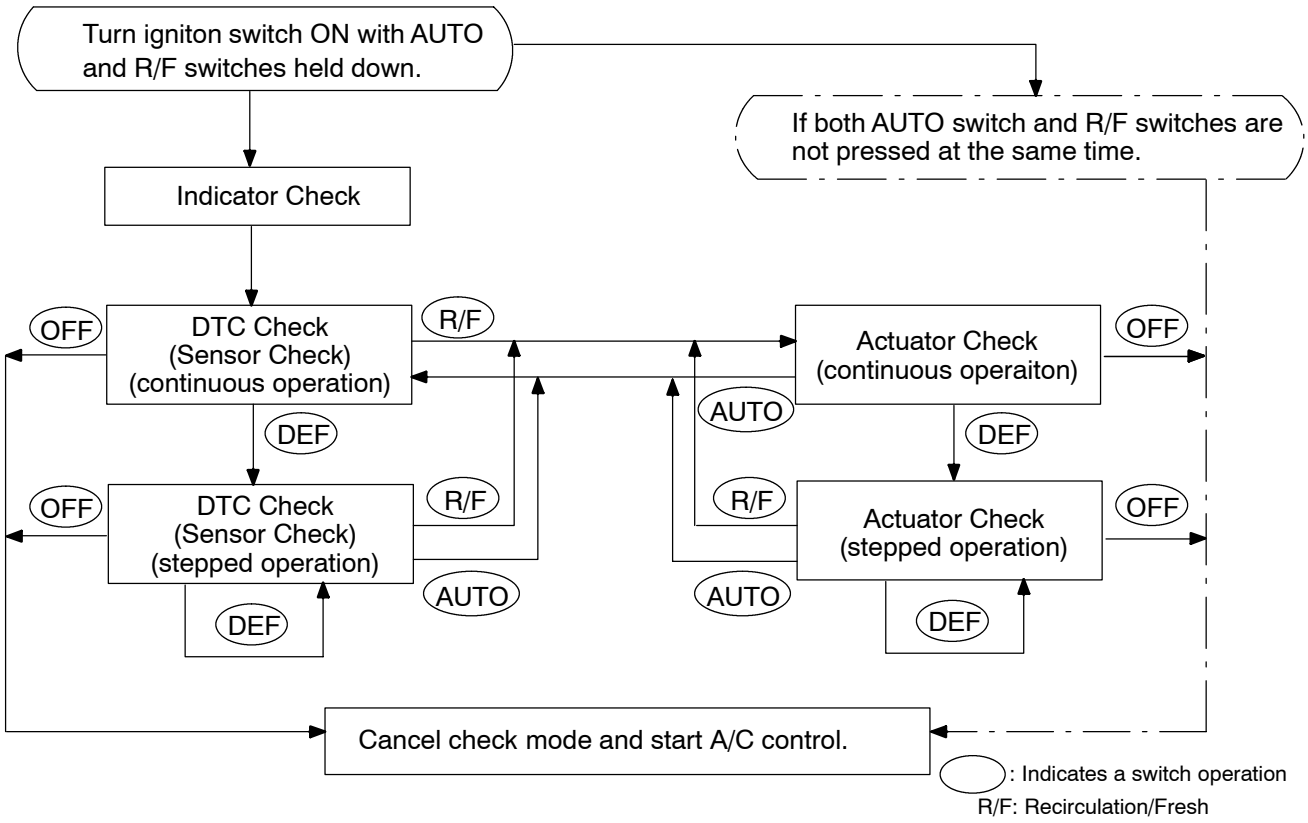
05JR6–01

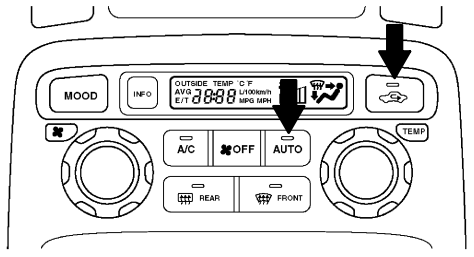
PRE–CHECK

1. LIST OF OPERATION METHODS

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

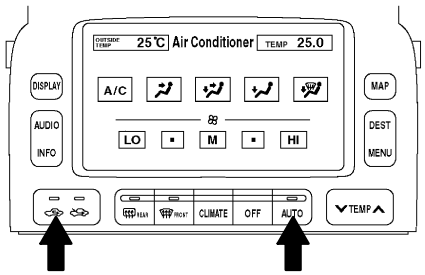


w/o Navigation System



C I41022

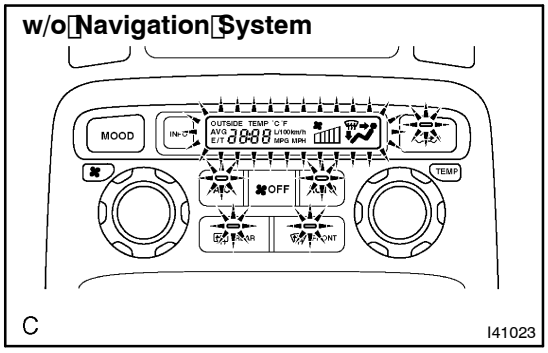
w/ Navigation System



I41862

2. INDICATOR CHECK

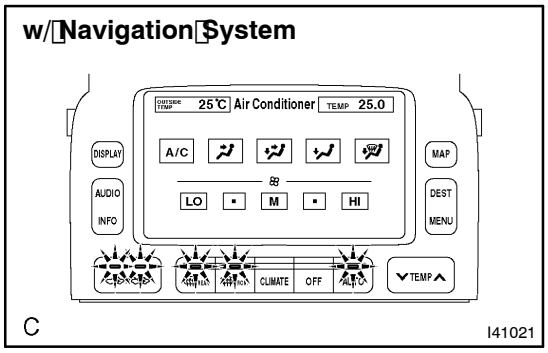
(a) Turn the ignition switch ON while pressing the A/C control AUTO switch and R/F switch simultaneously.

