

2007 Acura RL

2005-08 HVAC HVAC - RL

2005-08 HVAC

HVAC - RL

HVAC (HEATING, VENTILATION, AND AIR CONDITIONING)

SPECIAL TOOLS

Ref. No.	Tool Number	Description	Qty
①	07SAZ-001000A	Backprobe Set	2

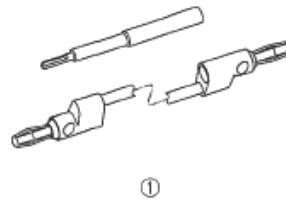


Fig. 1: Identifying Special Tools

Courtesy of AMERICAN HONDA MOTOR CO., INC.

CLIMATE CONTROL

COMPONENT LOCATION INDEX

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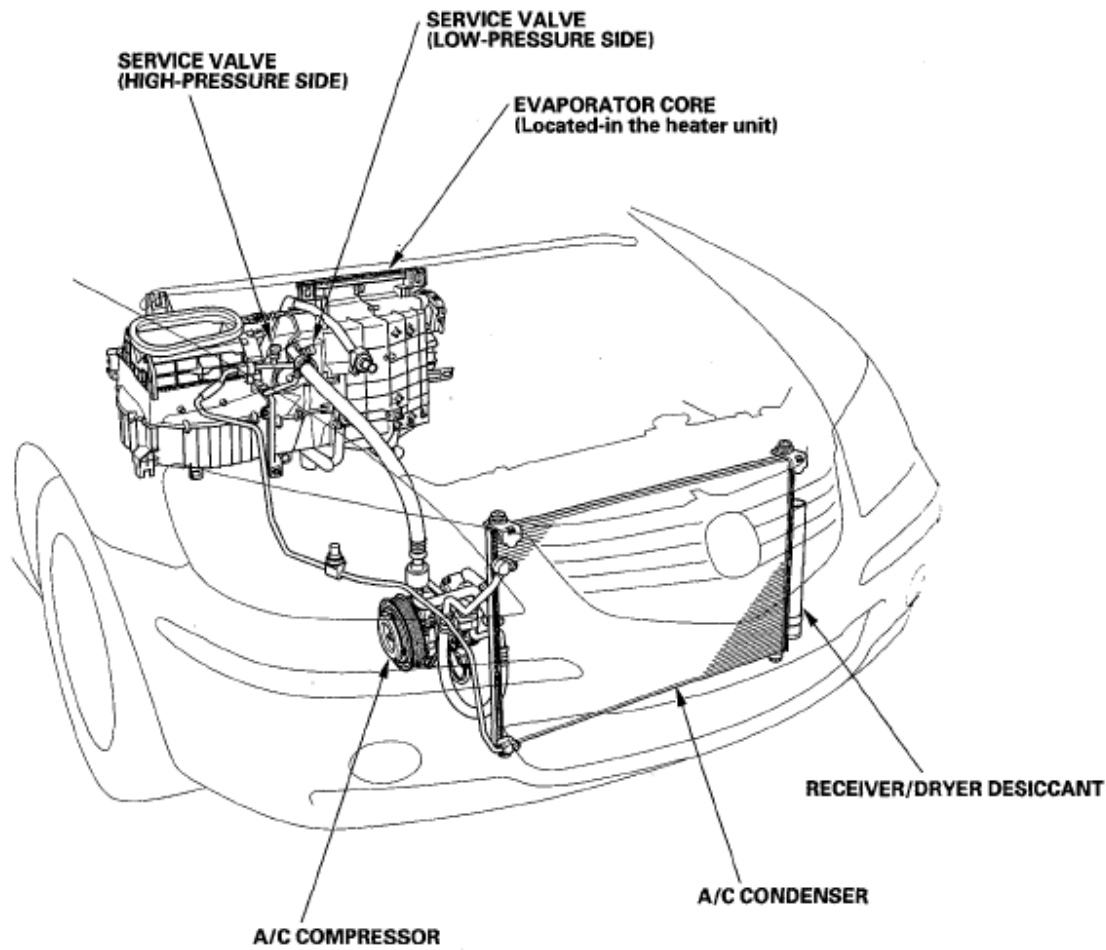


Fig. 2: Identifying Climate Control Component Location (1 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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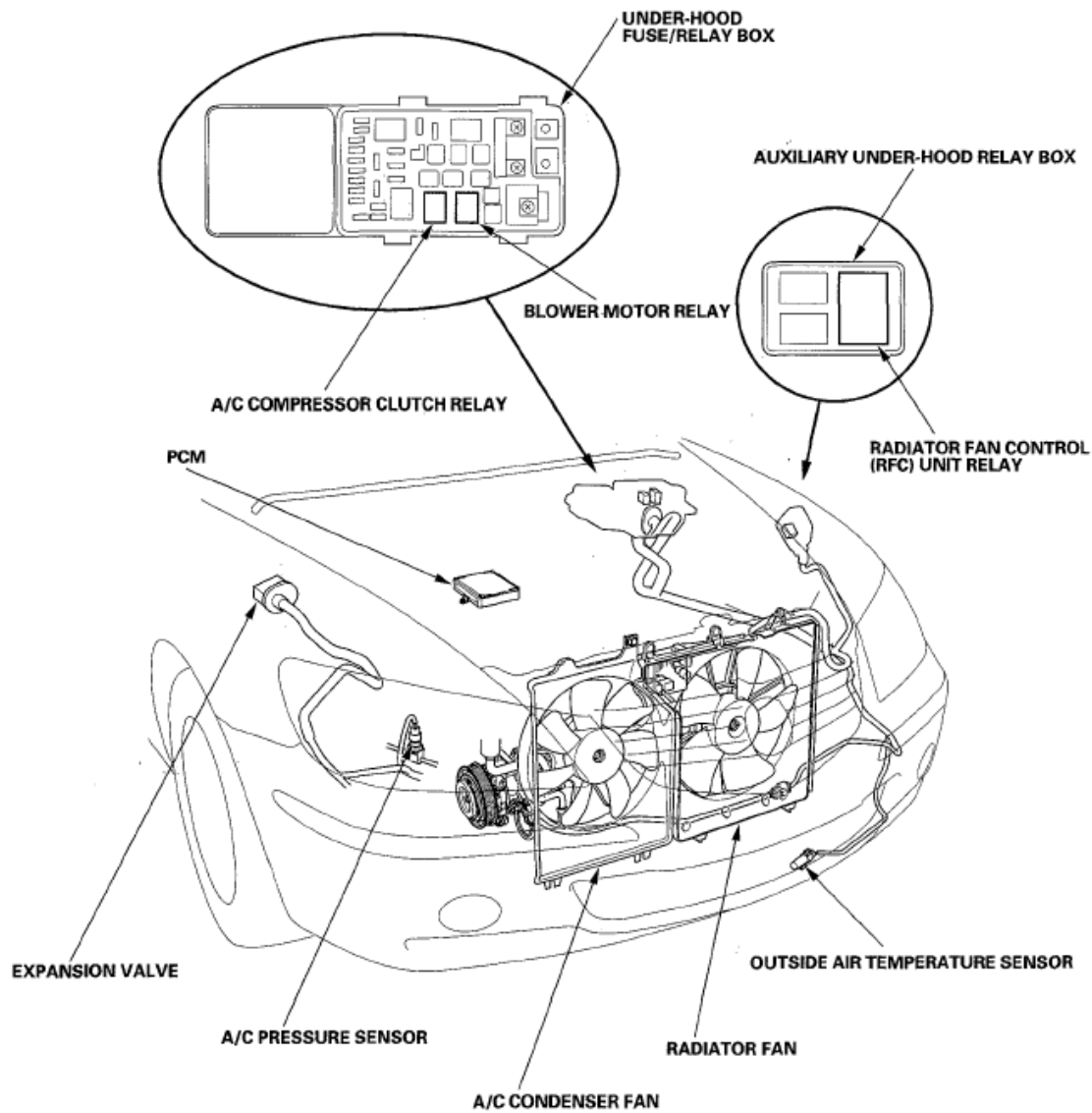


Fig. 3: Identifying Climate Control Component Location (2 Of 3)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

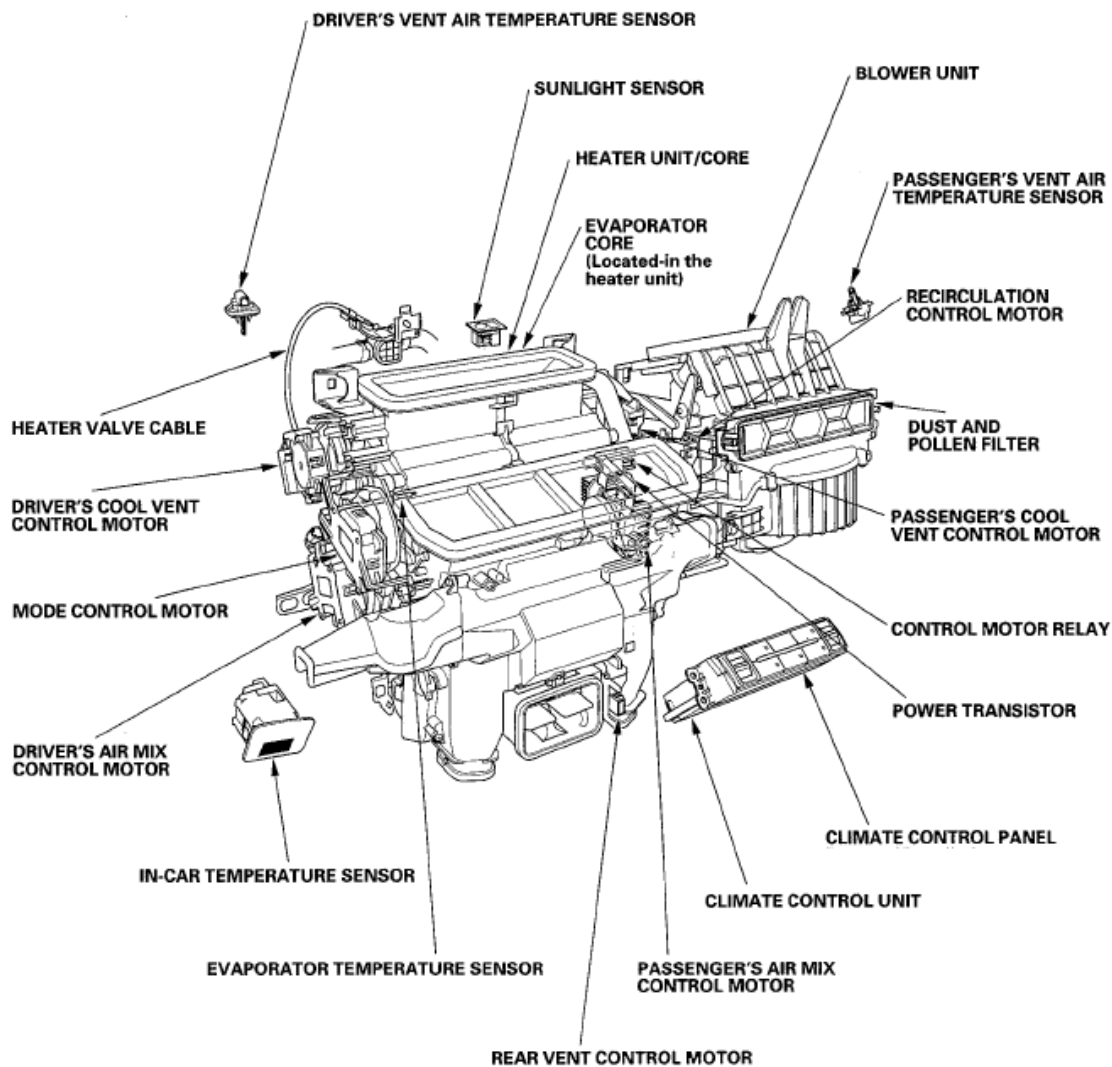


Fig. 4: Identifying Climate Control Component Location (3 Of 3)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C SERVICE TIPS AND PRECAUTIONS

WARNING:

- Compressed air mixed with the 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.

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 the 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: DENSO ND-OIL 8

- P/N 38897-PR7-A01AH: 120 mL (4 fl.oz)
- P/N38899-PR7-A01: 40 mL(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

(including Dryer Desiccant)35 mL (1 1/5 fl.oz)

Evaporator45 mL (1 1/2 fl.oz)

Line or hose10 mL (1/3 fl.oz)

Receiver/Dryer

Desiccant10 mL (1/3 fl.oz)

Leakage repair25 mL (5/6 fl.oz)

A/C compressorFor A/C compressor replacement, subtract the volume of oil drained from the removed A/C compressor from 127.5 mL (4 1/3 fl.oz), and drain the calculated volume of oil from the new A/C compressor: 127.5 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.

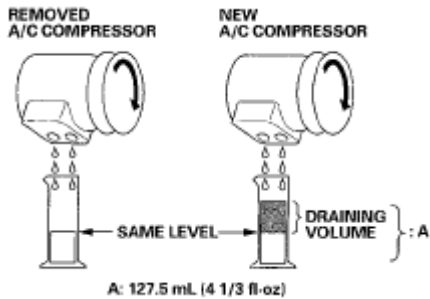
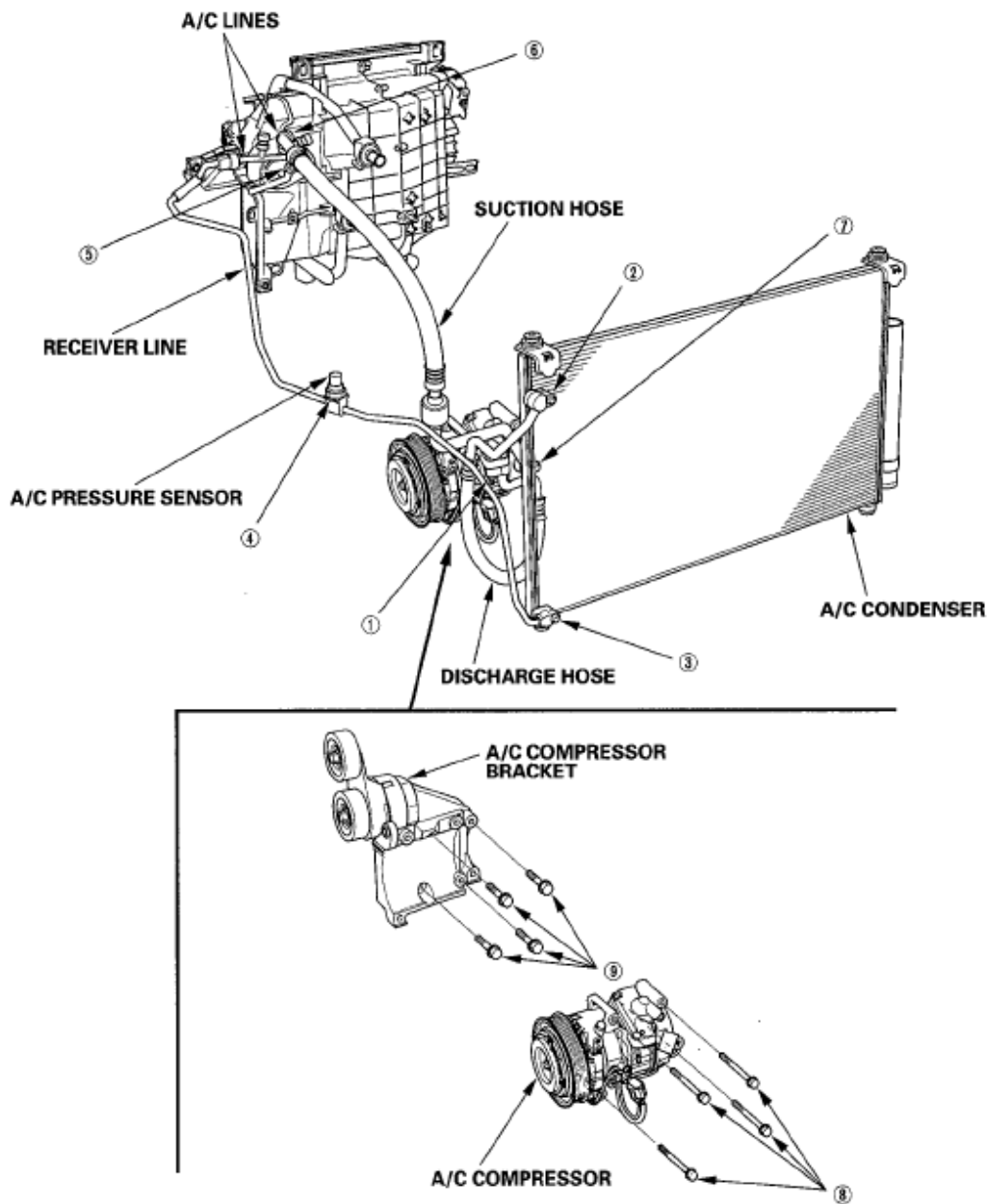


Fig. 5: Removing A/C Compressor Oil
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C LINE REPLACEMENT



- 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 Receiver line to the A/C condenser (6 x 1.0 mm): 9.8 N·m (1.0 kgf-m, 7.2 lbf-ft)
- ④ Receiver line to the A/C pressure sensor (11 x 1.0 mm): 10.8 N·m (1.1 kgf-m, 8.0 lbf-ft)
- ⑤ A/C lines to the evaporator (6 x 1.0 mm): 9.8 N·m (1.0 kgf-m, 7.2 lbf-ft)
- ⑥ A/C lines to the suction hose (6 x 1.0 mm): 9.8 N·m (1.0 kgf-m, 7.2 lbf-ft)
- ⑦ Suction hose to the A/C compressor (6 x 1.0 mm): 9.8 N·m (1.0 kgf-m, 7.2 lbf-ft)
- ⑧ A/C compressor to the A/C compressor bracket (8 x 1.25 mm): 21.5 N·m (2.2 kgf-m, 16 lbf-ft)
- ⑨ A/C compressor bracket to the engine block (10 x 1.25 mm): 44 N·m (4.5 kgf-m, 33 lbf-ft)

Fig. 6: Identifying A/C Line Components

Courtesy of AMERICAN HONDA MOTOR CO., INC.

GENERAL TROUBLESHOOTING INFORMATION

How to Check for DTCs with the HDS

1. Make sure the ignition switch is OFF.
2. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the

dashboard.

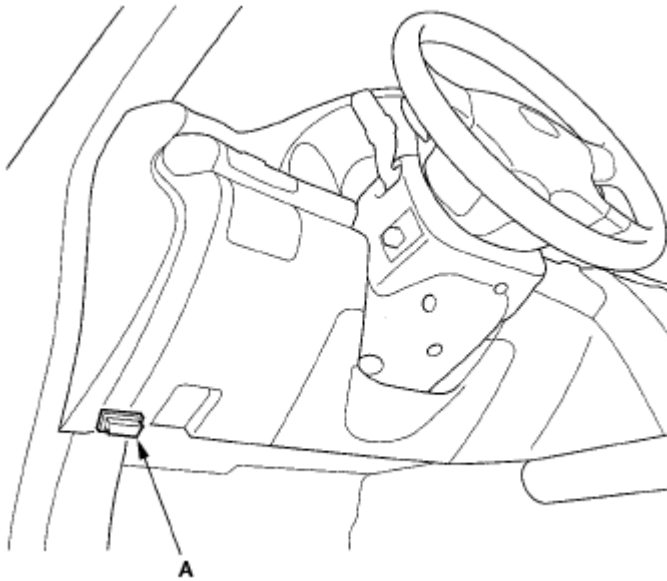


Fig. 7: Identifying HDS To Data Link Connector (DLC)
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Turn the ignition switch ON (II).
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it doesn't, troubleshoot the DLC circuit (see **DLC CIRCUIT TROUBLESHOOTING**).
5. Select HVAC/CLIMATE CONTROL in the BODY ELECTRICAL menu.
6. Select DTCs in the HVAC/CLIMATE CONTROL menu.
7. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, refer to **SYMPTOM TROUBLESHOOTING**.

NOTE:

- After troubleshooting, clear the DTCs with the HDS.
- For specific operations, refer to the user's manual that came with the HDS.

How to Use the Self-diagnostic Function with the HDS

1. Make sure the ignition switch is OFF.
2. Connect the HDS to the data link connector (DLC).
3. Turn the ignition switch ON (II).
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it doesn't, troubleshoot the DLC circuit (see **DLC CIRCUIT TROUBLESHOOTING**).
5. Select HVAC/CLIMATE CONTROL in the BODY ELECTRICAL menu.
6. Select INSPECTION in the HVAC/CLIMATE CONTROL menu.
7. Select CLIMATE CONTROL SELF TEST in the INSPECTION menu.
8. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting.

NOTE:

- After troubleshooting, clear the DTCs with the HDS.
- For specific operations, refer to the user's manual that came with the HDS.

How to Use the Self-diagnostic Function without HDS

The climate control unit has a self-diagnostic function. To run the self-diagnostic function, do the following:

NOTE:

Before troubleshooting the climate control system, refer to B-CAN System Diagnosis Test Mode A Troubleshooting (see TROUBLESHOOTING - B-CAN SYSTEM DIAGNOSIS TEST MODE A).

1. Turn the ignition switch OFF and then ON (II).
2. Press and hold the OFF button, then press the rear window defogger button five times within 10 seconds. Release the buttons. All the LEDs blink for 2 seconds, then the self-diagnostic function begins.

NOTE:

The blower motor will run at various speeds when in the self-diagnostic mode.

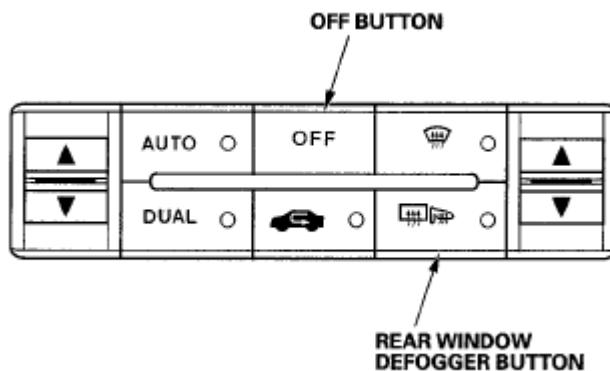


Fig. 8: Identifying Rear Window Defogger Button And Off Button
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Set the Navigation System Diagnostic Mode

3. Turn the ignition switch ON (II). Use the navigation display hard buttons as described below:
 - Make sure the battery is connected, then press and hold the three buttons (Menu, Map/Guide, and Cancel), and keep them pressed for approximately 5 seconds. The display screen will go directly to the "Select Diagnosis Items" menu shown below.
 - Touch the Unit Check button, then touch the Aircon button.
 - If there is any problem in the system, the display panel will indicate it. To determine the meaning of the indication, refer to the table that follows.
 - If there are no problems detected, the display panel will be blank.

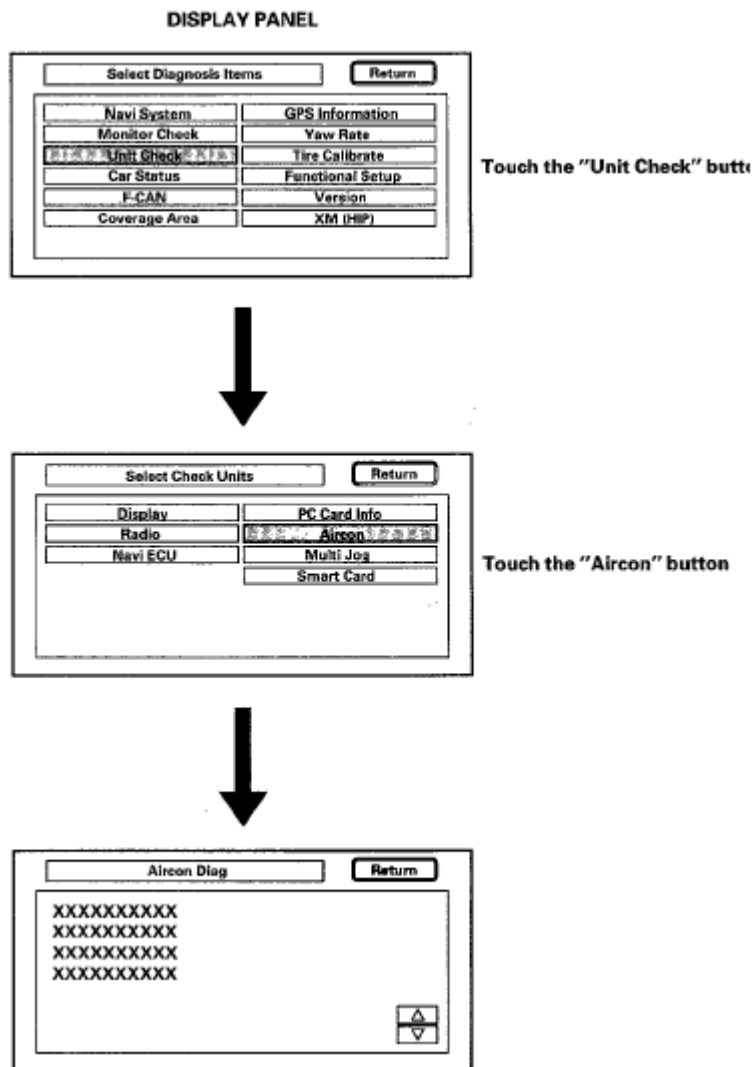


Fig. 9: Navigation System Diagnostic Mode Diagram (Display Panel)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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.

Checking for DTCs

NOTE: In the case of multiple problems, the display panel will indicate them all. If the navigation display indicates TR sensor open, TMA sensor open, TS sensor open, TE sensor open, DrVENT sensor open, PaVENT sensor open, and PRE sensor open at the same time, there may be an open in the common ground wire.

DISPLAY PANEL

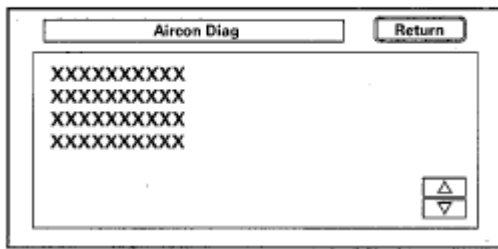


Fig. 10: Navigation System Diagnostic Mode (Display Panel)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

TROUBLESHOOTING INFORMATION CHART

Display Panel	Item
TR sensor open	An open in-car temperature sensor circuit (see <u>DTC B1225 OR TR SENSOR OPEN IS INDICATED: AN OPEN IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT</u>)
TR sensor short	A short in the in-car temperature sensor circuit (see <u>DTC B1226 OR TR SENSOR SHORT IS INDICATED: A SHORT IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT</u>)
TMA sensor open	An open in the outside air temperature sensor circuit (see <u>DTC B1227 OR TAM SENSOR OPEN IS INDICATED: AN OPEN IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT</u>)
TMA sensor short	A short in the outside air temperature sensor circuit (see <u>DTC B1228 OR TAM SENSOR SHORT IS INDICATED: A SHORT IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT</u>)
TS sensor open	An open in the sunlight sensor circuit (see <u>DTC B1229 OR TS SENSOR OPEN IS INDICATED: AN OPEN IN THE SUNLIGHT SENSOR CIRCUIT</u>)
TS sensor short	A short in the sunlight sensor circuit (see <u>DTC B1230 OR TS SENSOR SHORT IS INDICATED: A SHORT IN THE SUNLIGHT SENSOR CIRCUIT</u>)
TE sensor open	An open in the evaporator temperature sensor circuit (see <u>DTC B1231 OR TE SENSOR OPEN IS INDICATED: AN OPEN IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT</u>)
TE sensor short	A short in the evaporator temperature sensor circuit (see <u>DTC B1232 OR TE SENSOR SHORT IS INDICATED: A SHORT IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT</u>)
DrVENT sensor open	An open in the driver's vent air temperature sensor circuit (see <u>DTC B2975 OR DRVENT SENSOR OPEN IS INDICATED: AN OPEN IN THE DRIVER'S VENT AIR TEMPERATURE SENSOR CIRCUIT</u>)
DrVENT sensor short	A short in the driver's vent air temperature sensor circuit (see <u>DTC B2976 OR DRVENT SENSOR SHORT IS INDICATED: A SHORT IN THE DRIVER'S VENT AIR TEMPERATURE SENSOR CIRCUIT</u>)
PaVENT sensor open	An open in the passenger's vent air temperature sensor circuit (see <u>DTC B2977 OR PA VENT SENSOR OPEN IS INDICATED: AN OPEN IN THE PASSENGER'S VENT AIR TEMPERATURE SENSOR CIRCUIT</u>)
PaVENT sensor short	A short in the passenger's vent air temperature sensor circuit (see <u>DTC B2978 OR PA VENT SENSOR SHORT IS INDICATED: A SHORT IN THE PASSENGER'S VENT AIR TEMPERATURE SENSOR CIRCUIT</u>)

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PRE sensor open	An open in the A/C pressure sensor circuit (see <u>DTC B2979 OR PRE SENSOR OPEN IS INDICATED: AN OPEN IN THE A/C PRESSURE SENSOR CIRCUIT</u>)
PRE sensor short	A short in the A/C pressure sensor circuit (see <u>DTC B2980 OR PRE SENSOR SHORT IS INDICATED: A SHORT IN THE A/C PRESSURE SENSOR CIRCUIT</u>)
Blower motor lock	A problem in the blower motor circuit (see <u>DTC B1241 OR BLOWER MOTOR LOCK IS INDICATED: A PROBLEM IN THE BLOWER MOTOR CIRCUIT</u>)
NAVI communication error	Climate control unit lost communication with navigation unit (see <u>DTC B2981 OR NAVI COMMUNICATION ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH NAVIGATION UNIT</u>)
Audio communication error	Climate control unit lost communication with audio unit (see <u>DTC B2991 OR AUDIO COMMUNICATION ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH AUDIO UNIT</u>)
BUS communication error	Climate control unit lost communication with each control motor (see <u>DTC B2982 OR BUS COMMUNICATION ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH EACH CONTROL MOTOR</u>)
DrA/M motor lock	A problem in the driver's air mix control linkage, door, or motor (see <u>DTC B1235 OR DRA/M MOTOR LOCK IS INDICATED: A PROBLEM IN THE DRIVER'S AIR MIX CONTROL LINKAGE, DOOR, OR MOTOR</u>)
PaA/M motor lock	A problem in the passenger's air mix control linkage, door, or motor (see <u>DTC B1238 OR PAA/M MOTOR LOCK IS INDICATED: A PROBLEM IN THE PASSENGER'S AIR MIX CONTROL LINKAGE, DOOR, OR MOTOR</u>)
Mode motor lock	A problem in the mode control linkage, doors, or motor (see <u>DTC B1240 OR MODE MOTOR LOCK IS INDICATED: A PROBLEM IN THE MODE CONTROL LINKAGE, DOORS, OR MOTOR</u>)
R/F motor lock	A problem in the recirculation control linkage, door, or motor (see <u>DTC B2983 OR R/F MOTOR LOCK IS INDICATED: A PROBLEM IN THE RECIRCULATION CONTROL LINKAGE, DOOR, OR MOTOR</u>)
DrC/V motor lock	A problem in the driver's cool vent control linkage, door, or motor (see <u>DTC B2984 OR DRC/V MOTOR LOCK IS INDICATED: A PROBLEM IN THE DRIVER'S COOL VENT CONTROL LINKAGE, DOOR, OR MOTOR</u>)
PaC/V motor lock	A problem in the passenger's cool vent control linkage, door, or motor (see <u>DTC B2985 OR PAC/V MOTOR LOCK IS INDICATED: A PROBLEM IN THE PASSENGER'S COOL VENT CONTROL LINKAGE, DOOR, OR MOTOR</u>)
RrVENT motor lock	A problem in the rear vent control linkage, door, or motor (see <u>DTC B2987 OR RRVEISIT MOTOR LOCK IS INDICATED: A PROBLEM IN THE REAR VENT CONTROL LINKAGE, DOOR, OR MOTOR</u>)
COMP Solenoid error	A problem in the variable capacity control solenoid valve circuit (see <u>COMP SOLENOID ERROR IS INDICATED: A PROBLEM IN THE VARIABLE CAPACITY CONTROL SOLENOID VALVE CIRCUIT</u>)
EEPROM error	Climate control unit internal error (see <u>DTC TROUBLESHOOTING</u>)
	Climate control unit lost communication with gauge control module (ECT message) (see <u>DTC B1205 OR VEHICLE SPEED ERROR OR ENGNE ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH GAUGE CONTROL MODULE (VSP/NE MESSAGE); DTC B1206 OR TW SENSOR ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST</u>)

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TW sensor error	<u>COMMUNICATION WITH GAUGE CONTROL MODULE (ECT MESSAGE); DTC B1207: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH GAUGE CONTROL MODULE (ILLUMI MESSAGE); DTC B1208: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH KEYLESS ACCESS CONTROL UNIT (FOB ID MESSAGE))</u>
Vehicle speed error	<u>Climate control unit lost communication with gauge control module (VSP/NE message) (see DTC B1205 OR VEHICLE SPEED ERROR OR ENGINE ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH GAUGE CONTROL MODULE (VSP/NE MESSAGE); DTC B1206 OR TW SENSOR ERROR IS INDICATED: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH GAUGE CONTROL MODULE (ECT MESSAGE); DTC B1207: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH GAUGE CONTROL MODULE (ILLUMI MESSAGE); DTC B1208: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH KEYLESS ACCESS CONTROL UNIT (FOB ID MESSAGE))</u>
ENGNe error	<u>COMMUNICATION WITH GAUGE CONTROL MODULE (ILLUMI MESSAGE); DTC B1208: CLIMATE CONTROL UNIT LOST COMMUNICATION WITH KEYLESS ACCESS CONTROL UNIT (FOB ID MESSAGE))</u>

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 temperature, 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.
 - 58 through 86°F settings will use the automatic climate control logic.
3. Turn the ignition switch OFF.

