

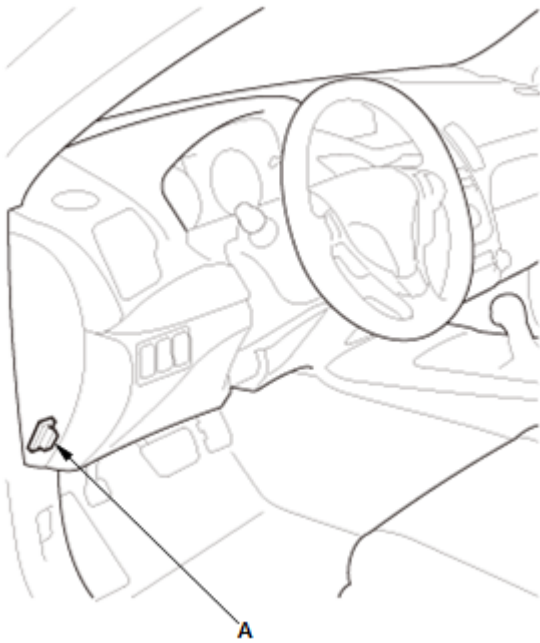
## How to Troubleshoot the Climate Control System

### How to Check for DTCs With the HDS

#### NOTE:

- There are three methods used to check for DTCs. The recommended method is to use the Honda Diagnostic System (HDS) with the appropriate software, plugged into the data link connector (DLC).
- The second method is to run the self-diagnostic function built into the climate control unit.
- The third method is to use [B-CAN system diagnosis test mode A](#).

1. Make sure the vehicle ignition is OFF mode.
2. Connect the HDS to the DLC (A) located under the driver's side of the dashboard.



3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the [DLC circuit troubleshooting](#).
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select DTCs in the HVAC/Climate Control Mode Menu.
8. Check for DTCs. If any DTCs are indicated, write down the DTCs, then go to the indicated DTC troubleshooting. If no DTCs are indicated, do all system scan, then 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

NOTE: This method is only available if the HDS can communicate with the climate control unit.

1. Make sure the vehicle ignition is OFF mode.
2. Connect the HDS to the DLC.
3. Press the engine start/stop button to select the ON mode.
4. Make sure the HDS communicates with the vehicle and the climate control unit. If it does not, go to the [DLC circuit troubleshooting](#).
5. Select BODY ELECTRICAL in the System Selection Menu.
6. Select HVAC/Climate Control in the Body Electrical System Select.
7. Select Inspection in the HVAC/Climate Control Mode Menu.
8. Select Climate Control Unit Self Test in the Inspection Menu.
9. 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.

