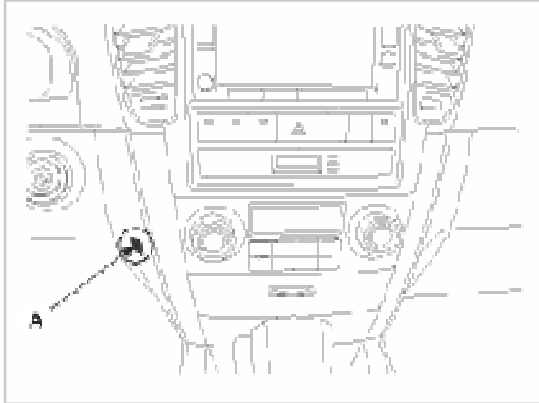


DESCRIPTION

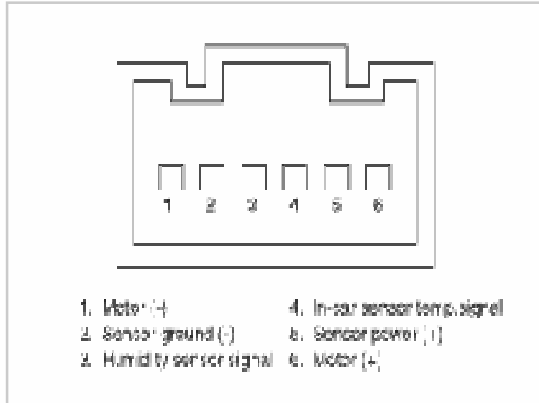
1. Humidity sensor is located at the lower crash pad and detected in-car humidity for in-car humidity control.
2. If ambient air temperature or in-car humidity is outside certain range, it will turn on A/C to control in-car humidity preventing in car fogging.

Air conditioner operation depends on ambient temperature and humidity.



INSPECTION

1. Ignition "ON"
2. Using the scan tool.
3. Check the frequency of humidity sensor between terminals 2 and 3.

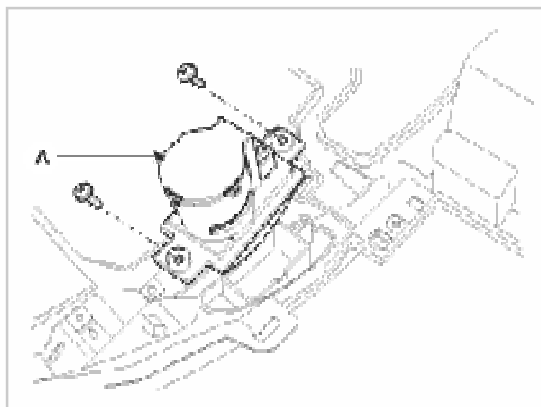


Humidity (%)	Frequency between terminals 2 and 3 (Hz)
30	6976 ± 5%
50	6728 ± 5%
60	6600 ± 5%
70	6468 ± 5%
80	6330 ± 5%
90	6186 ± 10%

4. If the measured resistance is not specification, substitute with a known-good humidity sensor and check for proper operation.
5. If the problem is corrected, replace the Humidity sensor.

REPLACEMENT

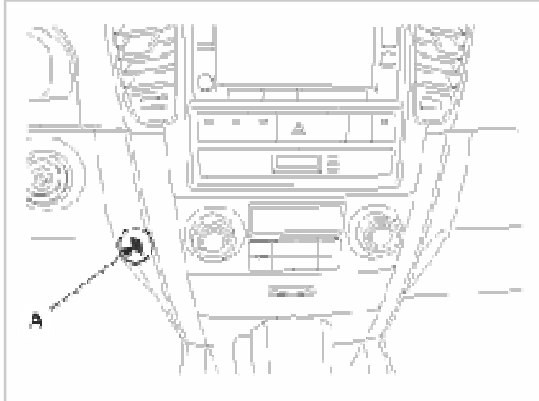
1. Disconnect the negative (-) battery terminal.
2. Remove the crash pad (Refer to BD group-crash pad)
3. Loosen 2 screws and then remove the humidity sensor (A).