To run the sensor input display mode, follow these steps

4. Turn the ignition switch OFF.
5. Press and hold both the AUTO and recirculation buttons while starting the engine. Release the buttons.
6. Turn the ignition switch ON (II). Use the navigation display hard buttons as described below:
 - Make sure the battery is connected, then press and hold the three buttons (Menu, Map/Guide, and Cancel), and keep them pressed for approximately 5 seconds. The display screen will go directly to the "Select Diagnosis Items" menu shown below.
 - Touch the Unit Check button, then touch the Aircon button.

TROUBLESHOOTING INFORMATION CHART

Display	Displayed
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Panel	Item	Value
TR sensor	In-car Temperature	°C
TMA sensor	Outside Air Temperature	°C
TS sensor	Solar Radiation Sensor Value: Dark=00, Flashlight=04, Cloudy=10, Sunny=65	kcal/m ² .min
TW sensor	Engine coolant Temperature	°C
TE sensor	Evaporator Outlet Air Temperature	°C
DrVENT sensor	Driver's Vent Air Temperature	°C
PaVENT sensor	Passenger's Vent Air Temperature	°C
DrA/M motor	Driver's Air Mix Opening (Low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
PaA/M motor	Passenger's Air Mix Opening (Low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
Mode motor	Mode Opening	% of opening
R/F motor	Recirculation Opening	% of opening
DrC/V sensor	Driver's Cool Vent Opening	% of opening
PaC/V sensor	Passenger's Cool Vent Opening	% of opening
RrVENT motor	Rear Vent Opening	% of opening
TAO	Vent Temperature Air Out (TAO)	°C
VSP	Vehicle Speed (Vehicle must be driven to display speed)	km/h
Pd sensor	A/C pressure	MPa

NOTE:

- The sensor values will be displayed in degrees Celsius (°C) or an alphanumeric code. Use the chart to convert the value to degrees Fahrenheit (°F).
- If the sensor value displays "Er" this indicates there is an open or short in the circuit or sensor. Check for DTCs using the HDS, or refer to checking DTCs by DTC indication.
- If necessary, compare the sensor input display to a known-good vehicle under the same test conditions.
- If the sensor is out of the normal range, refer to the sensor test or substitute a known-good sensor, and recheck.

7. To cancel the sensor input display mode, press the AUTO button or turn the ignition switch OFF.

Celsius to Fahrenheit Conversion Table

TEMPERATURE REFERENCE CHART

°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

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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

DTC TROUBLESHOOTING INDEX

°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

DTC TROUBLESHOOTING INDEX

Checking the DTCs by HDS

DTC TROUBLESHOOTING INDEX

DTC	Detection Item or Symptom	ECU	DTC type
<u>B1200</u>	Communication bus line error	Climate control unit	Loss of communication
<u>B1202</u>	Climate control unit internal error	Climate control unit	Internal error
<u>B1205</u>	Climate control unit lost communication with gauge control module (VSP/NE message)	Climate control unit	Loss of communication
<u>B1206</u>	Climate control unit lost communication with gauge control module (ECT message)	Climate control unit	Loss of communication
<u>B1207</u>	Climate control unit lost communication with gauge control module (ILLUMI message)	Climate control unit	Loss of communication
<u>B1208</u>	Climate control unit lost communication with	Climate control unit	Loss of communication

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	keyless access control unit (FOB ID message)		
<u>B1225</u>	An open in the in-car temperature sensor circuit	Climate control unit	Signal error
<u>B1226</u>	A short in the in-car temperature sensor circuit	Climate control unit	Signal error
<u>B1227</u>	An open in the outside air temperature sensor circuit	Climate control unit	Signal error
<u>B1228</u>	A short in the outside air temperature sensor circuit	Climate control unit	Signal error
<u>B1229</u>	An open in the sunlight sensor circuit	Climate control unit	Signal error
<u>B1230</u>	A short in the sunlight sensor circuit	Climate control unit	Signal error
<u>B1231</u>	An open in the evaporator temperature sensor circuit	Climate control unit	Signal error
<u>B1232</u>	A short in the evaporator temperature sensor circuit	Climate control unit	Signal error
<u>B1235</u>	A problem in the driver's air mix control linkage, door, or motor	Climate control unit	Signal error
<u>B1238</u>	A problem in the passenger's air mix control linkage, door, or motor	Climate control unit	Signal error
<u>B1240</u>	A problem in the mode control linkage, doors, or motor	Climate control unit	Signal error
<u>B1241</u>	A problem in the blower motor circuit	Climate control unit	Signal error
<u>B2975</u>	An open in the driver's vent air temperature sensor circuit	Climate control unit	Signal error
<u>B2976</u>	A short in the driver's vent air temperature sensor circuit	Climate control unit	Signal error
<u>B2977</u>	An open in the passenger's vent air temperature sensor circuit	Climate control unit	Signal error
<u>B2978</u>	A short in the passenger's vent air temperature sensor circuit	Climate control unit	Signal error
<u>B2979</u>	An open in the A/C pressure sensor circuit	Climate control unit	Signal error
<u>B2980</u>	A short in the A/C pressure sensor circuit	Climate control unit	Signal error
<u>B2981</u>	Climate control unit lost	Climate control unit	Loss of communication

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	communication with navigation unit		
<u>B2982</u>	Climate control unit lost communication with each control motor	Climate control unit	Loss of communication
<u>B2983</u>	A problem in the recirculation control linkage, door, or motor	Climate control unit	Signal error
<u>B2984</u>	A problem in the driver's cool vent control linkage, door, or motor	Climate control unit	Signal error
<u>B2985</u>	A problem in the passenger's cool vent control linkage, door, or motor	Climate control unit	Signal error
<u>B2987</u>	A problem in the rear vent control linkage, door, or motor	Climate control unit	Signal error
<u>B2991</u>	Climate control unit lost communication with audio unit	Climate control unit	Loss of communication

SYMPTOM TROUBLESHOOTING INDEX

TROUBLESHOOTING CHART

Symptom	Diagnostic procedure	Also check for
All control motors do not run	Control motor power supply circuit troubleshooting (see <u>CONTROL MOTOR POWER SUPPLY CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> HVAC DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>) Blown fuse No. 9 (7.5 A) in the passenger's under-dash fuse/relay box Cleanliness and tightness of all terminals
Aspirator fan does not run	Aspirator fan circuit troubleshooting (see <u>ASPIRATOR FAN CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> HVAC DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>) Blown fuse No. 30 (7.5 A) in the driver's under-dash fuse/relay box Poor ground at G503 (see <u>GROUND TO COMPONENTS INDEX</u>) Cleanliness and tightness of all terminals
		<ul style="list-style-type: none"> HVAC DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>)

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Blower, heater controls, and A/C do not work	Climate control power and ground circuit troubleshooting (see <u>CLIMATE CONTROL POWER AND GROUND CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • Blown fuse No. 30 (7.5 A) in the driver's under-dash fuse/relay box • Poor ground at G503 (see <u>GROUND TO COMPONENTS INDEX</u>) • Cleanliness and tightness of all terminals
Both fans do not run with the A/C on (but the A/C compressor runs with the A/C on)	Radiator and A/C condenser fans common circuit troubleshooting (see <u>RADIATOR FAN AND A/C CONDENSER FAN CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • Powertrain DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>) • Blown fuse No. 23 (7.5 A) in the driver's under-dash fuse/relay box • Poor ground at G301 (see <u>GROUND TO COMPONENTS INDEX</u>) • Cleanliness and tightness of all terminals
The A/C condenser fan does not run at all (but the radiator fan and the A/C compressor run with the A/C on)	A/C condenser fan circuit troubleshooting (see <u>A/C CONDENSER FAN CIRCUIT TROUBLESHOOTING (OPEN)</u>)	<ul style="list-style-type: none"> • Powertrain DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>) • Blown fuse No. 23 (7.5 A) in the driver's under-dash fuse/relay box • Poor ground at G301 (see <u>GROUND TO COMPONENTS INDEX</u>) • Cleanliness and tightness of all terminals
Radiator fan does not run at all (but the A/C condenser fan and the A/C compressor run with the A/C on)	Radiator fan circuit troubleshooting (see <u>RADIATOR FAN AND A/C CONDENSER FAN CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • Powertrain DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>) • Blown fuse No. 23 (7.5 A) in the driver's under-dash fuse/relay box • Poor ground at G301 (see <u>GROUND TO COMPONENTS INDEX</u>) • Cleanliness and tightness of all terminals
The A/C compressor clutch does not engage (but both fans	A/C compressor clutch circuit troubleshooting (see <u>A/C COMPRESSOR CLUTCH</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>) • Blown fuse No. 12 (7.5 A) in the under-hood fuse/relay box, and No. 30 (7.5 A) in the driver's

run with the A/C on)	CIRCUIT TROUBLESHOOTING)	under-dash fuse/relay box
HDS does not communicate with the climate control unit or the vehicle	Troubleshooting the DLC circuit (see DLC CIRCUIT TROUBLESHOOTING)	<ul style="list-style-type: none"> Cleanliness and tightness of all terminals

SYSTEM DESCRIPTION

The air conditioning system removes heat from the passenger compartment by transferring heat from the ambient air to the evaporator. The evaporator cools the air with the refrigerant that is circulating through the evaporator. The refrigerant expands in the evaporator, and the evaporator becomes very cold and absorbs the heat from the ambient air. The blower fan pushes air across the evaporator where the heat is absorbed, and then it blows the cool air into the passenger compartment.

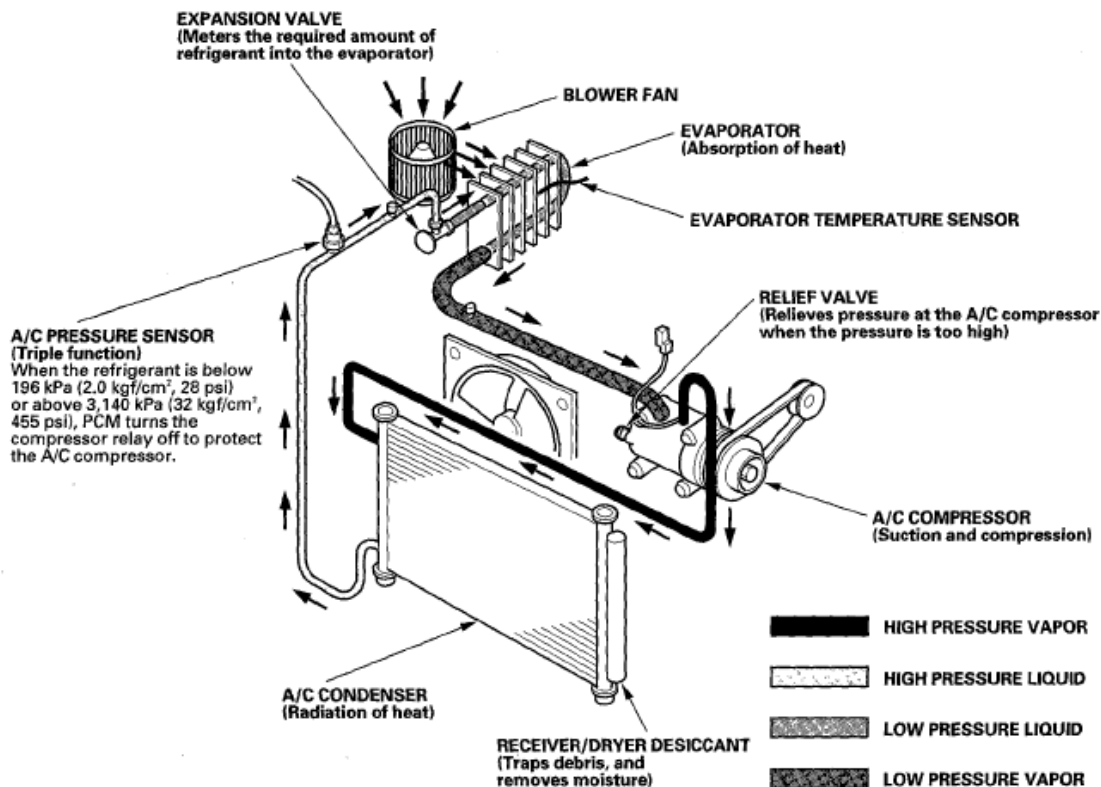


Fig. 11: Air Conditioning Flow Diagram
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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 (DENSO ND-OIL 8) 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 the R-134a air conditioning systems.
- Always recover refrigerant R-134a with an approved recovery/recycling/charging station before disconnecting any A/C fitting.

A/C Pressure Sensor

The A/C pressure sensor converts A/C pressure into electrical signals to the PCM.

NOTE: **The pressures can be monitored using the HDS PGM-FI Data List.**

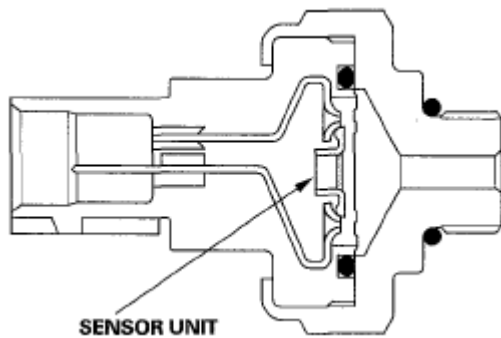


Fig. 12: Identifying Sensor Unit
Courtesy of AMERICAN HONDA MOTOR CO., INC.

The response of the A/C pressure sensor is shown in the graph.

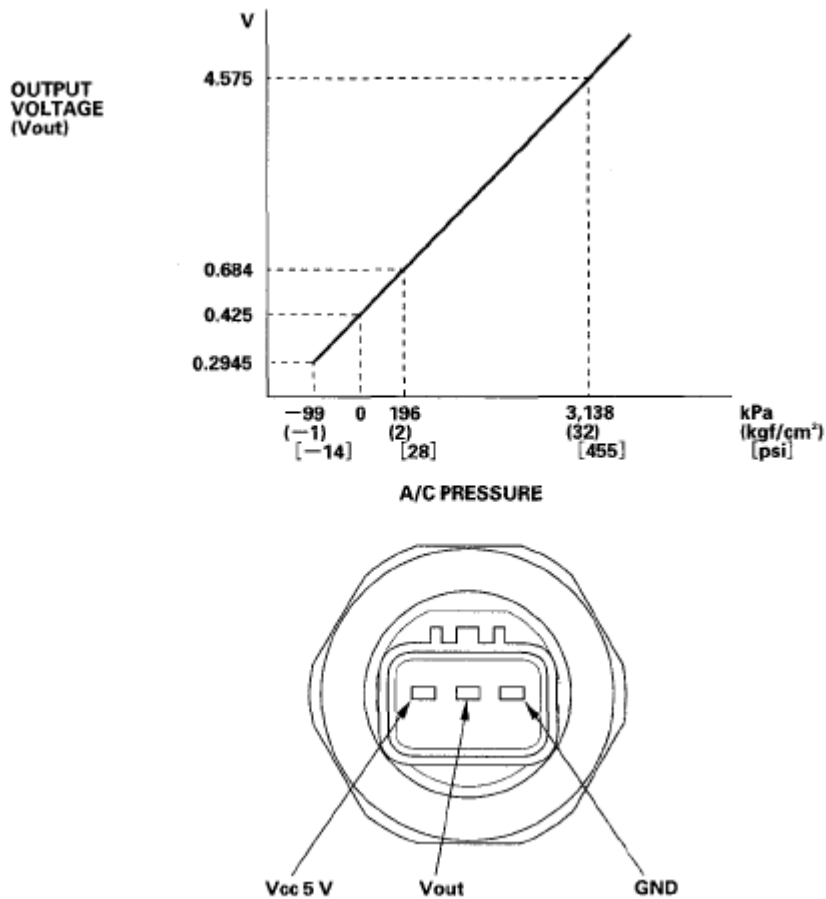


Fig. 13: A/C Pressure And Output Voltage Graph
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Continuously Variable Capacity Compressor

When the shaft rotates, the slope plate rotates by means of the lug plate which is attached to the shaft. The rotational movement of the slope plate is converted through the use of shoes to the reciprocal movement of the pistons, which in turn take in, compress, and discharge the refrigerant.

The inner pressure of the slope plate chamber is controlled between low to mid range, and the pressure determines the slope angle, determining the piston stroke as well and further controlling the discharge amount, resulting in the continuously variable capacity.

The amperage to the variable capacity control solenoid valve is controlled to obtain continuously variable low pressure, further achieving the continuous control of variable compressor capacity resulting in the continuous control of the cooling capacity.

On/Off of the compressor clutch is eliminated in the system, hence no shock of the clutch engaging/disengaging, and the idle speed becomes stable.

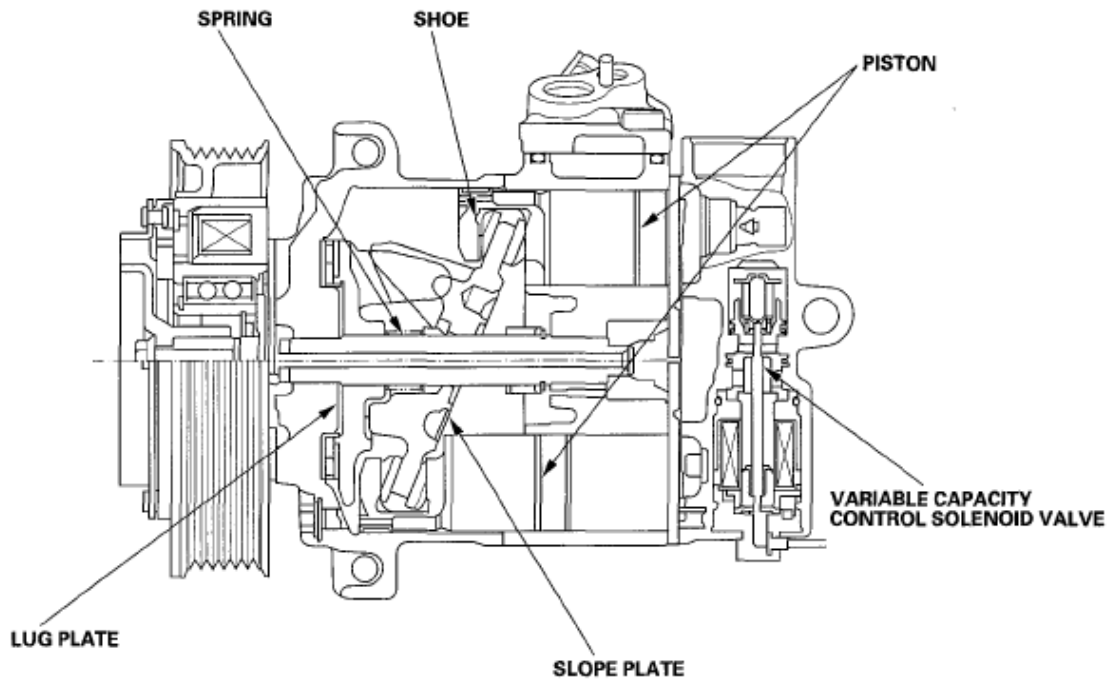


Fig. 14: Identifying Compressor Components
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Climate Control Door Positions

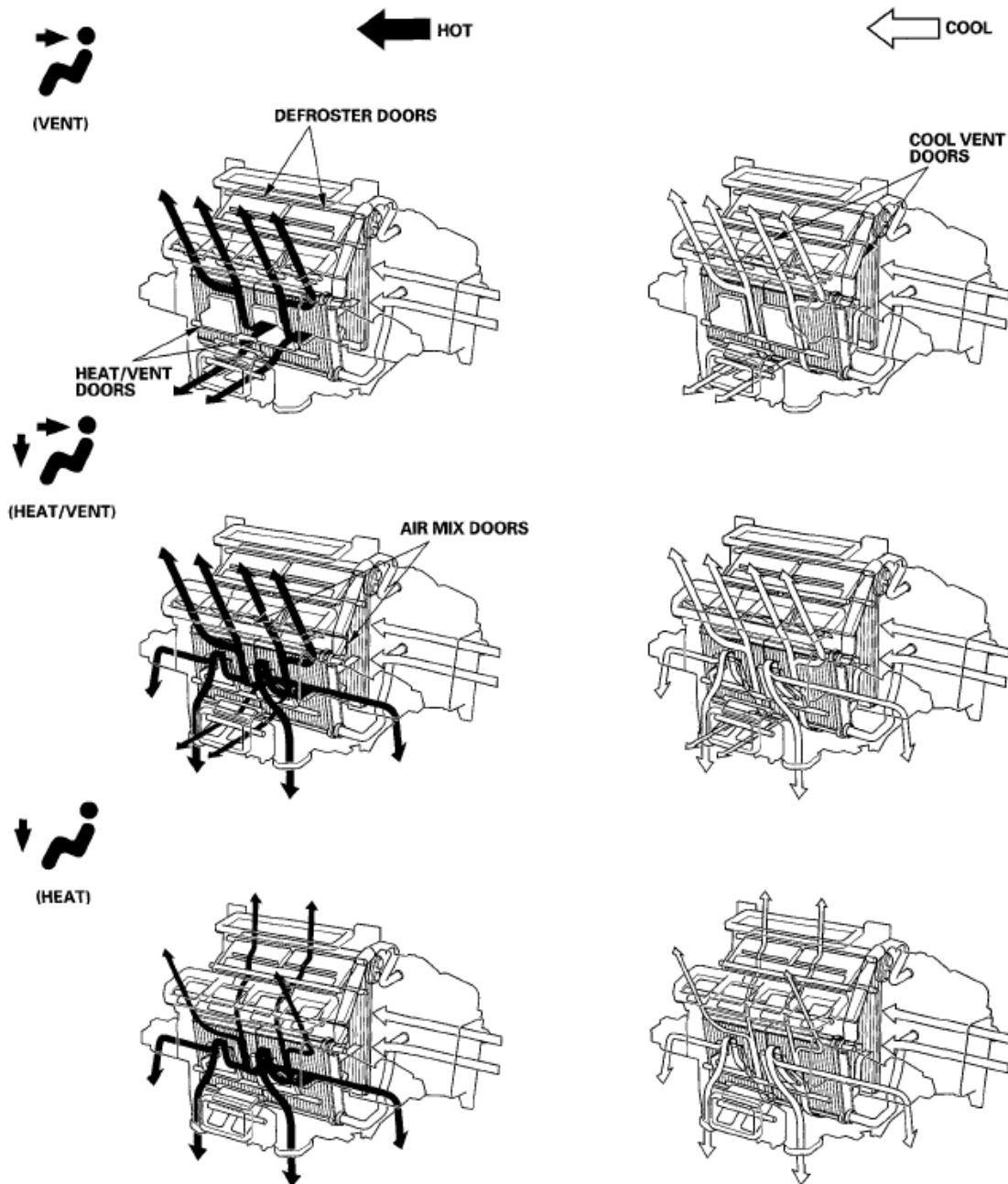


Fig. 15: Climate Control Door Positions Air Flow Diagram (1 Of 2)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

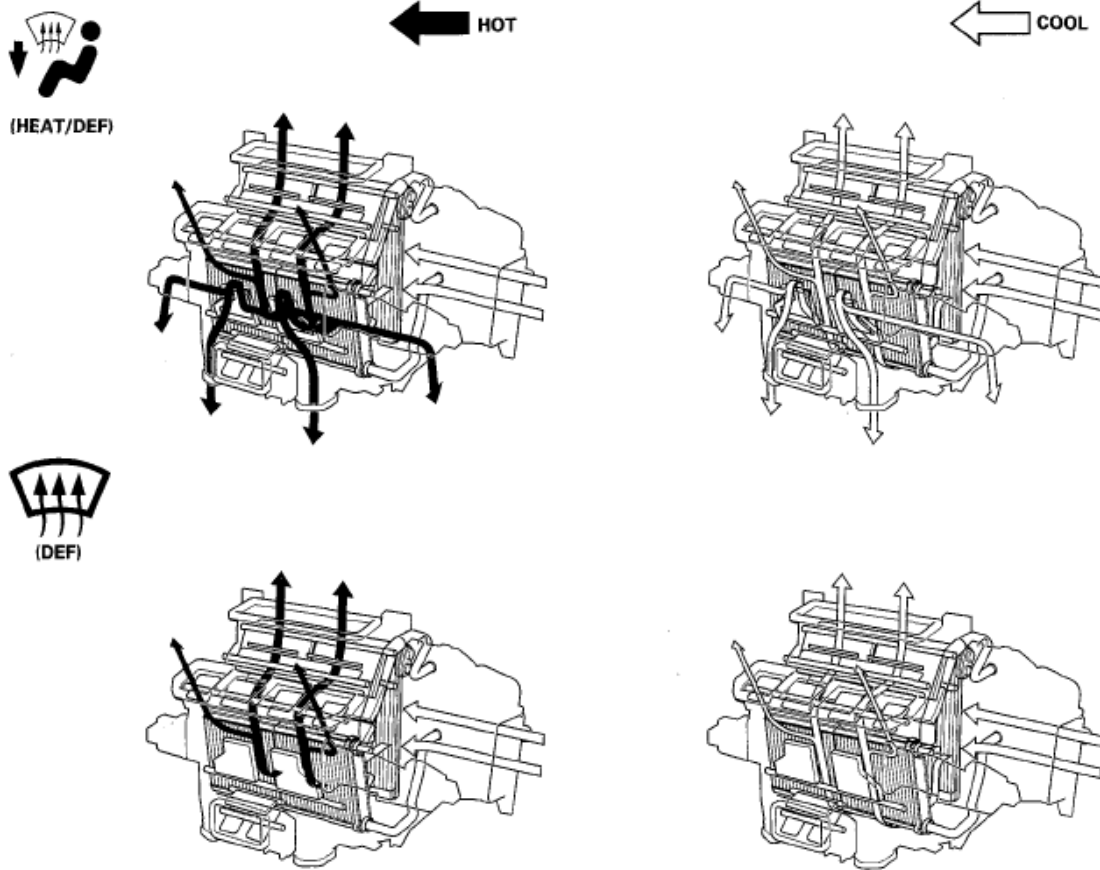


Fig. 16: Climate Control Door Positions Air Flow Diagram (2 Of 2)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Dual Air Mix Control System

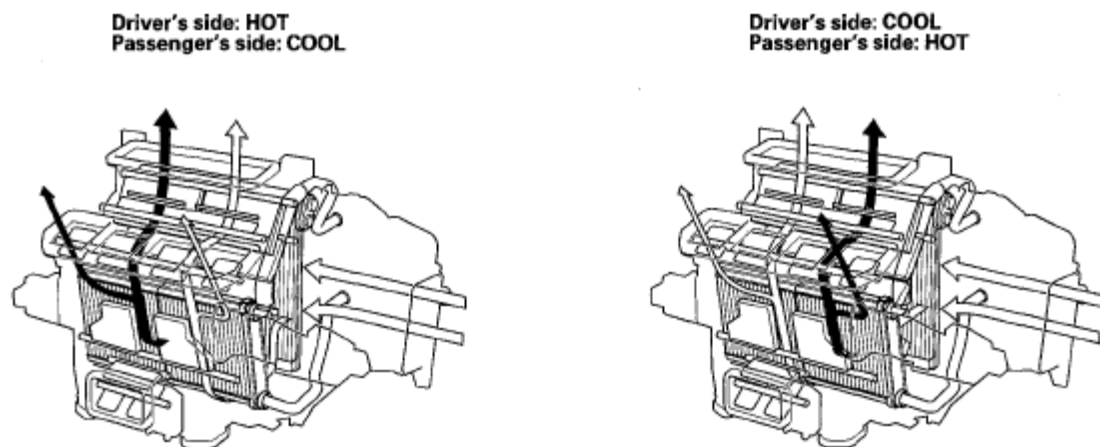


Fig. 17: Identifying Dual Air Mix Control System
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Dual Cool Vent Control System

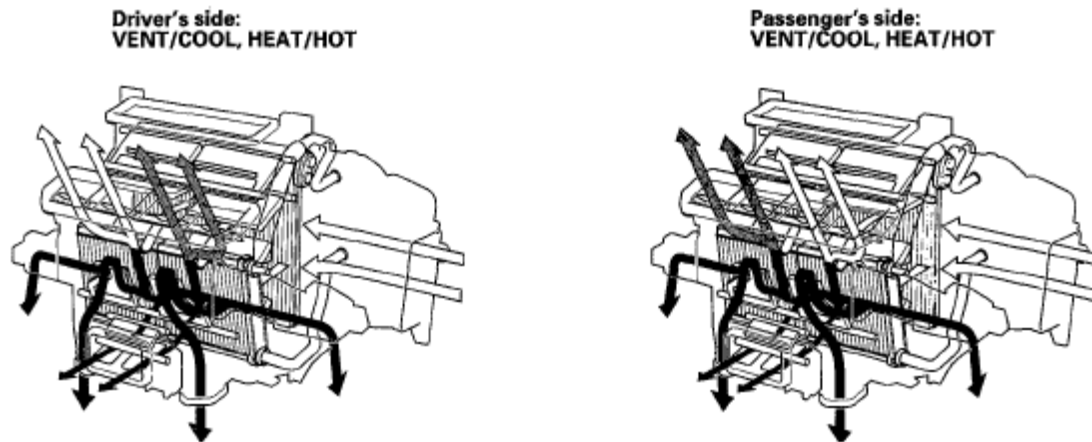


Fig. 18: Identifying Dual Cool Vent Control System
Courtesy of AMERICAN HONDA MOTOR CO., INC.

i-Dual Climate Control System

This system automatically controls the temperature and the vent mode of the air direction to the driver and passenger's side depending on the angle of the sun and the direction of the vehicle. It calculates information such as date, time, longitude, and latitude from the navigation system, as well as the irradiate strength of the sun from the sunlight sensor, to determine the appropriate mode position and temperature to be directed to each side.

