Do not spill the refrigerant oil on the vehicle; it may damage the paint. If the refrigerant oil contacts the paint, wash it off immediately.
- Be careful not to damage the radiator or the A/C condenser fins when installing the A/C condenser.
- Charge the system (see **SYSTEM CHARGING**).

A/C SYSTEM TEST

PERFORMANCE TEST

WARNING:

- **Compressed air mixed R-134a forms a combustible vapor.**
- **The vapor can burn or explode causing serious injury.**
- **Never use compressed air to pressure test R-134a service equipment or vehicle air conditioning systems.**

CAUTION:

- **Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.**
- **Be careful when connecting service equipment.**
- **Do not breathe refrigerant or vapor.**

The performance test will help determine if the air conditioner system is operating within specifications.

Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAE J2210 to remove HFC-134a (R-134a) from the air conditioning system.

If accidental system discharge occurs, ventilate work area before resuming service.

R-134a service equipment or vehicle air conditioning systems should not be pressure tested or leak tested with compressed air.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

1. Connect an R-134a refrigerant recover/recycling/charging station to the high-pressure service port and the low-pressure service port, following the equipment manufacturer's instructions.
2. Determine the relative humidity and air temperature.
3. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**).
4. Insert a thermometer (A) in the center vent, and place a thermometer (B) near the blower unit.

