PRE-CHECK

1. LIST OF OPERATION METHODS

(a) By operating each of the A/C control switches as shown the diagram below, it is possible to enter the diagnosis check mode.





INDICATOR CHECK

) Turn the ignition switch ON while pressing the A/C control AUTO switch and R/F switch simultaneously.

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(b) Check that the indicators light up and go off at second intervals 4 times in succession.

HINT:

- After the indicator check is completed, the system enters the DTC begins automatically.
- Press the OFF switch when desiring to cancel the check mode.

- DTC CHECK (SENSOR CHECK)
- (a) Perform an indicator check. After the indicator check is completed, the system enters the DTC check mode automatically.
- (b) Read the code displayed on the panel. Refer to the list of codes on page 05–461 when reading the codes. (Trouble code are output at the temperature display.)
- (c) If the slower display is desired, press the FRONT DEF switch and change it to stepped operation. Each time the FRONT DEF switch is pressed, the display changes by 1 step.



CLEARING DTC

- To clear diagnostic trouble code, there are 2 ways.
 - (1) During sensor check, press the "FRONT DEF" switch and "REAR. DEF" switch at the same time.
 - (2) Pull the ECU–B fuse in engine room J/B for 20 sec. or longer to clear the DTC memory.

DIAGNOSTICS - AIR CONDITIONING SYSTEM



5. ACTUATOR CHECK

- (a) After entering the DTC check mode (Sensor Check Mode) press the R/F switch.
- (b) Since each damper, motor and relay automatically operates at 1 sec. intervals beginning in order from 10 in the temperature display, check the temperature and air flow visually and by hand.

If the slower display is desired, press the DEF switch and change it to step operation. Each time the DEF switch is pressed, the display changes by 1 step.

HINT:

- Code are displayed in order from the smaller to the larger numbers.
- To cancel the check mode, press the OFF switch.

Otor No.	Display code	Conditions				
Step No.		Blower level	Air flow vent	Air inlet damper	Magnetic clutch	Air mix damper
1	0	0	FACE	FRESH	OFF	"COLD" side (Full closed)
2	1	1	FACE	FRESH	OFF	"COLD" side (Full closed)
3	2	14	FACE	FRESH	ON	"COLD" side (Full closed)
4	3	14	FACE	FRESH/ RECIRCULATION	ON	"COLD" side (Full closed)
5	4	14	FACE	RECIRCULATION	ON	"COLD"/ "HOT " (50 % open)
6	5	14	B/L	RECIRCULATION	ON	"COLD"/ "HOT " (50 % open)
7	6	14	FOOT	RECIRCULATION	ON	"HOT" side (Full opened)
8	7	14	FOOT	RECIRCULATION	ON	"HOT" side (Full opened)
9	8	14	FOOT/ DEF	RECIRCULATION	ON	"HOT" side (Full opened)
10	9	31	DEF	RECIRCULATION	ON	"HOT" side (Full opened)

DIAGNOSTIC TROUBLE CODE CHART

If malfunction code is displayed during the DTC check (sensor check), check the circuit listed for that code in the table below (Proceed to the page given for that circuit).