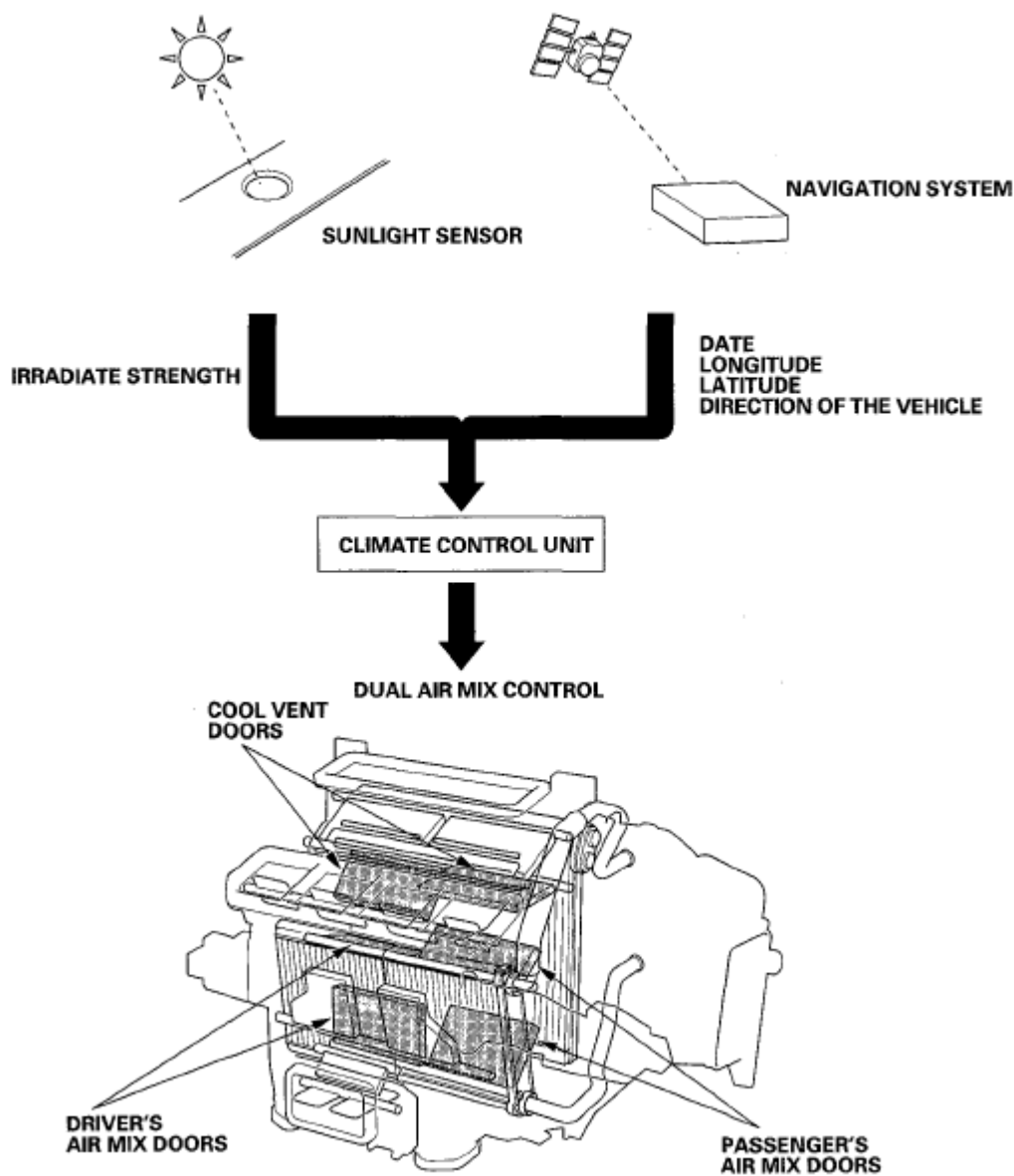


Fig. 19: Climate Control Unit Diagram

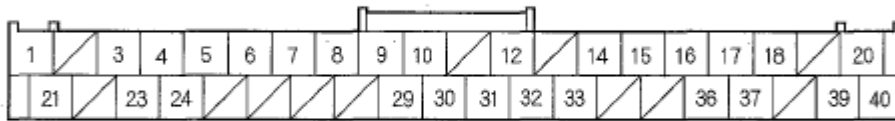
Courtesy of AMERICAN HONDA MOTOR CO., INC.

In the event that the navigation system malfunctions, or when driving in areas where the navigation cannot determine the vehicle position (non-coverage areas, tunnels, etc.), the climate control system will operate the same as a vehicle without navigation.

Climate Control Unit Inputs and Outputs

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CLIMATE CONTROL UNIT 40P CONNECTOR

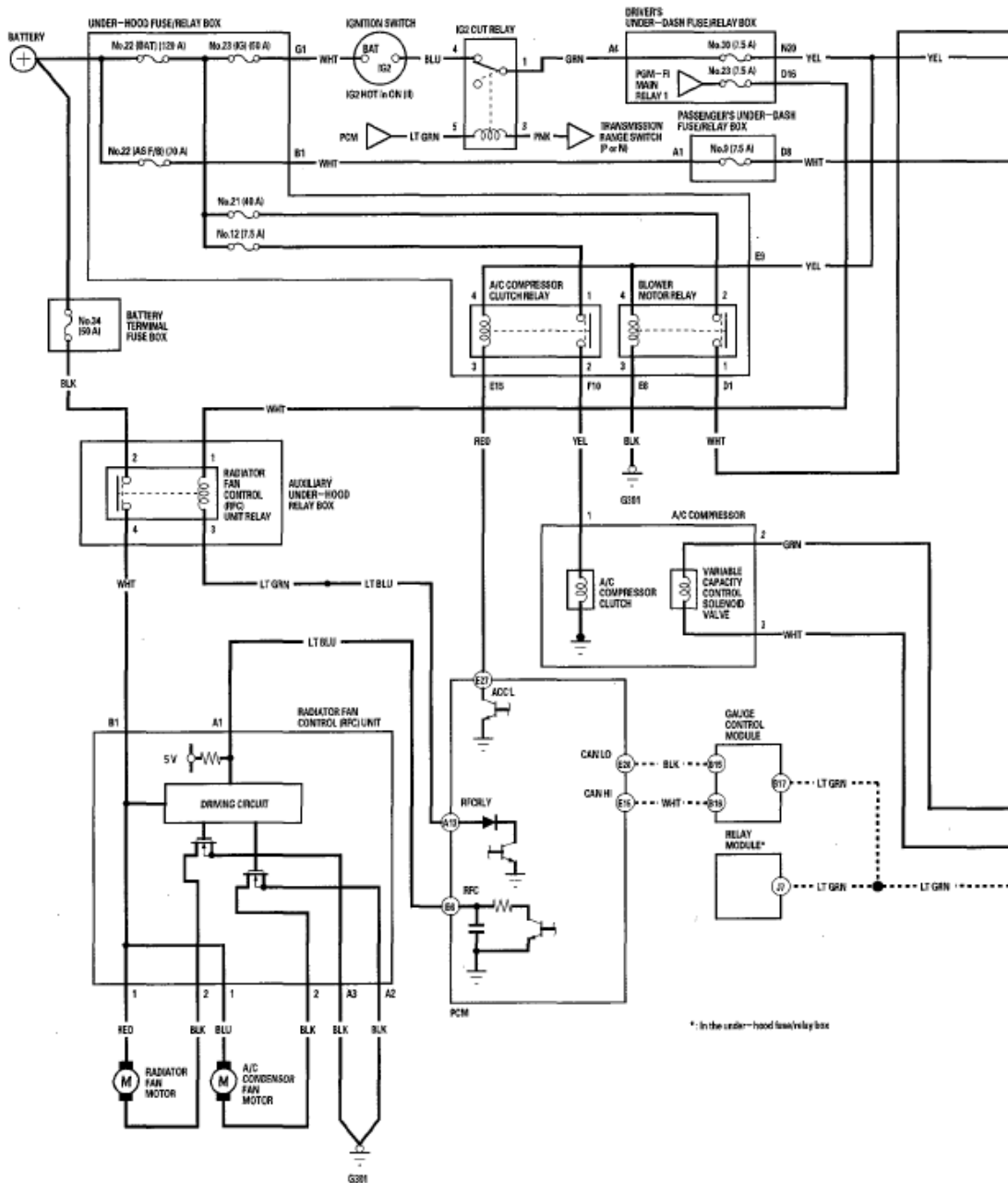
Wire side of female terminals

Fig. 20: Identifying Climate Control Unit 40P Connector Terminals
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

WIRE COLOR SPECIFICATION

Cavity	Wire color	Signal	
1	LT BLU	TAILLIGHT RELAY	INPUT
3	WHT	VARIABLE CAPACITY CONTROL SOLENOID VALVE	INPUT
4	GRN	VARIABLE CAPACITY CONTROL SOLENOID VALVE	OUTPUT
5	GRY	CONTROL MOTOR RELAY	INPUT
6	PUR	NAVIGATION UNIT	OUTPUT
7	ORN	NAVIGATION UNIT	INPUT
8	BRN	NAVIGATION UNIT	OUTPUT
9	BLU	BLOWER FEEDBACK	INPUT
10	RED	POWER TRANSISTOR CONTROL	OUTPUT
12	GRY	A/C PRESSURE SENSOR	OUTPUT
14	LT GRN	A/C PRESSURE SENSOR	OUTPUT
15	LT BLU	IN-CAR TEMPERATURE SENSOR	OUTPUT
16	PNK	OUTSIDE AIR TEMPERATURE SENSOR	OUTPUT
17	BRN	EVAPORATOR TEMPERATURE SENSOR	OUTPUT
18	PUR	SUNLIGHT SENSOR	OUTPUT
20	YEL	IG2 (Power)	INPUT
21	RED	GAUGE ASSEMBLY	OUTPUT
23	LT GRN	BUS COMMUNICATION LINE	INPUT/OUTPUT
24	LT GRN	A/C SIGNAL	INPUT
29	YEL	AUDIO UNIT	INPUT
30	RED	AUDIO UNIT	OUTPUT
31	BLK	GROUND (G503)	OUTPUT
32	PNK	CONTROL MOTOR COMMON GROUND	INPUT
33	ORN	SENSOR COMMON GROUND	INPUT
36	WHT	DRIVER'S VENT AIR TEMPERATURE SENSOR	OUTPUT
37	LT BLU	PASSENGER'S VENT AIR TEMPERATURE SENSOR	OUTPUT
39	PUR	CONTROL MOTOR RELAY	INPUT
40	GRN	CONTROL MOTOR COMMON POWER	OUTPUT

CIRCUIT DIAGRAM



*: In the under-hood fuse/relay box

Fig. 21: Climate Control Circuit Diagram (1 Of 3)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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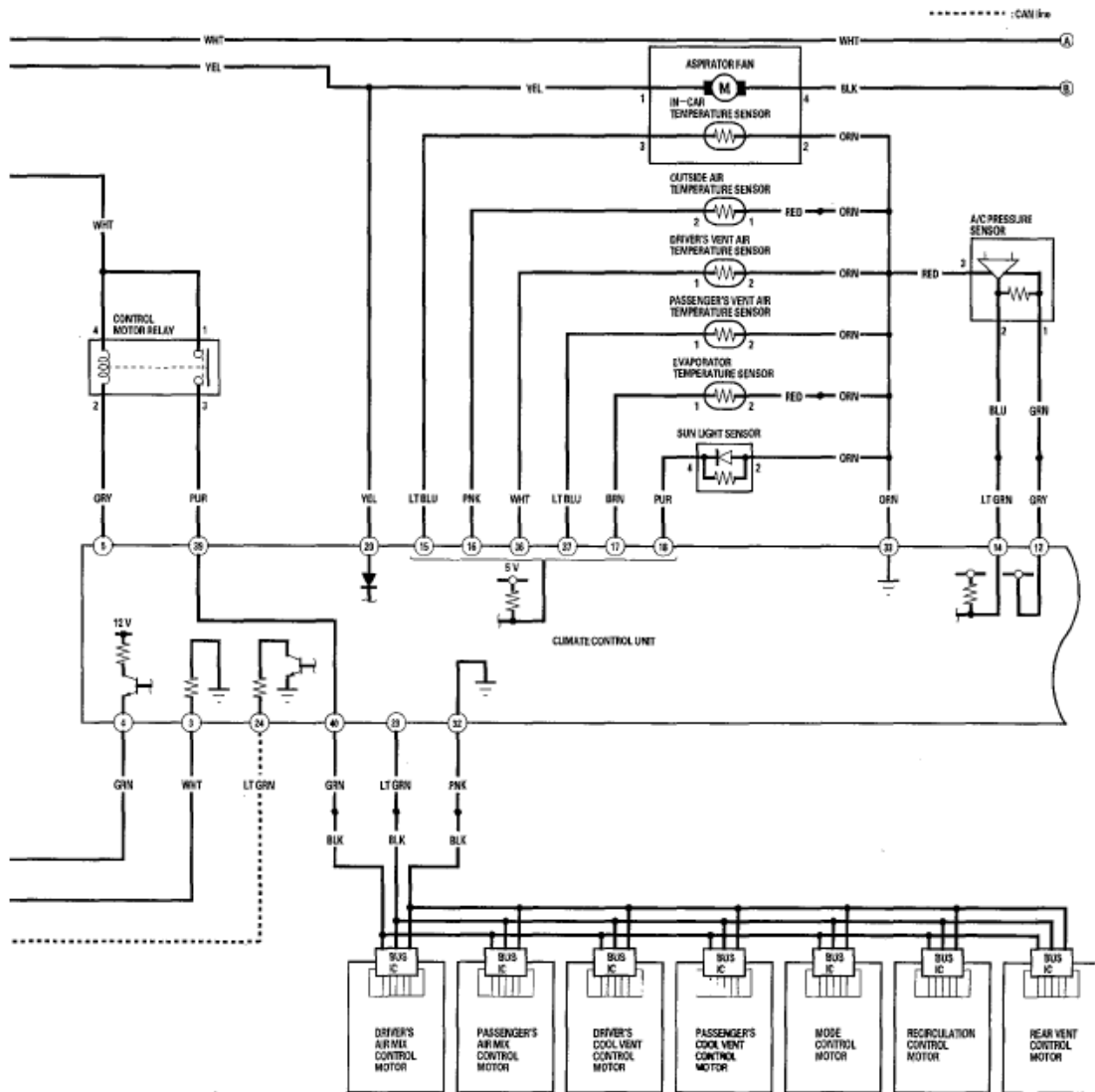


Fig. 22: Climate Control Circuit Diagram (2 Of 3)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

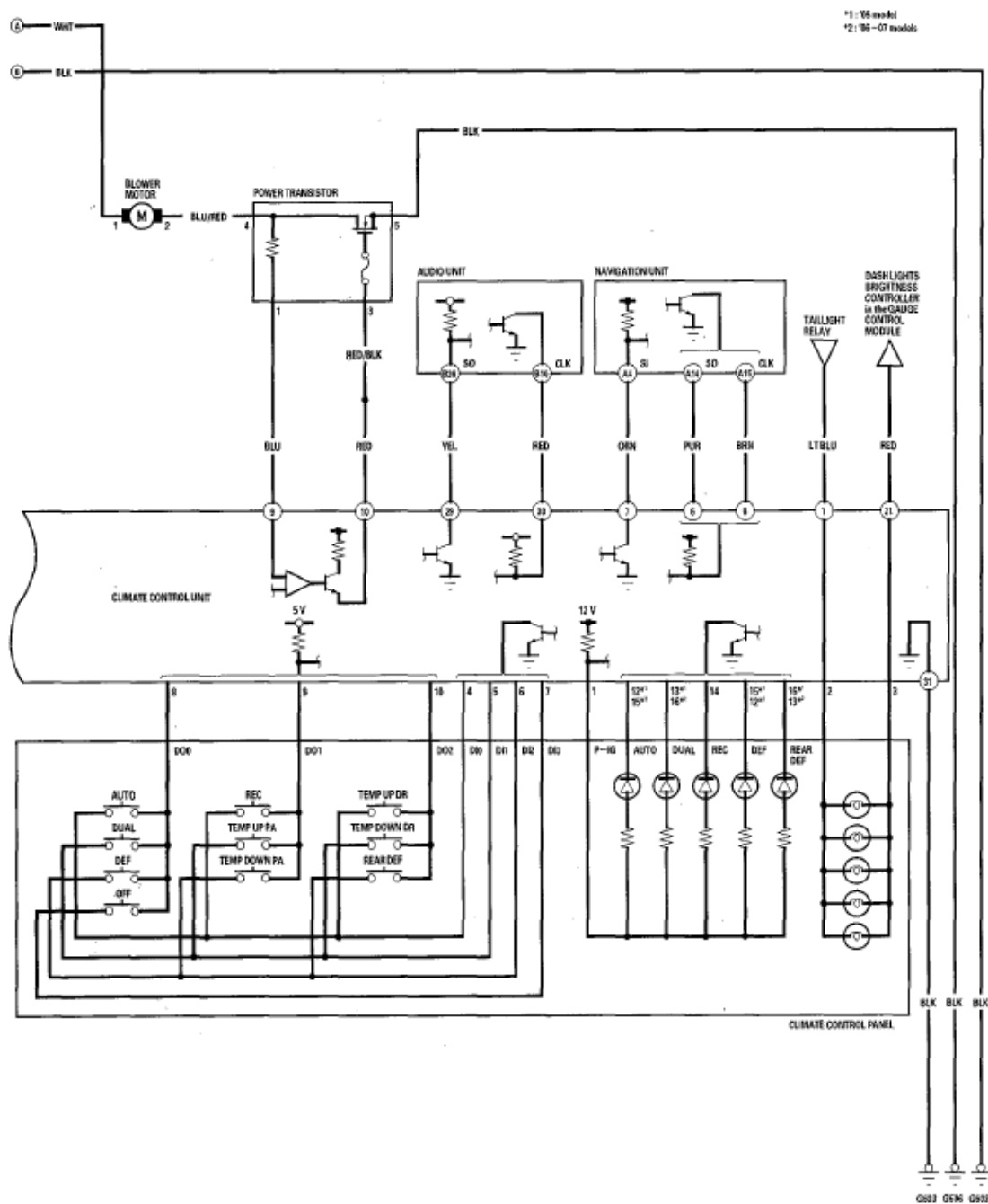


Fig. 23: Climate Control Circuit Diagram (3 Of 3)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC TROUBLESHOOTING

DTC B1202 or EEPROM error is indicated: Climate Control Unit Internal Error

NOTE:

- Check the battery condition (see **BATTERY TEST**) and the charging system (see **CHARGING SYSTEM INDICATOR CIRCUIT TROUBLESHOOTING**).
- If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN system diagnosis test mode A (see

TROUBLESHOOTING - B-CAN SYSTEM DIAGNOSIS TEST MODE A).

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Wait for 6 seconds or more.
4. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
5. Check for DTCs.

Is DTC B1202 or EEPROM error indicated?

YES - The climate control unit is faulty, replace the climate control unit.

NO - Intermittent failure, the climate control unit is OK at this time.

DTC B1205 or Vehicle speed error or ENGNe error is indicated: Climate Control Unit Lost Communication with Gauge Control Module (VSP/NE message); DTC B1206 or TW sensor error is indicated: Climate Control Unit Lost Communication with Gauge Control Module (ECT message); DTC B1207: Climate Control Unit Lost Communication with Gauge Control Module (ILLUMI message); DTC B1208: Climate Control Unit Lost Communication with Keyless Access Control Unit (FOB ID message)

NOTE: **If you are troubleshooting multiple DTCs, be sure to follow the instructions in B-CAN system diagnosis test mode A (see TROUBLESHOOTING - B-CAN SYSTEM DIAGNOSIS TEST MODE A).**

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Wait for 6 seconds or more.
4. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
5. Check for DTCs.

Is DTC B1205 or Vehicle speed error/ENGNe error, and/or B1206 or TW sensor error, and/or B1207, and/or B1208 indicated?

YES - Go to step 6.

NO - Intermittent failure, check for loose wires or poor connections on the gauge control module circuit.

6. Clear for DTC using the HDS.

Is DTC B1011, B1060, B1408, B1610, B1805 and/or B2160, and/or B1207 indicated?

YES - Go to the gauge control module input test (see **GAUGE CONTROL MODULE INPUT TEST**).

NO - The climate control unit is faulty, replace the climate control unit.

DTC B1225 or TR sensor open is indicated: An Open in the In-car Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1225 or TR sensor open indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the in-car temperature sensor circuit.

5. Turn the ignition switch OFF.
6. Remove the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR TEST**) and test it (see **IN-CAR TEMPERATURE SENSOR TEST**).

Is the in-car temperature sensor OK?

YES - Go to step 7.

NO - Replace the in-car temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the climate control unit 40P connector No. 15 terminal and the in-car temperature sensor 4P connector No. 3 terminal.

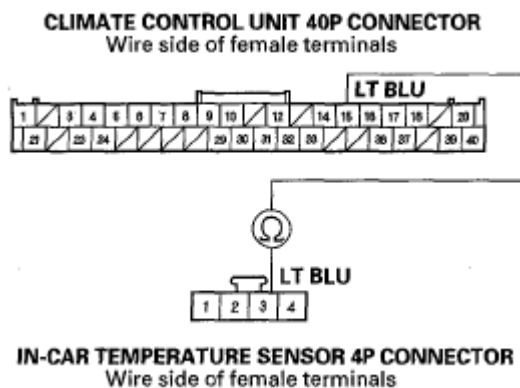


Fig. 24: Checking Continuity Between Climate Control Unit 40P Connector 15 Terminal And In-Car Temperature Sensor 4P Connector 3 Terminal
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

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

9. Check for continuity between the climate control unit 40P connector No. 33 terminal and the in-car temperature sensor 4P connector No. 2 terminal.

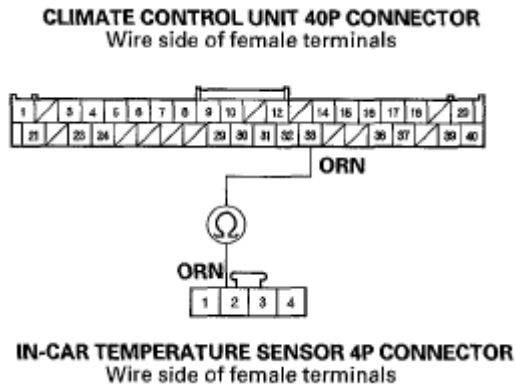


Fig. 25: Checking Continuity Between Climate Control Unit 40P Connector 33 Terminal And In-Car Temperature Sensor 4P 2 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the in-car temperature sensor 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 in-car temperature sensor.

DTC B1226 or TR sensor short is indicated: A Short in the In-car Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1226 or TR sensor short indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Remove the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **IN-CAR TEMPERATURE SENSOR TEST**).

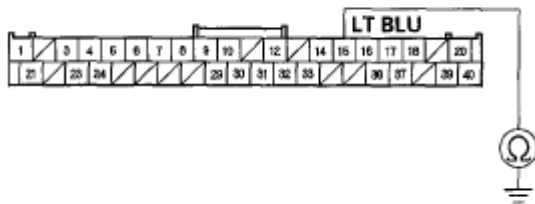
Is the in-car temperature sensor OK?

YES - Go to step 7.

NO - Replace the in-car temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 15 terminal.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 26: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 15 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

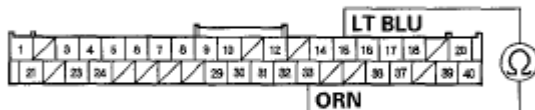
Is there continuity?

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

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector No. 15 and No. 33 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 27: Checking Continuity Between Climate Control Unit 40P Connector 15 And 33 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires 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 B1227 or TAM sensor open is indicated: An Open in the Outside Air Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1227 or TAM sensor open indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the outside air temperature sensor circuit.

5. Turn the ignition switch OFF.
6. Remove the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **OUTSIDE AIR TEMPERATURE SENSOR TEST**).

Is the outside air temperature sensor OK?

YES - Go to step 7.

NO - Replace the outside air temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the climate control unit 40P connector No. 16 terminal and the outside air temperature sensor 2P connector No. 2 terminal.

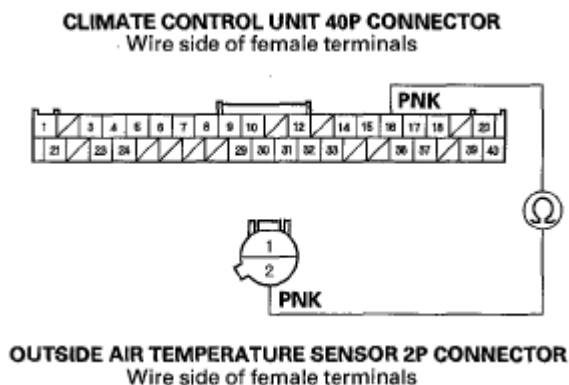


Fig. 28: Checking Continuity Between Climate Control Unit 40P Connector 16 Terminal And Outside Air Temperature Sensor 2P 2 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

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

9. Check for continuity between the climate control unit 40P connector No. 33 terminal and the outside air temperature sensor 2P connector No. 1 terminal.

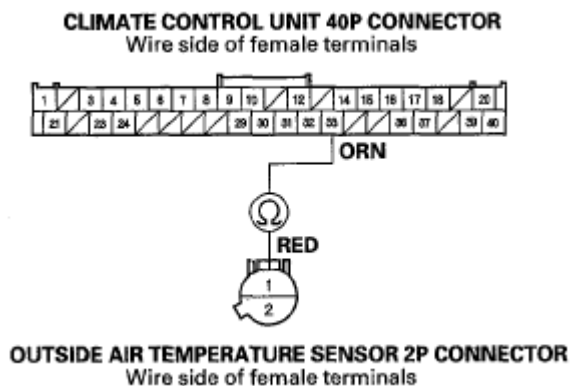


Fig. 29: Checking Continuity Between Climate Control Unit 40P Connector 33 Terminal And Outside Air Temperature Sensor 2P Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at the climate control unit 40P connector 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 B1228 or TAM sensor short is indicated: A Short in the Outside Air Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1228 or TAM sensor short indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.

6. Remove the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **OUTSIDE AIR TEMPERATURE SENSOR TEST**).

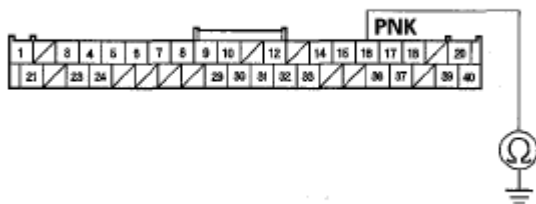
Is the outside air temperature sensor OK?

YES - Go to step 7.

NO - Replace the outside air temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 16 terminal.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 30: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 16 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

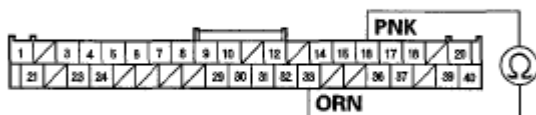
Is there continuity?

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

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector No. 16 and No. 33 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 31: Checking Continuity Between Climate Control Unit 40P Connector 16 And 33 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires 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 B1229 or TS sensor open is indicated: An Open in the Sunlight Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1229 or TS sensor open indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the sunlight sensor circuit.

5. Turn the ignition switch OFF.
6. Disconnect the sunlight sensor 5P connector.
7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the climate control unit 40P connector No. 18 terminal and the sunlight sensor 5P connector No. 4 terminal.

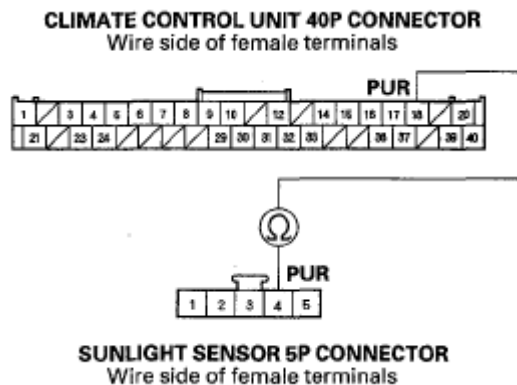


Fig. 32: Checking Continuity Between Climate Control Unit 40P Connector 18 Terminal And Sunlight Sensor 5P Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

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

9. Check for continuity between the climate control unit 40P connector No. 33 terminal and the sunlight sensor 5P connector No. 2 terminal.

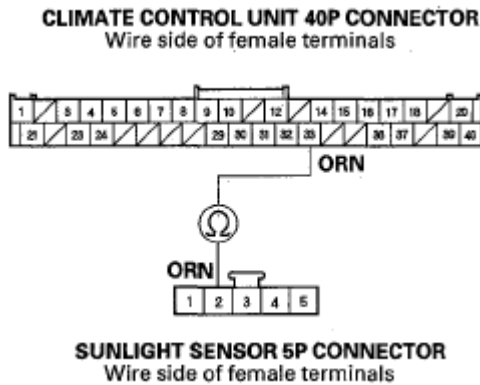


Fig. 33: Checking Continuity Between Climate Control Unit 40P Connector 33 Terminal And Sunlight Sensor 5P Connector 2 Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 10.

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

10. Reconnect the sunlight sensor 5P connector.
11. Reconnect the climate control unit 40P connector.
12. Test the sunlight sensor (see **SUNLIGHT SENSOR TEST**).

Is the sunlight sensor OK?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the sunlight sensor 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 - Replace the sunlight sensor (see **SUNLIGHT SENSOR REPLACEMENT**).

DTC B1230 or TS sensor short is indicated: A Short in the Sunlight Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

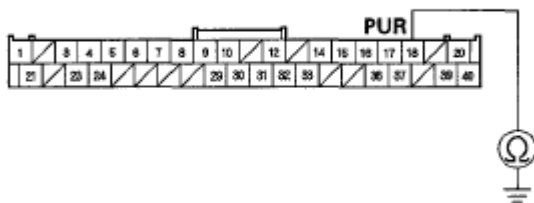
Is DTC B1230 or TS sensor short indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Disconnect the sunlight sensor 5P connector.
7. Disconnect the climate control unit 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 18 terminal.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 34: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 18 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

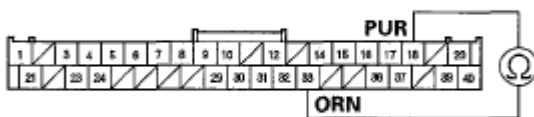
Is there continuity?

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

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector No. 18 and No. 33 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 35: Checking Continuity Between Climate Control Unit 40P Connector 18 And 33 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires between the climate control unit and the sunlight sensor.

NO - Go to step 10.

10. Reconnect the sunlight sensor 5P connector.
11. Reconnect the climate control unit 40P connector.
12. 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 (see **SUNLIGHT SENSOR REPLACEMENT**).

DTC B1231 or TE sensor open is indicated: An Open in the Evaporator Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1231 or TE sensor open indicated?

YES - Go to step 4.

NO - Intermittent failure, check for loose wires or poor connections on the evaporator temperature sensor circuit.

5. Turn the ignition switch OFF.
6. Remove the evaporator temperature sensor (see **EVAPORATOR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **EVAPORATOR TEMPERATURE SENSOR TEST**).

Is the evaporator temperature sensor OK?

YES - Go to step 7.

NO - Replace the evaporator temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the climate control unit 40P connector No. 17 terminal and the evaporator temperature sensor 2P connector No. 1 terminal.

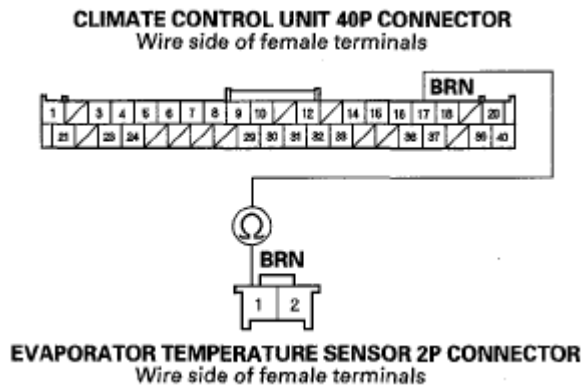


Fig. 36: Checking Continuity Between Climate Control Unit 40P Connector 17 Terminal And Evaporator Temperature Sensor 2P Connector No. 1 Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

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

9. Check for continuity between the climate control unit 40P connector No. 33 terminal and the evaporator temperature sensor 2P connector No. 2 terminal.