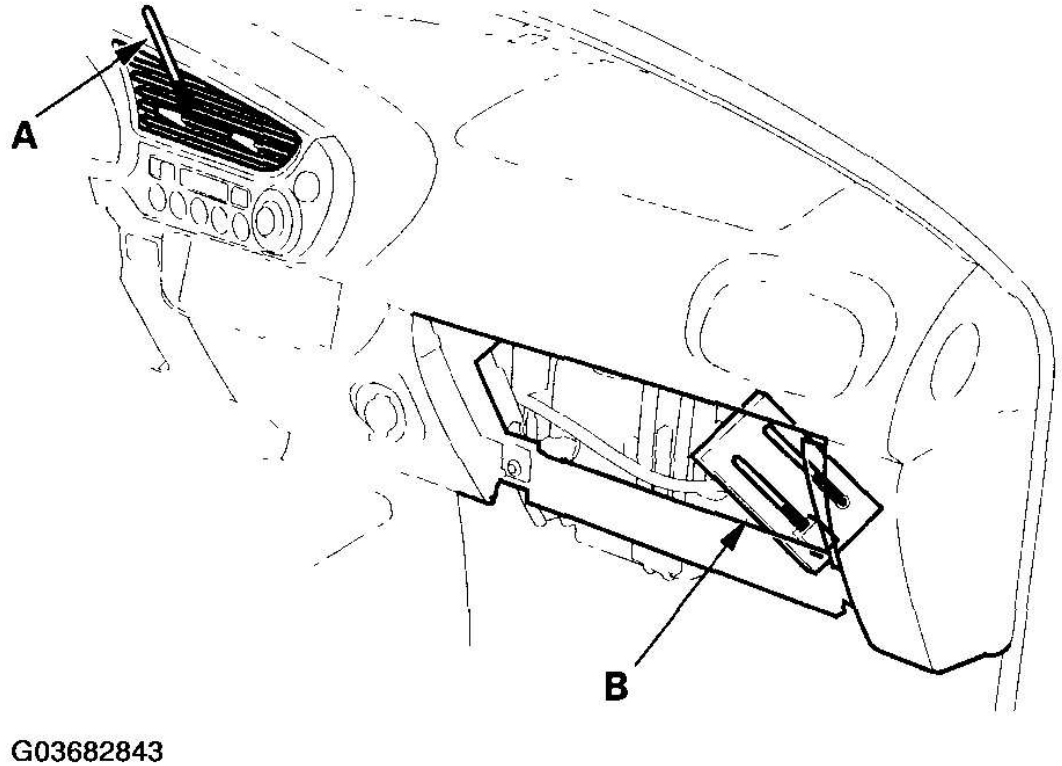

Fig. 119: Inserting Thermometer In Center Vent
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Test conditions:
   - Avoid direct sunlight.
   - Open the hood.
   - Open the front doors.
   - Set the temperature control dial on Max Cool, the mode control switch on Vent and the recirculation control switch on Recirculate.
   - Turn the A/C switch on and the fan switch on Max.
   - Run the engine at 1,500 RPM.
   - No driver or passengers in vehicle.
6. After running the air conditioning for 10 minutes under the above test conditions, read the delivery temperature from the thermometer in the center vent, the intake temperature near the blower unit, and the high and low system pressure from the A/C gauges.
7. To complete the charts:
   - Mark the delivery temperature along the vertical line.
   - Mark the intake temperature (ambient air temperature) along the bottom line.
