

- ① Discharge hose to the A/C compressor (6 x 1.0 mm): 9.8 N-m (1.0 kgf-m, 7.2 lbf-ft)
- ② Discharge hose to the A/C condenser (6 x 1.0 mm): 9.8 N-m (1.0 kgf-m, 7.2 lbf-ft)
- ③ A/C line to the A/C condenser (6 x 1.0 mm): 9.8 N-m (1.0 kgf-m, 7.2 lbf-ft)
- ④ A/C line to the evaporator (6 x 1.0 mm): 9.8 N-m (1.0 kgf-m, 7.2 lbf-ft)
- ⑤ A/C line to the suction hose: 32 N-m (3.3 kgf-m, 24 lbf-ft)
- ⑥ Suction hose to the A/C compressor (6 x 1.0 mm): 9.8 N-m (1.0 kgf-m, 7.2 lbf-ft)
- ⑦ A/C compressor to the A/C compressor bracket (8 x 1.25 mm): 22 N-m (2.2 kgf-m, 16 lbf-ft)
- ⑧ A/C compressor bracket to the engine block (10 x 1.25 mm): 44 N-m (4.5 kgf-m, 33 lbf-ft)

Fig. 9: Identifying A/C Line Replacement Procedure With Torque Specifications
 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 in LOCK (0) position.
2. Connect the HDS to the data link connector (DLC) (A) located under the driver's side of the dashboard.

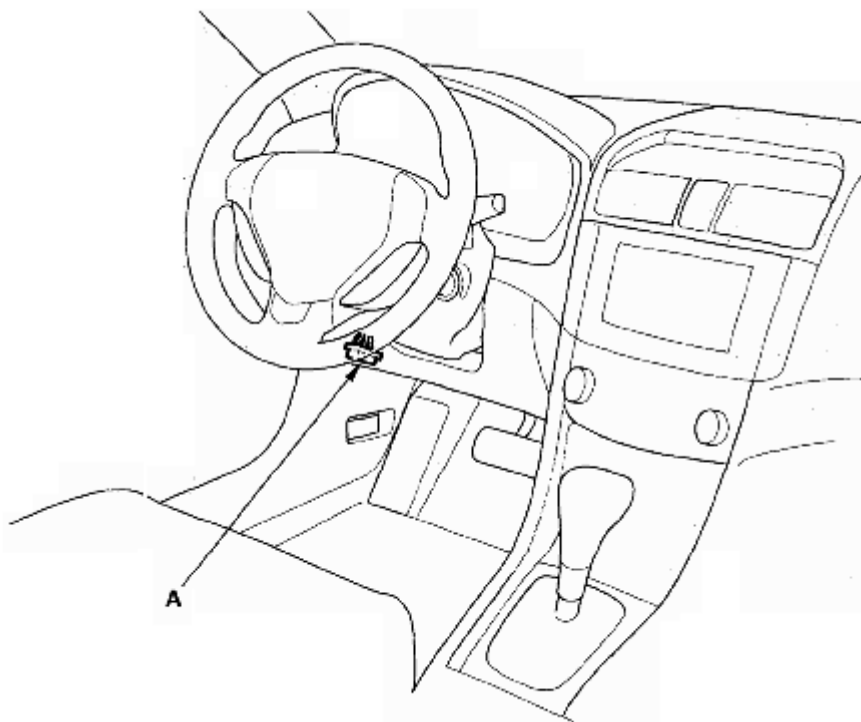


Fig. 10: Identifying Data Link Connector (DLC)
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

3. Turn the ignition switch to 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 (PART 2)**).
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 RETRIEVE A DTC (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 to ON (II).
2. Press and hold the OFF button. While holding the OFF button, press the recirculation button five times within 10 seconds. Release the OFF button and the self-diagnosis begins.

NOTE: The blower motor can be run at any speed regardless of what the panel is displaying.