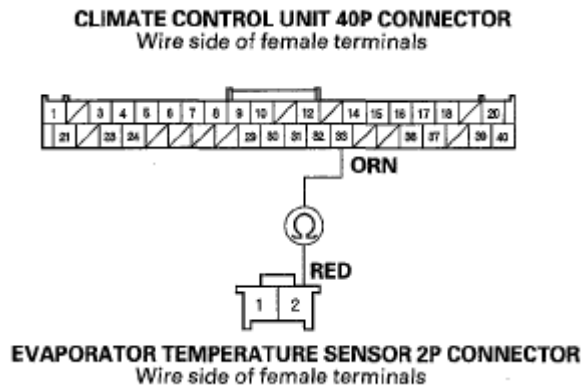


Fig. 37: Checking Continuity Between Climate Control Unit 40P Connector 33 Terminal And Evaporator Temperature Sensor 2P Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wire or poor connections at the climate control unit 40P connector 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.

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1232 or TE sensor short Indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Remove the evaporator temperature sensor (see **EVAPORATOR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **EVAPORATOR TEMPERATURE SENSOR TEST**).

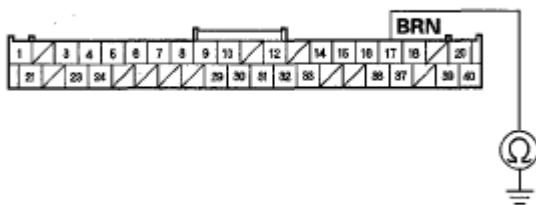
Is the evaporator temperature sensor OK?

YES - Go to step 7.

NO - Replace the evaporator temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 17 terminal.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 38: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 17 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

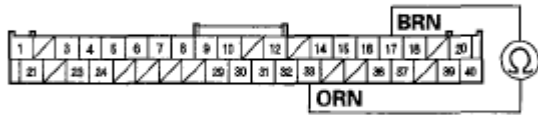
Is there continuity?

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

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector No. 17 and No. 33 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 39: Checking Continuity Between Climate Control Unit 40P Connector 17 And 33 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to in the wires 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 B1235 or DrA/M motor lock is indicated: A Problem in the Driver's Air Mix Control Linkage, Door, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1235 or DrA/M motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Test the driver's air mix control motor (see **DRIVER'S AIR MIX CONTROL MOTOR TEST**).

Is the driver's 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 - Replace the driver's air mix control motor (see **DRIVER'S AIR MIX CONTROL MOTOR REPLACEMENT**), or repair the driver's air mix control linkage or door.

DTC B1238 or PaA/M motor lock is indicated: A Problem in the Passenger's Air Mix Control Linkage, Door, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1238 or PaA/M motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Test the passenger's air mix control motor (see **PASSENGER'S AIR MIX CONTROL MOTOR TEST**).

Is the passenger's 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 - Replace the passenger's air mix control motor (see **PASSENGER'S AIR MIX CONTROL MOTOR REPLACEMENT**), or repair the passenger's air mix control linkage or door.

DTC B1240 or Mode motor lock is indicated: A Problem in the Mode Control Linkage, Doors, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1240 or Mode motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

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

Is the mode 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 - Replace the mode control motor (see **MODE CONTROL MOTOR REPLACEMENT**), or repair the mode control linkage or doors.

DTC B1241 or Blower motor lock is indicated: A Problem in the Blower Motor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B1241 or Blower motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the blower motor circuit.

5. Turn the ignition switch OFF.
6. Check the No. 21 (40 A) fuse in the under-hood fuse/relay box, and the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box.

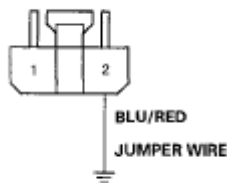
Are the fuses OK?

YES - Go to step 7.

NO - Replace the fuses, and recheck. If the fuses blow again, check for a short in the No. 21 (40 A) and No. 30 (7.5 A) fuses circuit.

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

BLOWER MOTOR 2P CONNECTOR



Wire side of female terminals

Fig. 40: Connecting Blower Motor 2P Connector 2 Terminal To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Turn the ignition switch ON (II).

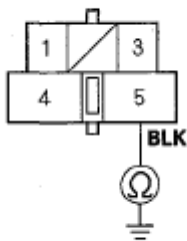
Does the blower motor run?

YES - Go to step 9.

NO - Go to step 24.

9. Turn the ignition switch OFF.
10. Disconnect the jumper wire.
11. Disconnect the power transistor 5P connector.
12. Check for continuity between the power transistor 5P connector No. 5 terminal and body ground.

POWER TRANSISTOR 5P CONNECTOR



Wire side of female terminals

Fig. 41: Checking Continuity Between Power Transistor 5P Connector 5 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

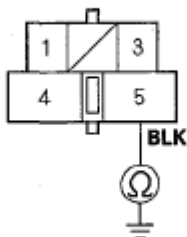
Is there continuity?

YES - Go to step 13.

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 G506 (see **GROUND TO COMPONENTS INDEX**).

13. Connect the power transistor 5P connector No. 4 and No. 5 terminals with a jumper wire.

POWER TRANSISTOR 5P CONNECTOR



Wire side of female terminals

Fig. 42: Connecting Power Transistor 5P Connector 4 And 5 Terminals With Jumper Wire
Courtesy of AMERICAN HONDA MOTOR CO., INC.

14. Turn the ignition switch ON (II).

Does the blower motor run at high speed?

YES - Go to step 15.

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

15. Turn the ignition switch OFF.
16. Disconnect the jumper wire.
17. Disconnect the climate control unit 40P connector.
18. Check for continuity between body ground and the climate control unit 40P connector No. 9 and No. 10 terminals individually.

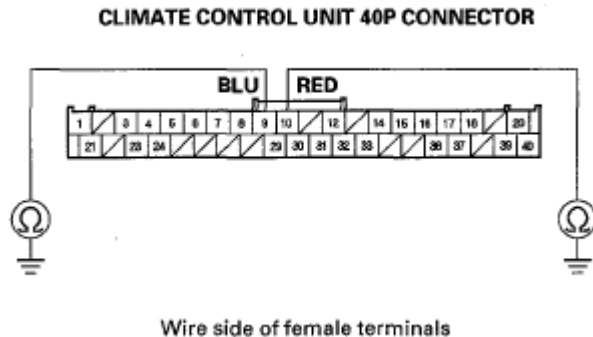


Fig. 43: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 9 And 10 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

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

NO - Go to step 19.

19. Check for continuity between the following terminals of the climate control unit 40P connector and the power transistor 5P connector.

40P: 5P:

No. 9 No. 1

No. 10 No. 3

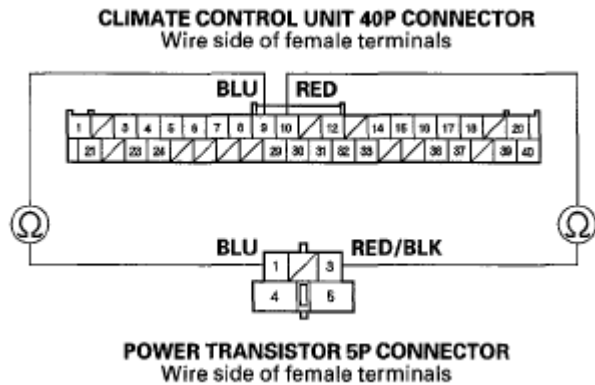


Fig. 44: Checking Continuity Between Terminals Of Climate Control Unit 40P Connector And Power Transistor 5P Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 20.

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

20. Turn the ignition switch ON (II).
21. Measure the voltage between body ground and the climate control unit 40P connector No. 9 and No. 10 terminals individually.

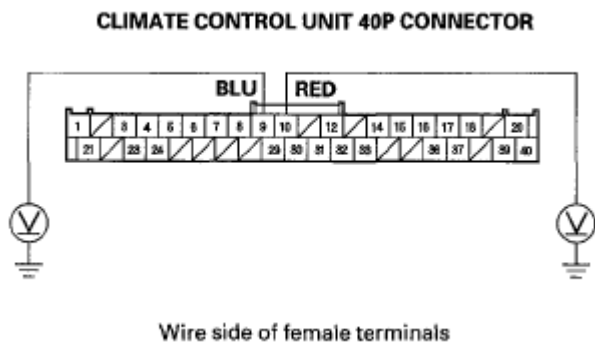


Fig. 45: Measuring Voltage Between Body Ground And Climate Control Unit 40P Connector 9 And 10 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there voltage?

YES - Repair short to power in the wire(s).

NO - Go to step 22.

22. Reconnect the climate control unit 40P connector.
23. Test the power transistor (see **POWER TRANSISTOR TEST**).

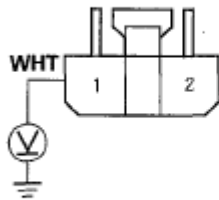
Is the power transistor OK?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the power transistor 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 - Replace the power transistor (see **POWER TRANSISTOR TEST**).

24. Disconnect the jumper wire.
25. Disconnect the blower motor 2P connector.
26. Measure the voltage between the blower motor 2P connector No. 1 terminal and body ground.

BLOWER MOTOR 2P CONNECTOR



Wire side of female terminals

Fig. 46: Measuring Voltage Between Blower Motor 2P Connector 1 Terminal And Body Ground
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Replace the blower motor (see **BLOWER UNIT COMPONENT REPLACEMENT**).

NO - Go to step 27.

27. Turn the ignition switch OFF.
28. Remove the blower motor relay from the under-hood fuse/relay box, and test it (see **POWER RELAY TEST**).

Is the relay OK?

YES - Go to step 29.

NO - Replace the blower motor relay.

29. Measure the voltage between the blower motor relay 4P socket No. 2 terminal and body ground.

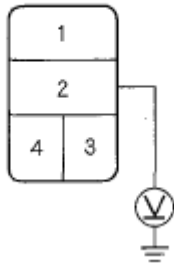
BLOWER MOTOR RELAY 4P SOCKET

Fig. 47: Measuring Voltage Between Blower Motor Relay 4P Socket No. 2 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 30.

NO - Replace the under-hood fuse/relay box (see **REMOVAL AND INSTALLATION**).

30. Turn the ignition switch ON (II).
31. Measure the voltage between the blower motor relay 4P socket No. 4 terminal and body ground.

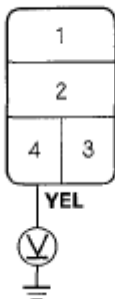
BLOWER MOTOR RELAY 4P SOCKET

Fig. 48: Measuring Voltage Between Blower Motor Relay 4P Socket No. 4 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 32.

NO - Repair open in the wire between the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box and the blower motor relay.

32. Turn the ignition switch OFF.
33. Check for continuity between the blower motor relay 4P socket No. 3 terminal and body ground.

BLOWER MOTOR RELAY 4P SOCKET

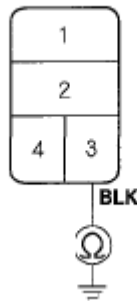


Fig. 49: Checking Continuity Between Blower Motor Relay 4P Socket No. 3 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair open in the 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 (see **GROUND TO COMPONENTS INDEX**).

DTC B2975 or DrVENT sensor open is indicated: An Open in the Driver's Vent Air Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2975 or DrVENT sensor open indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the driver's vent air temperature sensor circuit.

5. Turn the ignition switch OFF.
6. Remove the driver's vent air temperature sensor (see **DRIVER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **VENT AIR TEMPERATURE SENSOR TEST**).

Is the driver's vent air temperature sensor OK?

YES - Go to step 7.

NO - Replace the driver's vent air temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the climate control unit 40P connector No. 36 terminal and the driver's

vent air temperature sensor 2P connector No. 1 terminal.

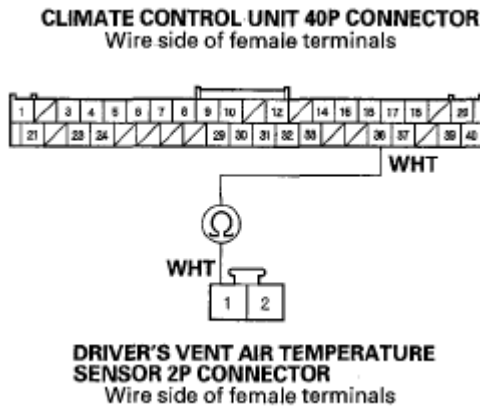


Fig. 50: Checking Continuity Between Climate Control Unit 40P Connector 36 Terminal And Driver's Vent Air Temperature Sensor 2P Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

NO - Repair open in the wire between the climate control unit and the driver's vent air temperature sensor.

9. Check for continuity between the climate control unit 40P connector No. 33 terminal and the driver's vent air temperature sensor 2P connector No. 2 terminal.

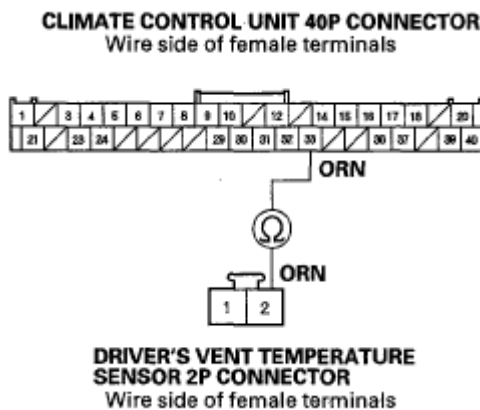


Fig. 51: Checking Continuity Between Climate Control Unit 40P Connector 33 Terminal And Driver's Vent Air Temperature Sensor 2P Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the driver's vent 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 driver's vent air temperature sensor.

DTC B2976 or DrVENT sensor short is indicated: A Short in the Driver's Vent Air Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2976 or DrVENT sensor short indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Remove the driver's vent air temperature sensor (see **DRIVER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **VENT AIR TEMPERATURE SENSOR TEST**).

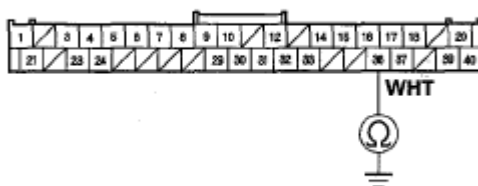
Is the driver's vent air temperature sensor OK?

YES - Go to step 7.

NO - Replace the driver's vent air temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 36 terminal.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 52: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 36 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

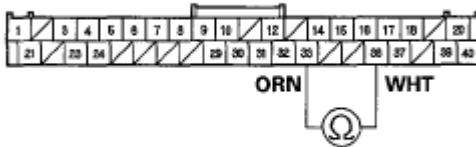
YES - Repair short to body ground in the wire between the climate control unit and the driver's vent

air temperature sensor.

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector No. 33 and No. 36 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 53: Checking Continuity Between Climate Control Unit 40P Connector 33 And 36 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires between the climate control unit and the driver's vent 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 B2977 or Pa VENT sensor open is indicated: An Open in the Passenger's Vent Air Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2977 or PaVENT sensor open indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the passenger's vent air temperature sensor circuit.

5. Turn the ignition switch OFF.
6. Remove the passenger's vent air temperature sensor (see **PASSENGER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **VENT AIR TEMPERATURE SENSOR TEST**).

Is the passenger's vent air temperature sensor OK?

YES - Go to step 7.

NO - Replace the passenger's vent air temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the climate control unit 40P connector No. 37 terminal and the passenger's vent air temperature sensor 2P connector No. 1 terminal.

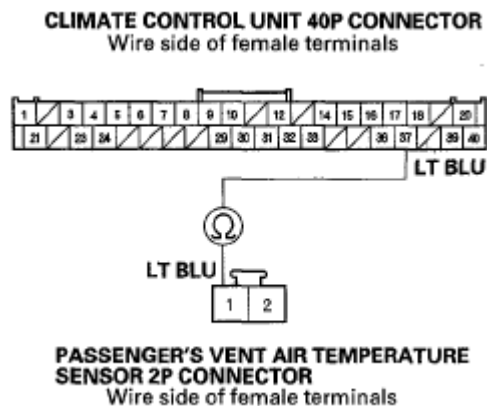


Fig. 54: Checking Continuity Between Climate Control Unit 40P Connector 37 Terminal And Passenger's Vent Air Temperature Sensor 2P Connector No. 1 Terminal
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

NO - Repair open in the wire between the climate control unit and the passenger's vent air temperature sensor.

9. Check for continuity between the climate control unit 40P connector No. 33 terminal and the passenger's vent air temperature sensor 2P connector No. 2 terminal.

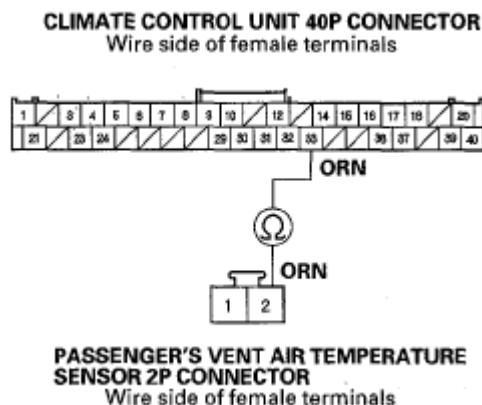


Fig. 55: Checking Continuity Between Climate Control Unit 40P Connector 33 Terminal And Passenger's Vent Air Temperature Sensor 2P Connector No. 2 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the passenger's vent 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 passenger's vent air temperature sensor.

DTC B2978 or Pa VENT sensor short is indicated: A Short in the Passenger's Vent Air Temperature Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2978 or PaVENT sensor short indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Remove the passenger's vent air temperature sensor (see **PASSENGER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**) and test it (see **VENT AIR TEMPERATURE SENSOR TEST**).

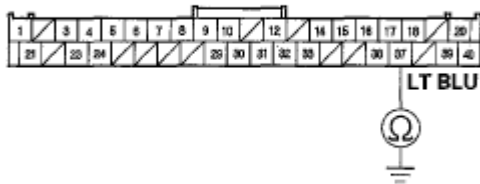
Is the passenger's vent air temperature sensor OK?

YES - Go to step 7.

NO - Replace the passenger's vent air temperature sensor.

7. Disconnect the climate control unit 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 37 terminal.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 56: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 37 Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

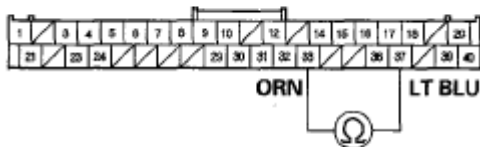
Is there continuity?

YES - Repair short to body ground in the wire between the climate control unit and the passenger's vent air temperature sensor.

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector No. 33 and No. 37 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 57: Checking Continuity Between Climate Control Unit 40P Connector 33 And 37 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires between the climate control unit and the passenger's vent 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 B2979 or PRE sensor open is indicated: An Open in the A/C Pressure Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).

3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2979 or PRE sensor open indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the A/C pressure sensor circuit.

5. Turn the ignition switch OFF.
6. Disconnect the A/C pressure sensor 3P connector.
7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the following terminals of the climate control unit 40P connector and the A/C pressure sensor 3P connector.

40P: 3P:

No. 12 No. 1

No. 14 No. 2

No. 33 No. 3

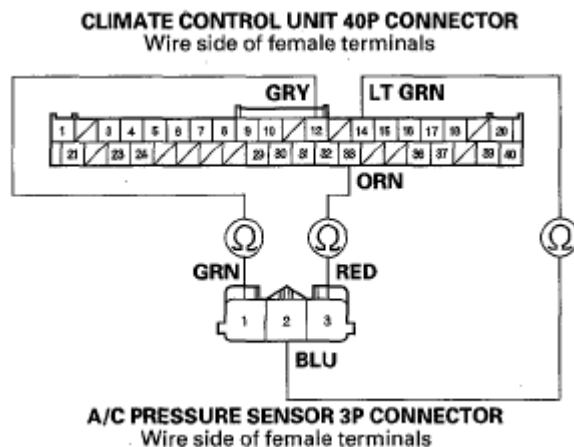


Fig. 58: Checking Continuity Between Terminals Of Climate Control Unit 40P Connector And A/C Pressure Sensor 3P Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

NO - Repair open in the wire(s) between the climate control unit and the A/C pressure sensor.

9. Check for proper A/C system pressure.

Is the pressure within specifications?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the A/C pressure sensor 3P connector. If the connections are good, replace the A/C pressure sensor. If the symptom/indication continues, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair the A/C pressure problem.

DTC B2980 or PRE sensor short is indicated: A short in the A/C Pressure Sensor Circuit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2980 or PRE sensor short indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Disconnect the A/C pressure sensor 3P connector.
7. Disconnect the climate control unit, 40P connector.
8. Check for continuity between body ground and the climate control unit 40P connector No. 12 and No. 14 terminals individually.

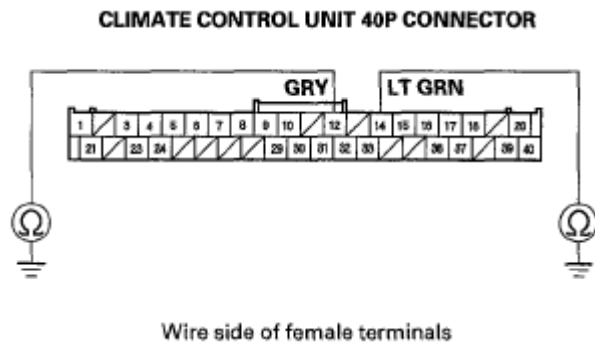


Fig. 59: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector No. 12 And No. 14

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

2007 Acura RL

2005-08 HVAC HVAC - RL

YES - Repair short to body ground in the wire(s) between the climate control unit and the A/C pressure sensor.

NO - Go to step 9.

9. Check for continuity between the climate control unit 40P connector terminals as follows.

CONNECTOR TERMINAL REFERENCE

From terminal	To terminals
12	14, 33
14	33

Is there continuity between any of the terminals?

YES - Repair the short in the wires.

NO - Go to step 10.

10. Check for proper A/C system pressure.

Is the pressure within specifications?

YES - Replace the A/C pressure sensor. If the symptom/indication continues, substitute a known-good climate control unit, and recheck. If the symptom/indication goes away, replace the original climate control unit.

NO - Repair the A/C pressure problem.

DTC B2981 or NAVI communication error is indicated: Climate Control Unit Lost Communication with Navigation Unit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2981 or NA VI communication error indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the navigation unit and climate control unit circuit.

5. Turn the ignition switch OFF.
6. Disconnect navigation unit connector A (20P).
7. Disconnect the climate control unit 40P connector.

8. Check for continuity between the following terminals of the climate control unit 40P connector and navigation unit connector A (20P).

40P: 20P:

No. 6 No. 14

No. 7 No. 4

No. 8 No. 15

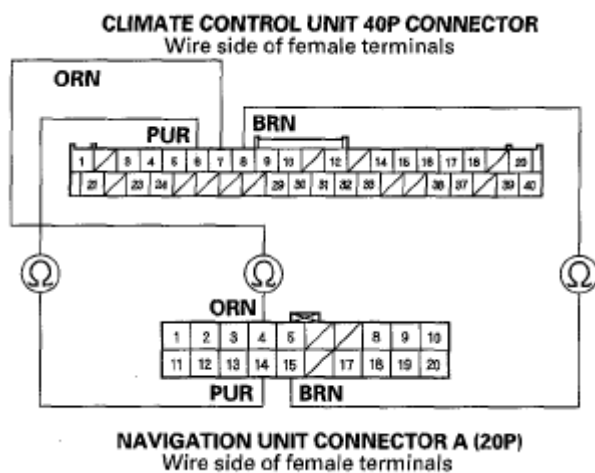


Fig. 60: Checking Continuity Between Terminals Of Climate Control Unit 40P Connector And Navigation Unit Connector A (20P)

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

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

9. Check for continuity between body ground and the climate control unit 40P connector No. 6,7, and 8 terminals individually.

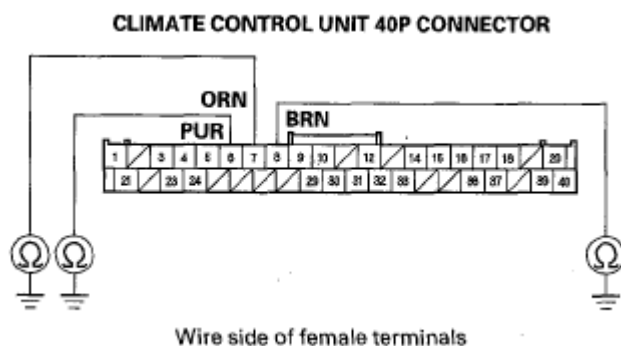


Fig. 61: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 6,7, And 8 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

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

NO - Go to step 10.

10. Check for continuity between the climate control unit 40P connector terminals as follows.

CONNECTOR TERMINAL REFERENCE

From terminal	To terminals
6	7, 8
7	8

Is there continuity between any of the terminals?

YES - Repair the short in the wires.

NO - Check for loose wires or poor connections at the climate control unit 40P connector and at navigation unit connector A (20P). 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. If the symptom/indication continues, substitute a known-good navigation unit, and recheck. If the symptom/indication goes away, replace the original navigation unit.

DTC B2982 or BUS communication error is indicated: Climate Control Unit Lost Communication with Each Control Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2982 or BUS communication error indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the each control motor circuit.

5. Turn the ignition switch OFF.
6. Test the driver's air mix control motor (see **DRIVER'S AIR MIX CONTROL MOTOR TEST**), passenger's air mix control motor (see **PASSENGER'S AIR MIX CONTROL MOTOR TEST**), driver's cool vent control motor (see **DRIVER'S COOL VENT CONTROL MOTOR TEST**), passenger's cool vent control motor (see **PASSENGER'S COOL VENT CONTROL MOTOR TEST**), mode control motor (see **MODE CONTROL MOTOR TEST**), recirculation control motor (see **RECIRCULATION CONTROL MOTOR TEST**), and rear vent control motor (see **REAR**

VENT CONTROL MOTOR TEST).

Is each control motor OK?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the each 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. If the symptom/indication continues, replace the A/C wire harness.

NO - Replace the control motor with a problem.

DTC B2983 or R/F motor lock is indicated: A Problem in the Recirculation Control Linkage, Door, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2983 or R/F motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

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

Is the recirculation 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 - Replace the recirculation control motor (see **RECIRCULATION CONTROL MOTOR TEST**), or repair the recirculation control linkage or door.

DTC B2984 or DrC/V motor lock is indicated: A Problem in the Driver's Cool Vent Control Linkage, Door, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2984 or DrC/V motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Test the driver's cool vent control motor (see **DRIVER'S COOL VENT CONTROL MOTOR TEST**).

Is the driver's cool vent 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 - Replace the driver's cool vent control motor (see **DRIVER'S COOL VENT CONTROL MOTOR REPLACEMENT**), or repair the driver's cool vent control linkage or door.

DTC B2985 or PaC/V motor lock is indicated: A Problem in the Passenger's Cool Vent Control Linkage, Door, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2985 or PaC/V motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Test the passenger's cool vent control motor (see **PASSENGER'S COOL VENT CONTROL MOTOR TEST**).

Is the passenger's cool vent 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 - Replace the passenger's cool vent control motor (see **PASSENGER'S COOL VENT CONTROL MOTOR REPLACEMENT**), or repair the passenger's cool vent control linkage or door.

DTC B2987 or RrVEISIT motor lock is indicated: A Problem in the Rear Vent Control Linkage, Door, or Motor

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).

3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2987 or RrVENT motor lock indicated?

YES - Go to step 5.

NO - Intermittent failure.

5. Turn the ignition switch OFF.
6. Test the rear vent control motor (see **REAR VENT CONTROL MOTOR TEST**).

Is the rear vent 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 - Replace the rear vent control motor (see **REAR VENT CONTROL MOTOR REPLACEMENT**), or repair the rear vent control linkage or door.

DTC B2991 or Audio communication error is indicated: Climate Control Unit Lost Communication with Audio Unit

1. Clear the DTC with the HDS.
2. Turn the ignition switch OFF and then ON (II).
3. Do the self-diagnostic with the HDS (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITH THE HDS**) or climate control unit (see **HOW TO USE THE SELF-DIAGNOSTIC FUNCTION WITHOUT HDS**).
4. Check for DTCs.

Is DTC B2991 or Audio communication error indicated?

YES - Go to step 5.

NO - Intermittent failure, check for loose wires or poor connections on the audio unit circuit.

5. Turn the ignition switch OFF.
6. Disconnect audio unit connector B (32P).
7. Disconnect the climate control unit 40P connector.
8. Check for continuity between the following terminals of the climate control unit 40P connector and audio unit connector B (32P).

40P: 32P:

No. 29 No. 26

No. 30 No. 10

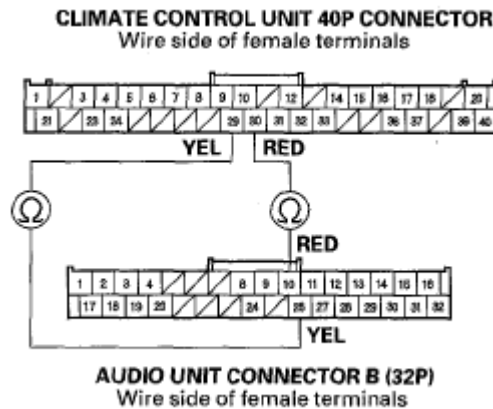


Fig. 62: Checking Continuity Between Terminals Of Climate Control Unit 40P Connector And Audio Unit Connector B (32P)

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 9.

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

9. Check for continuity between body ground and the climate control unit 40P connector No. 29 and No. 30 terminals individually.

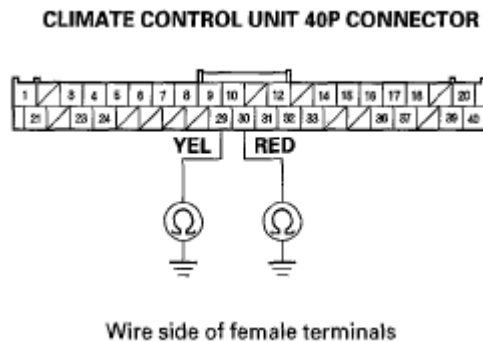


Fig. 63: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 29 And 30 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

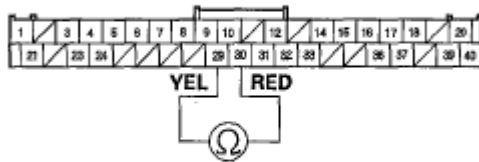
Is there continuity?

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

NO - Go to step 10.

10. Check for continuity between the climate control unit 40P connector No. 29 and No. 30 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 64: Checking Continuity Between Climate Control Unit 40P Connector 29 And 30 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires between the climate control unit and the audio unit.

NO - Check for loose wires or poor connections at the climate control unit 40P connector and at audio unit connector B (32P). 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. If the symptom/indication continues, substitute a known-good audio unit, and recheck. If the symptom/indication goes away, replace the original audio unit.

COMP Solenoid error is indicated: A Problem in the Variable Capacity Control Solenoid Valve Circuit

1. Clear the DTC by turning the ignition switch OFF and then ON (II).
2. Start the engine, and turn on the A/C.
3. Measure the voltage of the battery.

Is there 11.5 V or more?

YES - Go to step 4.

NO - Charge the battery or replace it.

4. Turn off the A/C, and stop the engine.
5. Clear the DTC by turning the ignition switch OFF and then ON (II).
6. Operate the climate control system in several modes.
7. Check for DTCs using the self-diagnostic.