   - Draw a line straight up from the air temperature to the humidity.
   - Mark a point 10% above and 10% below the humidity level.
   - From each point, draw a horizontal line across the delivery temperature.
   - The delivery temperature should fall between the two lines.
   - Complete the low-side pressure test and high-side pressure test in the same way.
   - Any measurements outside the line may indicate the need for further inspection.

Example

Intake temperature (dry): 86°F (30°C) Humidity level 70%
Intake temperature (wet): 77.9°F (25.5°C)
Intake pressure: 276 kPa (2.8 kgf/cm^2) (40.0 psi)

Delivery temperature: 62.6°F (17.0°C)

Delivery pressure: 1,640 kPa (16.7 kgf/cm^2) (237.9 psi)

Results: within normal range

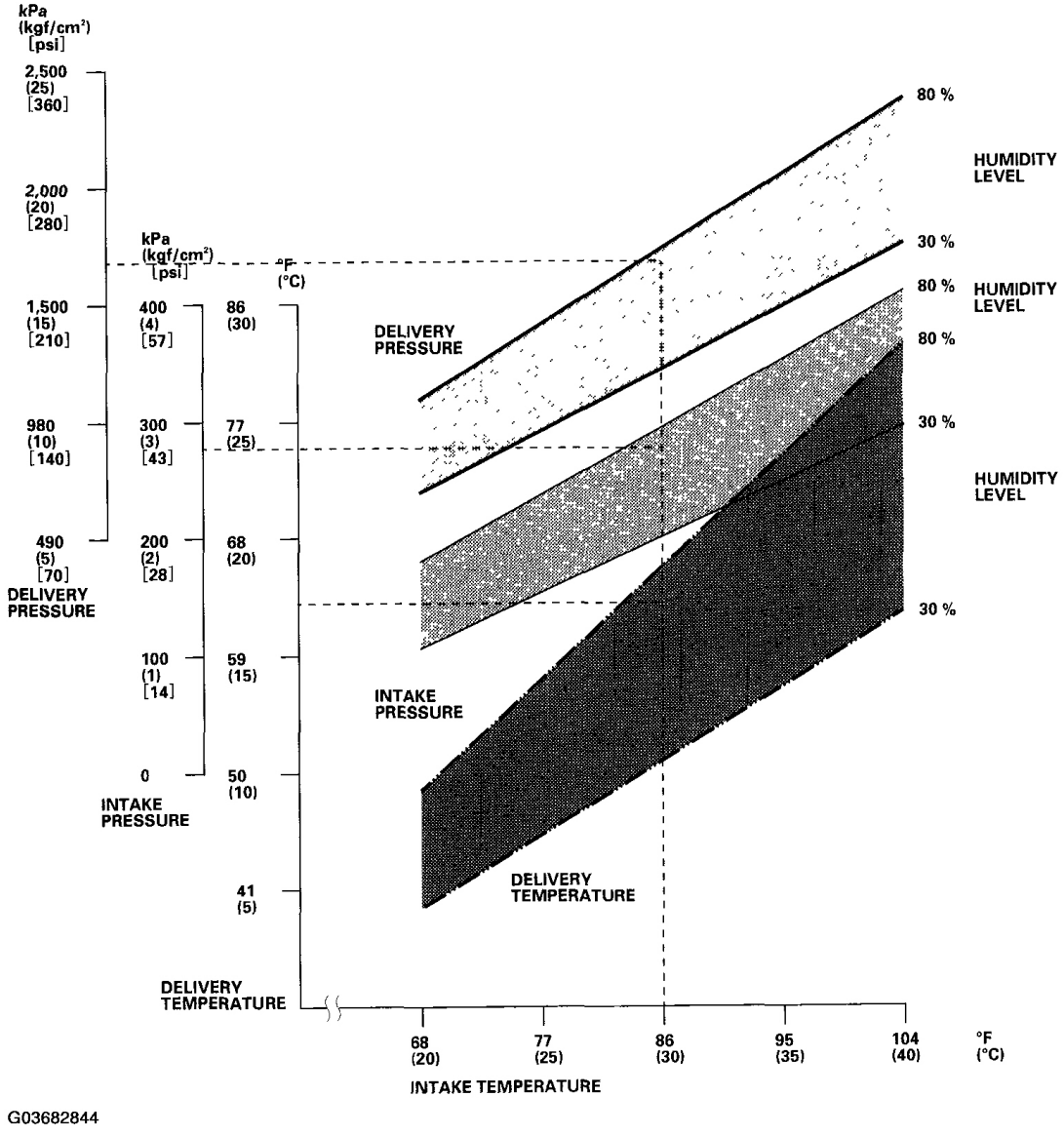

Fig. 120: A/C System Test Graph
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C SYSTEM TEST

