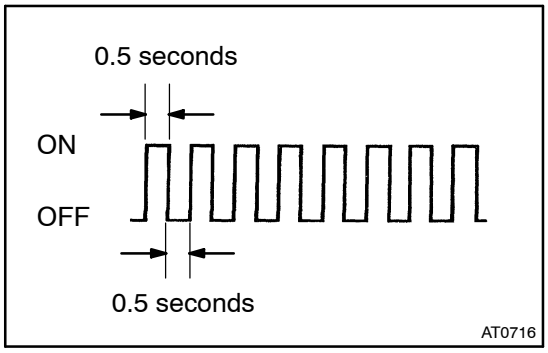
05A7J–01

PRE–CHECK

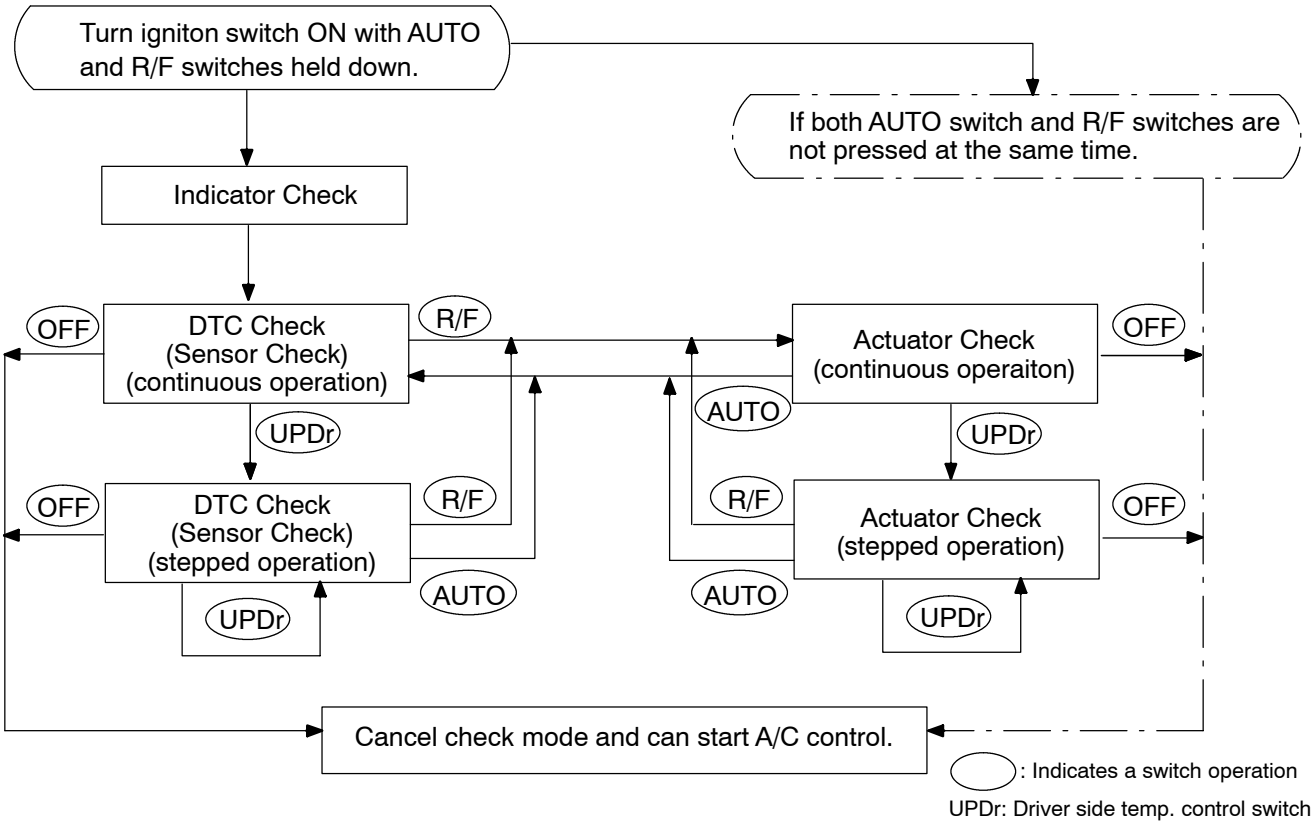


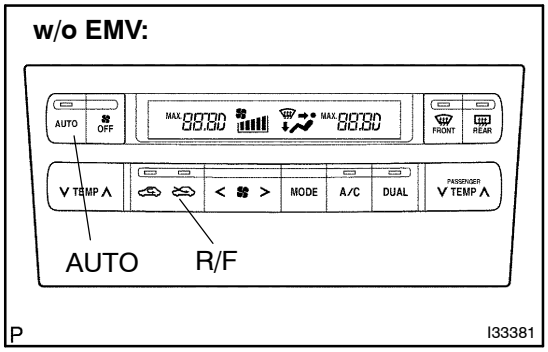
1. WARNING FOR A/C COMPRESSOR LOCK (1KD–FTV)

If compressor lock occurs during A/C operation, the A/C switch indicator on the A/C control assembly starts blinking.
When this occurs, check for compressor lock (22) using diagnosis trouble code check then proceed to inspect the circuit or the component.
Compressor lock sensor circuit. (See page 05–1060)