DTC No. (See Page)	Detection Item Trouble Area		Memory
00	Normal	_	-
11* ¹ (05–470)	Room temperature sensor circuit	 Room temp. sensor A/C amplifier (Heater Control Housing) Harness or connector between room temp. sensor and A/C amplifier (Heater Control Housing) 	(8.5 min. or more)
12* ² (05–473)	Ambient temperature sensor circuit	 Ambient temp. sensor Harness or connector between ambient temp. sensor and A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing) 	(8.5 min. or more)
13 (05–475)	Evaporator temperature sensor circuit	 Evaporator temp. sensor Harness or connector between evaporator temp. sensor and A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing) 	(8.5 min. or more)
14 (05–478)	Water temperature sensor circuit	 Harness or connector between ECM and A/C amplifier (Heater Control Housing) ECM A/C amplifier (Heater Control Housing) 	_
21* ³	Solar sensor circuit (short) (Passenger side)	 Solar sensor Harness or connector between solar sensor and A/C amplifier (Heater Control Housing), body ECU Body ECU A/C amplifier (Heater Control Housing) 	(8.5 min. or more)
(05–480)	Solar sensor circuit (open)		-
22* ⁴ (05-483)	Compressor lock sensor circuit	Compressor Drive Belt Compressor lock sensor Compressor ECM Harness or connector between ECM and A/C lock sensor, A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing)	_
23 (05–486)	Pressure switch circuit	 Pressure switch A/C amplifier (Heater Control Housing) Harness or connector between pressure switch and A/C amplifier (Heater Control Housing) 	_
24 ^{*3} (05–489)	Solar sensor circuit (short) (Driver side)	 Solar sensor Harness or connector between solar sensor and A/C amplifier (Heater Control Housing), body ECU 	(8.5 min. or more)
	Solar sensor circuit (open)	Body ECU A/C amplifier (Heater Control Housing)	-
31 (05–492)	Air mix damper position sensor circuit (Passenger side)	 Air mix damper position sensor A/C amplifier (Heater Control Housing) Harness or connector between air mix damper position sensor and A/C amplifier (Heater Control Housing) 	-
32 (005–4 95)	Air inlet damper position sensor circuit	 Air inlet damper position sensor (Recirculation damper servo sub-assy) A/C amplifier (Heater Control Housing) Harness or connector between air inlet damper position sensor and A/C amplifier (Heater Control Housing) 	O (1 min. or more)

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33 (05–498)	Air outlet damper position sensor circuit	 Air outlet damper position sensor (Mode damper servo subassy) A/C amplifier (Heater Control Housing) Harness or connector between air outlet damper position sensor (Mode damper servo sub-assy) and A/C amplifier (Heater Control Housing) 	O (1 min. or more)
36 (05–501)	Air mix damper position sensor circuit (Driver side)	 Air mix damper position sensor A/C amplifier (Heater Control Housing) Harness or connector between air mix damper position sensor and A/C amplifier (Heater Control Housing) 	O (1 min. or more)
41 (05–504)	Air mix damper control servomotor • Air mix control servomotor (Passenger side) • Harness or connector between air mix damper control servomotor and A/C amplifier (Heater Control Housing) • A/C amplifier (Heater Control Housing)		(15 sec.)
42 (05–508)	Air inlet damper control servomotor	 Air inlet control servomotor (Recirculation damper servo sub-assy) Harness or connector between air inlet damper control ser- vomotor and A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing) 	_ (15 sec.)
43 (05–51 <i>2</i>)	Air outlet damper control servomotor	 Air outlet control servomotor (Mode damper servo sub-assy) Harness or connector between air outlet damper control servomotor (Mode damper servo sub-assy) and A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing) 	_ (15 sec.)
46 (05–516)	Air mix damper control servomotor • Air mix control servomotor (Driver side) • Harness or connector between air mix damper control servomotor and A/C amplifier (Heater Control Housing) • A/C amplifier (Heater Control Housing)		_ (15 sec.)
63* ⁶ (05–520)	Seat heater (Driver side)	 Seat heater Harness or connector between seat heater and A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing) 	-
64* ⁶ (05–523)	Seat heater (Passenger side)	 Seat heater Harness or connector between seat heater and A/C amplifier (Heater Control Housing) A/C amplifier (Heater Control Housing) 	-

HINT:

- *1: If the room temp. is approx. -18.6°C (-3.7°F) or lower, trouble code 11 may be output even though the system is normal.
- *2: If the ambient temp. is approx. -52.9°C (-61.4°F) or lower, a malfunction code may be output even though the system is normal.
- *3: If the check is being performed in a dark place, DTC 21, 24 (solar sensor circuit abnormal) could be displayed.
- *4: Compressor lock (DTC22) is indicated only for a current occurring malfunction (See page 05–483).
 To confirm DTC 22, perform the following steps.
 - (1) With the engine ON, enter the DTC check mode.
 - (2) Press the F/R switch to enter actuator check mode, and set the operation to Step No. 3.
 - (3) Press the AUTO switch to return to DTC check mode.
 - (4) The DTC is displayed after approx. 3 sec.
- *5: The A/C amplifier (Heater Control Housing) memorizes the DTC of the respective malfunction it has occurred for the period of the time indicated in the brackets.
- *6: Even though the system is in good condition, DTC is output when the seat sensor temperature senses -40°C (-40°F) and over 99°C (210.2°F).