Test results	Related symptoms	Probable cause	Remedy
Discharge (high) pressure abnormally high	After stopping A/C compressor, pressure drops to about 200 kPa (2.0 kgf/cm^2 , 28 psi) quickly, and then falls gradually.	Air in system	Recover, evacuate (see **REFRIGERANT RECOVERY**), and recharge with specified amount (see **SYSTEM CHARGING**).
	Reduced or no airflow through A/C condenser	• Clogged A/C condenser or radiator fins • A/C condenser or radiator fan not working properly	• Clean. • Check voltage and fan RPM. • Check fan direction.
	Line to A/C condenser is excessively hot.	Restricted flow of refrigerant in system	Restricted lines.
Discharge pressure abnormally low	High and low pressures are balanced soon after stopping A/C compressor. Low side is higher than normal.	• Faulty A/C compressor discharge valve • Faulty A/C compressor seal	Replace the A/C compressor.
	Outlet of expansion valve is not frosted, low-pressure gauge indicates vacuum.	• Faulty expansion valve • Moisture in system	• Replace. • Recover, evacuate, and recharge with specified amount.

Suction (low) pressure abnormally low	Expansion valve is not frosted, and low-pressure line is not cold. Low-pressure gauge indicates vacuum.	• Frozen expansion valve (Moisture in system) • Faulty expansion valve	• Recover, evacuate, and recharge with specified amount. • Replace the expansion valve.
	Discharge temperature is low, and the airflow from vents is restricted.	Frozen evaporator	Run the fan with A/C compressor off, then check evaporator temperature sensor.
	Expansion valve is frosted.	Clogged expansion valve	Clean or replace.
	Receiver/dryer outlet is cool, and inlet is warm (should be warm during operation).	Clogged receiver/dryer	Replace.
Suction pressure abnormally high	Low-pressure hose and check joint are cooler than the temperature around evaporator.	• Expansion valve open too long • Loose expansion capillary tube	Repair or replace.
	Suction pressure is lowered when A/C condenser is cooled by water.	Excessive refrigerant in system	Recover, evacuate, and recharge with specified amount.
	High and low-pressures are equalized as soon as the A/C	• Faulty gasket • Faulty high-pressure valve	Replace the A/C

	compressor is stopped, and both gauges fluctuate while running.	• Foreign particle stuck in high-pressure valve	compressor.
Suction and discharge pressures abnormally high	Reduced airflow through A/C condenser.	• Clogged A/C condenser or radiator fins • A/C condenser or radiator fan not working properly	• Clean. • Check voltage and fan RPM. • Check fan direction.
Suction and discharge pressures abnormally low	Low-pressure hose and metal end areas are cooler than evaporator.	Clogged or kinked low-pressure hose parts	Repair or replace.
	Temperature around expansion valve is too low compared with that around receiver/dryer.	Clogged high-pressure line	Repair or replace.
Refrigerant leaks	A/C compressor clutch is dirty.	A/C compressor shaft seal leaking	Replace the A/C compressor.
	A/C compressor bolt(s) are dirty.	Leaking around bolt(s)	Tighten bolt(s) or replace A/C compressor.
	A/C compressor gasket is wet with oil.	Gasket leaking	Replace the A/C compressor.
	A/C fitting is dirty.	Leaking O-ring	Clean A/C fitting and replace O-ring.

REFRIGERANT RECOVERY

CAUTION:

- **Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.**
- **Be careful when connecting service equipment.**
- **Do not breathe refrigerant or vapor.**

Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAE J2210 to remove HFC-134a (R-134a) from the air conditioning system.

If accidental system discharge occurs, ventilate work area before resuming service.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

1. Connect an R-134a refrigerant recovery/recycling/charging station (A) to the high-pressure service port (B) and the low-pressure service port (C), as shown in **Fig. 121** , following the equipment manufacturer's instructions.