4. Installation is the reverse order of removal.

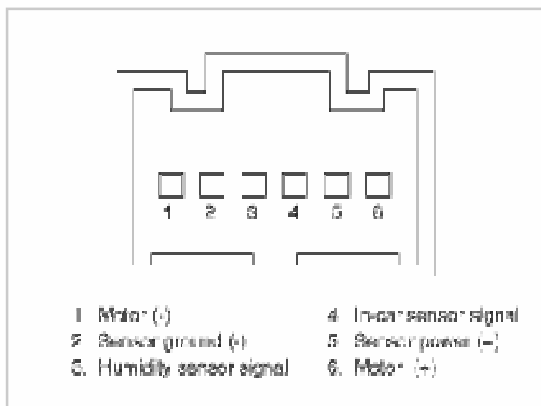
DESCRIPTION

1. In-car air temperature sensor is located at the center facia lower panel.
2. The sensor contains a thermistor which measures the temperature of the inside. The signal decided by the resistance value which changes in accordance with perceived inside temperature, is delivered to heater control unit and according to this signal the control unit regulates incar temperature to intended value.



INSPECTION

1. Ignition "ON"
2. Blow air with changing temperature to the in car sensor air inlet. Measure sensor resistance between 2 and 4 terminals.



[Specification]

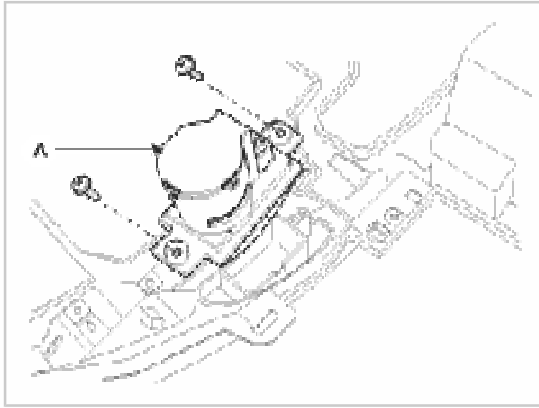
Temperature[°C (°F)]	Resistance between terminals 2 and 4 (kΩ)
-35(-31)	687.46
-30(-22)	509.57
-15(5)	216.07
0(32)	97.71
15(59)	47.13
25(77)	30
35(95)	19.59
45(113)	13.10
55(131)	8.96

NOTE

In car sensor is negative type thermistor that resistance will rise with lower temperature, and reduce with higher temperature.

REPLACEMENT

1. Disconnect the negative (-) battery terminal.
2. Remove the cresh pad (Refer to BD group-cresh pad).
3. Disconnect the connector of in-car sensor .Loosen the mounting 2 screws and then remove the in-car sensor (A).