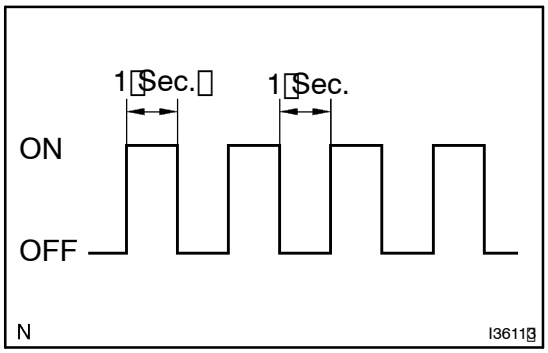


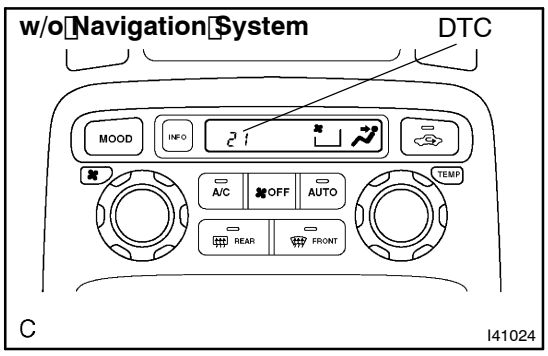
(b) Check that the indicators light up and go off at 1 second intervals 4 times in succession.

HINT:

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



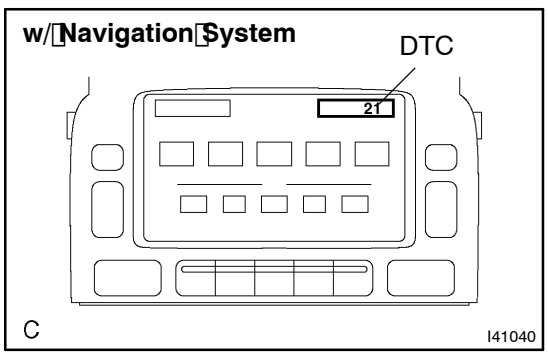




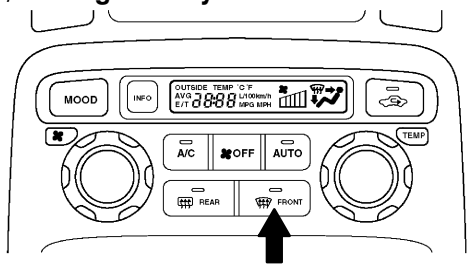
3. DTC CHECK (SENSOR CHECK)

(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 05–431 when reading the codes. (Trouble codes are output at the temperature display.)