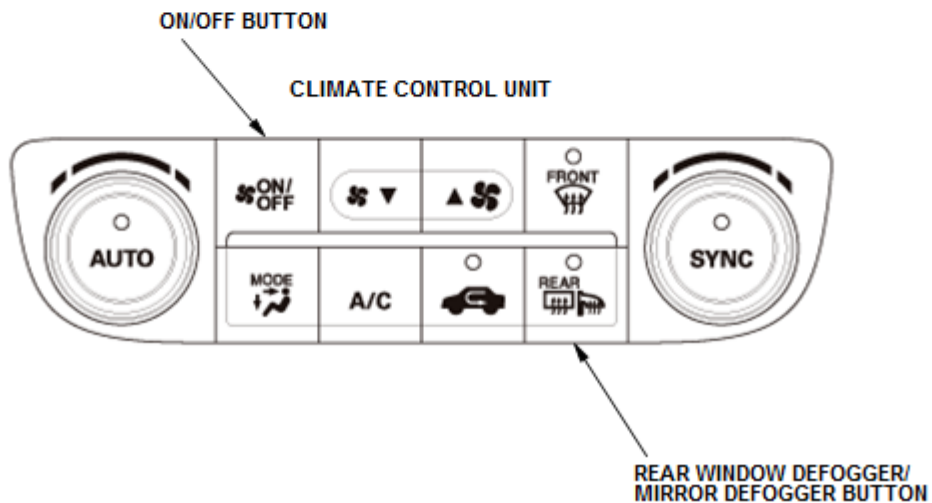
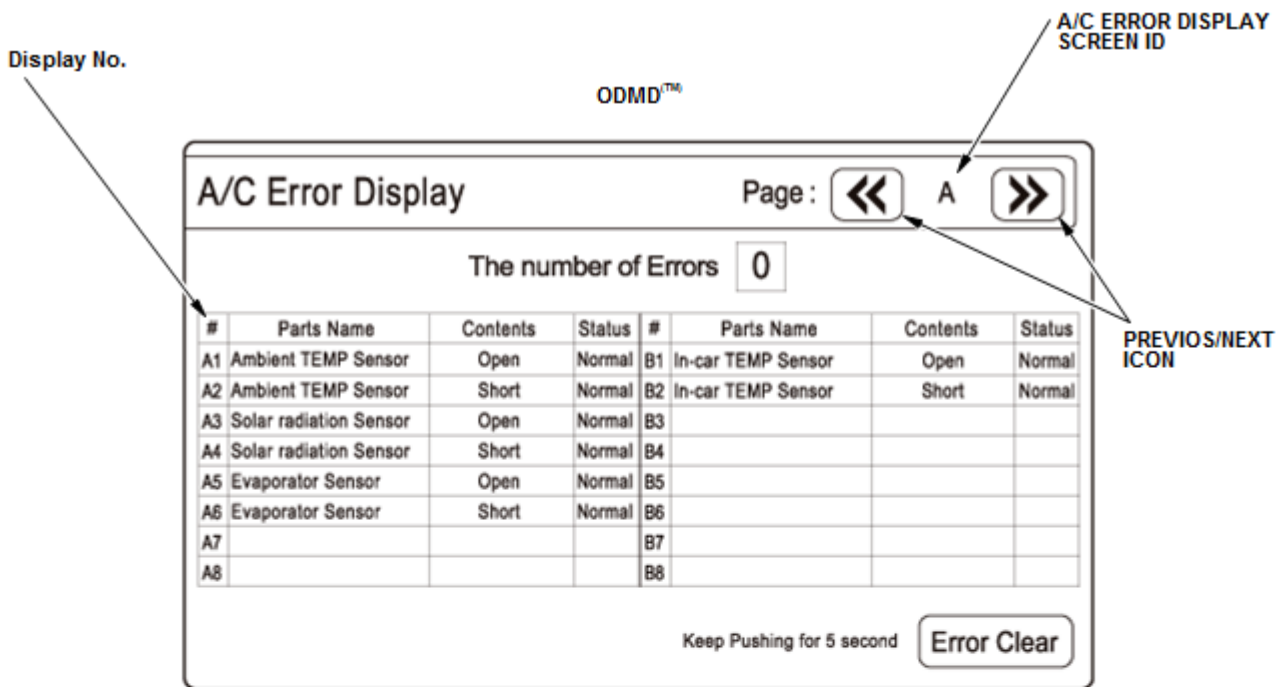
## How to Use the Self-Diagnostic Function Without the HDS

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

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.  
  
NOTE: Make sure the ODMD<sup>(TM)</sup> is activated and the image is displayed on the screen.
2. Press the engine start/stop button to select the ON mode.
3. Press and hold the ON/OFF button, then within 10 seconds press and release the REAR WINDOW DEFOGGER/MIRROR DEFOGGER button five times. Release the ON/OFF button, then the self-diagnostic function begins.

### NOTE:

- The self-diagnostic function is engaged when the "Under A/C self diagnostic" window appears at the bottom of the ODMD<sup>(TM)</sup>.
- The blower motor should run at various speeds when in the self-diagnostic mode.
- If there are any problems in the system, the A/C Error Display screen will indicate them. Select the previous/next icon to confirm the DTCs. To determine the meaning of the indication, refer to the table that follows.
- If there are no problems detected, Normal is indicated.



### Canceling the Self-Diagnostic Function

4. Press the engine start/stop button to select the OFF mode to cancel the self-diagnostic function. After completing repair work, run the self-diagnostic function again to make sure that there are no other DTCs.