Without Navigation System

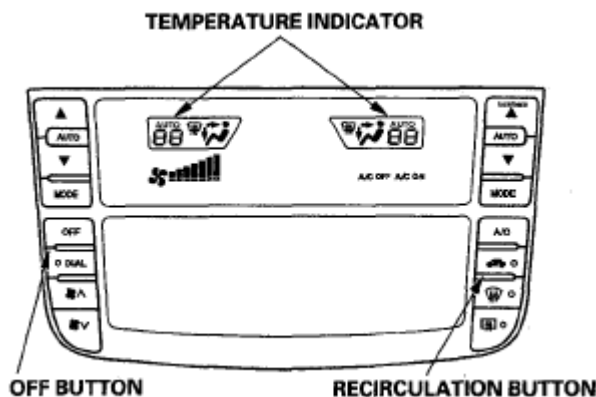


Fig. 11: Identifying Temperature Indicator, Off Button And Recirculation Button - Without Navigation System

Courtesy of AMERICAN HONDA MOTOR CO., INC.

With Navigation System

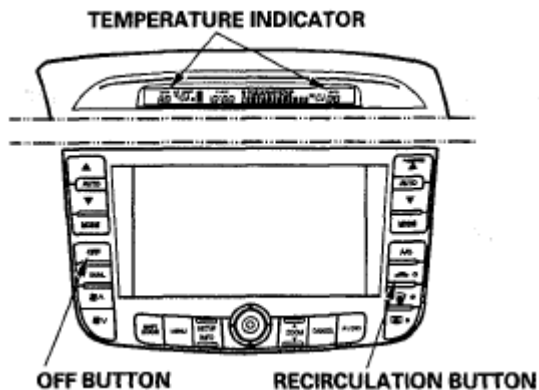


Fig. 12: Identifying Temperature Indicator, Off Button And Recirculation Button - With Navigation System

Courtesy of AMERICAN HONDA MOTOR CO., INC.

If there is any problem in the system, the temperature indicator will light up the segment (A through S) corresponding to the error. The temperature indicator will then alternate every second between displaying "88" (all segments lit) and the error code segment (A through S). To determine the meaning of the DTC, refer to the **DTC TROUBLESHOOTING INDEX**.

If there are no problems detected, the segments will not illuminate.

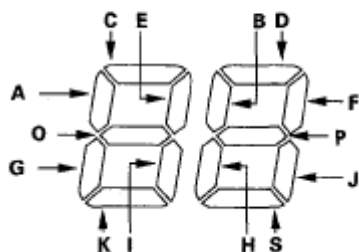
DRIVER'S SIDE TEMPERATURE INDICATOR

Fig. 13: Identifying Driver's Side Temperature Indicator
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

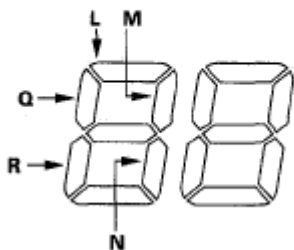
PASSENGER'S SIDE TEMPERATURE INDICATOR

Fig. 14: Identifying Passenger's Side Temperature Indicator
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

Canceling the Self-diagnostic Function

3. Turn the ignition switch to LOCK (0) 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 DTCS BY DTC INDICATOR

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**).

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

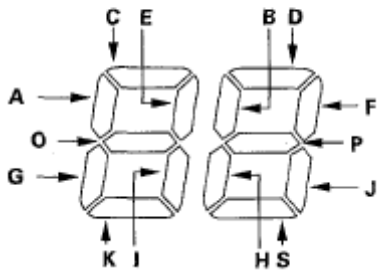
DRIVER'S TEMPERATURE INDICATOR

Fig. 15: Identifying Driver's Side Temperature Indicator
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

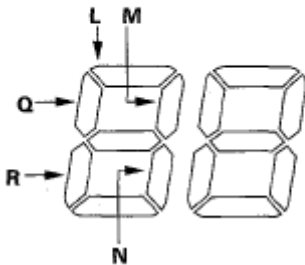
PASSENGER'S TEMPERATURE INDICATOR

Fig. 16: Identifying Passenger's Side Temperature Indicator
 Courtesy of AMERICAN HONDA MOTOR CO., INC.

