

DIAGNOSTIC CODE CHART

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

Code No.	• Diag. Code Detecting Condition
00	• Normal
11*1	• Open or short in room temperature sensor circuit.
12	• Open or short in ambient temperature sensor circuit.
13	• Open or short in evaporator temperature sensor circuit.
14*2	• Open or short in water temperature sensor circuit.
21*3	• Open in solar sensor circuit.
	• Short in solar sensor circuit.
22*4	<ul style="list-style-type: none"> All conditions below are detected for 3 secs. or more. (a) Engine rpm: 450 rpm or more. (b) Ratio between engine and compressor rpm deviates 20% or more in comparison to normal operation.
23	<ul style="list-style-type: none"> Open in pressure sensor circuit. Abnormal refrigerant pressure [below 206 kPa (2.1 kgf/cm², 30 psi)] [over 2,650 kPa (27 kgf/cm², 385 psi)]
31	• Short to ground or power source circuit in Air Mix Damper position sensor circuit.
32	• Short to ground or power source circuit in Air Inlet Damper position sensor circuit.
33	• Short to ground or power source circuit in Air Outlet Damper position sensor circuit.
41	• Air mix damper position sensor value does not change even if ECU operates air mix servomotor.
42	• Air inlet damper position sensor value does not change even if ECU operates air inlet servomotor.
43	• Air outlet damper position sensor value does not change even if ECU operates air outlet servomotor.

HINT: *1 If the room temp. is approx. -20°C (-4°F) or lower, code 11 may be output even though the system is normal.

*2 If the ambient temperature is approx. -50°C (-58°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, diagnostic code 21 (solar sensor circuit abnormal) could be displayed.

In this case, perform diagnostic code check again while shining a light, such as an inspection light, on the solar sensor.

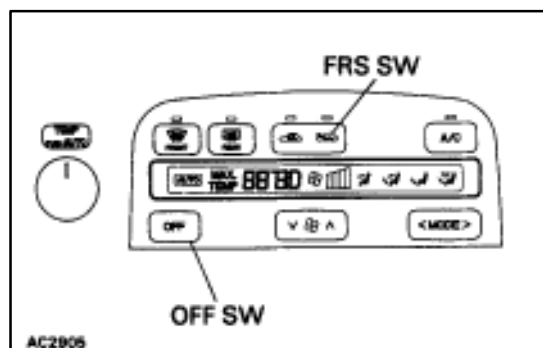
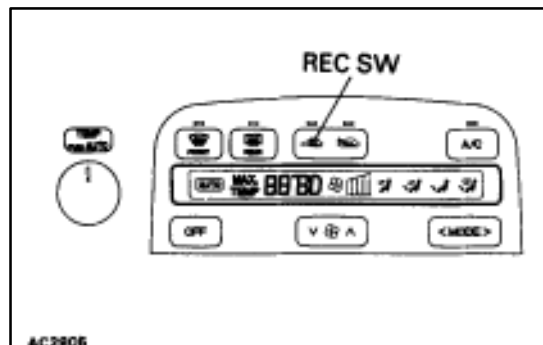
If code 21 is still displayed, there could be trouble in the solar sensor circuit.

Trouble Area	Memory* ⁵	See page
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<ul style="list-style-type: none"> Room temp. Sensor Harness or connector between room temp. sensor and A/C control assembly A/C control assembly 	O (8.5 min. or more)	AC-44
<ul style="list-style-type: none"> Ambient temp. sensor Harness or connector between ambient temp. sensor and A/C control assembly A/C control assembly 	O (8.5 min. or more)	AC-46
<ul style="list-style-type: none"> Evaporator temp. sensor Harness or connector between evaporator temp. sensor and A/C control assembly A/C control assembly 	O (8.5 min. or more)	AC-48
<ul style="list-style-type: none"> Water temp. sensor Harness or connector between water temp. sensor and A/C control assembly A/C control assembly 	O (8.5 min. or more)	AC-50
<ul style="list-style-type: none"> Solar sensor Harness or connector between sensor and A/C control assembly A/C control assembly 	– (8.5 min. or more)	AC-52
<ul style="list-style-type: none"> Compressor drive belt Compressor lock sensor Compressor Harness and connector between A/C control assembly and compressor, compressor lock sensor A/C control assembly 	–	AC-54
<ul style="list-style-type: none"> Pressure switch Harness or connector between pressure switch and A/C control assembly Refrigerant pipe line A/C control assembly 	–	AC-56
<ul style="list-style-type: none"> Air mix damper position sensor A/C control assembly Harness or connector between air mix damper position sensor and A/C control assembly 	O (1 min. or more)	AC-58
<ul style="list-style-type: none"> Air inlet damper position sensor A/C control assembly Harness or connector between air inlet damper position sensor and A/C control assembly 	O (1 min. or more)	AC-62
<ul style="list-style-type: none"> Air outlet damper position sensor A/C control assembly Harness or connector between air outlet damper position sensor and A/C control assembly 	O (1 min. or more)	AC-66
<ul style="list-style-type: none"> Air mix servomotor Air mix damper position sensor Harness and connector between A/C control assembly and air mix position sensor Harness and connector between A/C control assembly and air mix servomotor. 	O (15 secs. or more)	AC-58 AC-60
<ul style="list-style-type: none"> Air inlet servomotor Air inlet damper position sensor Harness and connector between A/C control assembly and air inlet position sensor. Harness and connector between A/C control assembly and air inlet servomotor. 	O (15 secs. or more)	AC-62 AC-64
<ul style="list-style-type: none"> Air outlet servomotor Air outlet damper position sensor Harness and connector between A/C control assembly and air outlet position sensor. Harness and connector between A/C control assembly and air outlet servomotor. A/C control assembly 	O (15 secs. or more)	AC-66 AC-68


HINT: *⁴ Compressor lock (Diag. code 22) is indicated only for a currently occurring malfunction.
(See page AC-54) To confirm diagnostic code 22, perform the following steps.



- (1) With the engine ON, enter the diagnostic code check mode.
- (2) Press the  switch to enter actuator check mode, and set the operation to Step No. 3.
- (3) Press the [AUTO] switch to return to diagnostic code check mode.
- (4) The diagnostic code is displayed after approx. 3 secs.

*⁵ The ECU memorizes the diag. code of the respective malfunction when it has occurred for the period of time indicated in the brackets.


















ACTUATOR CHECK

1. After entering the diagnostic code check mode sensor check mode, press the REC  switch.
2. Since each damper, motor and relay automatically operates at 1 second intervals beginning in order from 20 in the temperature display, check the temperature and air flow visually and by hand.

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

HINT:

- The buzzer sounds when the display code changes.
- Codes are displayed in order from the smaller to the larger numbers.
- To cancel the check mode, press the OFF switch.

Step No.	Display code	Conditions					
		Water valve VSV	Blower motor	Air flow vent	Air inlet damper	Magnet clutch	Air mix damper
1	20	OFF	OFF 	 (FACE)	 (FRESH)	OFF	Cool side (0% Open)
2	21	↑	1 	↑	 (F/R)	↑	↑
3	22	↑	2 	↑	 (RECIRC)	ON	↑
4	23	ON	3 	 (BI-LEVEL)	 (FRESH)	↑	Cool/Hot (50% open)
5	24	↑	↑	 (FOOT)	↑	↑	↑
6	25	↑	4 	↑	↑	↑	Hot side (100% open)
7	26	↑	↑	 (F/D)	↑	↑	↑
8	27	↑	5 	 (DEF)	↑	↑	↑