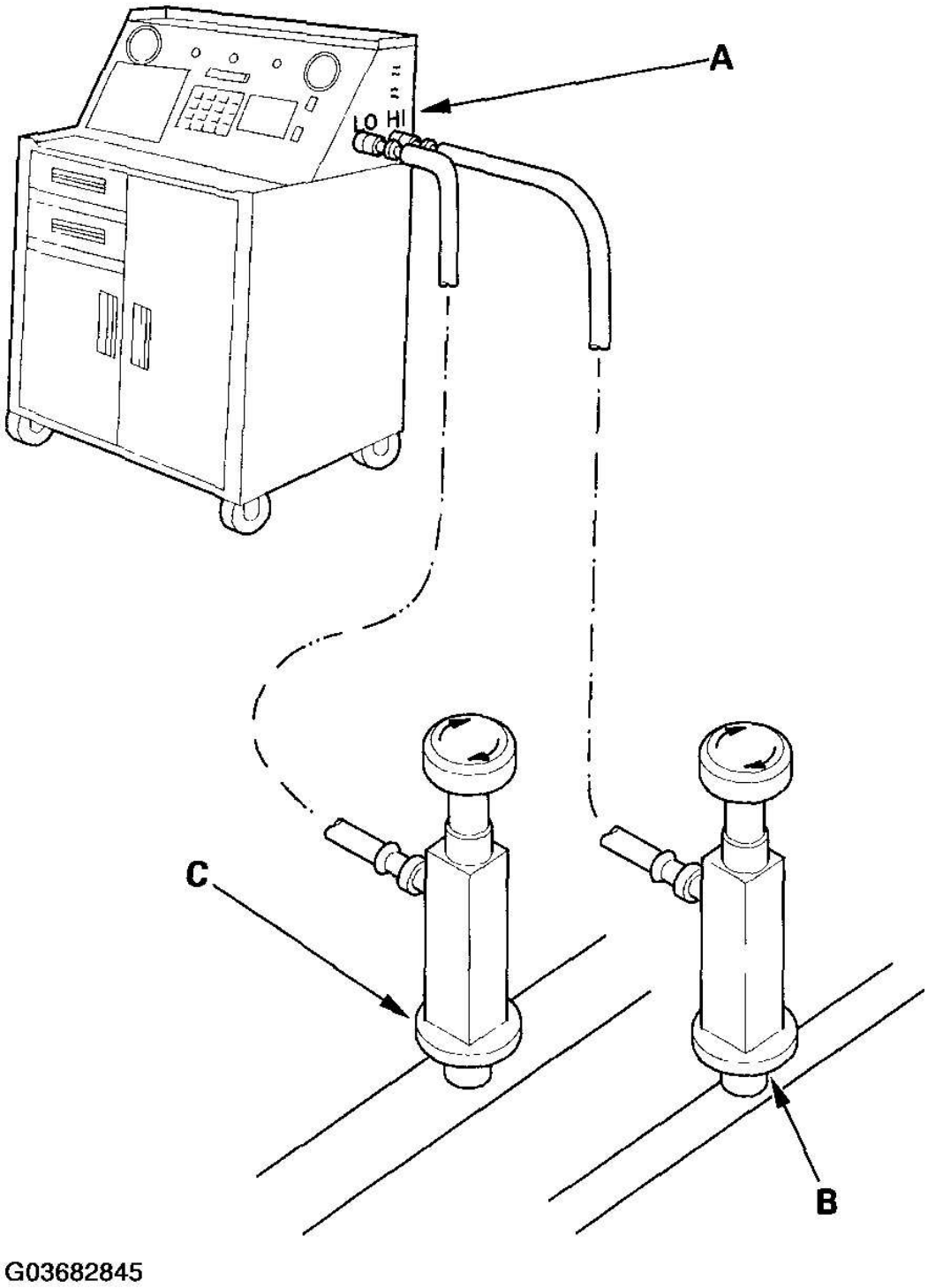

Fig. 121: Connecting R-134A Refrigerant Recovery/Recycling/Charging

Station To High & Low Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Measure the amount of refrigerant oil removed from the A/C system after the recovery process is completed. Be sure to put the same amount of new refrigerant oil back into the A/C system before charging.

SYSTEM EVACUATION

CAUTION:
- **Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.**
- **Be careful when connecting service equipment.**
- **Do not breathe refrigerant or vapor.**

Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAEJ2210 to remove HFC-134a (R-134a) from the air conditioning system.