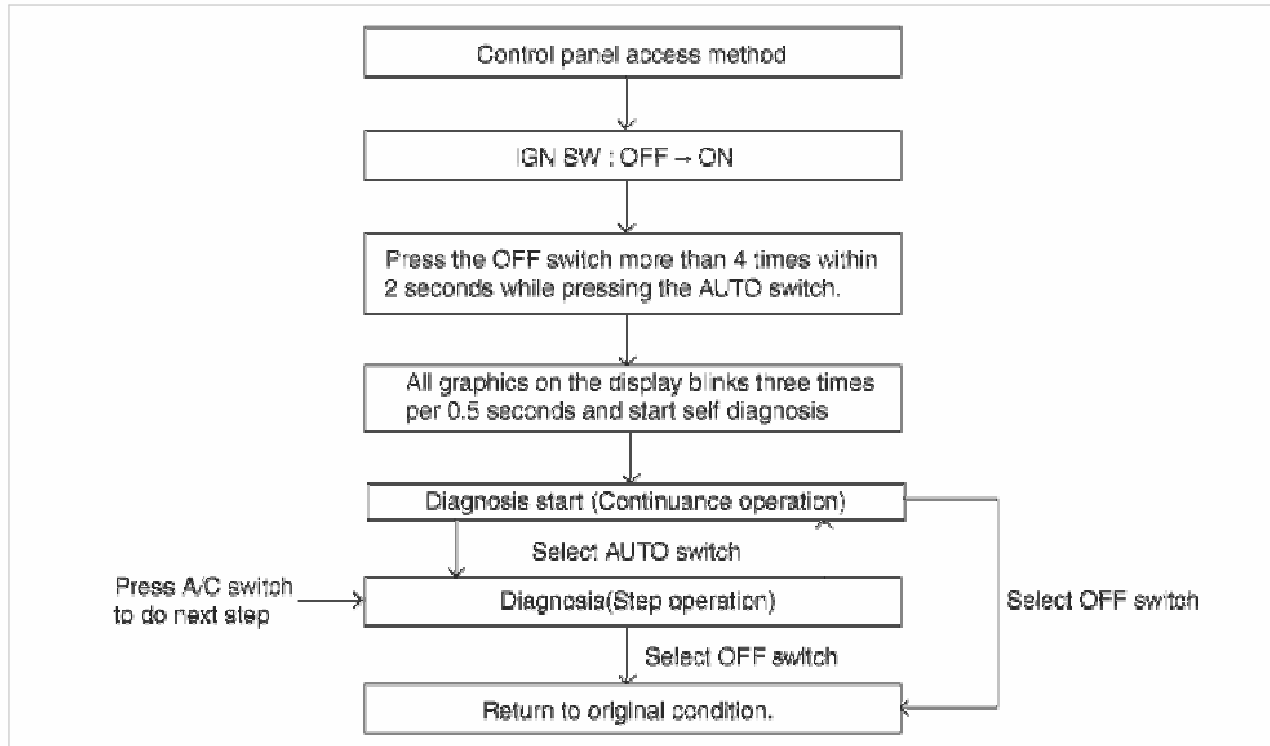


4. Installation is the reverse order of removal.

SELFDIAGNOSIS

1. Self-diagnosis process

The F.A.T.C. module self test feature will detect electrical malfunction and provide error codes for system components with suspected failures.



NOTE

DTC data can be retrieved from the control panel directly or from the DLC using the Hi-Scan Pro.

2. How to read self-diagnostic code

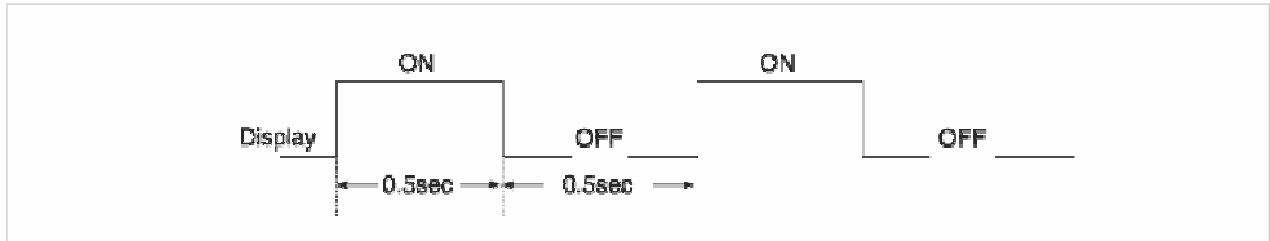
After the display panel flickers three times every 0.5 second, the corresponding fault code flickers on the setup temperature display panel every 0.5 second and will show two figures. Codes are displayed in numerical format

Fault code

Fault code	Fail description
Control unit	
0	Normal
11	INCAR TEMPERATURE SENSOR OPEN (High)
12	INCAR TEMPERATURE SENSOR SHORT (Low)
13	AMBIENT TEMPERATURE SENSOR OPEN (High)
14	AMBIENT TEMPERATURE SENSOR SHORT (Low)
15	WATER TEMPERATURE SENSOR OPEN (High)
16	WATER TEMPERATURE SENSOR SHORT (Low)
17	EVAPORATOR TEMPERATURE SENSOR OPEN (High)
18	EVAPORATOR TEMPERATURE SENSOR SHORT (Low)
19	TEMP POTENTIOMETER OPEN or SHORT (Drive)
20	TEMP POTENTIOMETER FAULT (Drive)
21	MODE POTENTIOMETER OPEN or SHORT
22	MODE POTENTIOMETER FAULT
23	HUMIDITY SENSOR OPEN (Open)

24	HUMIDITY SENSOR SHORT (Short)
25	INTAKE POTENTIOMETER OPEN or SHORT
26	INTAKE POTENTIOMETER FAULT
32	TEMP POTENTIOMETER OPEN or SHORT (Passenger)
33	TEMP POTENTIOMETER FAULT (Passenger)

3. Fault code display.



4. If fault codes are displayed during the check, Inspect malfunction causes by referring to fault codes.

5. Fail safe

- (1) In-car temperature sensor: Control with the value of 25°C (77°F)
- (2) Ambient temperature sensor: Control with the value of 20°C (67°F)
- (3) Evaporator temperature sensor: Control with the value of -2°C (28.4°F)
- (4) Humidity sensor: Doesn't control.
- (5) Photo sensor: None correction
- (6) Temperature control actuator (Air mix potentiometer):
 - A. If temperature set 17°C-24.5°C, fix at maximum cooling position.
 - B. If temperature set 25°C-32°C, fix at maximum heating position.
- (7) Mode control actuator (Direction potentiometer):
 - A. Fix vent position, while selecting vent mode.
 - B. Fix defrost position, while selecting all except vent mode.