### How to Check for History DTCs

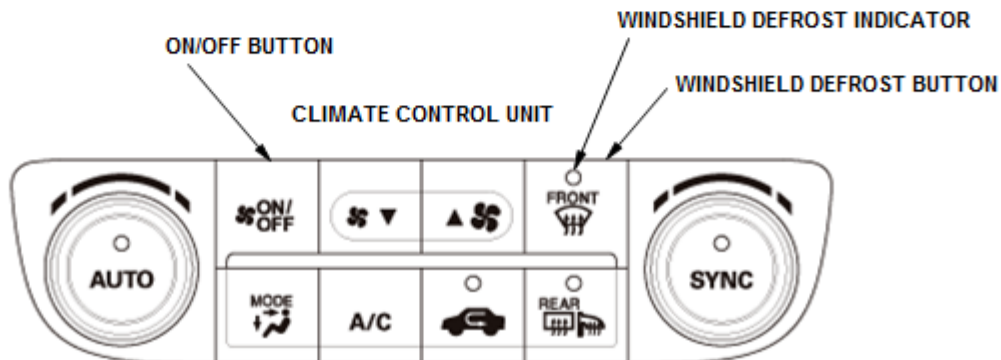
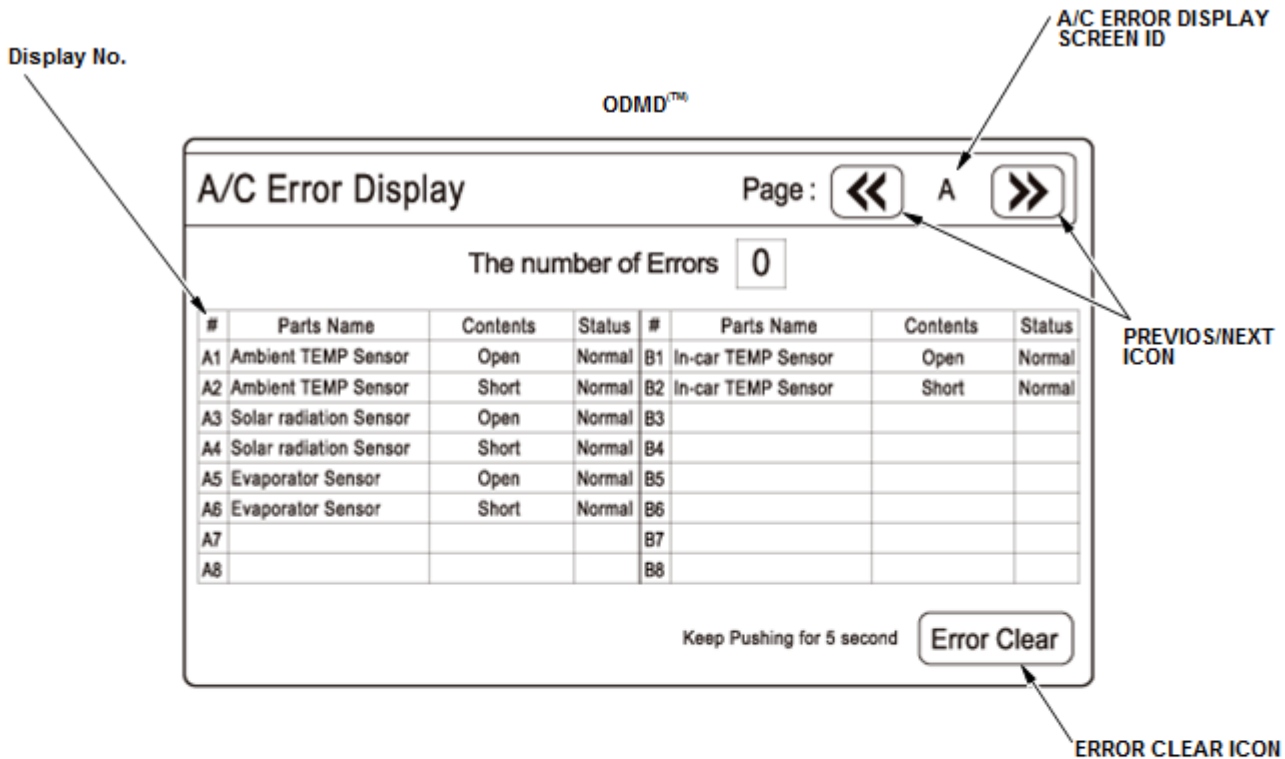
The climate control unit can record history DTCs. To read the history DTCs, do the following:

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.  
NOTE: Make sure the ODMD™ is activated and the image is displayed on the screen.
2. Press the engine start/stop button to select the ON mode.
3. Turn the combination light switch OFF, then to the parking position (☺).