If accidental system discharge occurs, ventilate work area before resuming service.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

1. When an A/C system has been opened to the atmosphere, such as during installation or repair, it must be evacuated using an R-134a refrigerant recovery/recycling/charging station. (If the system has been open for several days, the receiver/dryer should be replaced, and the system should be evacuated for several hours.)
2. Connect an R-134a refrigerant recovery/recycling/charging station (A) to the high-pressure service port (B) and the low-pressure service port (C), as shown in**Fig. 122** , following the equipment manufacturer's instructions. Evacuate the system.

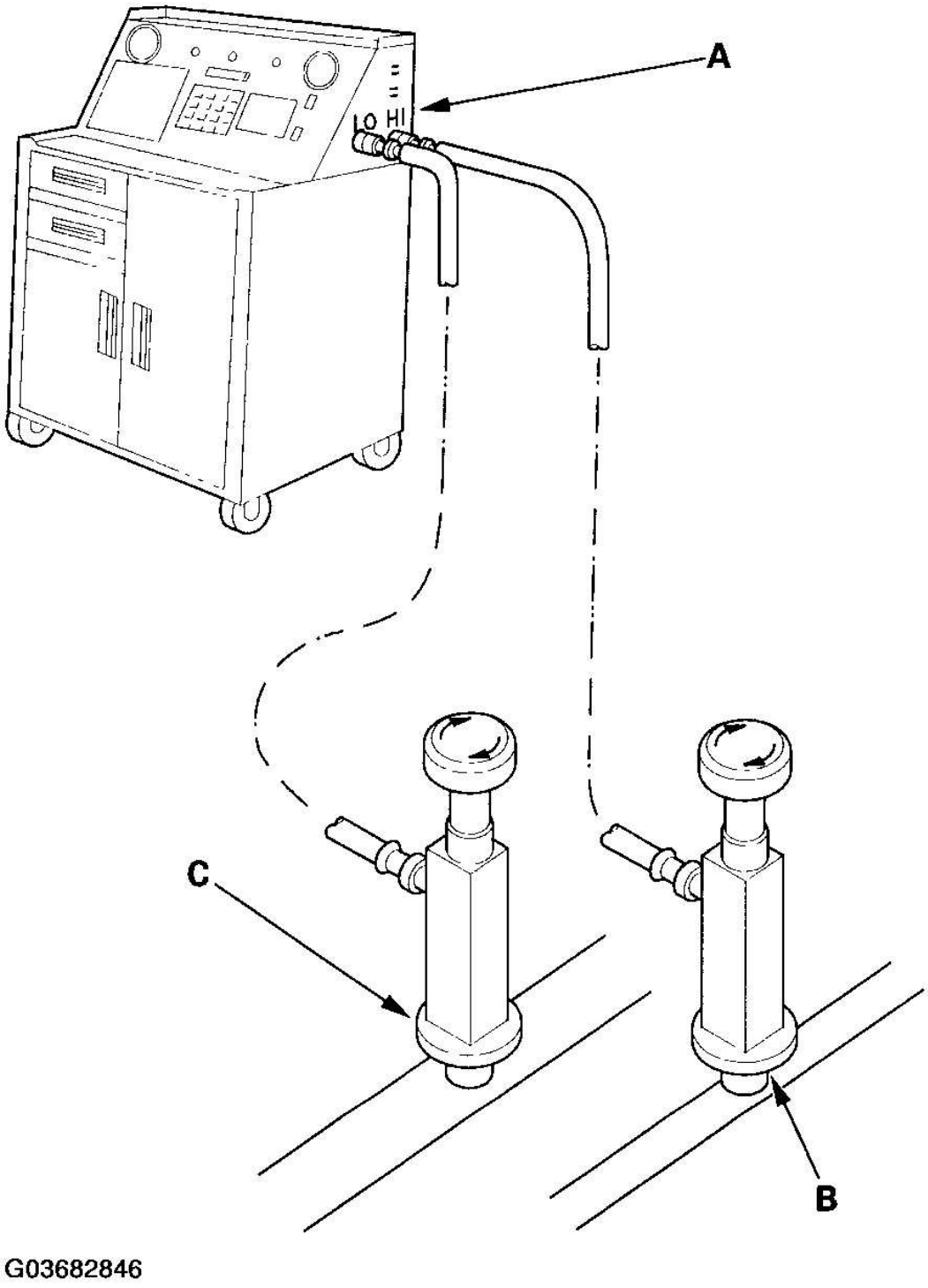

Fig. 122: Connecting R-134A Refrigerant Recovery/Recycling/Charging

Station To High And Low Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the low-pressure does not reach more than 93.3 kPa (700 mmHg, 27.6 in.Hg) within 15 minutes, there is probably a leak in the system. Partially charge the system, and check for leaks (see **REFRIGERANT LEAK TEST**).

