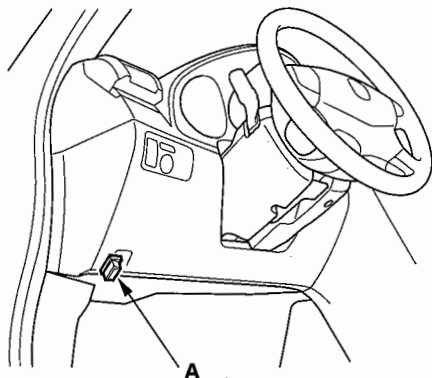


# Climate Control

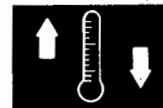
## General Troubleshooting Information

### 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.



3. Turn the ignition switch ON (II).
4. Select DTCs in the body electrical/climate control mode MENU of the HDS.
5. Check for DTCs. If a DTC is indicated, go to the next step. If no DTC(s) is indicated, refer to symptom troubleshooting.
6. Turn the ignition switch OFF.
7. Disconnect the HDS from the DLC.
8. Do the troubleshooting procedure for the DTC indicated.



## How to Retrieve a DTC (Without HDS)

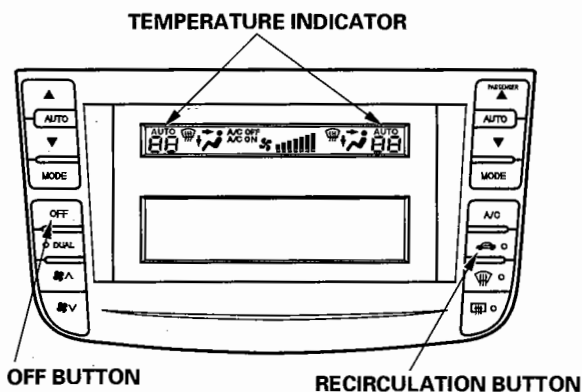
The climate control unit has a self-diagnostic function. To run the self-diagnostic function, do the following:

**NOTE:** Before troubleshooting the climate control system, refer to B-CAN System Diagnosis Test Mode A Troubleshooting (see page 22-108).

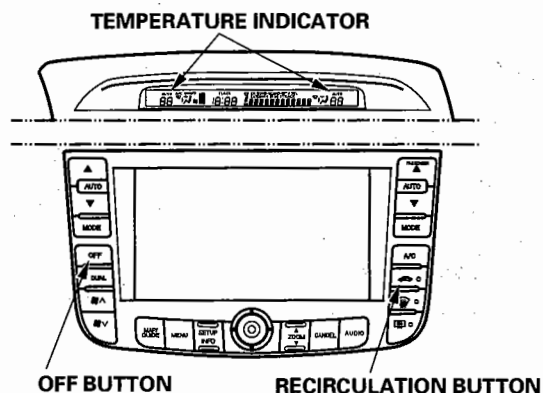
1. Turn the ignition switch ON (II).
2. Press and hold the OFF button. While holding the OFF button, press the recirculation button five times within 10 seconds. Release the OFF button and the self-diagnostic will begin.

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

**Without Navigation System:**



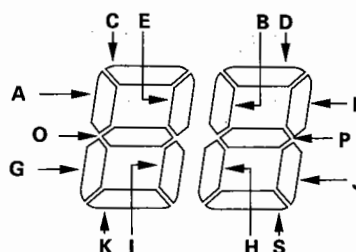
**With Navigation System:**



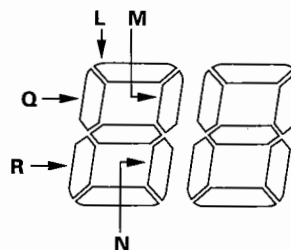
If there is any problem in the system, the temperature indicator will light up the segment (A through S) corresponding to the error. The temperature indicator will then alternate every second between displaying "88" (all segments lit) and the error code segment (A through S). To determine the meaning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



### PASSENGER'S SIDE TEMPERATURE INDICATOR



### Canceling the Self-diagnostic Function

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

(cont'd)