DTC DETECTION ITEM REFERENCE CHART

DTC (Temperature Indicator Segment)	Detection Item
A	An open in the in-car temperature sensor circuit (see <u>DTC B1225 OR DTC INDICATOR A: AN OPEN IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT</u>)
B	A short in the in-car temperature sensor circuit (see <u>DTC B1226 OR DTC INDICATOR B: A SHORT IN THE IN-CAR TEMPERATURE SENSOR CIRCUIT</u>)
C	An open in the outside air temperature sensor circuit (see <u>DTC B1227 OR DTC INDICATOR C: AN OPEN IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT</u>)
D	A short in the outside air temperature sensor circuit (see <u>DTC B1228 OR DTC INDICATOR D: A SHORT IN THE OUTSIDE AIR TEMPERATURE SENSOR CIRCUIT</u>)
E	An open in the sunlight sensor circuit (see <u>DTC B1229 OR DTC INDICATOR E: AN OPEN IN THE SUNLIGHT SENSOR CIRCUIT</u>)
F	A short in the sunlight sensor circuit (see <u>DTC TROUBLESHOOTING DTC B1230 OR DTC INDICATOR F: A SHORT IN THE SUNLIGHT SENSOR CIRCUIT</u>)
	An open in the evaporator temperature sensor circuit (see <u>DTC B1231 OR</u>

G	<u>DTC INDICATOR G: AN OPEN IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT)</u>
H	A short in the evaporator temperature sensor circuit (see <u>DTC B1232 OR DTC INDICATOR H: A SHORT IN THE EVAPORATOR TEMPERATURE SENSOR CIRCUIT)</u>)
I	An open in the driver's air mix control motor circuit (see <u>DTC B1233 OR DTC INDICATOR I: AN OPEN IN THE DRIVER'S AIR MIX CONTROL MOTOR CIRCUIT)</u>)
J	A short in the driver's air mix control motor circuit (see <u>DTC B1234 OR DTC INDICATOR J: A SHORT IN THE DRIVER'S AIR MIX CONTROL MOTOR CIRCUIT)</u>)
K	A problem in the driver's air mix control linkage, door, or motor (see <u>DTC B1235 OR DTC INDICATOR K: A PROBLEM IN THE DRIVER'S AIR MIX CONTROL LINKAGE, DOOR, OR MOTOR)</u>)
L	An open in the passenger's air mix control motor circuit (see <u>DTC B1236 OR DTC INDICATOR L: AN OPEN IN THE PASSENGER'S AIR MIX CONTROL MOTOR CIRCUIT)</u>)
M	A short in the passenger's air mix control motor circuit (see <u>DTC B1237 OR DTC INDICATOR M: A SHORT IN THE PASSENGER'S AIR MIX CONTROL MOTOR CIRCUIT)</u>)
N	A problem in the passenger's air mix control linkage, door, or motor (see <u>DTC B1238 OR DTC INDICATOR N: A PROBLEM IN THE PASSENGER'S AIR MIX CONTROL LINKAGE, DOOR, OR MOTOR)</u>)
O	An open or short in the driver's mode control motor circuit (see <u>DTC B1239 OR DTC INDICATOR O: AN OPEN OR SHORT IN THE DRIVER'S MODE CONTROL MOTOR CIRCUIT)</u>)
P	A problem in the driver's mode control linkage, doors, or motor (see <u>DTC B1240 OR DTC INDICATOR P: A PROBLEM IN THE DRIVER'S MODE CONTROL LINKAGE, DOORS, OR MOTOR)</u>)
Q	An open or short in the passenger's mode control motor circuit (see <u>DTC B1242 OR DTC INDICATOR Q: AN OPEN OR SHORT IN THE PASSENGER'S MODE CONTROL MOTOR CIRCUIT)</u>)
R	A problem in the passenger's mode control linkage, doors, or motor (see <u>DTC B1243 OR DTC INDICATOR R: A PROBLEM IN THE PASSENGER'S MODE CONTROL LINKAGE, DOORS, OR MOTOR)</u>)
S	A problem in the blower motor circuit (see <u>DTC B1241 OR DTC INDICATOR S: A PROBLEM IN THE BLOWER MOTOR CIRCUIT)</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 to ON (II), and check the recirculation door function; press the recirculation button to switch from FRESH to RECIRC. The air volume and sound should change slightly.
2. Set the temperature control knob to the desired test temperature. When selecting the test temperatures,

note these items:

- "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC.
 - "Hi" temperature setting will default to MAX HOT, FLOOR, and FRESH.
 - 61 through 89°F settings will use the automatic climate control logic.
3. Turn the ignition switch to LOCK (0).