2. LIST OF OPERATION METHODS

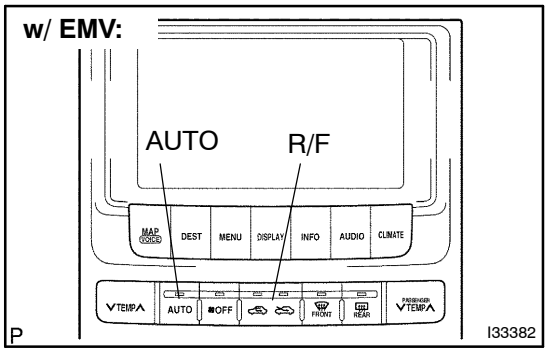
By operating each of the A/C control switches as shown in the diagram below, it is possible to enter the diagnosis check mode.

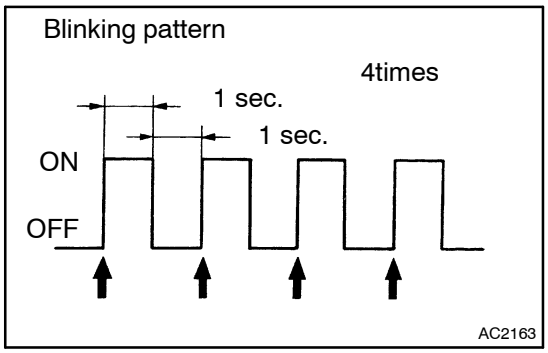




3. INDICATOR CHECK

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

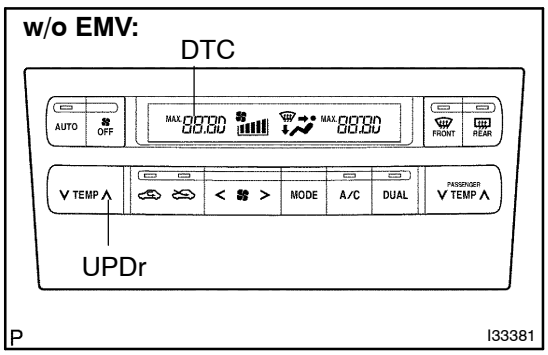




(b) Check that the indicators come on and go off 4 times in succession at a interval of a second.

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.