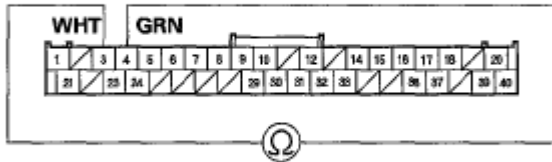
Is DTC COMP solenoid error indicated?

YES - Go to step 8.

NO - Intermittent failure, check for loose wires or poor connections on the variable capacity control solenoid valve circuit.

8. Turn the ignition switch OFF.
9. Disconnect the climate control unit 40P connector.
10. Measure the resistance between the climate control unit 40P connector No. 3 and No. 4 terminals.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 65: Measuring Resistance Between Climate Control Unit 40P Connector No. 3 And No. 4 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

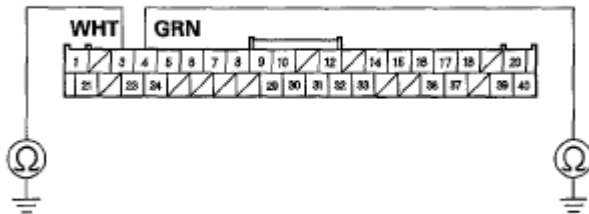
'05 models: Is there about 10.6 ohms ?, '06-08 models: Is there about 5.2 ohms ?

YES - Go to step 11.

NO - Go to step 14.

11. Check for continuity between body ground and the climate control unit 40P connector No. 3 and No. 4 terminals individually.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 66: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector No. 3 And No. 4 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Go to step 12.

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

12. Disconnect the A/C compressor clutch 3P connector.

13. Check for continuity between body ground and the climate control unit 40P connector No. 3 and No. 4 terminals individually.

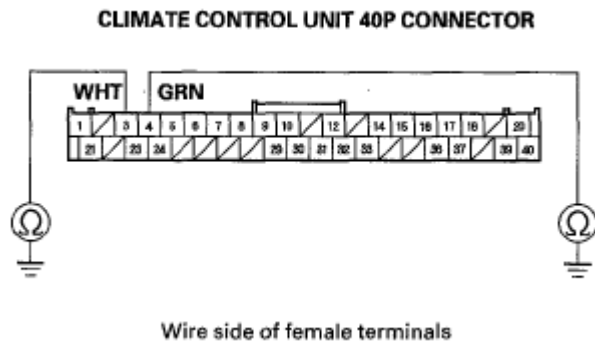


Fig. 67: Checking Continuity Between Body Ground And Climate Control Unit 40P Connector 3 And 4 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short to body ground in the wire(s) between the climate control unit and the variable capacity control solenoid valve.

NO - The variable capacity control solenoid valve is faulty, replace the A/C compressor.

14. Disconnect the A/C compressor clutch 3P connector.
15. Check for continuity between the climate control unit 40P connector No. 3 and No. 4 terminals.

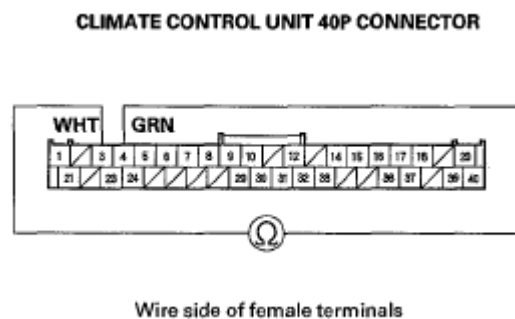


Fig. 68: Checking Continuity Between Climate Control Unit 40P Connector 3 And 4 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Repair short in the wires between the climate control unit and the variable capacity control solenoid valve.

NO - Go to step 16.

16. Check for continuity between the following terminals of the climate control unit 40P connector and the A/C compressor clutch 3P connector.

40P: 3P:

No. 3 No. 3

No. 4 No. 2

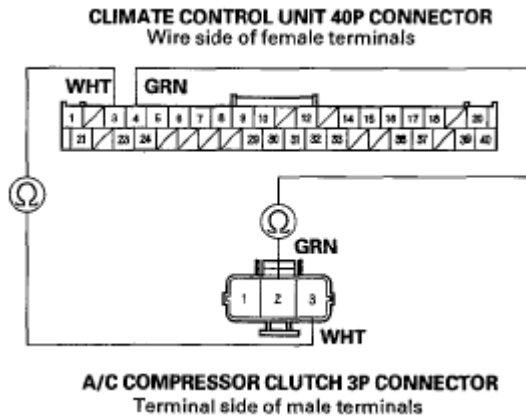


Fig. 69: Checking Continuity Between Terminals Of Climate Control Unit 40P Connector And A/C Compressor Clutch 3P Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - The variable capacity control solenoid valve is faulty, replace the A/C compressor.

NO - Repair open in the wire(s) between the climate control unit and the variable capacity control solenoid valve.

CONTROL MOTOR POWER SUPPLY CIRCUIT TROUBLESHOOTING

1. Check the No. 9 (7.5 A) fuse in the passenger's under-dash fuse/relay box.

Is the fuse OK?

YES - Go to step 2.

NO - Replace the fuse, and recheck. If the fuse blows again, check for a short in the No. 9 (7.5 A) fuse circuit.

2. Remove the control motor relay, and test it (see **POWER RELAY TEST**).

Is the relay OK?

YES - Go to step 3.

NO - Replace the control motor relay.

3. Measure the voltage between body ground and the control motor relay 4P connector No. 1 and No. 4 terminals individually.

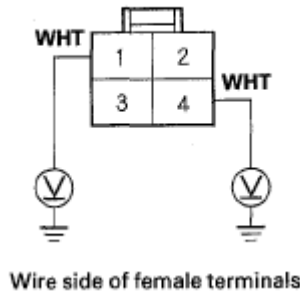
CONTROL MOTOR RELAY 4P CONNECTOR

Fig. 70: Measuring Voltage Between Body Ground And Control Motor Relay 4P Connector 1 And 4 Terminals

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 4.

NO - Repair open in the wire(s) between the No. 9 (7.5 A) fuse in the passenger's under-dash fuse/relay box and the control motor relay.

4. Disconnect the climate control unit 40P connector.
5. Check for continuity between the following terminals of the climate control unit 40P connector and the control motor relay 4P connector.

40P: 4P:

No. 5 No. 2

No. 39 No. 3

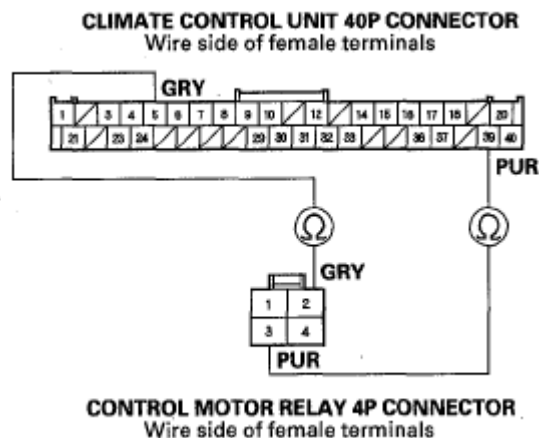


Fig. 71: Checking Continuity Between Terminals Of Climate Control Unit 40P Connector And Control Motor Relay 4P Connector

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at the climate control unit 40P connector and at the control motor relay. 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(s) between the control motor relay and the climate control unit.

ASPIRATOR FAN CIRCUIT TROUBLESHOOTING

1. Check the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box.

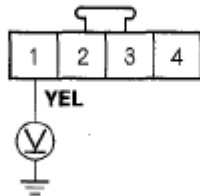
Is the fuse OK?

YES - Go to step 2.

NO - Replace the fuse, and recheck. If the fuse blows again, check for a short in the No. 30 (7.5 A) fuse circuit.

2. Disconnect the in-car temperature sensor 4P connector.
3. Turn the ignition switch ON (II).
4. Measure the voltage between the in-car temperature sensor 4P connector No. 1 terminal and the body ground.

IN-CAR TEMPERATURE SENSOR 4P CONNECTOR



Wire side of female terminals

Fig. 72: Measuring Voltage Between In-Car Temperature Sensor 4P Connector 1 Terminal And Body Ground

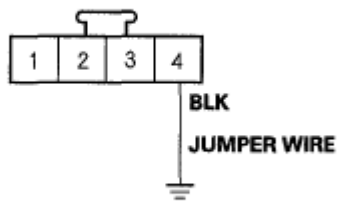
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 5.

NO - Repair open in the wire between the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box and the aspirator fan.

5. Connect the in-car temperature sensor 4P connector No. 4 terminal to body ground with a jumper wire.

IN-CAR TEMPERATURE SENSOR 4P CONNECTOR

Wire side of female terminals

Fig. 73: Connecting In-Car Temperature Sensor 4P Connector 4 Terminal To Body Ground With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the aspirator fan run?

YES - Check for an open in the wire between the aspirator fan and body ground. If the wire is OK, check for poor ground at G503 (see **GROUND TO COMPONENTS INDEX**).

NO - Replace the aspirator fan.

CLIMATE CONTROL POWER AND GROUND CIRCUIT TROUBLESHOOTING

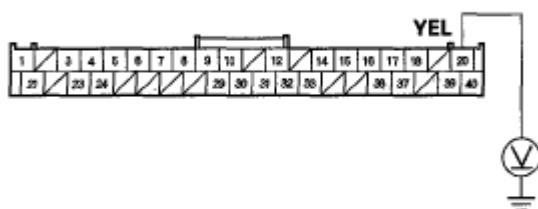
1. Check the No. 30(7.5 A) fuse in the driver's under-dash fuse/relay box.

Is the fuse OK?

YES - Go to step 2.

NO - Replace the fuse, and recheck. If the fuse blows again, check for a short in the No. 30 (7.5 A) fuse circuit.

2. Disconnect the climate control unit 40P connector.
3. Turn the ignition switch ON (II).
4. Measure the voltage between the climate control unit 40P connector No. 20 terminal and body ground.

CLIMATE CONTROL UNIT 40P CONNECTOR

Wire side of female terminals

Fig. 74: Measuring Voltage Between Climate Control Unit 40P Connector 20 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

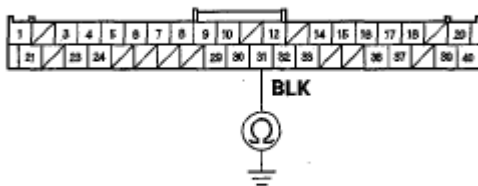
Is there battery voltage?

YES - Go to step 5.

NO - Repair open in the wire between the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box and the climate control unit.

5. Turn the ignition switch OFF.
6. Check for continuity between the climate control unit connector No. 31 terminal and body ground.

CLIMATE CONTROL UNIT 40P CONNECTOR



Wire side of female terminals

Fig. 75: Checking Continuity Between Climate Control Unit Connector No. 31 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

YES - Check for loose wires or poor connections at the climate control unit 40P 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 - Check for an open in the wires between the climate control unit and body ground. If the wire is OK, check for poor ground at G503 (see **GROUND TO COMPONENTS INDEX**).

A/C COMPRESSOR CLUTCH CIRCUIT TROUBLESHOOTING

NOTE:

- It is normal for the A/C compressor to turn off under certain conditions, such as low idle, high engine coolant temperature, hard acceleration, or high/low pressure.
- Do not use this troubleshooting procedure if the fans are also inoperative with the A/C on. Refer to the **SYMPTOM TROUBLESHOOTING INDEX**.
- Before doing symptom troubleshooting, check for powertrain DTCs (see **GENERAL TROUBLESHOOTING INFORMATION**).

1. Check the No. 12 (7.5 A) fuse in the under-hood fuse/relay box, and the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box.

2007 Acura RL

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Are the fuses OK?

YES - Go to step 2.

NO - Replace the fuses and recheck. If the fuses blow again, check for a short in the No. 12 (7.5 A) and No. 30 (7.5 A) fuses circuit.

2. Connect the HDS to the DLC.
3. Start the engine.
4. Turn on the A/C.
5. Check the A/C CLUTCH in the PGM-FI Data List with the HDS.

Is the A/C CLUTCH on?

YES - Go to step 7.

NO - Go to step 6.

6. Using the HDS, confirm the following values in the PGM-FI Data List at idle.

DATA LIST REFERENCE

ECT SENSOR 2	169-194°F (76-90°C)
TP SENSOR	About 0.5 V
RPM	More than 680
A/C PRESSURE SENSOR	196-3,138 kPa (2-32 kgf/cm ³) [28-455 psi]

Are all the values within specifications?

YES - Go to step 7.

NO - Troubleshoot the value that is not within the specifications.

7. 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 8.

NO - Replace the A/C compressor clutch relay.

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

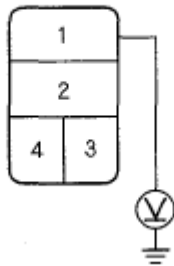
A/C COMPRESSOR CLUTCH RELAY 4P SOCKET

Fig. 76: Measuring Voltage Between A/C Compressor Clutch Relay 4P Socket 1 Terminal And Body Ground

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 9.

NO - Replace the under-hood fuse/relay box (see **REMOVAL AND INSTALLATION**).

9. Connect the A/C compressor clutch relay 4P socket No. 1 and No. 2 terminals with a jumper wire.

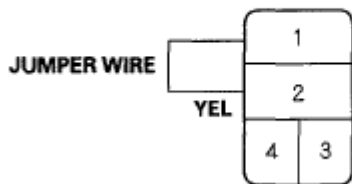
A/C COMPRESSOR CLUTCH RELAY 4P SOCKET

Fig. 77: Connecting A/C Compressor Clutch Relay 4P Socket 1 And 2 Terminals With Jumper Wire

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Does the A/C compressor clutch click?

YES - Go to step 10.

NO - Go to step 18.

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

A/C COMPRESSOR CLUTCH RELAY 4P SOCKET**Fig. 78: Measuring Voltage Between A/C Compressor Clutch Relay 4P Socket 4 Terminal And Body Ground**

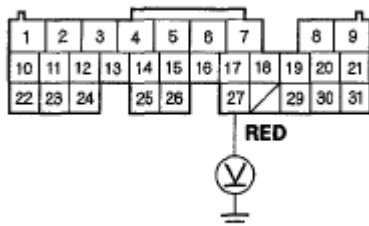
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Go to step 13.

NO - Repair open in the wire between the No. 30 (7.5 A) fuse in the driver's under-dash fuse/relay box and the A/C compressor clutch relay.

13. Turn the ignition switch OFF.
14. Reinstall the A/C compressor clutch relay.
15. Make sure the A/C switch is OFF.
16. Turn the ignition switch ON (II).
17. Using the backprobe set, measure the voltage between PCM connector E (31P) No. 27 terminal and body ground with the PCM connectors connected.

PCM CONNECTOR E (31P)

Wire side of female terminals

Fig. 79: Measuring Voltage Between PCM Connector E (31P) 27 Terminal And Body Ground With PCM Connectors Connected

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there battery voltage?

YES - Check for loose wires or poor connections at PCM connector E (31P). If the connections are good, check the PCM grounds. If the grounds are good, substitute a known-good PCM, and recheck. If the symptom/indication goes away, replace the original PCM (see **PCM REPLACEMENT**).

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

18. Disconnect the jumper wire.
19. Disconnect the A/C compressor clutch 3P connector.
20. Check for continuity between the A/C compressor clutch relay 4P socket No. 2 terminal and the A/C compressor clutch 3P connector No. 1 terminal.

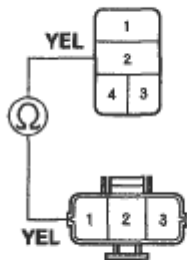
A/C COMPRESSOR CLUTCH RELAY 4P SOCKET**A/C COMPRESSOR CLUTCH 3P CONNECTOR**
Terminal side of male terminals

Fig. 80: Checking Continuity Between A/C Compressor Clutch Relay 4P Socket 2 Terminal And A/C Compressor Clutch 3P Terminal

Courtesy of AMERICAN HONDA MOTOR CO., INC.

Is there continuity?

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

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

IN-CAR TEMPERATURE SENSOR TEST

1. Remove the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR REPLACEMENT**).
2. Compare the resistance reading between the No. 2 and No. 3 terminals of the in-car temperature sensor with the specifications shown in the graph; the resistance should be within the specifications for whatever the ambient temperature is.

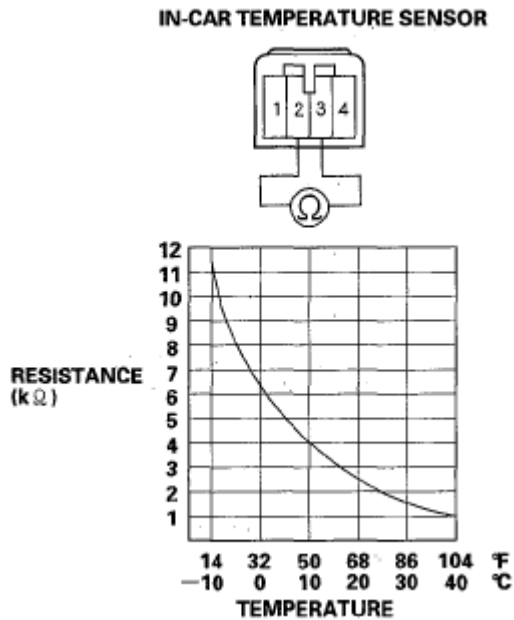


Fig. 81: Resistance And Temperature Graph
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the resistance is not as specified, replace the in-car temperature sensor (see **IN-CAR TEMPERATURE SENSOR REPLACEMENT**).

NOTE: Incorrectly applying power and ground to the in-car temperature sensor will damage it. Follow the instructions carefully.

4. Connect battery power to the No. 1 terminal of the in-car temperature sensor, and ground the No. 4 terminal; the aspirator fan should run.
5. If the aspirator fan did not run in step 4, replace it (see **IN-CAR TEMPERATURE SENSOR REPLACEMENT**).

IN-CAR TEMPERATURE SENSOR REPLACEMENT

1. Remove the in-car temperature sensor (A) from the driver's dashboard lower cover, then disconnect the 4P connector (B).

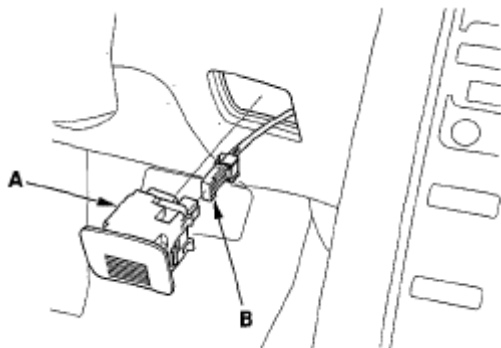


Fig. 82: Identifying In-Car Temperature Sensor And 4P Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

VENT AIR TEMPERATURE SENSOR TEST

1. Remove the driver's vent air temperature sensor (see **DRIVER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**) or passenger's vent air temperature sensor (see **PASSENGER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**).
2. Check for a change in resistance by heating the sensor with a hair dryer or cooling the sensor in a cool cup of water.
3. Compare the resistance reading between the No. 1 and No. 2 terminals of the vent air temperature sensor with the specifications shown in the graph; the resistance should be within the specifications.

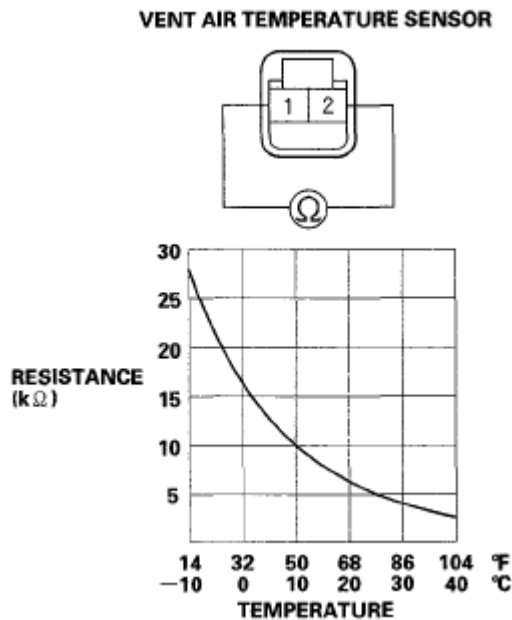


Fig. 83: Resistance And Temperature Graph
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. If the resistance is not as specified, replace the driver's vent air temperature sensor (see **DRIVER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**) or passenger's vent air temperature sensor (see **PASSENGER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT**).

DRIVER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT

1. Remove the gauge control module (see **GAUGE CONTROL MODULE REPLACEMENT**).
2. Disconnect the connector (A) from the driver's vent air temperature sensor. Remove the driver's vent air temperature sensor (B).

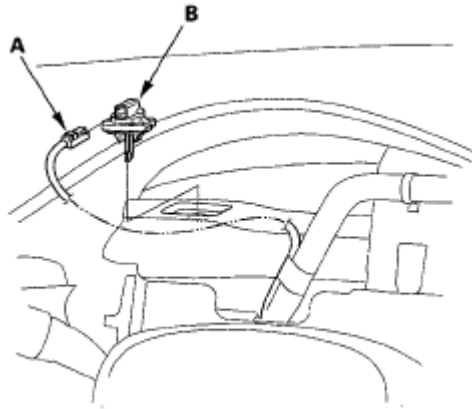


Fig. 84: Identifying Driver's Vent Air Temperature Sensor And Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

PASSENGER'S VENT AIR TEMPERATURE SENSOR REPLACEMENT

1. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**).
2. Disconnect the connector (A) from the passenger's vent air temperature sensor. Remove the passenger's vent air temperature sensor (B).

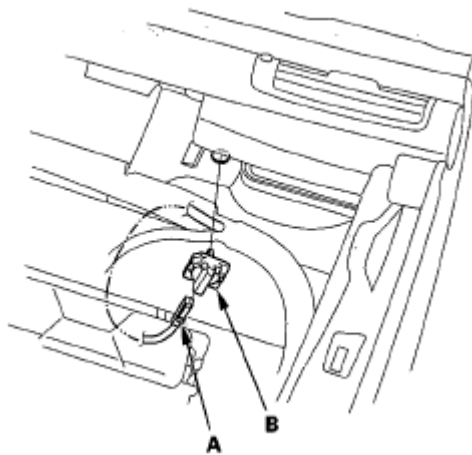


Fig. 85: Identifying Passenger's Vent Air Temperature Sensor And Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

OUTSIDE AIR TEMPERATURE SENSOR TEST

1. Remove the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR REPLACEMENT**).
2. Dip the sensor in ice water, and measure the resistance. Then pour warm water on the sensor, and check for a change in resistance.
3. Compare the resistance reading between the No. 1 and No. 2 terminals of the outside air temperature sensor with the specifications shown in the graph; the resistance should be within the specifications.

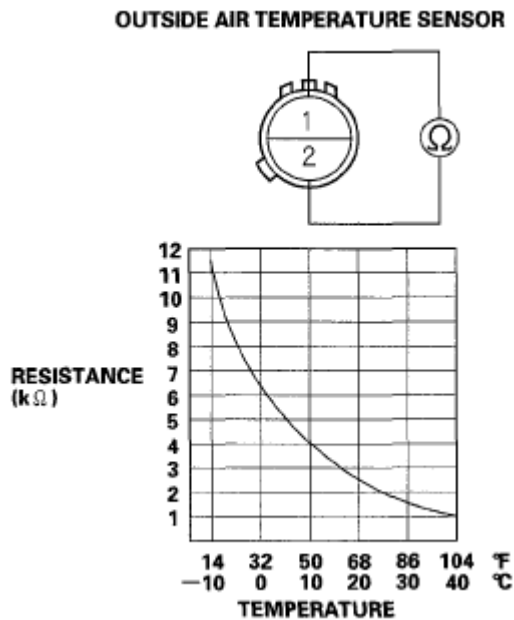


Fig. 86: Resistance And Temperature Graph
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

- If the resistance is not as specified, replace the outside air temperature sensor (see **OUTSIDE AIR TEMPERATURE SENSOR REPLACEMENT**).

OUTSIDE AIR TEMPERATURE SENSOR REPLACEMENT

- Lift the tab (A) to release the lock, then remove the outside air temperature sensor (B) from the back of the front bumper. Disconnect the 2P connector (C) from the outside air temperature sensor.

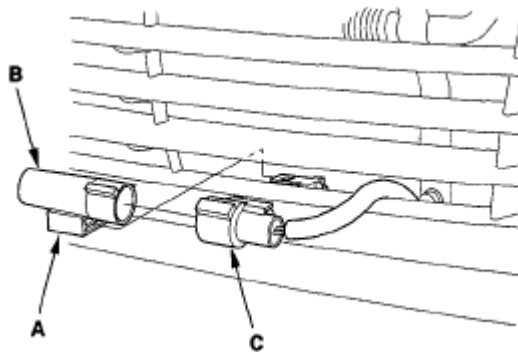


Fig. 87: Identifying Outside Air Temperature Sensor And 2P Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

- Install the sensor in the reverse order of removal.

SUNLIGHT SENSOR TEST

- Remove the sunlight sensor from the dashboard (see **SUNLIGHT SENSOR REPLACEMENT**).
- Connect the sunlight sensor 5P connector.

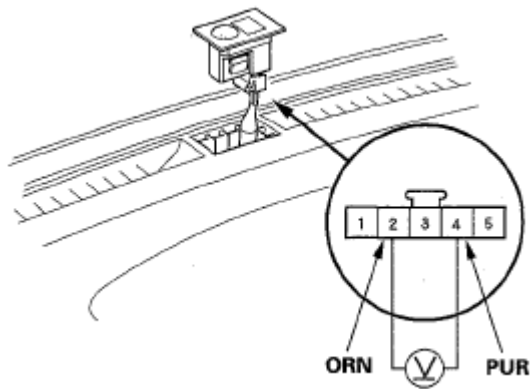


Fig. 88: Connecting Sunlight Sensor 5P Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Turn the ignition switch ON (II). Measure the voltage between the terminals with the (+) probe on the No. 4 terminal and the (-) probe on the No. 2 terminal with the 4P connector connected.

NOTE: The voltage readings 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.
 - 3.3-3.5 V or less with the sensor in direct sunlight.
4. If the voltage is not as specified, replace the sunlight sensor (see **SUNLIGHT SENSOR REPLACEMENT**).

SUNLIGHT SENSOR REPLACEMENT

1. Remove the sunlight sensor (A) from the dashboard, then disconnect the 5P connector (B). Be careful not to damage the sensor and the dashboard.

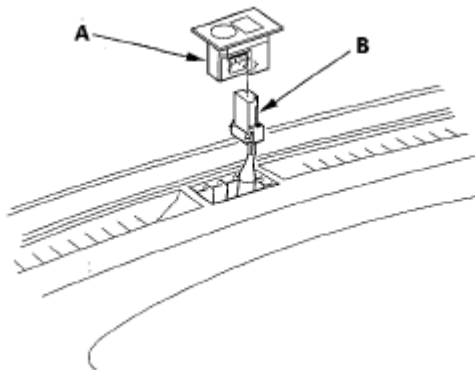


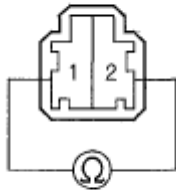
Fig. 89: Identifying Sunlight Sensor And 5P Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

EVAPORATOR TEMPERATURE SENSOR TEST

1. Remove the evaporator temperature sensor (see **EVAPORATOR TEMPERATURE SENSOR REPLACEMENT**).
2. Dip the sensor in ice water, and measure the resistance between its terminals.

EVAPORATOR TEMPERATURE SENSOR



Terminal side of male terminals

Fig. 90: Measuring Resistance Between Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

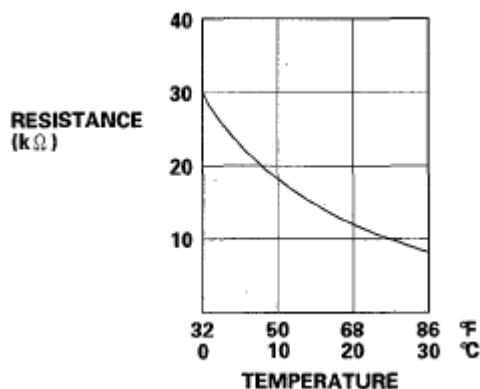


Fig. 91: Resistance And Temperature Graph
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. If the resistance is not as specified, replace the evaporator temperature sensor (see **EVAPORATOR TEMPERATURE SENSOR REPLACEMENT**).

EVAPORATOR TEMPERATURE SENSOR REPLACEMENT

1. Remove the driver's dashboard undercover (see **DRIVER'S DASHBOARD UNDERCOVER REMOVAL/INSTALLATION**).
2. Disconnect the connectors (A) from the power tilt/ telescopic steering control unit, the adaptive front lighting control unit, the electronically controlled power steering control unit, and the daytime running lights control unit. Remove the relay (B) and the power tilt/telescopic steering control unit (C), then remove the self-tapping screws and the bracket (D).

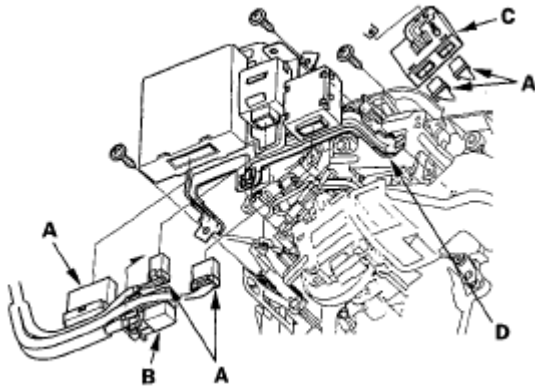


Fig. 92: Identifying Control Units And Connectors
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the connectors (A) from the evaporator temperature sensor and the driver's cool vent control motor, then remove the connector clip (B). Remove the self-tapping screw and the evaporator temperature sensor (C).

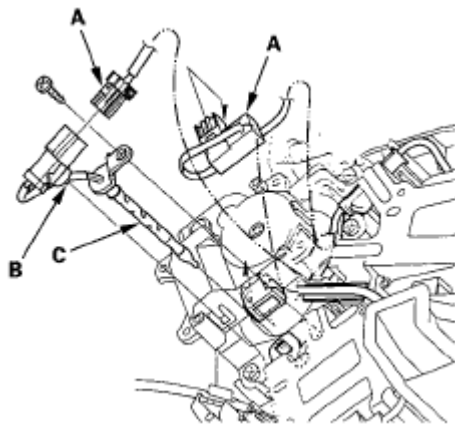


Fig. 93: Identifying Evaporator Temperature Sensor And Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

POWER TRANSISTOR TEST

1. Remove the passenger's dashboard undercover (see **DOCUMENT TRAY REMOVAL/INSTALLATION**).
2. Disconnect the 5P connector from the power transistor.
3. Measure the resistance between the No. 1 and No. 4 terminals of the power transistor. It should be about 1.5 kohms.
 - If the resistance is within the specifications, go to step 4.
 - If the resistance is not within the specifications, replace the power transistor.

NOTE: Also check the blower motor. Power transistor failure can be caused by a defective blower motor.

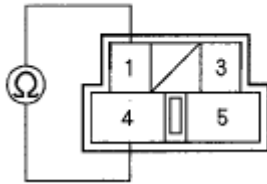
POWER TRANSISTOR

Fig. 94: Measuring Resistance Between 1 And 4 Terminals Of Power Transistor
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Carefully release the lock tab on the No. 3 terminal (RED/BLK) (A) in the 5P connector, then remove the terminal and insulate it from body ground.