4. Press and hold the WINDSHIELD DEFROST button, then press and hold the ON/OFF button.
5. While holding the buttons, turn the combination light switch OFF, then to the parking position (P) and OFF again.
6. While pressing and holding both the WINDSHIELD DEFROST and ON/OFF buttons, the history DTCs will be indicated.

**NOTE:**

- If there are any problems in the system, the A/C Error Display screen will indicate them. Select the previous/next icon to confirm the DTCs. To determine the meaning of the indication, refer to the table that follows.
- If there are no problems detected, Normal is indicated.



**Canceling the Read History DTCs**

7. Press the engine start/stop button to select the OFF mode to cancel reading the history DTCs. After completing the repair work, clear the DTCs.

**How to Clear the History DTCs**

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.  
NOTE: Make sure the ODMD<sup>(TM)</sup> is activated and the image is displayed on the screen.
2. Press the engine start/stop button to select the ON mode.
3. Turn the combination light switch OFF, then to the parking position (P).
4. Press and hold the WINDSHIELD DEFROST button, then press and hold the ON/OFF button.
5. While holding the buttons, turn the combination light switch OFF, then to the parking position (P) and OFF again.
6. While pressing and holding both the WINDSHIELD DEFROST and ON/OFF buttons, touch and hold the Error Clear icon for 5 seconds.
7. Do the How to Check for History DTCs to verify DTCs have been cleared.

### Checking for DTCs

A/C Error Display Screen ID	Display No.	Parts Name	Contents	DTC	Detection Item
A	A1	Ambient TEMP Sensor	Open	<a href="#">B1227</a>	An open in the outside air temperature sensor circuit
	A2	Ambient TEMP Sensor	Short	<a href="#">B1228</a>	A short in the outside air temperature sensor circuit
	A3	Solar radiation Sensor	Open	<a href="#">B1229</a>	An open in the sunlight sensor circuit
	A4	Solar radiation Sensor	Short	<a href="#">B1230</a>	A short in the sunlight sensor circuit
	A5	Evaporator Sensor	Open	<a href="#">B1231</a>	An open in the evaporator temperature sensor circuit
	A6	Evaporator Sensor	Short	<a href="#">B1232</a>	A short in the evaporator temperature sensor circuit
	B1	In-car TEMP Sensor	Open	<a href="#">B1225</a>	An open in the in-car temperature sensor circuit
	B2	In-car TEMP Sensor	Short	<a href="#">B1226</a>	A short in the in-car temperature sensor circuit

\*: It is constantly displayed as "Normal" even though F-CAN line has a failure.