# Climate Control

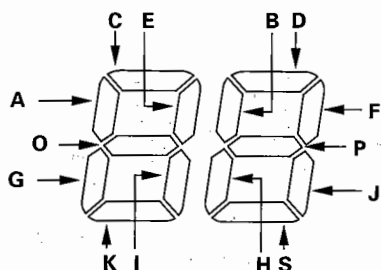
## General Troubleshooting Information (cont'd)

### Checking DTCs by DTC Indicator

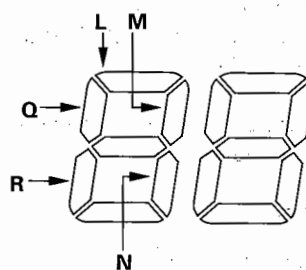
NOTE: Before troubleshooting the climate control system, refer to B-CAN System Diagnosis Test Mode A Troubleshooting (see page 22-108).

To retrieve the DTC, you must run the self-diagnostic function. In the case of multiple problems, the respective 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.

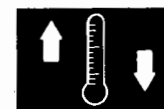
DRIVER'S TEMPERATURE INDICATOR



PASSENGER'S TEMPERATURE INDICATOR



DTC (Temperature Indicator segment)	Detection Item	Page
A	An open in the in-car temperature sensor circuit	(see page 21-24)
B	A short in the in-car temperature sensor circuit	(see page 21-25)
C	An open in the outside air temperature sensor circuit	(see page 21-26)
D	A short in the outside air temperature sensor circuit	(see page 21-27)
E	An open in the sunlight sensor circuit	(see page 21-28)
F	A short in the sunlight sensor circuit	(see page 21-30)
G	An open in the evaporator temperature sensor circuit	(see page 21-31)
H	A short in the evaporator temperature sensor circuit	(see page 21-32)
I	An open in the driver's air mix control motor circuit	(see page 21-33)
J	A short in the driver's air mix control motor circuit	(see page 21-34)
K	A problem in the driver's air mix control linkage, door, or motor	(see page 21-36)
L	An open in the passenger's air mix control motor circuit	(see page 21-36)
M	A short in the passenger's air mix control motor circuit	(see page 21-37)
N	A problem in the passenger's air mix control linkage, door, or motor	(see page 21-39)
O	An open or short in the driver's mode control motor circuit	(see page 21-39)
P	A problem in the driver's mode control linkage, doors, or motor	(see page 21-41)
Q	An open or short in the passenger's mode control motor circuit	(see page 21-42)
R	A problem in the passenger's mode control linkage, doors, or motor	(see page 21-44)
S	A problem in the blower motor circuit	(see page 21-44)



## Displaying Sensor Inputs at the Climate Control Unit

The climate control unit has a mode that displays sensor inputs it receives. This mode shows you what the climate control unit is receiving from each of the sensors, one at a time, and it can help you determine if a sensor is faulty.

### Check these items before using the sensor input display mode

1. Turn the ignition switch ON (II), and check the recirculation door function; press the recirculation button to switch from FRESH to RECIRC. The air volume and sound should change slightly.
2. Set the temperature control knob to the desired test temperature. When selecting the test temperatures, note these items:
  - "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC.
  - "Hi" temperature setting will default to MAX HOT, FLOOR, and FRESH.
  - 61 through 89°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

1. Turn the ignition switch OFF.
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	Item	Displayed Value
1	In-car Temperature Sensor	°C
2	Ambient Temperature	°C
3	Solar Radiation Sensor Value: Dark = 00, Flashlight = 04, Cloudy = 10, Sunny = 65	Kcal/m <sup>2</sup> ·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 to check for DTCs.
- If necessary, compare the sensor input display to an alike, known-good vehicle under the same test conditions.
- If the sensor is out of the normal range, refer to the sensor test, or substitute the sensor with a known-good, and recheck.

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

(cont'd)

# Climate Control

## General Troubleshooting Information (cont'd)

**Celsius to Fahrenheit Conversion Table**

°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

°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**

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