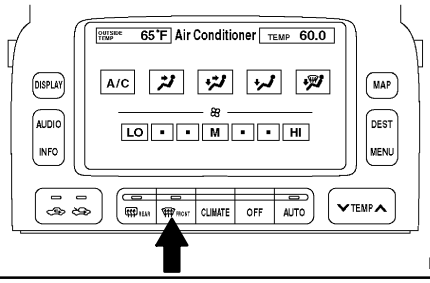


w/o Navigation System



C I41022

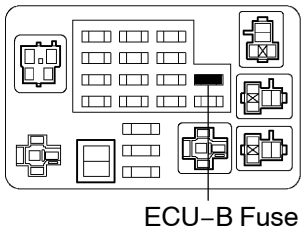
w/ Navigation System



C I41020

(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.

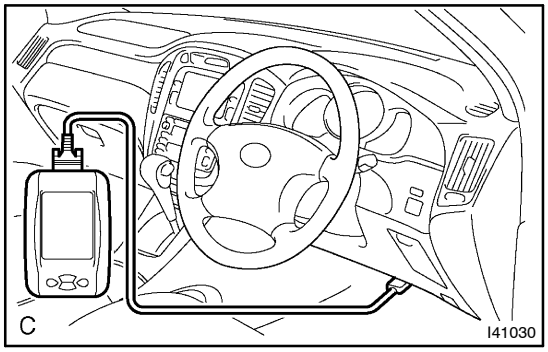
Engine Room J/B



N I30337

4. CLEARING DTC

(a) 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.



C I41030

5. DTC CHECK USING INTELLIGENT TESTER II

(a) Connect the intelligent tester II to the DLC3.
(b) Turn the ignition switch to the ON position.
(c) Read the DTC following the prompts on the tester screen. Please refer to the intelligent tester II operator's manual for further details.
(d) Clear the DTCs.

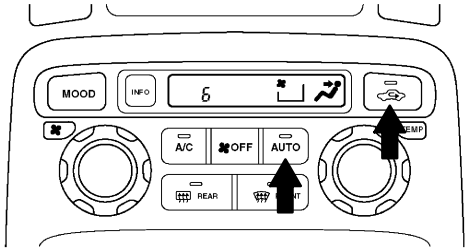
HINT:

After repairing the malfunctions, clear the DTC.
  (1) Connect the intelligent tester II to DLC3.
  (2) Turn the ignition switch to the ON position.
  (3) Erase the DTCs following the prompts on the tester screen.

HINT:

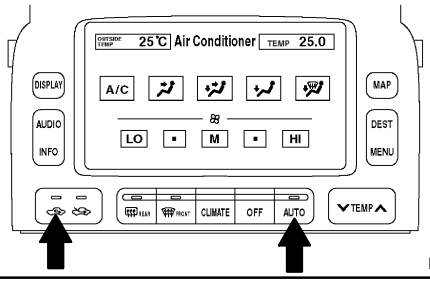
Refer to the intelligent tester II operator's manual for further details.

w/o Navigation System



C I41025

w/ Navigation System



I41862

6. ACTUATOR CHECK

(a) Turn the ignition switch to the ON position while pressing the A/C control AUTO switch and R/F (Recirculation / Fresh) switch simultaneously.

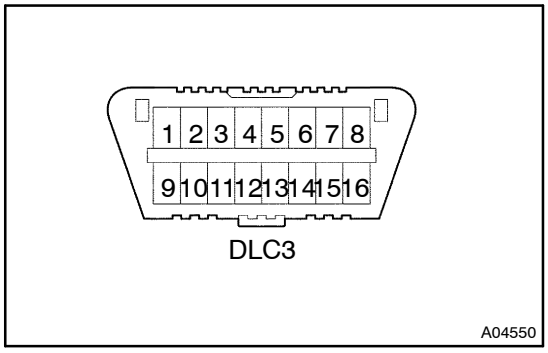
(b) As each damper, motor and relay automatically operate the actuator check at 1 second intervals from step No.1 to No.10 continuously, check the temperature and air flow visually and by hand.

If a slower display is desired, press the temperature up switch and change the display in the step operation. Each time the temperature up switch is pressed, the display changes by 1 step.