SYSTEM CHARGING

CAUTION:
- **Air conditioning refrigerant or lubricant vapor can irritate your eyes, nose, or throat.**
- **Be careful when connecting service equipment.**
- **Do not breathe refrigerant or vapor.**

Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAE J2210 to remove HFC-134a (R-134a) from the air conditioning system.

If accidental system discharge occurs, ventilate work area before resuming service.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

1. Connect an R-134a refrigerant recovery/recycling/charging station (A) to the high-pressure service port (B) and the low-pressure service port (C), as shown in **Fig. 123** , following the equipment manufacturer's instructions.

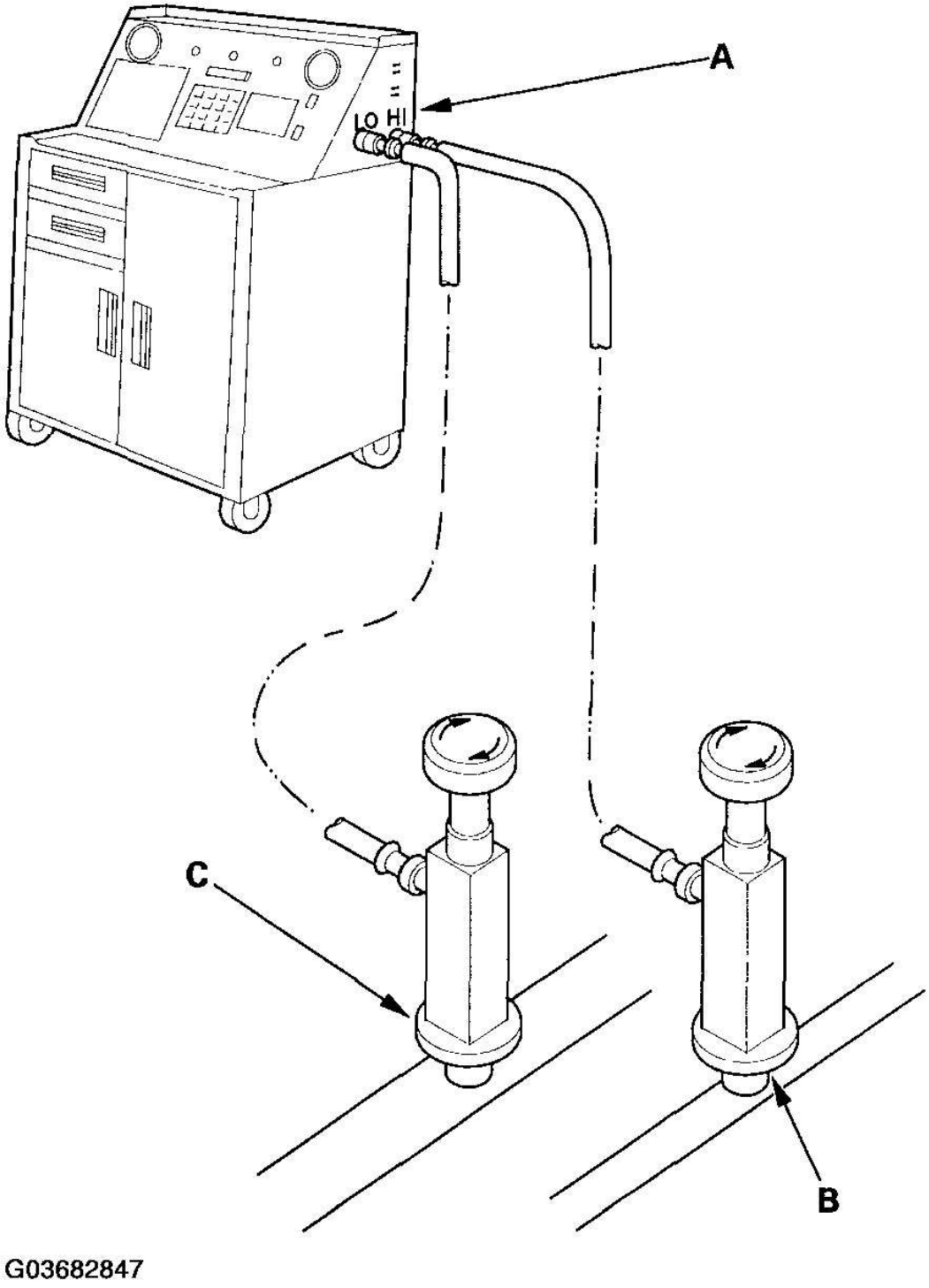

Fig. 123: Connecting R-134A Refrigerant Recovery/Recycling/Charging

Station To High & Low Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Evacuate the system (see **SYSTEM EVACUATION**).
3. Add the same amount of new refrigerant oil to the system that was removed during recovery. Use only SANDEN SP-10 refrigerant oil.
4. Charge the system with the specified amount of R-134a refrigerant. Do not overcharge the system; the A/C compressor will be damaged.

   Select the appropriate units of measure for your refrigerant charging station.

   Refrigerant Capacity:

   500 to 550 g
   0.50 to 0.55 kg
   1.1 to 1.2 lbs
   17.6 to 19.4 oz
5. Check for refrigerant leaks (see **REFRIGERANT LEAK TEST**).
6. Check for system performance (see **A/C SYSTEM TEST**).

REFRIGERANT LEAK TEST

Special Tools Required

Leak detector, Honda Tool and Equipment YGK-H-10PM commercially available

WARNING:

- **Compressed air mixed with R-134a forms a combustible vapor.**
- **The vapor can burn or explode causing serious injury.**
- **Never use compressed air to pressure test R-134a service equipment or vehicle air conditioning systems.**

CAUTION:

- **Air conditioning refrigerant or lubricant vapor**

can irritate your eyes, nose, or throat.

- **Be careful when connecting service equipment.**
- **Do not breathe refrigerant or vapor.**

Use only service equipment that is U.L.-listed and is certified to meet the requirements of SAE J2210 to remove HFC-134a (R-134a) from the air conditioning system.

If accidental system discharge occurs, ventilate work area before resuming service.

R-134a service equipment or vehicle air conditioning systems should not be pressure tested or leak tested with compressed air.

Additional health and safety information may be obtained from the refrigerant and lubricant manufacturers.

1. Connect an R-134a refrigerant recovery/recycling/charging station (A) to the high-pressure service port (B) and the low-pressure service port (C), as shown in **Fig. 124** , following the equipment manufacturer's instructions.