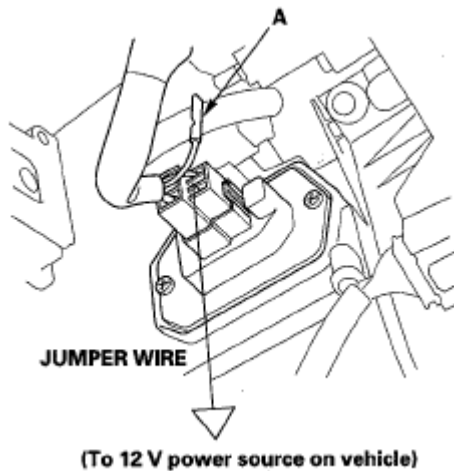


Fig. 95: Removing No. 3 Terminal (RED/BLK) From 5P Connector
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Reconnect the 5P connector to the power transistor.
6. Make sure the RED/BLK wire is completely isolated, then supply 12 V to the No. 3 cavity with a jumper wire.
7. Turn the ignition switch ON (II), and check that the blower motor runs.
 - If the blower motor does not run, replace the power transistor.

NOTE: A faulty blower motor can cause the power transistor to fail. If the power transistor is replaced, also check the blower motor for binding, and replace it if necessary.

- If the blower motor runs, the power transistor is OK.

DRIVER'S AIR MIX CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see GENERAL TROUBLESHOOTING INFORMATION).

1. Disconnect the 5P connector from the driver's air mix control motor.

NOTE: **Incorrectly applying power and ground to the driver's air mix control motor will damage it. Follow the instructions carefully.**

2. Connect battery power to the No. 1 terminal of the driver's air mix control motor, and ground the No. 2 terminal; the driver's air mix control motor should run, and stop at Max Cool. If it doesn't, reverse the connections; the driver's air mix control motor should run, and stop at Max Hot.

DRIVER'S AIR MIX CONTROL MOTOR

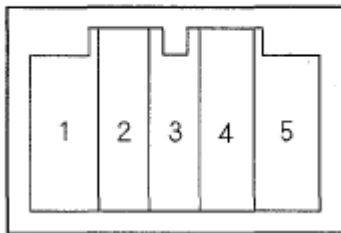


Fig. 96: Identifying Driver's Air Mix Control Motor Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the driver's air mix control motor did not run in step 2, remove it, then check the driver's air mix control linkage and door for smooth movement.
 - If the linkage and door move smoothly, replace the driver's air mix control motor (see **DRIVER'S AIR MIX CONTROL MOTOR REPLACEMENT**).
 - If the linkage or door sticks or binds, repair them as needed.

DRIVER'S AIR MIX CONTROL MOTOR REPLACEMENT

1. Remove the driver's dashboard undercover (see **DRIVER'S DASHBOARD UNDERCOVER REMOVAL/INSTALLATION**).
2. Disconnect the connectors (A) from the power tilt/ telescopic steering control unit, the adaptive front lighting control unit, the electronically controlled power steering control unit, and the daytime running lights control unit. Remove the relay (B) and the power tilt/telescopic steering control unit (C), then remove the self-tapping screws and the bracket (D).

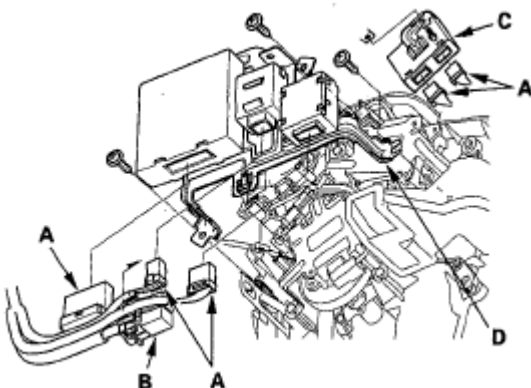


Fig. 97: Identifying Control Units And Connectors
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the 5P connector (A) from the driver's air mix control motor. Remove the connector clip (B). Remove the self-tapping screws and the driver's air mix control motor (C).

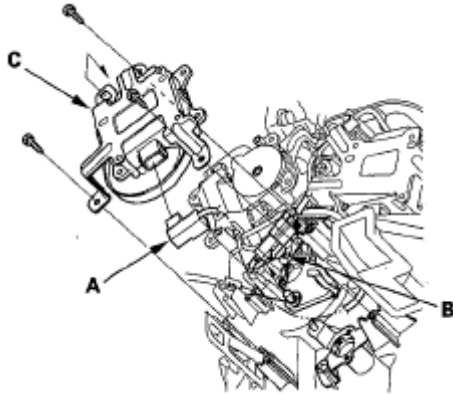


Fig. 98: Identifying Driver's Air Mix Control Motor, Connector And Screws
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

PASSENGER'S AIR MIX CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see GENERAL TROUBLESHOOTING INFORMATION).

1. Disconnect the 5P connector from the passenger's air mix control motor.

NOTE: Incorrectly applying power and ground to the passenger's air mix control motor will damage it. Follow the instructions carefully.

2. Connect battery power to the No. 1 terminal of the passenger's air mix control motor, and ground the No. 2 terminal; the passenger's air mix control motor should run, and stop at Max Hot. If it doesn't, reverse the connections; the passenger's air mix control motor should run, and stop at Max Cool.

PASSENGER'S AIR MIX CONTROL MOTOR

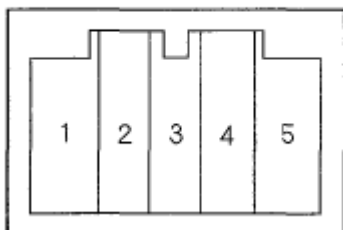


Fig. 99: Identifying Passenger's Air Mix Control Motor Terminals
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the passenger's air mix control motor did not run in step 2, remove it, then check the passenger's air mix control linkage and door for smooth movement.
 - If the linkage and door move smoothly, replace the passenger's air mix control motor (see **PASSENGER'S AIR MIX CONTROL MOTOR REPLACEMENT**).
 - If the linkage or door sticks or binds, repair them as needed.

PASSENGER'S AIR MIX CONTROL MOTOR REPLACEMENT

1. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**).
2. Remove the self-tapping screws, bolt, and the duct (A).

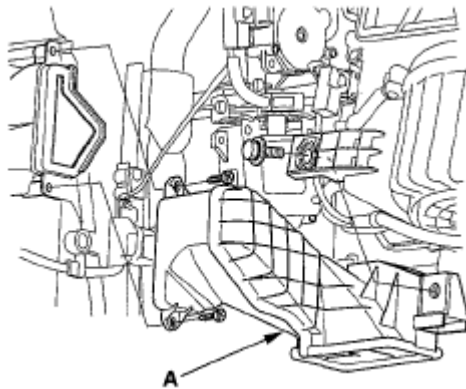


Fig. 100: Identifying Air Duct And Fasteners
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the 5P connector (A) from the passenger's air mix control motor. Remove the self-tapping screws and the passenger's air mix control motor (B) from the heater unit.

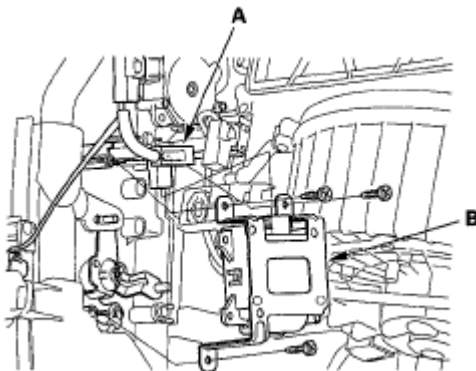


Fig. 101: Identifying Passenger's Air Mix Control Motor And Fasteners
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

DRIVER'S COOL VENT CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see **GENERAL TROUBLESHOOTING**

INFORMATION).

1. Disconnect the 5P connector from the driver's cool vent control motor.

NOTE: **Incorrectly applying power and ground to the driver's cool vent control motor will damage it. Follow the instructions carefully.**

2. Connect battery power to the No. 1 terminal of the driver's cool vent control motor, and ground the No. 2 terminal; the driver's cool vent control motor should run, and stop at Open. If it doesn't, reverse the connections; the driver's cool vent control motor should run, and stop at Shut.

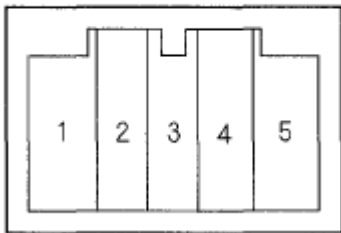
DRIVER'S COOL VENT CONTROL MOTOR

Fig. 102: Identifying Driver's Cool Vent Control Motor Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the driver's cool vent control motor did not run in step 2, remove it, then check the driver's cool vent control linkage and door for smooth movement.
 - If the linkage and door move smoothly, replace the driver's cool vent control motor (see **DRIVER'S COOL VENT CONTROL MOTOR REPLACEMENT**).
 - If the linkage or door sticks or binds, repair them as needed.

DRIVER'S COOL VENT CONTROL MOTOR REPLACEMENT

1. Remove the driver's dashboard undercover (see **DRIVER'S DASHBOARD UNDERCOVER REMOVAL/INSTALLATION**).
2. Disconnect the connectors (A) from the power tilt/ telescopic steering control unit, the adaptive front lighting control unit, the electronically controlled power steering control unit, and the daytime running lights control unit. Remove the relay (B) and the power tilt/telescopic steering control unit (C), then remove the self-tapping screws and the bracket (D).

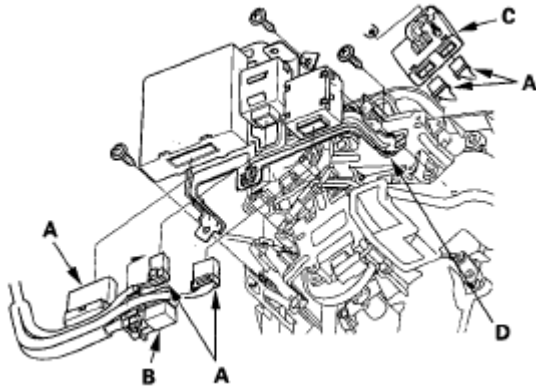


Fig. 103: Identifying Control Units And Connectors
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the 5P connector (A) from the driver's cool vent control motor. Remove the self-tapping screws and the driver's air mix control motor (B).

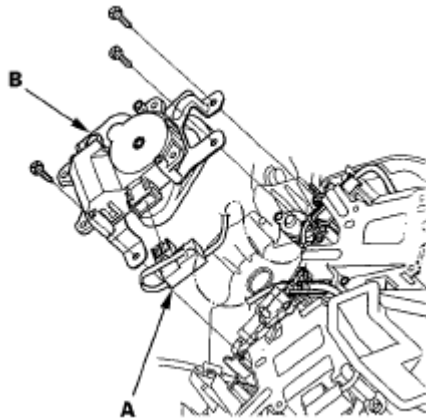


Fig. 104: Identifying Driver's Cool Vent Control Motor And Fasteners
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

PASSENGER'S COOL VENT CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see GENERAL TROUBLESHOOTING INFORMATION).

1. Disconnect the 5P connector from the passenger's cool vent control motor.

NOTE: Incorrectly applying power and ground to the passenger's cool vent control motor will damage it. Follow the instructions carefully.

2. Connect battery power to the No. 1 terminal of the passenger's cool vent control motor, and ground the No. 2 terminal; the passenger's cool vent control motor should run, and stop at Shut. If it doesn't, reverse the connections; the passenger's cool vent control motor should run, and stop at Open.

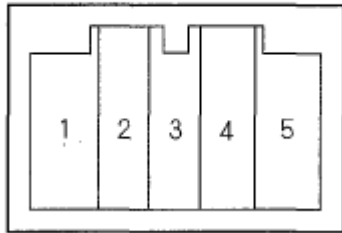
PASSENGER'S COOL VENT CONTROL MOTOR

Fig. 105: Identifying Passenger's Cool Vent Control Motor Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the passenger's cool vent control motor did not run in step 2, remove it, then check the passenger's cool vent control linkage and door for smooth movement.
 - If the linkage and door move smoothly, replace the passenger's cool vent control motor (see **PASSENGER'S COOL VENT CONTROL MOTOR REPLACEMENT**).
 - If the linkage or door sticks or binds, repair them as needed.

PASSENGER'S COOL VENT CONTROL MOTOR REPLACEMENT

1. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**).
2. Remove the self-tapping screws, bolt, and the duct (A).

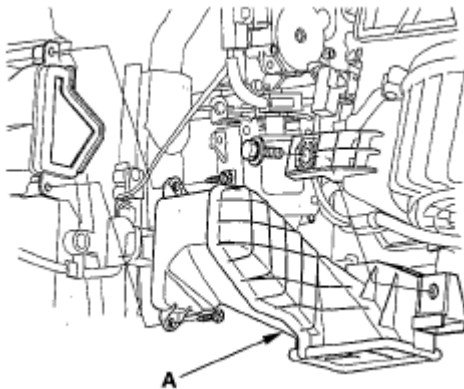


Fig. 106: Identifying Air Duct And Fasteners
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the 5P connector (A) from the passenger's cool vent control motor. Remove the self-tapping screws and the passenger's cool vent control motor (B) from the heater unit.

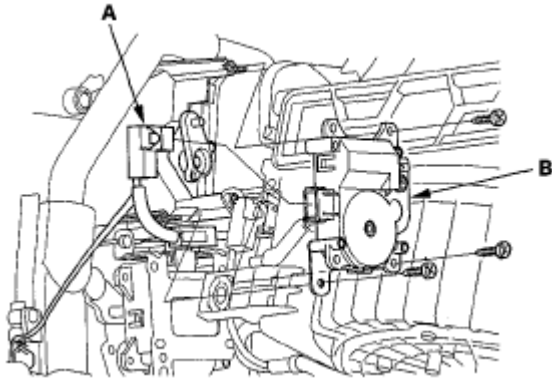


Fig. 107: Identifying Passenger's Cool Vent Control Motor And Fasteners
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

MODE CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see GENERAL TROUBLESHOOTING INFORMATION).

1. Disconnect the 5P connector from the mode control motor.

NOTE: Incorrectly applying power and ground to the mode control motor will damage it. Follow the instructions carefully.

2. Connect battery power to the No. 1 terminal of the mode control motor, and ground the No. 2 terminal; the mode control motor should run smoothly, and stop at Vent. If it doesn't, reverse the connections; the mode control motor should run smoothly, and stop at Defrost. When the mode control motor stops running, disconnect battery power immediately.

MODE CONTROL MOTOR

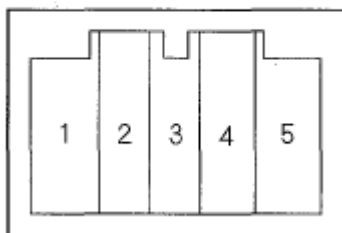


Fig. 108: Identifying Mode Control Motor Terminals
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the mode control motor did not run in step 2, remove it, then check the mode control linkage and doors for smooth movement.
 - If the linkage and doors move smoothly, replace the mode control motor (see MODE CONTROL MOTOR REPLACEMENT).

- If the linkage or doors stick or bind, repair them as needed.

MODE CONTROL MOTOR REPLACEMENT

1. Remove the driver's dashboard undercover (see **DRIVER'S DASHBOARD UNDERCOVER REMOVAL/INSTALLATION**).
2. Disconnect the connectors (A) from the power tilt/ telescopic steering control unit, the adaptive front lighting control unit, the electronically controlled power steering control unit, and the daytime running lights control unit. Remove the relay (B) and the power tilt/telescopic steering control unit (C), then remove the self-tapping screws and the bracket (D).

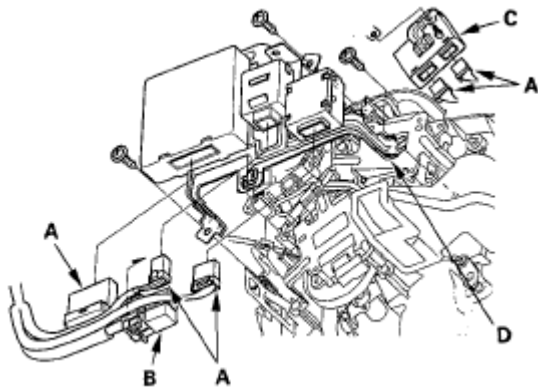


Fig. 109: Identifying Control Units And Connectors
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Disconnect the 5P connector (A) from the mode control motor. Remove the harness clips (B). Remove the self-tapping screws and the mode control motor (C).

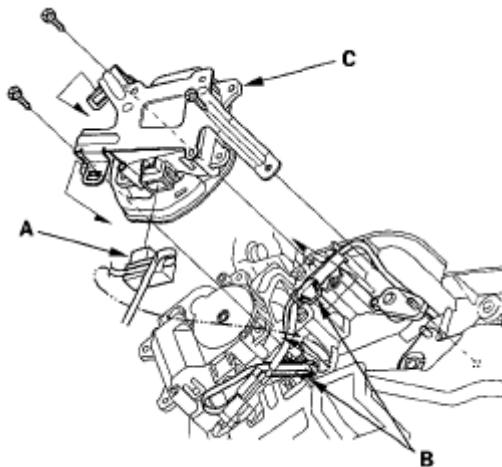


Fig. 110: Identifying Mode Control Motor And Fasteners
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

RECIRCULATION CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see GENERAL TROUBLESHOOTING INFORMATION).

1. Disconnect the 5P connector from the recirculation control motor.

NOTE: Incorrectly applying power and ground to the recirculation control motor will damage it. Follow the instructions carefully.

2. Connect battery power to the No. 1 terminal of the recirculation control motor, and ground the No. 2 terminal; the recirculation control motor should run, and stop at Recirculate. If it doesn't, reverse the connections; the recirculation control motor should run, and stop at Fresh.

RECIRCULATION CONTROL MOTOR

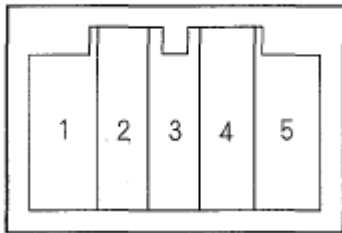


Fig. 111: Identifying Recirculation Control Motor Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the recirculation control motor did not run in step 2, remove it, then check the recirculation control linkage and door for smooth movement.
 - If the linkage and door move smoothly, replace the recirculation control motor (see RECIRCULATION CONTROL MOTOR REPLACEMENT).
 - If the linkage or door stick or bind, repair them as needed.

RECIRCULATION CONTROL MOTOR REPLACEMENT

1. Remove the glove box (see GLOVE BOX REMOVAL/INSTALLATION).
2. Disconnect the 5P connector (A) from the recirculation control motor (B). Remove the self-tapping screws and the recirculation control motor from the blower unit.

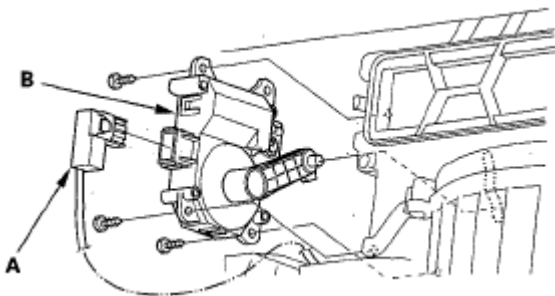


Fig. 112: Identifying Recirculation Control Motor And Fasteners
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

REAR VENT CONTROL MOTOR TEST

NOTE: Before testing, check for HVAC DTCs (see GENERAL TROUBLESHOOTING INFORMATION).

1. Disconnect the 5P connector from the rear vent control motor.

NOTE: Incorrectly applying power and ground to the rear vent control motor will damage it. Follow the instructions carefully.

2. Connect battery power to the No. 1 terminal of the rear vent control motor, and ground the No. 2 terminal; the rear vent control motor should run, and stop at Shut. If it doesn't, reverse the connections; the rear vent control motor should run, and stop at Rear Vent.

REAR VENT CONTROL MOTOR

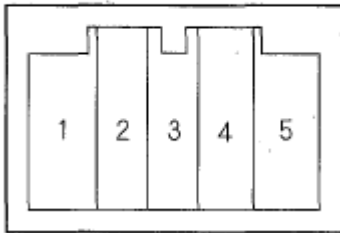


Fig. 113: Identifying Rear Vent Control Motor Terminals
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. If the rear vent control motor did not run in step 2, remove it, then check the rear vent control linkage and door for smooth movement.
 - If the linkage and door move smoothly, replace the rear vent control motor (see REAR VENT CONTROL MOTOR REPLACEMENT).
 - If the linkage or door sticks or binds, repair them as needed.

REAR VENT CONTROL MOTOR REPLACEMENT

1. Remove the utility pocket (see CENTER TRIM REMOVAL/INSTALLATION).
2. Remove the center console (see CENTER CONSOLE REMOVAL/INSTALLATION). Remove the rear vent duct (see step 6 under DASHBOARD/STEERING HANGER BEAM REMOVAL/INSTALLATION).
3. Disconnect the 5P connector (A) and duct (B).

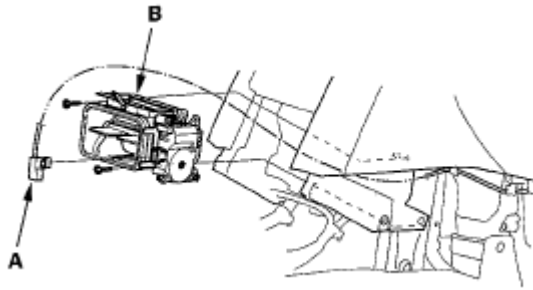


Fig. 114: Identifying Duct And Rear Vent Control Motor
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the self-tapping screws and the rear vent control motor (A).

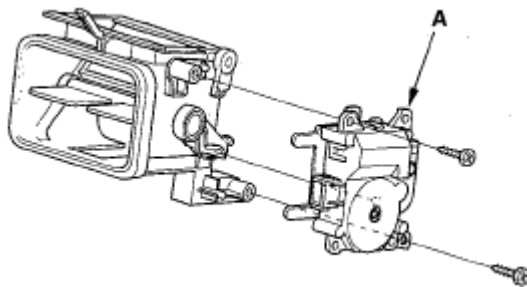


Fig. 115: Identifying Rear Vent Control Motor And Fasteners
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Install the motor in the reverse order of removal. Make sure the pin on the motor is properly engaged with the linkage. After installation, make sure the motor runs smoothly.

CLIMATE CONTROL UNIT REMOVAL/INSTALLATION

1. Remove the audio unit (see **AUDIO UNIT REMOVAL/INSTALLATION**).
2. Remove the self-tapping screws and the climate control unit (A).

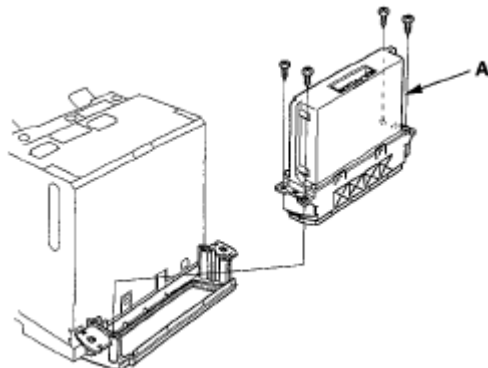


Fig. 116: Identifying Climate Control Unit And Fasteners
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Discharge the static electricity (which accumulated on you when you removed the climate control unit) by touching the door striker or other body parts.

4. Remove the self-tapping screws, then carefully separate the climate control unit (A) from the climate control panel (B). Disconnect the connector (C) from the climate control unit. Do not kink or pull on the wires between the control panel and the control unit. Do not touch the electronic components on the printed circuit board in the control unit and control panel.

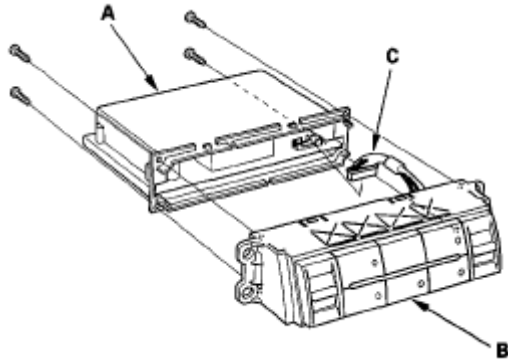


Fig. 117: Identifying Climate Control Unit, Climate Control Panel And Connector
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Install the control unit in the reverse order of removal. After installation, operate the various functions to see whether works properly.
6. Run the self-diagnostic function to confirm that there are no problems in the system (see **GENERAL TROUBLESHOOTING INFORMATION**).

CLIMATE CONTROL PANEL BULB REPLACEMENT

1. Remove the climate control panel (see **CLIMATE CONTROL UNIT REMOVAL/INSTALLATION**).
2. Remove the bulb(s) with a flat-tip screwdriver.

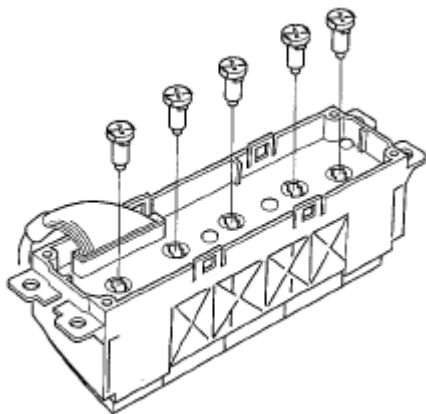


Fig. 118: Identifying Climate Control Panel Bulbs
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the bulb(s) in the reverse order of removal. After installation, operate the various functions 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

1. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**).
2. Remove the dust and pollen filter assembly (A) from the evaporator.

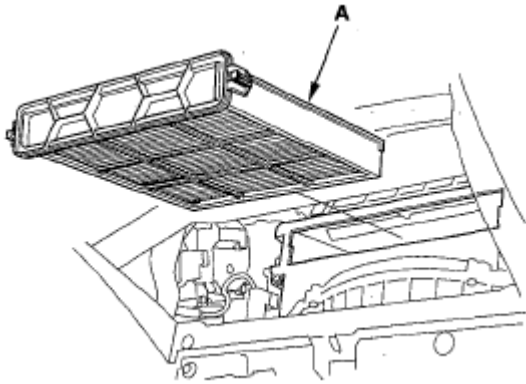


Fig. 119: Identifying Pollen Filter Assembly
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

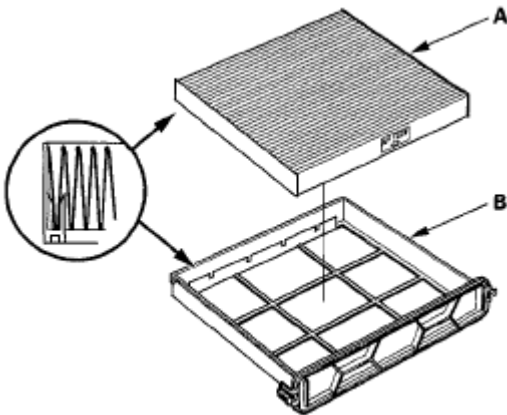


Fig. 120: Identifying Filter And Housing
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Install the filter in the reverse order of removal. Make sure that there is no air leaking out of the evaporator.

BLOWER UNIT REMOVAL/INSTALLATION

1. Remove the glove box (see **GLOVE BOX REMOVAL/INSTALLATION**).
2. Remove the kick panel (see **TRIM REMOVAL/INSTALLATION - DOOR AREAS**).
3. Cut the plastic cross brace (A) in the glove box opening with diagonal cutters in the area shown. Retain plastic cross brace to be reinstalled later.

NOTE: Use the grommets (B) and the self-tapping screws by installing plastic cross brace.

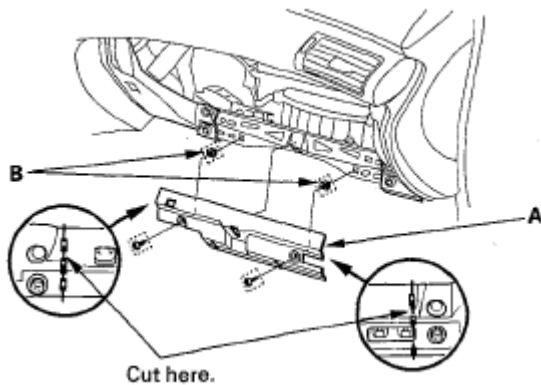


Fig. 121: Identifying Plastic Cross Brace And Grommets
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the wire harness clips (A) and the connector clips (B). Remove the bolts and the glove box frame (C).

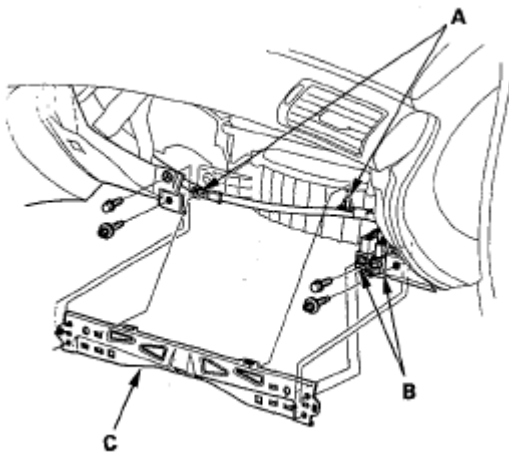


Fig. 122: Identifying Wire Harness Clip, Connector Clips And Glove Box Frame
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Disconnect the connectors (A) from the blower motor, throttle actuator control module subharness, and dashboard wire harnesses. Remove the connector clip (B) and the wire harness clips (C).

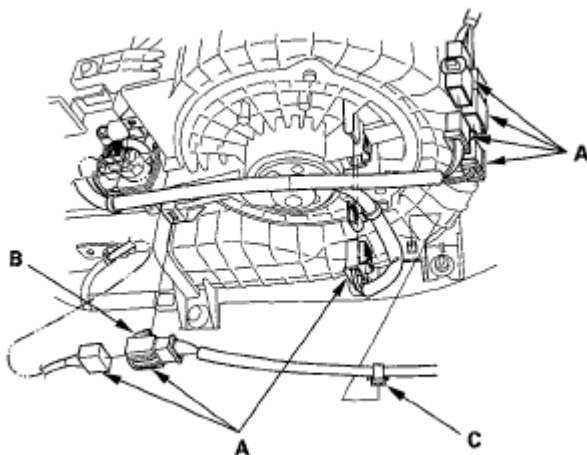


Fig. 123: Identifying Wire Harness Clips, Connector Clip And Connectors At Blower Unit
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Disconnect the connector (A) from the recirculation control motor. Remove the mounting nuts, bolts, and the blower unit (B).

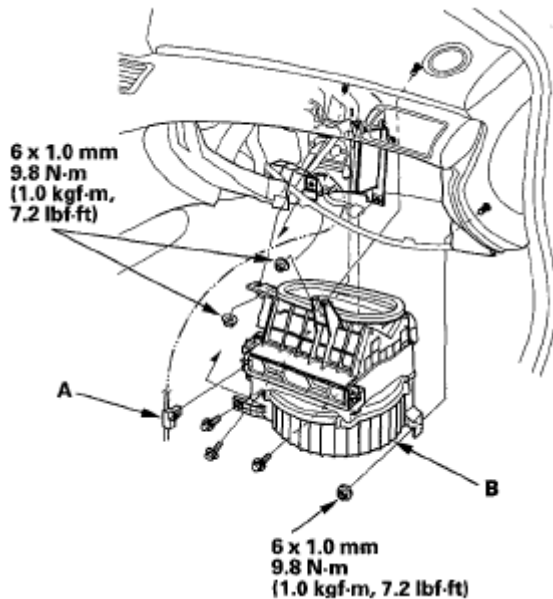


Fig. 124: Identifying Blower Unit With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the unit in the reverse order of removal. Make sure that there is no air leakage.

BLOWER UNIT COMPONENT REPLACEMENT

Note these items when overhauling the blower unit:

- The recirculation control motor (A), the blower motor (B), and the dust and pollen filter (C) can be replaced without removing the blower unit.
- Before reassembly, make sure that the recirculation control linkage and door move smoothly without binding.
- After reassembly, make sure the recirculation control motor runs smoothly (see **RECIRCULATION CONTROL MOTOR TEST**).

