

2008 Acura MDX

How to Troubleshoot the Climate Control System

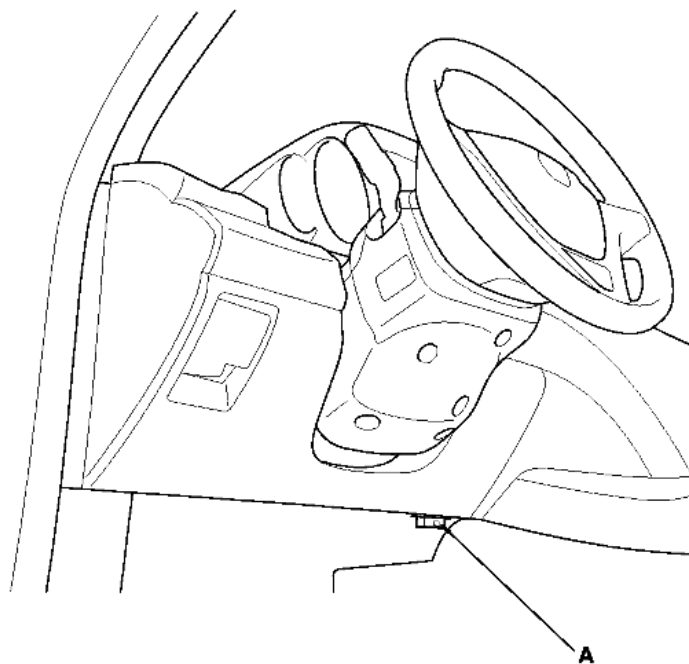
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How to Check for DTCs with the HDS

1. Make sure the ignition switch is LOCK (0).
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 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.](#)
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 LOCK (0).

2. Connect the HDS to the data link connector (DLC).
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.](#)
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.

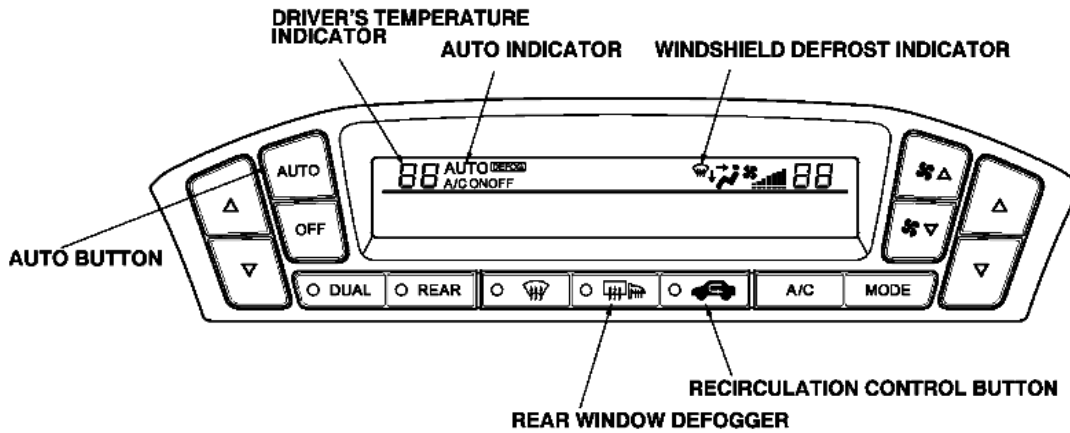
How to Use the Self-diagnostic Function without the HDS

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

1. Turn the ignition switch to LOCK (0), and then to ON (II).
2. Press and hold the OFF button, then press the RECIRCULATION CONTROL button five times within 10 seconds. Release the OFF and RECIRCULATION CONTROL buttons; then the self-diagnostic begins.

NOTE:

- The blower motor will run at various speeds regardless of what the panel is displaying.
- If there is any problem in the system, the system flashes "88 AUTO WINDSHIELD DEFROST" or alternately flashes "88 AUTO WINDSHIELD DEFROST" and one or more of the 14 segments (A through P). Refer to checking for DTCs.
- If there are no problems detected, the segments will not illuminate, and the system will appear to be turned off.