A/C Error Display Screen ID	Display No.	Parts Name	Contents	DTC	Detection Item
B	A1	A/M motor(Dr)	Open	<a href="#">B1233</a>	An open in the air mix control motor circuit (driver's)
	A2	A/M motor(Dr)	Short	<a href="#">B1234</a>	A short in the air mix control motor circuit (driver's)
	A3	A/M motor(Dr)	Lock	<a href="#">B1235</a>	A problem in the air mix control motor circuit, linkage, door, or motor (driver's)
	A4	A/M motor(As)	Open	<a href="#">B1236</a>	An open in the passenger's air mix control motor circuit
	A5	A/M motor(As)	Short	<a href="#">B1237</a>	A short in the passenger's air mix control motor circuit
	A6	A/M motor(As)	Lock	<a href="#">B1238</a>	A problem in the passenger's air mix control motor circuit, linkage, door, or motor
	B4	MODE motor(Dr)	Open	<a href="#">B121A</a>	An open in the mode control motor circuit
	B5	MODE motor(Dr)	Short	<a href="#">B121B</a>	A short in the mode control motor circuit
	B6	MODE motor(Dr)	Lock	<a href="#">B1240</a>	A problem in the mode control motor circuit, linkage, door, or motor
C	A4	R/F motor	Open	<a href="#">B2986</a>	An open in the recirculation control motor circuit
	A5	R/F motor	Short	<a href="#">B1220</a>	A short in the recirculation control motor circuit
	A6	R/F motor	Lock	<a href="#">B2983</a>	A problem in the recirculation control motor circuit, linkage, door, or motor
	A7	Blower motor	Lock	<a href="#">B1241</a>	A problem in the blower motor circuit
D	A1	B-CAN	BUS OFF	<a href="#">U1280</a>	Communication bus line error (BUS-OFF)
	A2	Meter (BCAN)	Lost COMM	<a href="#">U128D</a>	Lost communication with gauge control module (climate control unit)
	A7*	FCAN	Lost COMM	-----	-----
	B2	MICU(BCAN)	Lost COMM	<a href="#">U1281</a>	Lost communication with MICU (climate control unit)
	<a href="#">B8</a>	FLASH	Read/Write Error	-----	Climate control unit internal error

\*: It is constantly displayed as "Normal" even though F-CAN line has a failure.

## Displaying Sensor Inputs at the Climate Control Unit

The climate control unit has a mode that displays the 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.

## Checks Before Using the Sensor Input Display Mode

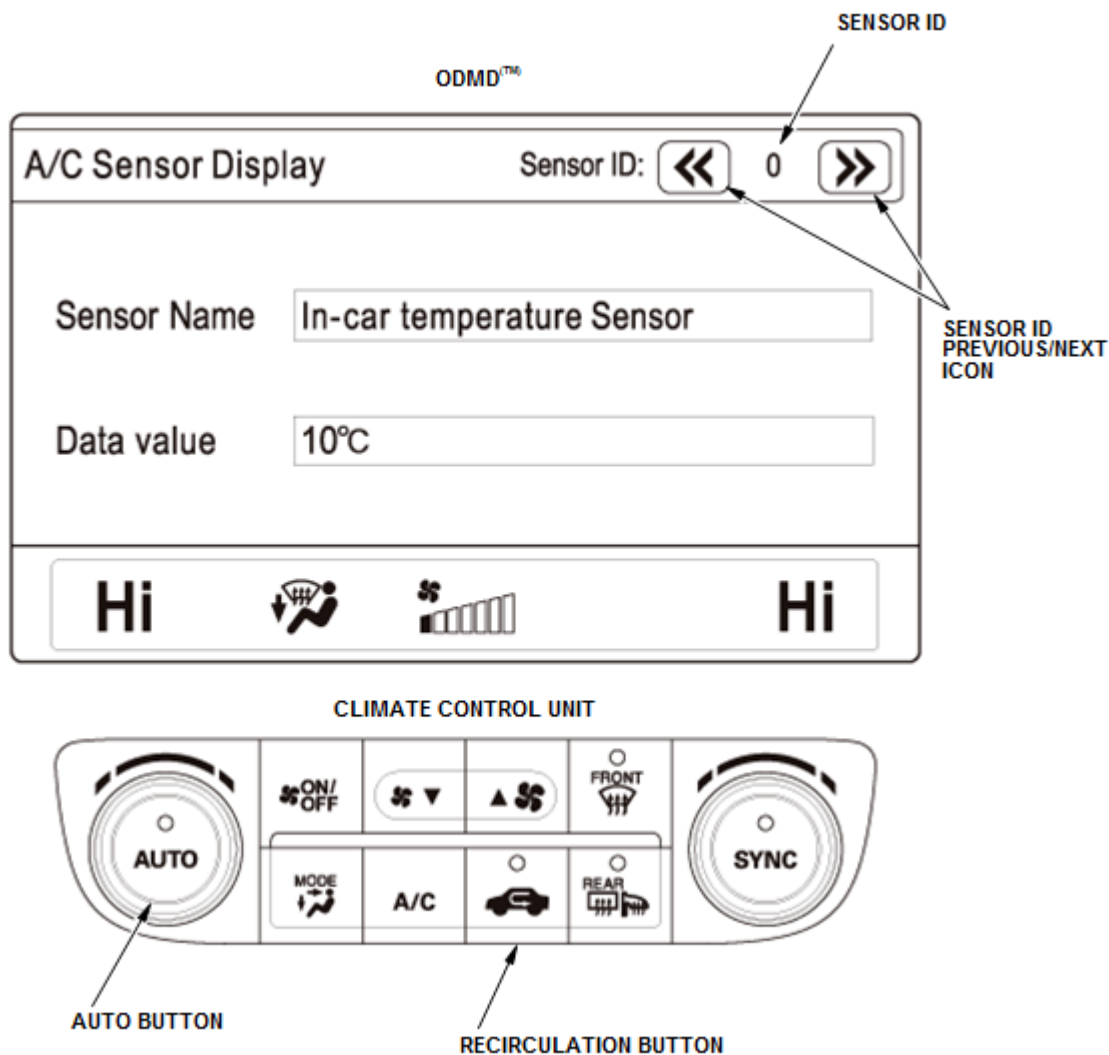
- Press the engine start/stop button to select the ON mode, and check the recirculation door function; press the RECIRCULATION button to switch from FRESH to RECIRC. The air volume and sound should change slightly.
- Set the TEMPERATURE CONTROL dial to the desired test temperature:
  - "Lo" temperature setting will default to MAX COOL, VENT, and RECIRC (A/C on) or FRESH (A/C off).
  - "Hi" temperature setting will default to MAX HOT, HEAT, HEAT/DEF, and FRESH.
  - 58 through 86 °F (14 through 30 °C) settings will use the automatic climate control logic.
- Press the engine start/stop button to select the OFF mode.