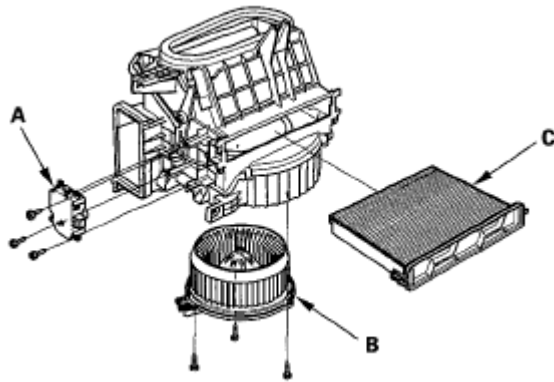


Fig. 125: Identifying Blower Unit Components
Courtesy of AMERICAN HONDA MOTOR CO., INC.

EVAPORATOR CORE REPLACEMENT

1. Recover the refrigerant with a recovery/recycling/ charging station (see **REFRIGERANT RECOVERY**).
2. Remove the engine cover (see **IGNITION COIL REMOVAL/INSTALLATION**).
3. Remove the bolt, then disconnect the A/C lines (A) from the evaporator core.

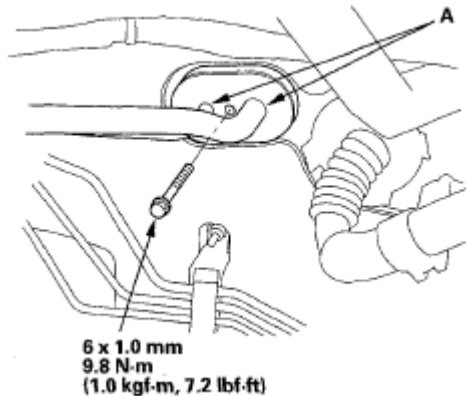


Fig. 126: Identifying A/C Lines Connection At Evaporator Core With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the blower unit (see **BLOWER UNIT REMOVAL/INSTALLATION**).
5. Remove the self-tapping screws and the expansion valve cover (A), then remove the bolts and the expansion valve (B) without bending the lines.

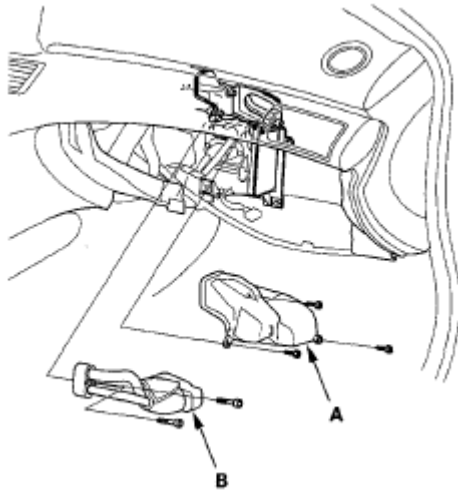


Fig. 127: Identifying Expansion Valve Cover And Expansion Valve
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Disconnect the connectors (A) from the power transistor and control motor relay, then remove the joint duct (B).

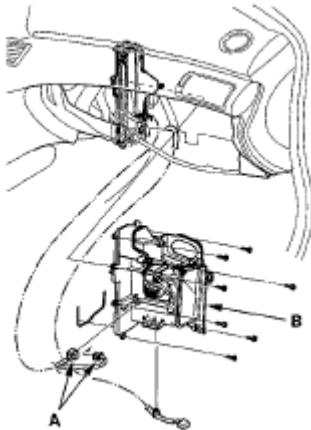


Fig. 128: Identifying Connectors, Power Transistor, Control Motor Relay And Joint Duct
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Carefully pull out the evaporator core (A) and the plate (B).

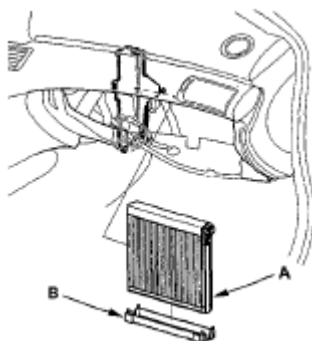


Fig. 129: Identifying Evaporator Core And Plate

Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Install the core in the reverse order of removal, and note these items:
 - If you're installing a new evaporator core, add refrigerant oil (DENSO ND-OIL 8) (see **A/C REFRIGERANT OIL REPLACEMENT**).
 - 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**).

EXPANSION VALVE REPLACEMENT

1. Recover the refrigerant with a recovery/recycling/ charging station (see **REFRIGERANT RECOVERY**).
2. Remove the engine cover (see **IGNITION COIL REMOVAL/INSTALLATION**).
3. Remove the bolt, then disconnect the A/C lines (A) from the evaporator core.

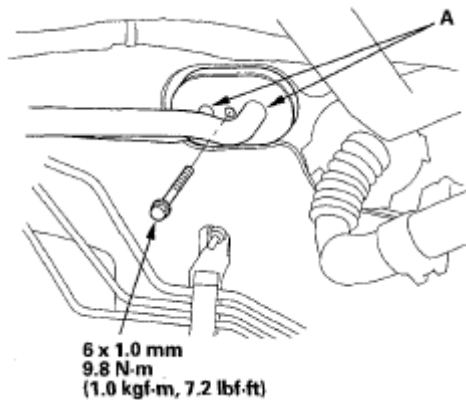


Fig. 130: Identifying A/C Lines Connection At Evaporator Core With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the blower unit (see **BLOWER UNIT REMOVAL/INSTALLATION**).
5. Remove the self-tapping screws and the expansion valve cover (A), then remove the bolts and the pipe (B) without bending the lines.

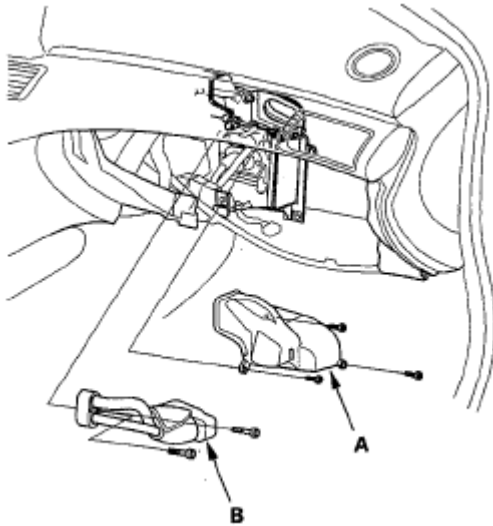


Fig. 131: Identifying Expansion Valve Cover, Bolts And Pipe
Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Remove the bolt (A), O-rings (B) and the expansion valve (C) without bending the pipe.

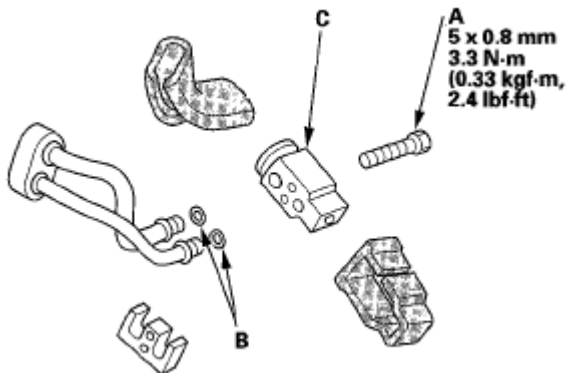


Fig. 132: Identifying Expansion Valve, O-Ring And Bolt
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Install the valve in the reverse order of removal, and note these items:
- If you're installing a new expansion valve, add refrigerant oil (DENSO ND-OIL 8) (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**).

SRS components are located in this area. Review the SRS component locations (see **COMPONENT LOCATION INDEX**) and the precautions and procedures (see **PRECAUTIONS AND PROCEDURES**) before doing repairs or service.

1. Make sure you have the anti-theft codes for the audio system and the navigation system (if equipped).
2. Make sure the ignition switch is OFF, then disconnect the negative cable from the battery.
3. Disconnect the suction and receiver lines from the evaporator core (see **EVAPORATOR CORE REPLACEMENT**).
4. From under the hood, open the cable clamp (A), then disconnect the heater valve cable (B) from the heater valve arm (C). Turn the heater valve arm to the fully opened position as shown.

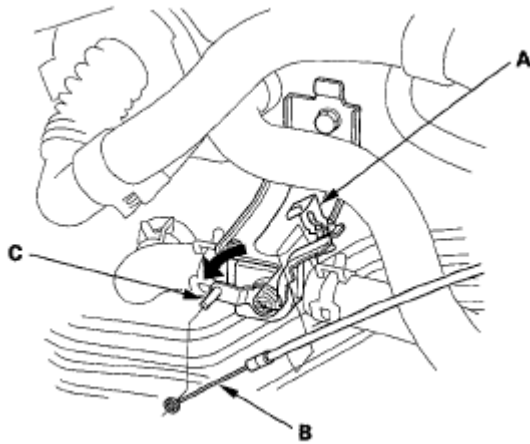


Fig. 133: Identifying Heater Valve Cable And Heater Valve Arm
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. When the engine is cool, drain the engine coolant from the radiator (see **COOLANT CHECK**).
6. Slide the hose clamps (A) back. Remove the bolt and water valve bracket, then disconnect the inlet heater hose (B) and the outlet heater hose (C) from the heater unit.

Engine coolant will run out when the hoses are disconnected; drain it into a clean drip pan. Be sure not to let coolant spill on the electrical parts or the painted surfaces. If any coolant spills, rinse it off immediately.

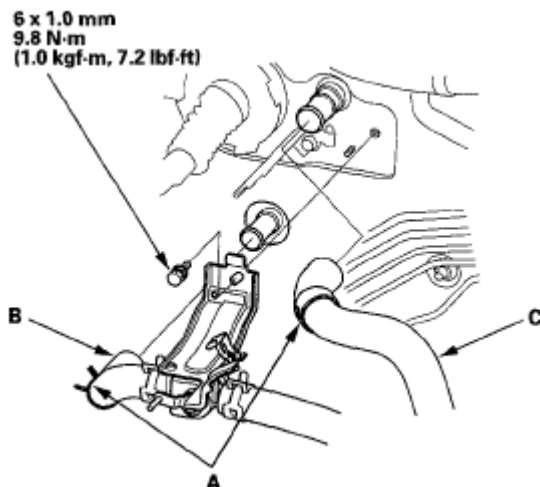


Fig. 134: Identifying Outlet & Inlet Heater Hoses And Water Valve Bracket With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Remove the mounting nut from the heater unit. Take care not to damage or bend the fuel lines and the brake lines, etc.

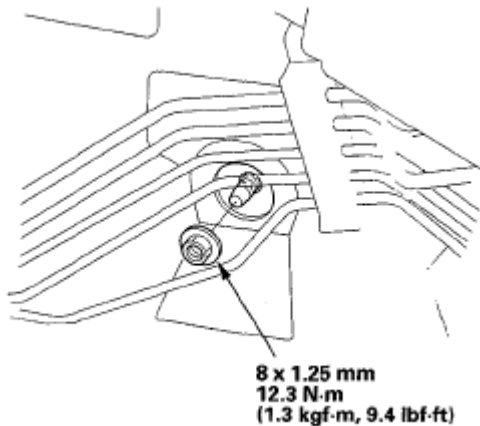


Fig. 135: Identifying Mounting Nut Of Heater Unit With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Remove the dashboard (see **DASHBOARD REPLACEMENT**).
9. Disconnect the connectors (A) from the power tilt/ telescopic steering control unit, the adaptive front lighting control unit, the electronically controlled power steering control unit, and the daytime running lights control unit. Remove the relay (B) and the power tilt/telescopic steering control unit (C), then remove the self-tapping screws and the bracket (D).

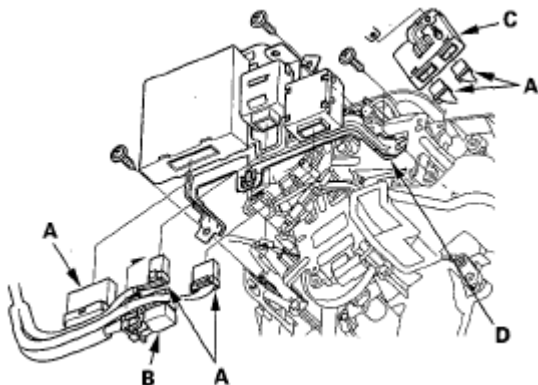


Fig. 136: Identifying Control Units And Connectors

Courtesy of AMERICAN HONDA MOTOR CO., INC.

10. Disconnect the connectors (A) from the driver's cool vent control motor, the driver's air mix control motor, the mode control motor, and the evaporator temperature sensor, then remove the wire harness clips (B).

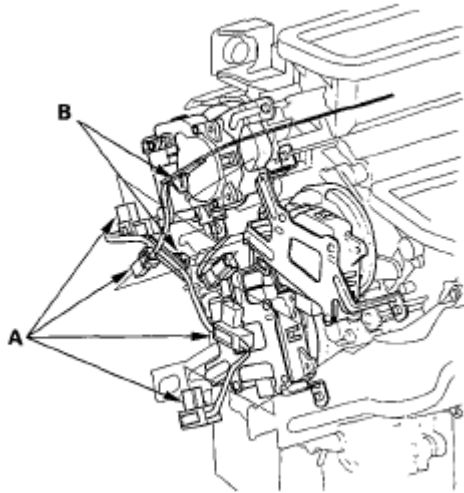


Fig. 137: Identifying Control Motors And Sensor Connectors, And Wire Harness Clips
Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. Disconnect the connectors (A) from the blower motor, the power transistor, the control motor relay, the throttle actuator control module subharness, and dashboard wire harnesses. Remove the connector clip (B) and the wire harness clips (C).

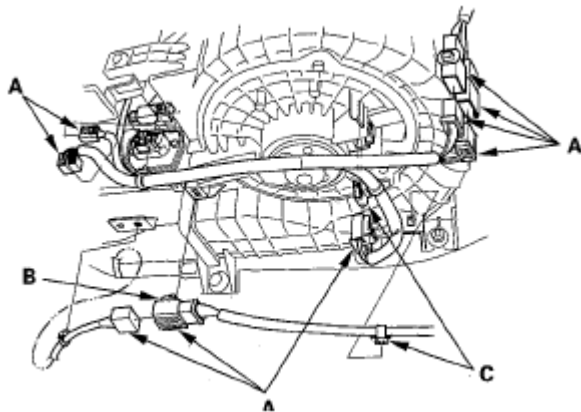


Fig. 138: Identifying Wire Harness Clips, Connector Clip And Connectors At Blower Unit
Courtesy of AMERICAN HONDA MOTOR CO., INC.

12. Disconnect the connectors (A) from the recirculation control motor, the passenger's cool vent control motor, the passenger's air mix control motor, and the rear vent control motor, and then remove the wire harness clip (B) and the wire harness (C).

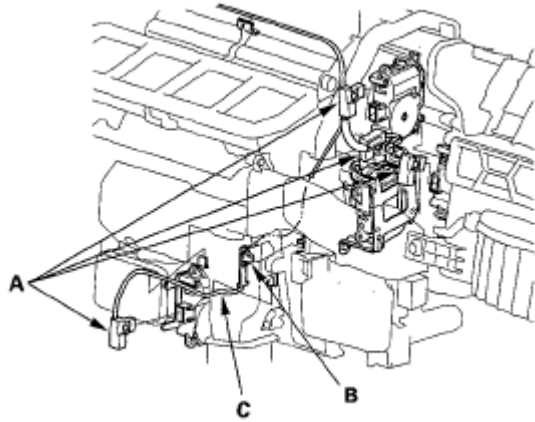


Fig. 139: Identifying Wire Harness Clip, Wire Harness And Control Motor(s) Connectors
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

13. Remove the clips (A), the mounting nuts, and the blower-heater unit (B).

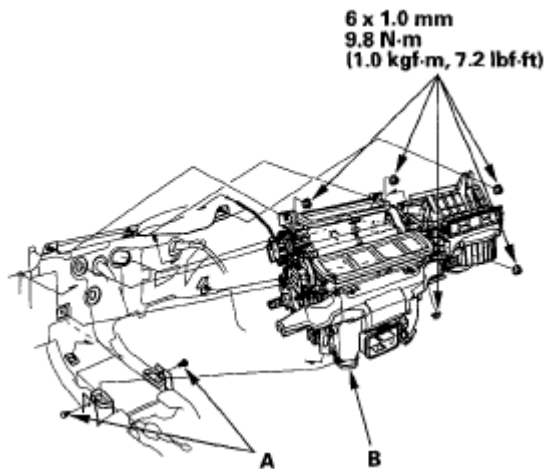


Fig. 140: Identifying Mounting Nuts, Blower-Heater Unit And Clips
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

14. Remove the self-tapping screws and the passenger's heater duct (A), and the expansion valve cover (B), then remove the bolts, and the expansion valve (C). Remove the self-tapping screws, the joint duct (D), and the heater core cover (E). Remove the self-tapping screws, the heater pipe brackets (F), and the grommets (G), and carefully pull out the heater core (H).

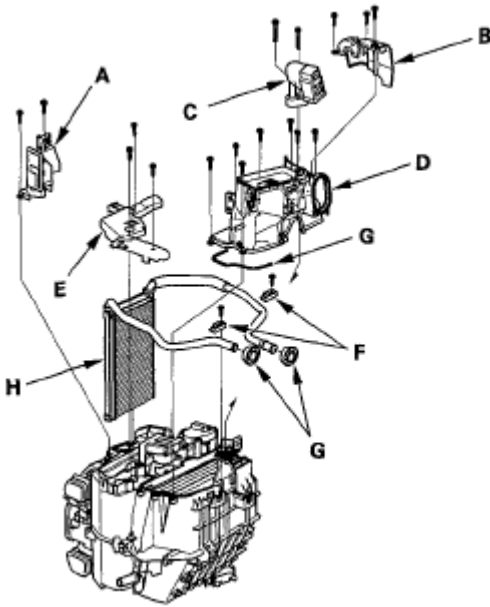


Fig. 141: Identifying Passenger's Heater Duct, Expansion Valve, Heater Core And Heater Core Cover

Courtesy of AMERICAN HONDA MOTOR CO., INC.

15. Install the heater core and the evaporator core in the reverse order of removal.
16. Install the heater unit in the reverse order of removal, and note these items:
 - Do not interchange the inlet and outlet heater hoses, and install the hose clamps securely.
 - Refill the cooling system with engine coolant (see **COOLANT CHECK**).
 - Adjust the heater valve cable (see **HEATER VALVE CABLE ADJUSTMENT**).
 - Make sure that there is no coolant leakage.
 - Make sure that there is no air leakage.
 - Refer to evaporator core replacement (see **EVAPORATOR CORE REPLACEMENT**).
 - Reset the power window control unit (see **RESETTING THE POWER WINDOW CONTROL UNIT**).
 - Do the steering column position memorization (see **STEERING COLUMN POSITION MEMORIZATION**).
 - Enter the anti-theft codes for the audio system and the navigation system (if equipped).
 - Set the clock.

HEATER VALVE CABLE ADJUSTMENT

1. From under the hood, open the cable clamp (A), then disconnect the heater valve cable (B) from the heater valve arm (C).

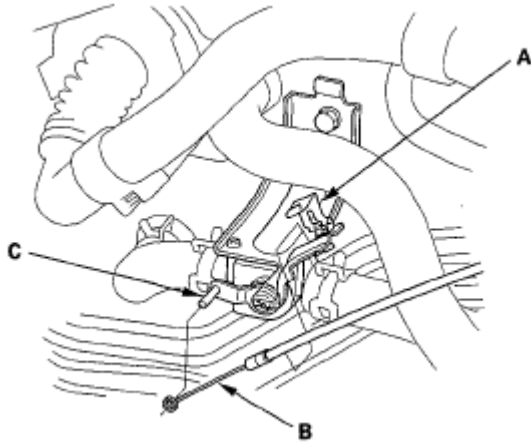


Fig. 142: Identifying Cable Clamp, Heater Valve Cable And Heater Valve Arm
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. From under the dash, disconnect the heater valve cable housing from the cable clamp (A), and disconnect the heater valve cable (B) from the air mix control linkage (C).

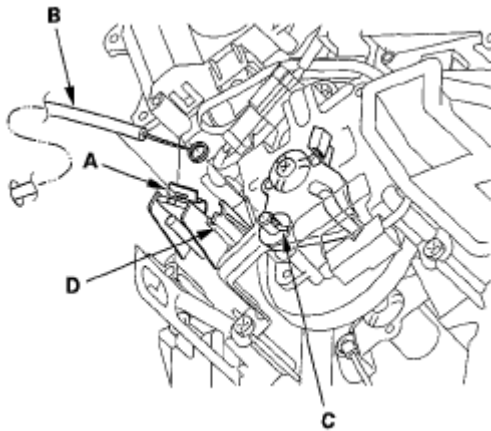


Fig. 143: Identifying Cable Clamp, Heater Valve Cable And Air Mix Control Linkage
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Set the temperature control button to Max Cool (Lo) with the ignition switch ON (II).
4. Attach the heater valve cable (B) to the air mix control linkage (C) as shown in step 2. Hold the end of the heater valve cable housing against the stop (D), then snap the heater valve cable housing into the cable clamp (A).

NOTE: **Make sure the ring-end of the cable is pushed all the way to the base of the pin on air mix control linkage.**

5. From under the hood, turn the heater valve arm (A) to the fully closed position as shown, and hold it. Attach the heater valve cable (B) to the heater valve arm, and gently pull on the heater valve cable housing to take up any slack, then install the heater valve cable housing into the cable clamp (C).

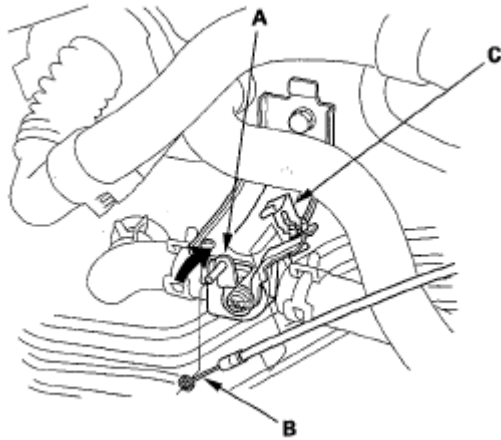


Fig. 144: Identifying Heater Valve Arm, Heater Valve Cable And Cable Clamp
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C COMPRESSOR REPLACEMENT

NOTE: Do not install the A/C compressor into a system unless you are completely sure that the system is free of contamination. Installing the A/C compressor into a contaminated system can result in premature A/C compressor failure.

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. Make sure you have the anti-theft codes for the audio system and the navigation system (if equipped).
3. Make sure the ignition switch is OFF, then disconnect the negative cable from the battery.
4. Recover the refrigerant with a recovery/recycling/ charging station (see **REFRIGERANT RECOVERY**).
5. Remove the engine cover (see **IGNITION COIL REMOVAL/INSTALLATION**), and the alternator (see **ALTERNATOR REMOVAL AND INSTALLATION**).
6. Remove the A/C compressor clutch connector (A) from the A/C condenser fan shroud (B). Remove the clips (C). Disconnect the connector (D) from the radiator fan control unit. Loosen the lower mounting bolts, then remove the upper mounting bolts. Detach the reserve tank (E) from the frame. Remove the A/C condenser fan shroud. Be careful not to damage the radiator fins when removing the A/C condenser shroud.

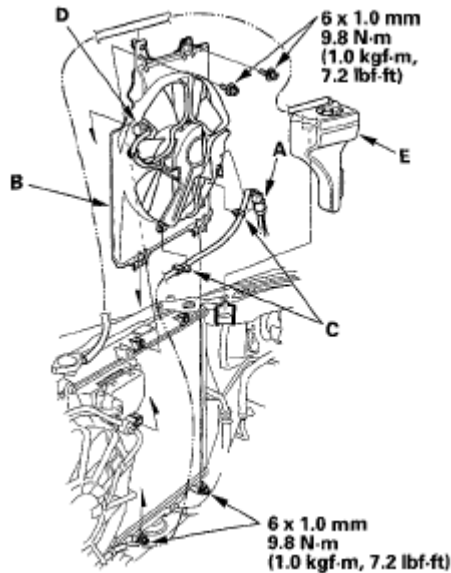


Fig. 145: Identifying A/C Condenser Fan Shroud With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Disconnect the A/C compressor clutch connector (A). Remove the bolts and the nuts, then disconnect the suction hose (B) and discharge hose (C) from the A/C compressor. Plug or cap the lines immediately after disconnecting them to avoid moisture and dust contamination.

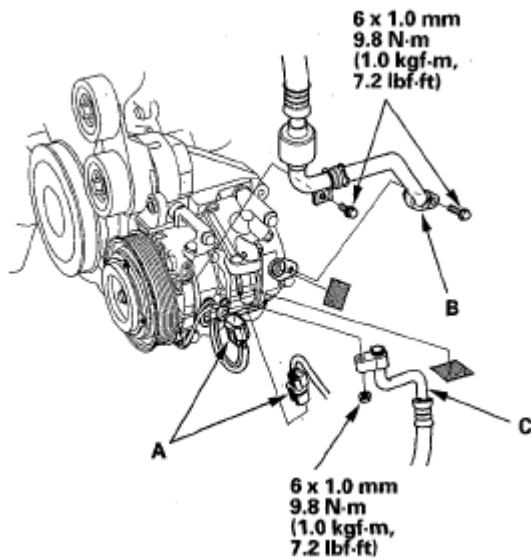


Fig. 146: Identifying A/C Compressor Clutch Connector, Suction Hose And Discharge Hose With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Remove the mounting bolts and the A/C compressor (A). Be careful not to damage the radiator fins when removing the compressor.

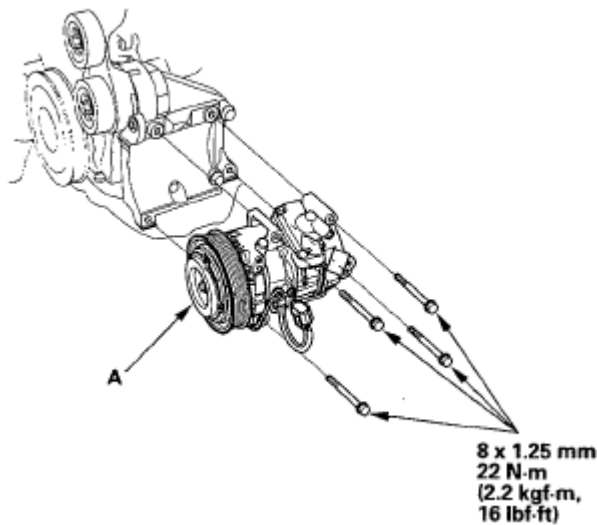


Fig. 147: Identifying A/C Compressor With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Install the A/C compressor in the reverse order of removal, and note these items:
 - Inspect the A/C lines for any signs of contamination. Purge the system if necessary before installing the compressor.
 - 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**). A new A/C compressor comes with a full charge of oil.
 - 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 (DENSO ND-OIL 8) for HFC-134a DENSO piston 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.
 - Be careful not to damage the radiator fins when installing the compressor and the A/C condenser fan shroud.
 - Charge the system (see **SYSTEM CHARGING**).
 - Reset the power window control unit (see **RESETTING THE POWER WINDOW CONTROL UNIT**).
 - Do the steering column position memorization (see **STEERING COLUMN POSITION MEMORIZATION**).
 - Enter the anti-theft codes for the audio system and the navigation system (if equipped).
 - Set the clock.

A/C COMPRESSOR CLUTCH CHECK

1. Check the pressure plate for discoloration, peeling, or other damage. If there is damage, replace the

clutch set (see **A/C COMPRESSOR CLUTCH OVERHAUL**).

2. Check the pulley bearing play and drag by rotating the 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**).

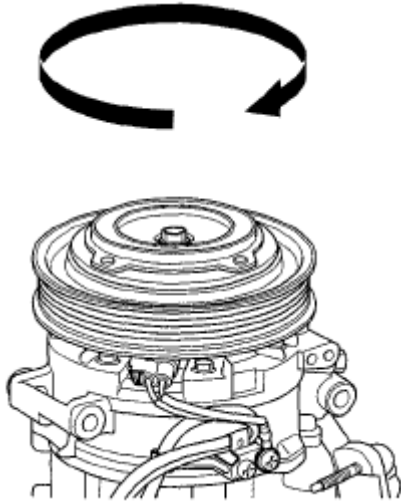


Fig. 148: Checking Pulley Bearing Play
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

Clearance: 0.26-0.60 mm (0.010-0.024 in.)

NOTE: The shims are available in three thicknesses: 0.1 mm, 0.3 mm, and 0.5 mm.

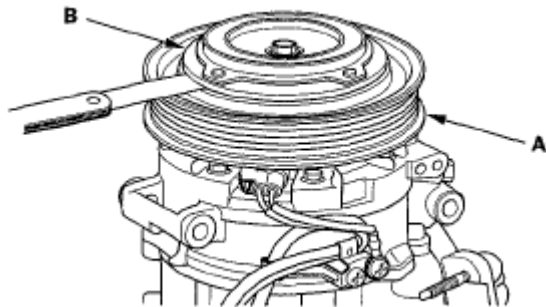


Fig. 149: Measuring Clearance Between Pulley And Pressure Plate
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

Field Coil Resistance: 3.9—4.3 Ω at
68°F (20 °C)

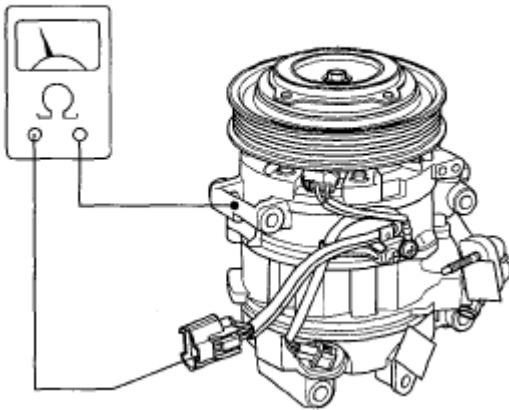


Fig. 150: Measuring Resistance Of Field Coil
Courtesy of AMERICAN HONDA MOTOR CO., INC.

A/C COMPRESSOR CLUTCH OVERHAUL

Special Tools Required

A/C clutch holder, Robin air 10204 or Kent-Moore J37872, or Honda Tool and Equipment KMT-J33939, commercially available

1. Remove the center bolt while holding the pressure plate (A) with a commercially available A/C clutch holder (B).

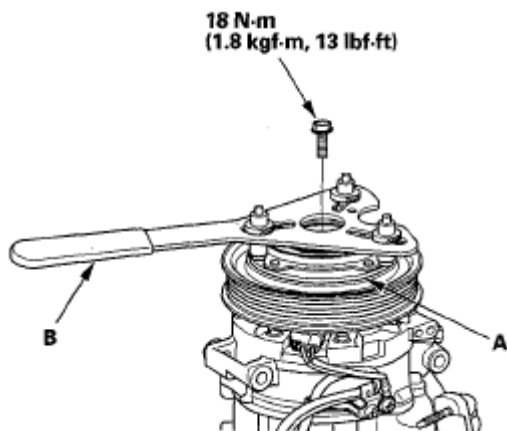


Fig. 151: Identifying A/C Clutch Center Bolt With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2. Remove the pressure 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 pressure plate, and recheck its clearance (see **A/C COMPRESSOR CLUTCH CHECK**).

NOTE: The shims are available in three thicknesses: 0.1 mm, 0.3 mm, and 0.5 mm.