Canceling the Self-diagnostic Function

3. Turn the ignition switch to LOCK (0), to cancel the self-diagnostic function. After completing the repair work, run the self-diagnostic function again to make sure that there are no other DTCs.

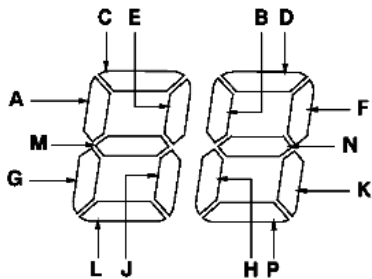
Checking for DTCs

The temperature display indicates single or multiple DTCs. If indicator segments A, B, C, E, G, J, M, N, AUTO, and WINDSHIELD DEFROST are on at the same time, there may be an open in the common ground wire. If no DTCs are present, the indicator remains blank.

DRIVER'S TEMPERATURE INDICATOR

AUTO INDICATOR

WINDSHIELD DEFROST INDICATOR



AUTO



DTC (Driver's Temperature Indicator Segment, AUTO, and WINDSHIELD DEFROST Indicator)	Detection Item
A and AUTO	An open in the in-car temperature sensor circuit
B and AUTO	A short in the in-car temperature sensor circuit
C and AUTO	An open in the outside air temperature sensor circuit
D and AUTO	A short in the outside air temperature sensor circuit

E and AUTO	An open in the sunlight sensor circuit
F and AUTO	A short in the sunlight sensor circuit
G and AUTO	An open in the front evaporator temperature sensor circuit
H and AUTO	A short in the front evaporator temperature sensor circuit
J and AUTO	An open in the driver's air mix control motor circuit
K and AUTO	A short in the driver's air mix control motor circuit
L and AUTO	A problem in the driver's air mix control linkage, door, or motor circuit
M and AUTO	An open in the passenger's air mix control motor circuit
N and AUTO	A short in the passenger's air mix control motor circuit
P and AUTO	A problem in the passenger's air mix control linkage, door, or motor circuit

DTC (Driver's Temperature Indicator Segment, AUTO, and WINDSHIELD DEFROST Indicator)	Detection Item
AUTO	Climate control unit lost communication with gauge control module (ECT message)
A	An open or short in the front mode control motor circuit
B	A problem in the front mode control linkage, doors, or motor circuit
C	A problem in the front blower motor circuit
F	An open in the rear air mix control motor circuit
G	A short in the rear air mix control motor circuit
H	A problem in the rear air mix control linkage, door, or motor circuit
J	An open or short in the recirculation control motor circuit
K	A problem in the recirculation control linkage, door, or motor circuit
M	A problem in the rear blower motor circuit
N	An open in the rear evaporator temperature sensor circuit
P	A short in the rear evaporator temperature sensor circuit
A and WINDSHIELD	An open in the humidity sensor circuit, a short in the humidity sensor circuit

DEFROST	
B and WINDSHIELD DEFROST	An open in the A/C pressure sensor circuit, a short in the A/C pressure sensor circuit

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 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 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 AUTO and RECIRCULATION CONTROL buttons, then start the engine.
3. After the engine starts, release both 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 REAR WINDOW DEFOGGER button.

Sensor	Item	Displayed Value
1	In-car Temperature	°C
2	Outside Air Temperature	°C
3	Solar Radiation Sensor Value: Dark = 00, Flashlight = 04, Cloudy = 10, Sunny = 65	kcal/m ² h
4	Front Evaporator Outlet Air Temperature	°C
5	Driver's and Passenger's Air Mix Opening (Low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening

6	Vent Temperature Air Out (TAO)	°C
7	Vehicle Speed (Vehicle must be driven to display speed)	km/h
8	A/C Pressure	10 kPa
9	Rear Air Mix Opening	% of opening
A	Rear Vent Temperature Air Out (TAO)	°C
B	Rear Evaporator Outlet Air Temperature	°C
C	Humidity Sensor Value	% rh
D	Fog Margin	°C
E	Solar Radiation azimuth (With navigation system)	10°
F	Solar Radiation angle of elevation (With navigation system)	10°

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.

5. To cancel the sensor input display mode, press the AUTO button or turn the ignition switch to LOCK (0).

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	-40 thru -49
F0 thru F9	---	---	+100 thru +109