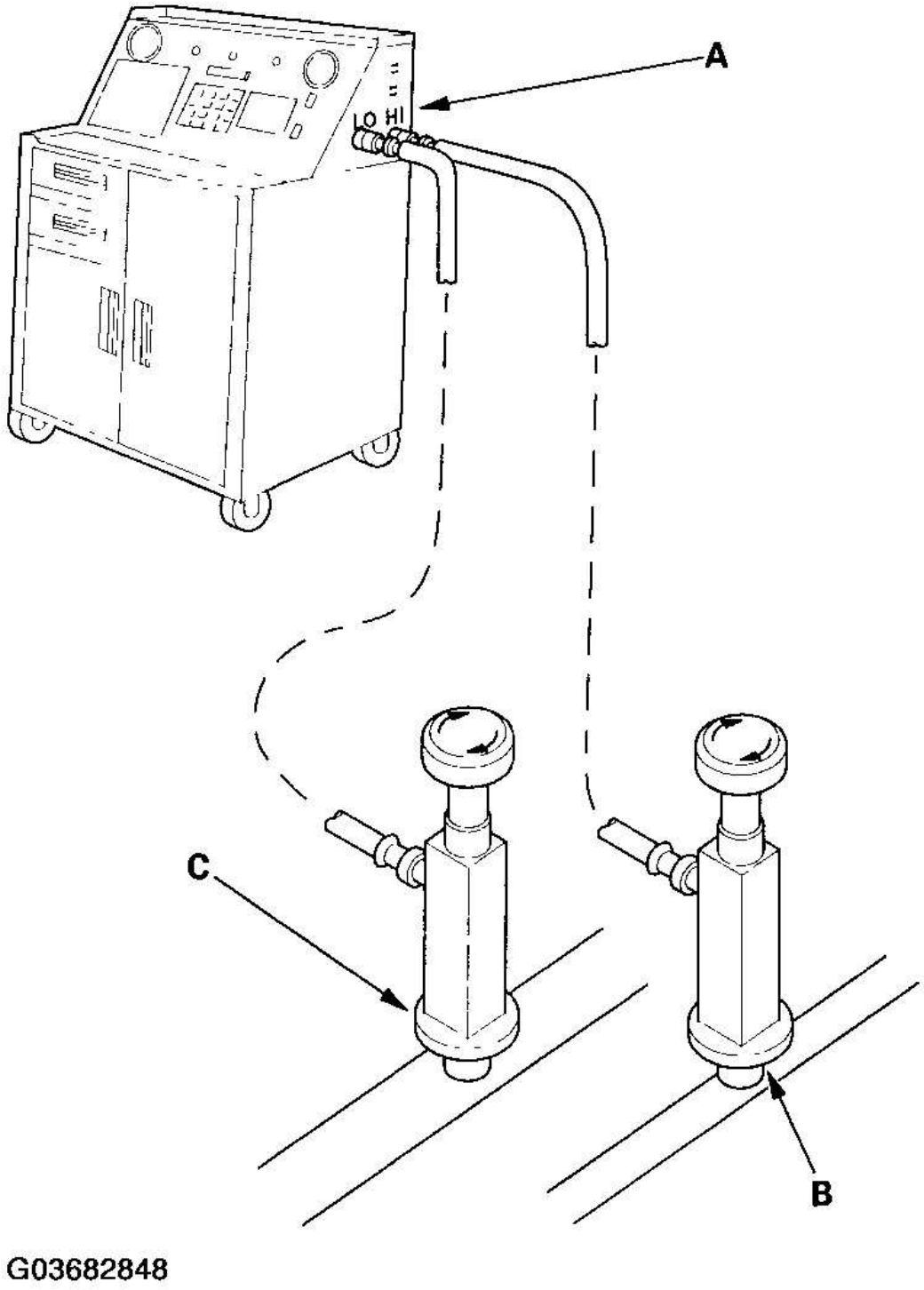

Fig. 124: Connecting R-134A Refrigerant Recovery/Recycling/Charging

Station To High & Low Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Open high pressure valve to charge the system to the specified capacity, then close the supply valve and remove the charging station fittings.

   Select the appropriate units of measure for your refrigerant charging station.

   Refrigerant Capacity:

   500 to 550 g
   0.50 to 0.55 kg
   1.1 to 1.2 lbs
   17.6 to 19.4 oz
3. Check the system for leaks using an R-134a refrigerant leak detector with an accuracy of 14 g (0.5 oz) per year or better.
4. If you find leaks that require the system to be opened (to repair or replace hoses, fittings, etc.), recover the system.
5. After checking and repairing leaks, the system must be evacuated.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (IF ELECTRICAL MAINTENANCE IS REQUIRED)

The Insight SRS includes a driver's airbag in the steering wheel hub, a passenger's airbag in the dashboard above the glove box, and seat belt tensioners in the seat belt retractors. Information necessary to safely service the SRS is included in this Service Manual. Items marked with an asterisk (*) on the contents page include or are located near SRS components. Servicing, disassembling or replacing these items require special precautions and tools, and should be done by an authorized Honda dealer.

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal collision, all SRS service work must be performed by an authorized Honda dealer.
- Improper service procedures, including incorrect removal and installation of the SRS, could lead to personal injury caused by unintentional deployment of the airbags and/or seat belt tensioners.

- Do not bump or impact the SRS unit, front impact sensors when the ignition switch is ON (II), or for at least 3 minutes after the ignition switch is turned OFF; otherwise, the system may fail in a collision, or the airbags may deploy.
- SRS electrical wiring harnesses are identified by yellow color coding. Related components are located in the steering column, console, dashboard, dashboard lower panel and in the dashboard above the glove box. Do not use electrical test equipment on these circuits.

INTEGRATED MOTOR ASSIST (IMA) SYSTEM (IF ELECTRICAL MAINTENANCE IS REQUIRED)

IMA components are located in this area. The IMA is a high-voltage system. The high voltage cables and their covers are identified by orange coloring. The safety labels are attached to high voltage and other related parts (see **DANGER/WARNING/CAUTION LABEL LOCATIONS**). You must be familiar with the IMA system before working on or around it. Make sure you have read the Service Precautions in the IMA section before performing repairs or service (see **SERVICE PRECAUTIONS**).