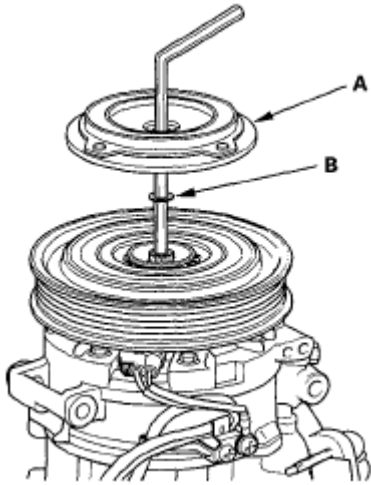


Fig. 152: Identifying Pressure Plate And Shim
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

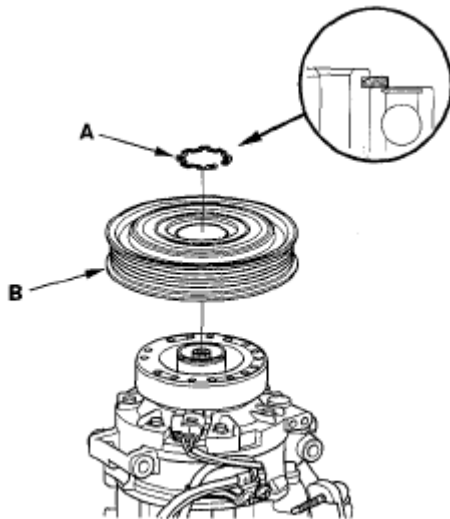


Fig. 153: Identifying Snap Ring And Pulley
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

4. Remove the screw from the field coil ground terminal (A) and bracket (B). Disconnect the connectors (C) from the field coil and variable capacity control solenoid valve, then remove the wire harness (D). Remove the snap ring (E) with snap ring pliers, then remove the field coil (F). Be careful not to damage the field coil or the A/C compressor.

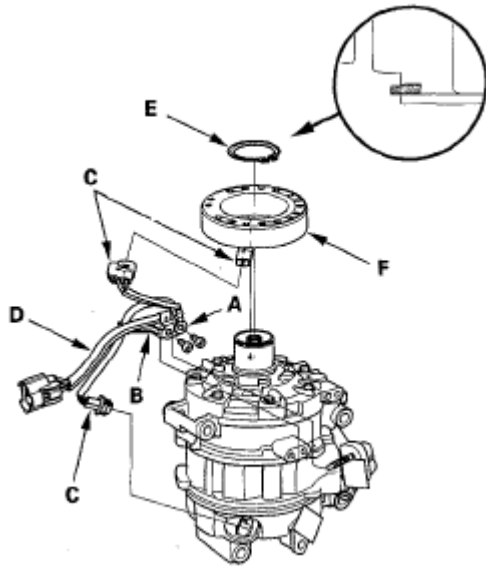


Fig. 154: Identifying Field Coil And Wire Harness
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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 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 pulley turns smoothly after it's reassembled.
 - Route and clamp the wires properly or they can be damaged by the pulley.

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.

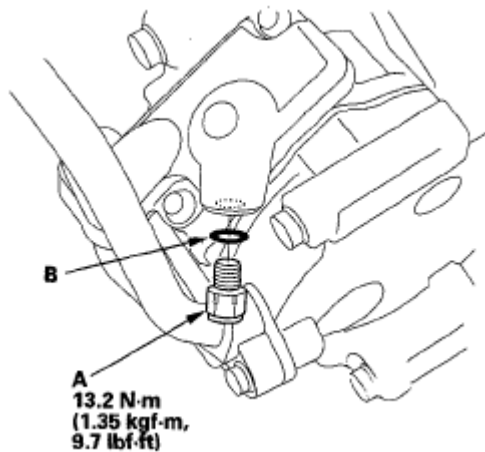


Fig. 155: Identifying Relief Valve And O-Ring With Torque Specifications
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

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. Make sure you have the anti-theft codes for the audio system and the navigation system (if equipped).
2. Recover the refrigerant with a recovery/recycling charging station (see **REFRIGERANT RECOVERY**).
3. Remove the upper grille cover (see **UPPER GRILLE COVER REPLACEMENT**).
4. Make sure the ignition switch is OFF, then remove the battery and the battery box.
5. Remove the clip (A) and the harness (B), then remove the air intake ducts (C).

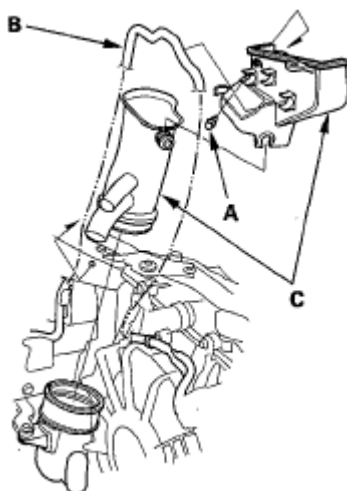


Fig. 156: Identifying Air Intake Ducts, Clip And Harness
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

6. Remove the bolt, then disconnect the receiver line (A) from the A/C condenser.

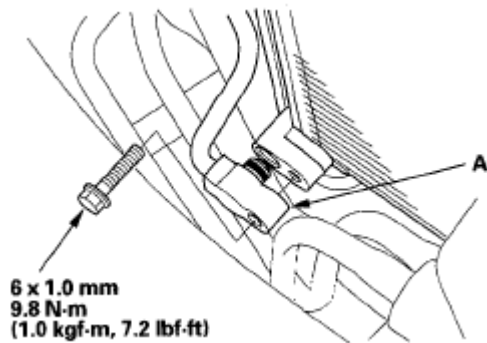


Fig. 157: Identifying Receiver Line And A/C Condenser With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

7. Remove the bolts and the radiator upper mount brackets (A).

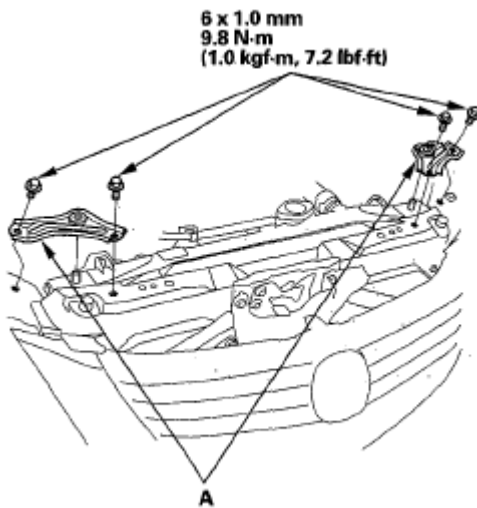


Fig. 158: Identifying Radiator Upper Mount Brackets With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

8. Remove the bolts and the A/C condenser upper mount brackets (A).

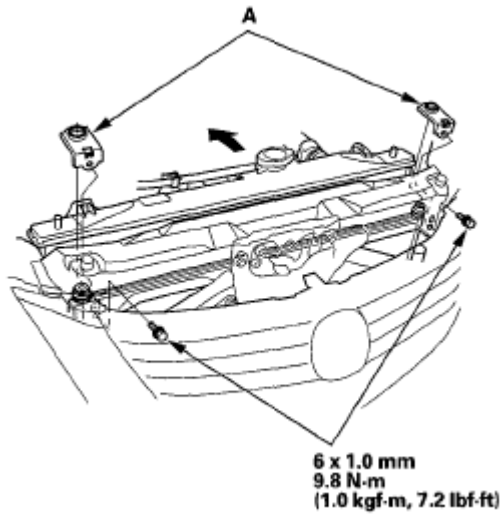


Fig. 159: Identifying A/C Condenser Upper Mount Brackets And Bolts With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

9. Remove the bolt, then disconnect the discharge hose (A) from the A/C condenser.

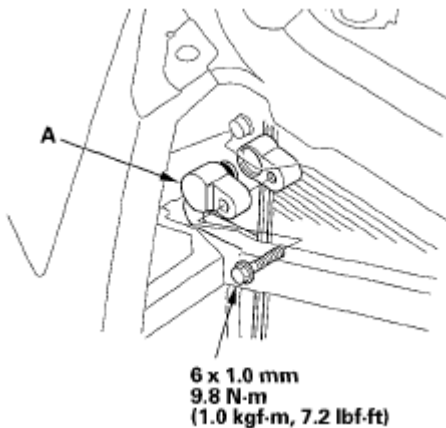


Fig. 160: Identifying A/C Condenser And Bolt With Torque Specifications

Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

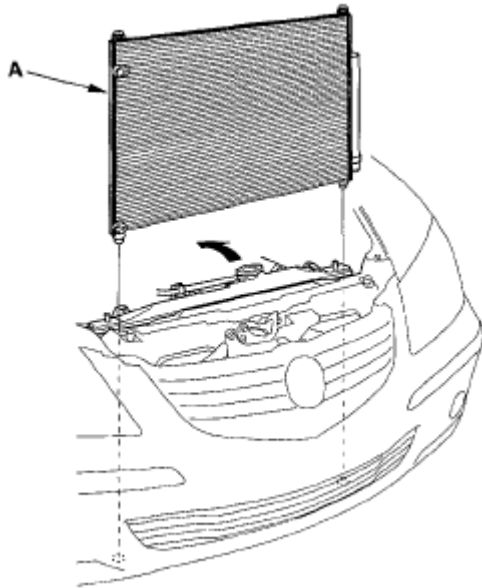


Fig. 161: Identifying A/C Condenser

Courtesy of AMERICAN HONDA MOTOR CO., INC.

11. 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 (DENSO ND-OIL 8) (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.
 - Charge the system (see **SYSTEM CHARGING**).
 - Reset the power window control unit (see **RESETTING THE POWER WINDOW CONTROL UNIT**).
 - Do the steering column position memorization (see **STEERING COLUMN POSITION MEMORIZATION**).
 - Enter the anti-theft codes for the audio system and the navigation system (if equipped).
 - Set the clock.

RECEIVER/DRYER DESICCANT REPLACEMENT

NOTE: **Install the receiver/dryer as quickly as possible to prevent the system from absorbing moisture from the air.**

1. Remove the A/C condenser (see **A/C CONDENSER REPLACEMENT**).
2. Remove the cap (A) from the bottom of the A/C condenser. Remove the O-ring (B) and the desiccant (C).

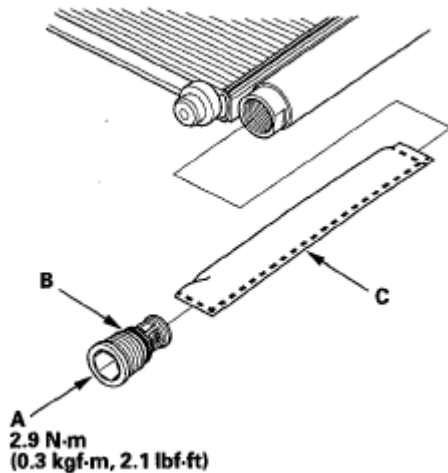


Fig. 162: Identifying Desiccant, Cap And O-Ring With Torque Specifications
Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Install the receiver/dryer in the reverse order of removal, and note these items:
 - Replace the O-rings with new ones, and apply a thin coat of refrigerant oil (DENSO ND-OIL 8) before installing them. Be sure to use the correct O-rings for HFC-134a (R-134a) to avoid leakage.
 - Install the cap to the specified torque. It is made of resin and can be easily stripped.

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.

NOTE:

- If accidental system discharge occurs, ventilate the 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, following the equipment manufacturer's instructions.

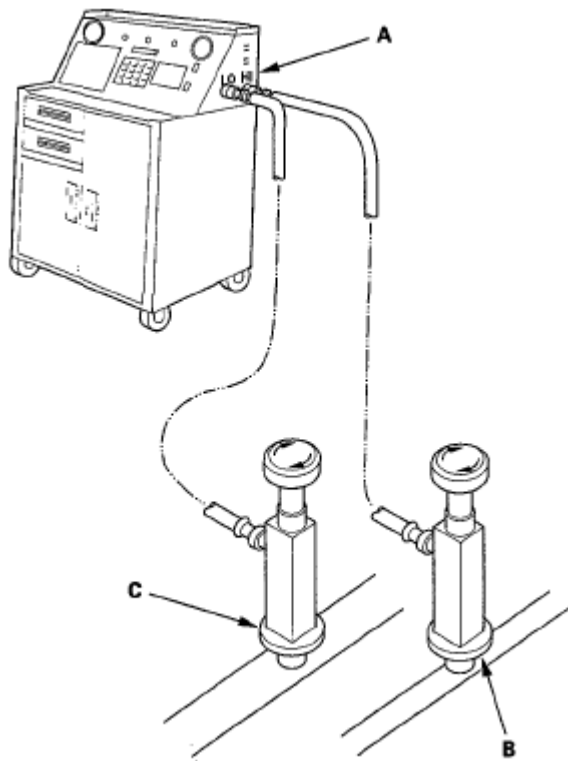


Fig. 163: Identifying High-Pressure Service Port And Low-Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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.

NOTE:

- If accidental system discharge occurs, ventilate the 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, following the equipment manufacturer's instructions. Evacuate the system.

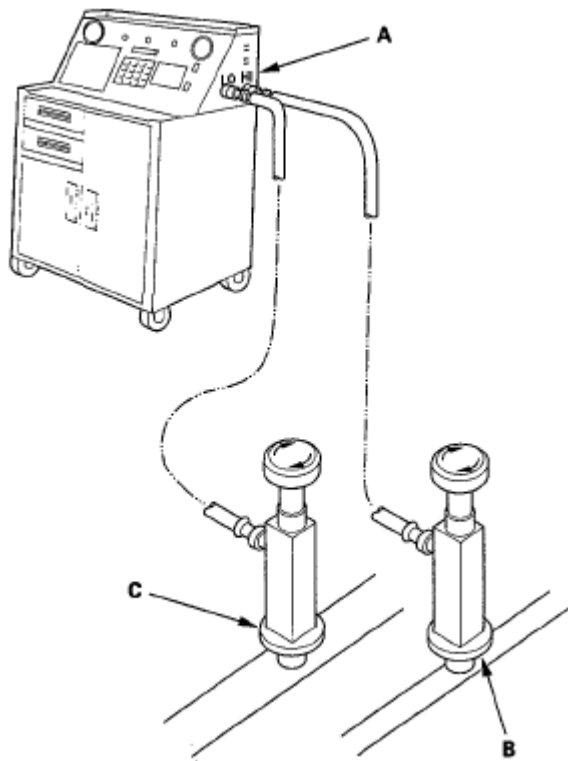


Fig. 164: Identifying High-Pressure Service Port And Low-Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

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.

NOTE:

- If accidental system discharge occurs, ventilate the 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, following the equipment manufacturer's instructions.

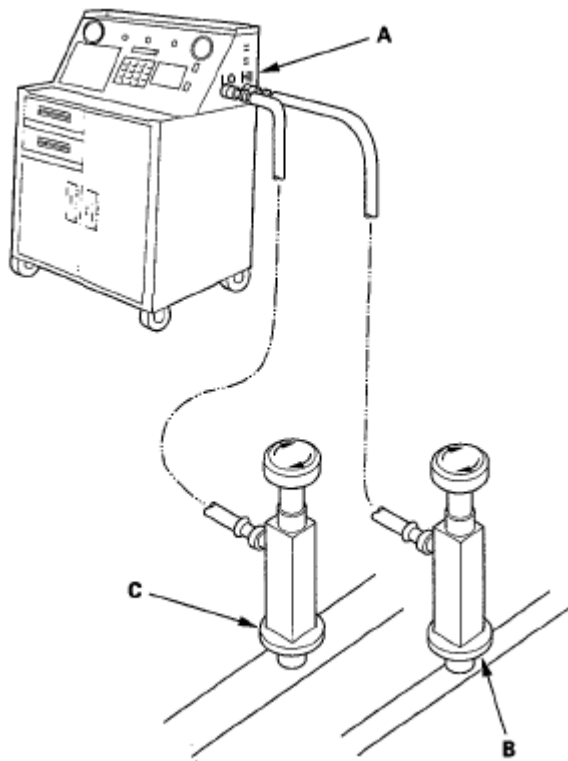


Fig. 165: Identifying High-Pressure Service Port And Low-Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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 DENSO ND-OIL 8 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:

450 to 500 g

0.45 to 0.50 kg

1.0 to 1.1 lbs

15.9 to 17.6 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 or commercially available

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.

NOTE:

- If accidental system discharge occurs, ventilate the 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, following the equipment manufacturer's instructions.

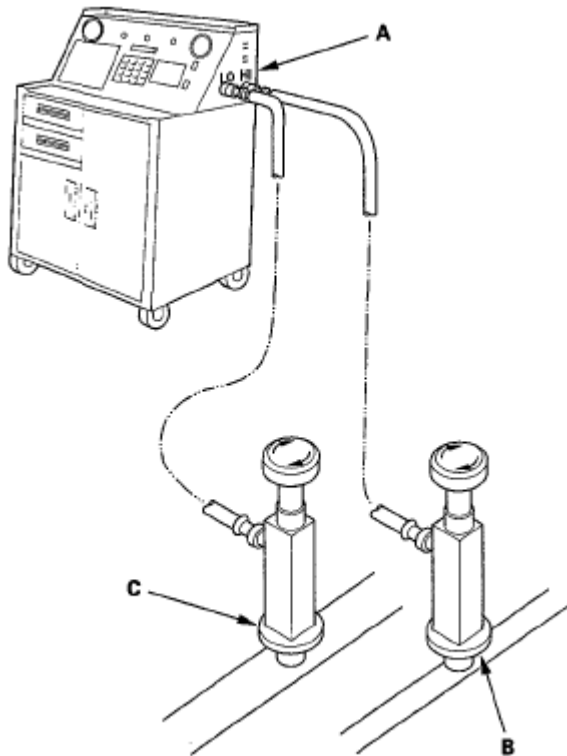


Fig. 166: Identifying High-Pressure Service Port And Low-Pressure Service Port
Courtesy of AMERICAN HONDA MOTOR CO., INC.

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

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

Refrigerant Capacity:

450 to 500 g

0.45 to 0.50 kg

1.0 to 1.1 lbs

15.9 to 17.6 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.), do the refrigerant recovery.
5. After checking and repairing leaks, the system must be evacuated.

A/C SYSTEM TEST

Performance Test

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 A/C system is operating within specifications.

NOTE:

- **If accidental system discharge occurs, ventilate the 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 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.

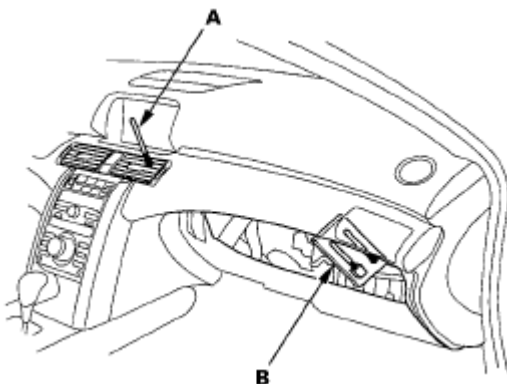


Fig. 167: Identifying Thermometer Placement
Courtesy of AMERICAN HONDA MOTOR CO., INC.

5. Place another thermometer (B) near the blower unit's recirculation inlet duct.
6. Test conditions:
 - Avoid direct sunlight.
 - Open hood.
 - Open front doors.
 - Set the temperature control dial to Lo and turn off the dual mode.
 - Run the engine at 1,500 rpm.
 - No driver or passengers in vehicle.
7. 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 discharge (high) and suction (low) pressures on the A/C gauges.
8. 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.
 - 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.

Ambient (Intake) Temperature vs. Vent (Delivery) Temperature

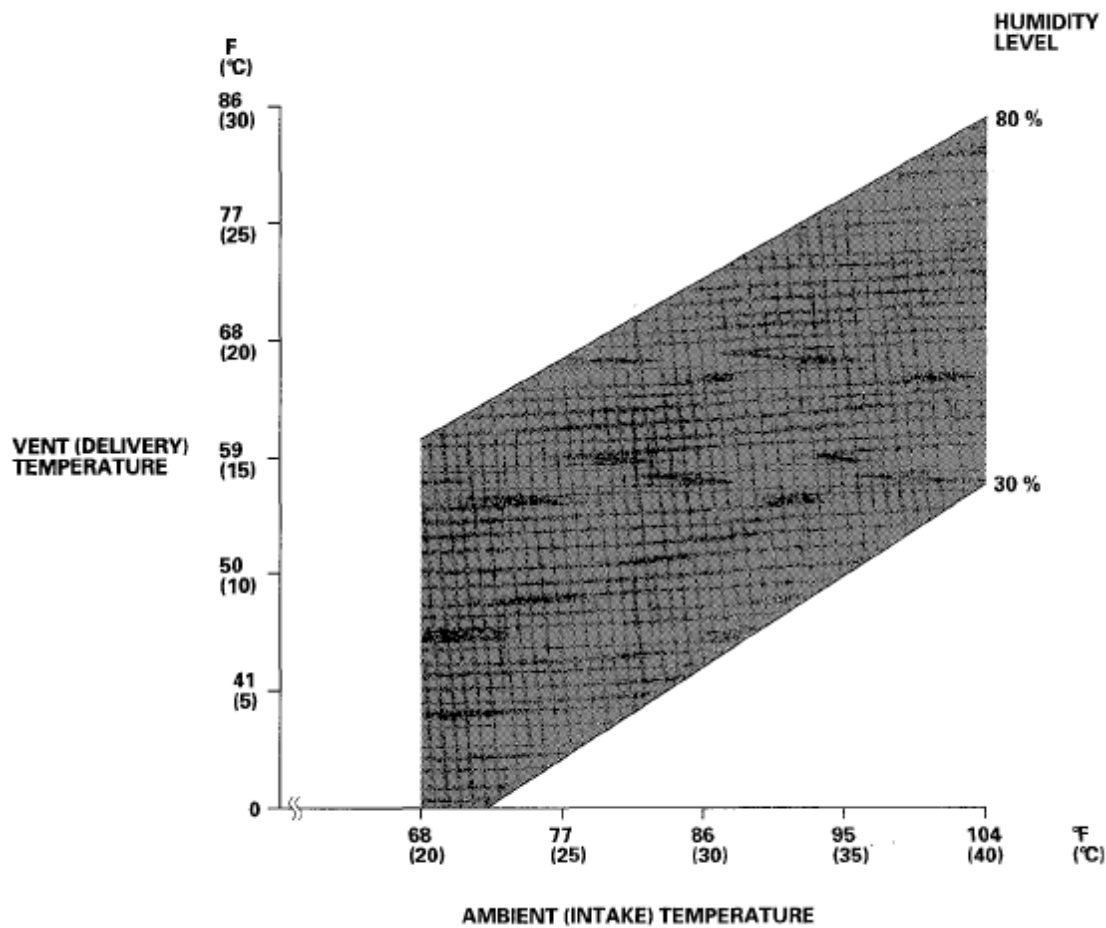


Fig. 168: Ambient Temperature Vs. Vent (Delivery) Temperature Graph
Courtesy of AMERICAN HONDA MOTOR CO., INC.

2007 Acura RL

2005-08 HVAC HVAC - RL

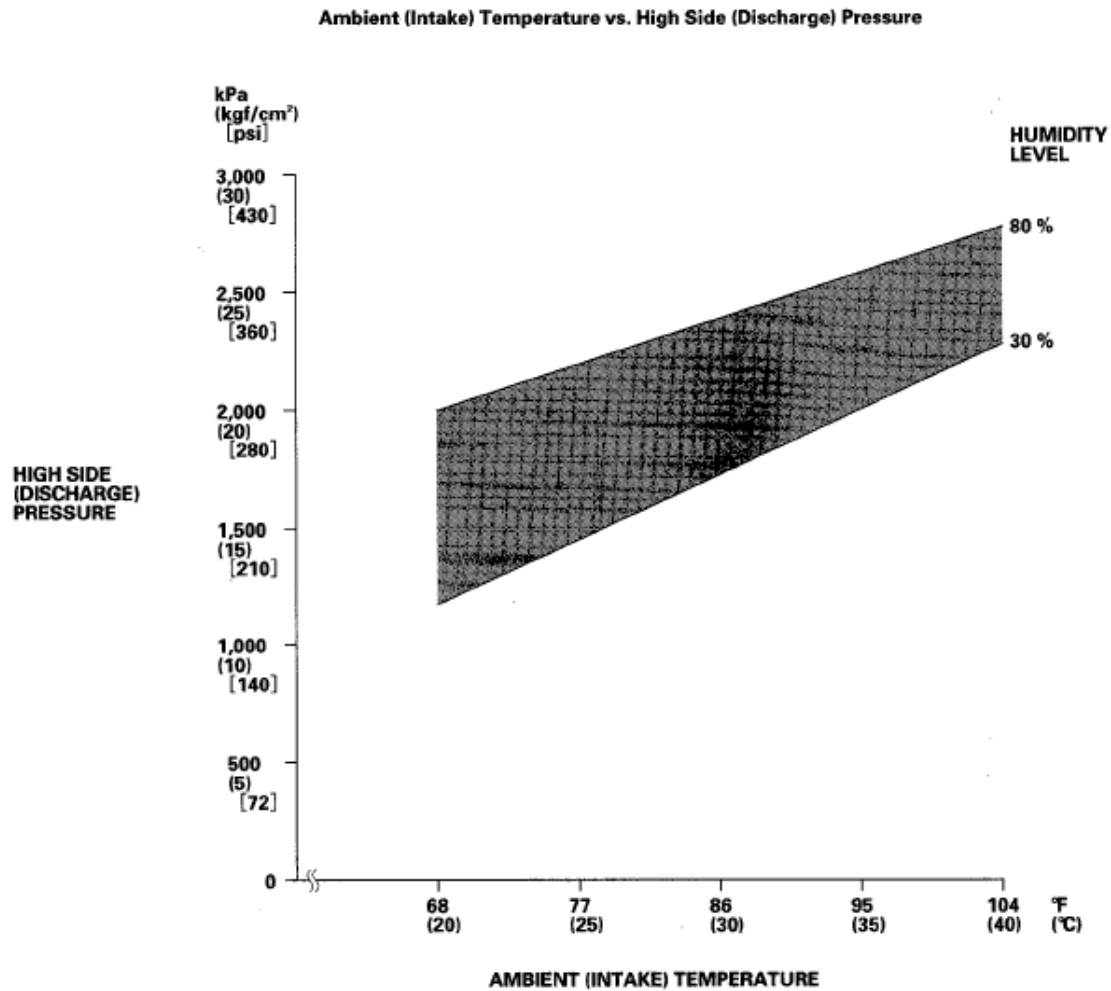


Fig. 169: Ambient Temperature Vs. High side (Discharge) Pressure Graph
Courtesy of AMERICAN HONDA MOTOR CO., INC.

Ambient (Intake) Temperature vs. Low Side (Suction) Pressure

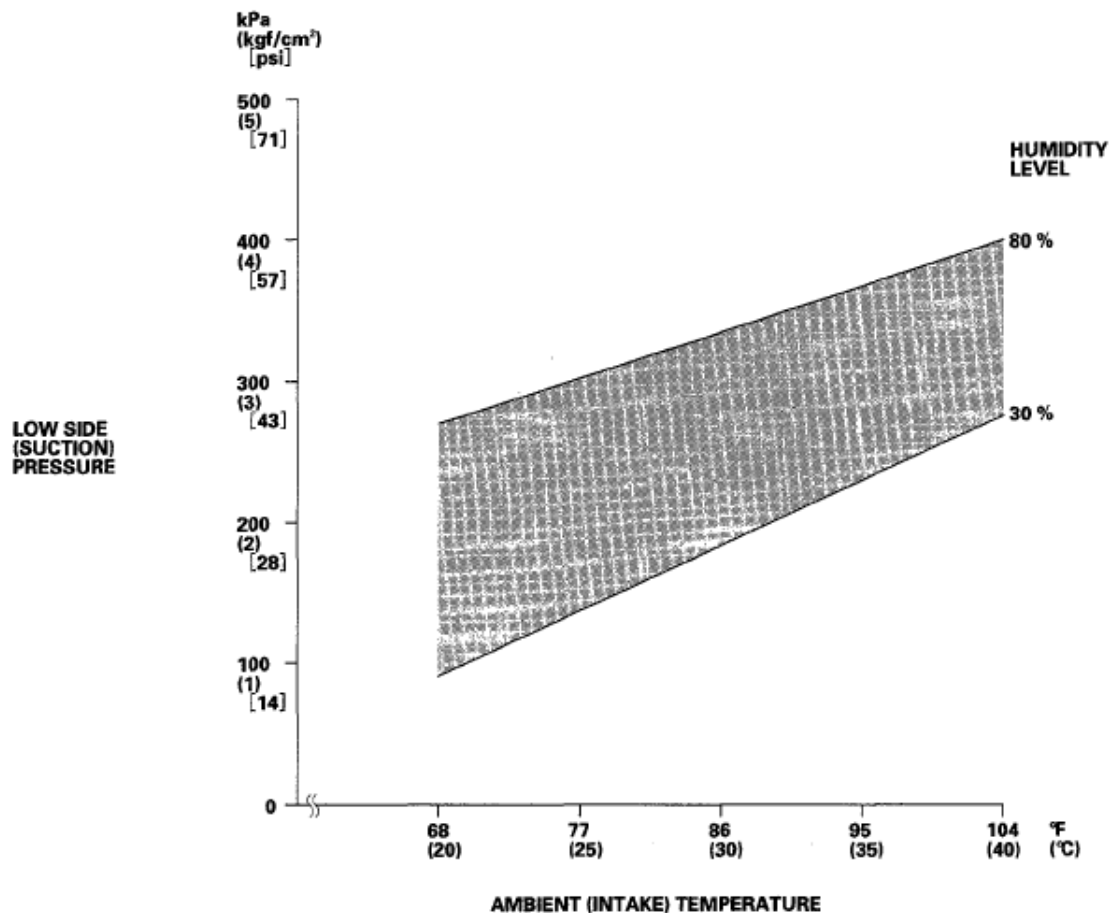


Fig. 170: Ambient Temperature Vs. Low side (Suction) Pressure Graph
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Pressure Test

SYMPTOMS REFERENCE

Test results	Related symptoms	Probable cause	Remedy
Discharge (high) pressure abnormally high	After stopping A/C compressor, pressure drops about 196 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.	<ul style="list-style-type: none"> Clogged A/C condenser or radiator fins A/C condenser or radiator fan not working properly 	<ul style="list-style-type: none"> 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.

2007 Acura RL

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Discharge pressure abnormally low	High and low-pressures are balanced soon after stopping A/C compressor. Low side is higher than normal.	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Faulty expansion valve Moisture in system 	<ul style="list-style-type: none"> 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.	<ul style="list-style-type: none"> Frozen expansion valve (Moisture in system) Faulty expansion valve 	<ul style="list-style-type: none"> 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.
Suction pressure abnormally high	Low-pressure hose and service port are cooler than the temperature around evaporator.	Expansion valve open too long	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 compressor is stopped, and both gauges fluctuate while running.	<ul style="list-style-type: none"> Faulty gasket Faulty high-pressure valve Foreign particle stuck in high-pressure valve 	Replace the A/C compressor.
Suction and discharge pressures abnormally high	Reduced airflow through A/C condenser.	<ul style="list-style-type: none"> Clogged A/C condenser or radiator fins A/C condenser or radiator fan not working properly 	<ul style="list-style-type: none"> Clean. Check voltage and fan rpm. Check fan direction.
Suction and discharge pressures abnormally low	Low-pressure hose and metal fittings 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	Clogged high-pressure line	Repair or replace.

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	receiver/driver.		
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 the A/C fitting and replace the O-ring.

SUPPLEMENTAL RESTRAINT SYSTEM (SRS) (If electrical maintenance is required)

The Acura RL SRS includes a driver's airbag in the steering wheel hub, a passenger's airbag in the dashboard above the glove box, seat belt tensioners in the front seat belt retractors, side curtain airbags in the sides of the roof, and side airbags in the front seat-backs. 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 requires special precautions and tools, and should be done by an authorized Acura dealer.

- To avoid rendering the SRS inoperative, which could lead to personal injury or death in the event of a severe frontal or side collision, all SRS service work should be done by an authorized Acura 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 side airbags.
- Do not bump or impact the SRS unit, front impact sensors, or side 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 connectors are identified by yellow color coding. Related components are located in the steering column, front console, dashboard, dashboard lower panel, in the dashboard above the glove box, in the front seats, in the roof side, and around the floor. Do not use electrical test equipment on these circuits.