## Run the Sensor Input Display Mode

1. Press the engine start/stop button to select the OFF mode and then the ACCESSORY mode.

NOTE: Make sure the ODMD™ is activated and the image is displayed on the screen.

2. Press and hold both the AUTO and RECIRCULATION buttons, then start the engine.



3. Release both buttons. The display screen goes directly to the A/C sensor display mode shown. The display screen indicates the sensor ID and then the value for that sensor.

4. To advance to the next sensor, touch the sensor ID previous/next icon.

### 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 "255", this indicates there is an open or short in the circuit or sensor. Check for DTCs using the HDS, or use the climate control self-diagnostic function.
- If necessary, compare the sensor input display to a known-good vehicle under the same test conditions.
- If the sensor displayed value is out of the normal range, refer to the sensor test or substitute a known-good sensor, and recheck.

Sensor ID	Item	Displayed Value
0	In-car temperature	°C
1	Outside air temperature	°C
2	Solar radiation sensor value	10 W/m <sup>2</sup>
3	Engine coolant temperature	°C
4	Evaporator outlet air temperature	°C
8	Driver's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
9	Passenger's air mix opening (low value indicates cooler air distribution, higher value indicates warmer air distribution)	% of opening
11	Mode positioning	%
13	Recirculation control opening	% of opening
15	Vehicle speed (vehicle must be driven to display speed)	km/h
16	Vent temperature air out (TAO) (driver's)	°C
19	-----	-----

#### 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	129	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	153	77	170	87	189	97	207
58	136	68	154	78	172	88	190	98	208
59	138	69	156	79	174	89	192	99	210

#### Alphanumeric Conversion Table

Display Reading (Alphanumeric)	Value
0 thru 200	0 thru 200
201 thru 209	-1 thru -9
210 thru 219	-10 thru -19
220 thru 229	-20 thru -29
230 thru 239	-30 thru -39
240 thru 249	-40 thru -49



Display Reading (Alphanumeric)	Value
250 thru 254	Not used
255	Er

**Alphanumeric Conversion Table (Mode Positioning)**

Display Reading (Alphanumeric)	Mode Position
0	VENT
18	HEAT/VENT-1
33	HEAT/VENT-2
50	HEAT
66	HEAT/DEF-1
80	HEAT/DEF-2
F0	DEF

5. To cancel the sensor input display mode, press the AUTO button or press the engine start/stop button to select the OFF mode.