TO RUN THE SENSOR INPUT DISPLAY MODE, FOLLOW THESE STEPS

1. Turn the ignition switch to LOCK (0).
2. Press and hold both the passenger's AUTO and recirculation buttons, then start the engine.
3. After the engine starts, release the buttons. The display panel control unit will flash the sensor number and then the value for that sensor. Record the value displayed.
4. To advance to the next sensor, press the recirculation button.

SENSOR DISPLAY VALUE REFERENCE

Sensor	Item	Displayed Value
1	In-car Temperature	°C
2	Outside Air Temperature	°C
3	Solar Radiation Sensor Value: Dark = 00, Flashlight = 04, Cloudy =10, Sunny = 65	10 kcal/m ² .h
4	Engine coolant Temperature	°C
5	Evaporator Outlet Air Temperature	°C
6	Driver's Air Mix Opening (Low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
7	Passenger's Air Mix Opening (Low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
8	Vehicle Speed (Vehicle must be driven to display speed)	km/h
9	Vent Temperature Air Out (TAO)	°C

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 the sensor with a known-good, and recheck.

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

Celsius to Fahrenheit Conversion Table

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

CELSIUS TO FAHRENHEIT CONVERSION CHART

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

Alphanumeric Conversion Table

ALPHANUMERIC CONVERSION CHART

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

DTC TROUBLESHOOTING INDEX

Checking the DTCs by HDS

DTC TROUBLESHOOTING CHART

DTC	Detection Item or Symptom	ECU	DTC Type
<u>B1202</u>	Climate control unit internal error	Climate control unit	Internal error

<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>B1233</u>	An Open in the driver's air mix control motor circuit	Climate control unit	Signal error
<u>B1234</u>	A short in the driver's air mix control motor 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>B1236</u>	An open in the passenger's air mix control motor circuit	Climate control unit	Signal error
<u>B1237</u>	A short in the passenger's air mix control motor circuit	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>B1239</u>	An open or short in the driver's mode control motor circuit	Climate control unit	Signal error
<u>B1240</u>	A problem in the driver's 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>B1242</u>	An open or short in the passenger's mode control motor circuit	Climate control unit	Signal error
<u>B1243</u>	A problem in the passenger's mode control linkage, doors, or motor	Climate control unit	Signal error

B1726Display panel control unit
lost communication with
the climate control unitDisplay panel control
unit, Climate control
unit

Loss of communication

SYMPTOM TROUBLESHOOTING INDEX**SYMPTOM TROUBLESHOOTING CHART**

Symptom	Diagnostic procedure	Also check for
Recirculation control doors do not change between Fresh and Recirculate	Recirculation control motor circuit troubleshooting (see <u>RECIRCULATION CONTROL MOTOR CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCs WITH THE HDS</u>) • Blown fuse No. 30 (7.5 A) in the under-dash fuse/relay box • Cleanliness and tightness of all connectors
Blower, heater controls, and A/C do not work	Climate control power and ground circuit troubleshooting (see <u>CLIMATE CONTROL POWER AND GROUND CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCs WITH THE HDS</u>) • Blown fuse No. 30 (7.5 A) in the under-dash fuse/relay box • Poor ground at G503 and G601 • Cleanliness and tightness of all connectors
Both fans do not run at low speed with the A/C on (but the A/C compressor runs with the A/C on)	Radiator and A/C condenser fan low speed circuit troubleshooting (see <u>RADIATOR AND A/C CONDENSER FAN LOW SPEED CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCs WITH THE HDS</u>) • Blown fuse No. 9 (30 A) in the under-hood fuse/relay box, and No. 30 (7.5 A) in the under-dash fuse/relay box • Poor ground at G301 • Cleanliness and tightness of all connectors
The A/C condenser fan does not run at high speed (but both fans run at low speed and the A/C compressor operates with the A/C on)	A/C condenser fan high speed circuit troubleshooting (see <u>A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCs WITH THE HDS</u>) • Blown fuse No. 30 (7.5 A) in the under-dash fuse/relay box • Poor ground at G201 • Cleanliness and tightness of all connectors
Both fans do not run at high speed with the A/C on (but both fans run at	Radiator and A/C condenser fan high speed circuit troubleshooting (see <u>RADIATOR AND A/C CONDENSER</u>	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCs WITH THE HDS</u>)