HINT:

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

Step No.	Display code	Conditions				
		Blower level	Air flow vent	Air inlet damper	Magnetic clutch	Air mix damper
1	0	0	FACE	FRESH	OFF	”COOL” side (Fully closed)
2	1	1	FACE	FRESH	OFF	”COOL” side (Fully closed)
3	2	17	FACE	FRESH	ON	”COOL” side (Fully closed)
4	3	17	FACE	FRESH	ON	”COOL” side (Fully closed)
5	4	17	FACE	RECIRCULATION	ON	”COOL”/ ”WARM ” (50% open)
6	5	17	B/L	RECIRCULATION	ON	”COOL”/ ”WARM ” (50% open)
7	6	17	FOOT	RECIRCULATION	ON	”WARM” side (Fully opened)
8	7	17	FOOT	RECIRCULATION	ON	”WARM” side (Fully opened)
9	8	17	FOOT/ DEF	RECIRCULATION	ON	”WARM” side (Fully opened)
10	9	31	DEF	RECIRCULATION	ON	”WARM” side (Fully opened)



7. CHECK DLC3

(a) The vehicle's ECM uses the ISO 9141–2 (Euro–OBD)/ ISO 14230 (M–OBD) communication protocol. The terminal arrangement of DLC3 complies with ISO 15031–3 and matches the ISO 9141–2/ISO 14230 format.

Terminal No.	Connection/Voltage or Resistance	Condition
7	Bus + Line/Pulse generation	During transmission
4	Chassis Ground – Body Ground/1 Ω or less	Always
5	Signal Ground – Body Ground/1 Ω or less	Always
16	Battery Positive – Body Ground/9 to 14 V	Always

8. DATA LIST

HINT:

From the DATA LIST displayed on the intelligent tester II, you can read the values of the displays, sensors, actuators and so on without parts removal. Reading the DATA LIST as the first step of troubleshooting is one way to shorten labor time.

(a) Connect the intelligent tester II to the DLC3.

(b) Turn the ignition switch to the ON position.

(c) From the display on the tester, select the "DATA LIST".

ALL:

Item	Measurement Item / Display (Range)	Normal Condition	Diagnostic Note
A/C Sig	A/C signal / ON or OFF	A/C ON: ON	–

A C:

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
Room temperature sensor (Room Temp)	Room temperature sensor /min.: –6.5°C (20.3°F) max.: 57.25°C (135.05°F)	Actual room temperature	–
Ambient temperature sensor (Ambi Temp Sens)	Ambient temperature sensor /min.: –23.3°C (–9.94°F) max.: 65.95°C (150.71°F)	Actual ambient temperature	–
Adjusted ambient temperature (Ambi Temp)	Adjusted ambient temperature /min.: –30.8°C (–23.44°F) max.: 50.8°C (123.44°F)	Actual ambient temperature	–
Evaporator temperature sensor (Evap Temp)	Evaporator temperature sensor /min.: –29.7°C (–21.46°F) max.: 59.55°C (139.19°F)	Actual evaporator temperature	–
Solar sensor (D side) (Solar Sens–D)	Solar sensor (Driver side) /min.: 0 max.: 255	Changes depending on brightness	–
Engine coolant temperature (Coolant Temp)	Engine coolant temperature /min.: 1.3°C (34.34°F) max.: 90.55°C (194.99°F)	Actual engine coolant temperature	–
Set temperature (D side) (Set Temp–D)	Set temperature (Driver side) /min.: 0 max.: 255	Actual set temperature	–
Air mix damper position (D side) (A/M Damp Pos–D)	Air mix damper position (Driver side) /min.: –14% max.: 113.5%	Changes depending on the set temperature	–

Item	Measurement Item/Display (Range)	Normal Condition	Diagnostic Note
Air outlet damper position (A/O Damp Pos)	Air outlet damper position /min.: –14% max.: 113.5%	Changes depending on air outlet power position	–
Air mix damper target position (D side) (A/M Damp Targ–D)	Air mix damper target position (Driver side) /min.: –14% max.: 113.5%	Changes depending on the set temperature	–
Air outlet damper target position (A/O Damp Targ)	Air outlet damper target position /min.: –14% max.: 113.5%	Changes depending on air outlet power position	–
Blower motor speed level (Blower Level)	Blower motor speed level /min.: Level 0 max.: Level 31	Changes depending on blower level	–
Number of Trouble Codes (#Codes)	Number of Trouble Codes /min.: 0 max.: 255	–	–
Hands free telephone (Hand Free Tel)	Hands free telephone / OFF, ON	–	–
Shift set temperature (Set Temp Shift)	Shift set temperature/2C decr, 1C decr, NORMAL, 1C incr, 2C incr	Changes depending on shift set temperature *1	–
Compressor mode (Compressor Mode)	Compressor mode /AUTO, MANUAL	Changes depending on compressor mode *1	–
Compressor/DEF operation mode (Comprs/DEF Oper)	Compressor/DEF operation mode /LINK, NORMAL	Changes depending on compressor/DEF operation mode *1	–

HINT:

*1: It differs depending on the user setting.