low speed and the A/C compressor operates with the A/C on)	<u>FAN HIGH SPEED CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • Cleanliness and tightness of all connectors
The A/C compressor clutch does not engage (but both fans run with the A/C on)	A/C compressor clutch circuit troubleshooting (see <u>A/C COMPRESSOR CLUTCH CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCS WITH THE HDS</u>) • Blown fuse No. 12 (7.5 A) in the under-hood fuse/relay box, and No. 30 (7.5 A) in the under-dash fuse/relay box • Cleanliness and tightness of all connectors
A/C system does not come on (both fans and the A/C compressor do not work); heater is OK	A/C pressure switch circuit troubleshooting (see <u>A/C PRESSURE SWITCH CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • Body DTCs in B-CAN System Diagnosis Test Mode A Troubleshooting (see <u>TROUBLESHOOTING - B-CAN SYSTEM DIAGNOSIS TEST MODE A</u>) • HVAC DTCs (see <u>HOW TO CHECK FOR DTCS WITH THE HDS</u>) • Cleanliness and tightness of all connectors
Blower fan runs slower than expected in cold weather	<p>ECT Troubleshooting: ECT sensor 2 circuit low voltage (see <u>DTC P2184: ECT SENSOR 2 CIRCUIT LOW VOLTAGE</u>), ECT sensor 2 circuit high voltage (see <u>DTC P2185: ECT SENSOR 2 CIRCUIT HIGH VOLTAGE</u>)</p> <p>NOTE: It is normal for the blower to run slowly until the engine coolant temperature begins to rise. If the blower continues to run slowly for an abnormal length of time, continue to troubleshoot the problem.</p>	<ul style="list-style-type: none"> • Powertrain DTCs (see <u>GENERAL TROUBLESHOOTING INFORMATION</u>)
Both fans run at high speed all the time with the A/C on	Radiator and A/C condenser fan high speed circuit troubleshooting (see <u>RADIATOR AND A/C CONDENSER FAN HIGH SPEED CIRCUIT TROUBLESHOOTING</u>)	<ul style="list-style-type: none"> • HVAC DTCs (see <u>HOW TO CHECK FOR DTCS WITH THE HDS</u>) • Cleanliness and tightness of all connectors
HDS does not communicate with the climate control unit or the vehicle	Troubleshooting DLC circuit (see <u>DLC CIRCUIT TROUBLESHOOTING (PART 2)</u>)	

Insufficient heating	<ol style="list-style-type: none"> 1. Check the coolant level (see <u>COOLANT CHECK</u>). 2. Check the radiator cap (see <u>RADIATOR CAP TEST</u>). 3. Check the operation of the air mix control motor and door: driver's air mix control motor (see <u>DRIVER'S AIR MIX CONTROL MOTOR TEST</u>), passenger's air mix control motor (see <u>DRIVER'S AIR MIX CONTROL MOTOR REPLACEMENT</u>). 4. Check the coolant temperature. 5. Check the operation of the heater valve (see <u>HEATER VALVE CABLE ADJUSTMENT</u>). 6. Check the blower motor unit for obstructions. 7. Check for air leaks around the ducts and vents. 8. Check the inlet hose temperature. <ul style="list-style-type: none"> • If it COLD, check for restrictions in the hose a damaged or leaking thermostat, and a damaged or leaking water pump. • If it HOT, check for restrictions in the heater core. Back flush the heater core using standard commercially available equipment or replace the heater core. 	Damaged cylinder head gasket
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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.