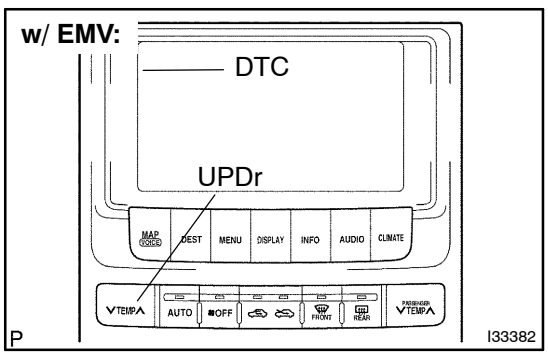


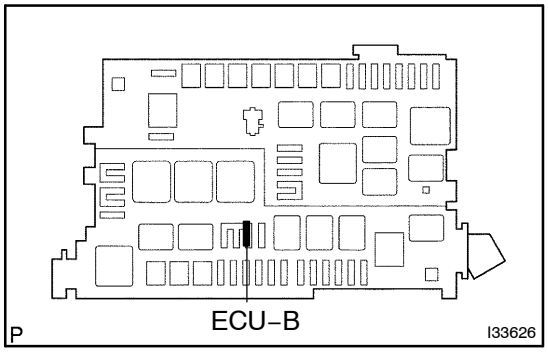
4. DTC CHECK (SENSOR CHECK)

(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 05–1028 when reading the codes. (Trouble codes are output at the temperature display.)

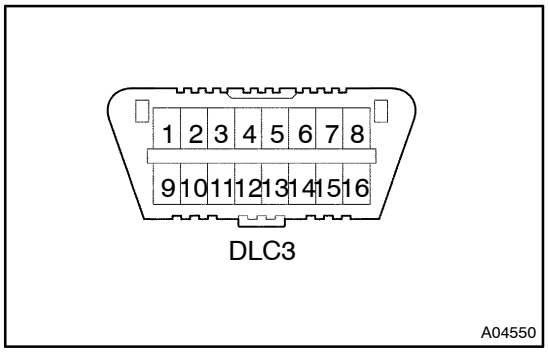
(c) If the slower display is desired, press the UPDr switch and change it to stepped operation. Each time the UPDr switch is pressed, the display changes by 1 step.





5. 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.



6. CHECK DLC3

(a) The vehicle's engine and ECT ECU uses the ISO 9141–2 (Euro–OBD)/ISO 14230 (M–OBD) communication protocol. The terminal arrangement of the 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 – 14 V	Always

7. DATA LIST (Except 5L–E)

HINT:

According to the DATA LIST displayed by hand–held tester, you can read the value of the switch, sensor, actuator and so on without parts removal. Reading the DATA LIST as a first step of troubleshooting is one of the methods to shorten the labor time.

(a) Connect the hand–held tester to the DLC3.
(b) Turn the ignition switch ON.
(c) According to the display on tester, read the "DATA LIST".

Item	Measurement Item/ Display (Range)	Normal Condition	Diagnostic Note
A/C SIG	A/C SW Status/ ON or OFF	• A/C SW Push: ON • A/C SW Release: OFF	←
A/C CUT SIG	A/C cut signal status/ ON or OFF	• A/C SW Push: ON • A/C SW Release: OFF	←

8. ACTIVE TEST

HINT:

Performing the ACTIVE TEST using hand–held tester allows the relay, VSV, actuator and so on to operate without parts removal. Performing the ACTIVE TEST as a first step of troubleshooting is one of the methods to shorten the labor time.

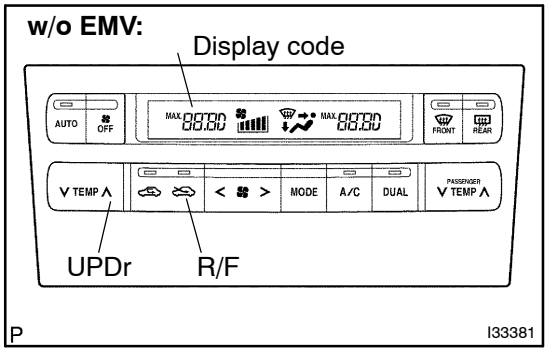
It is possible to display the DATA LIST during the ACTIVE TEST.

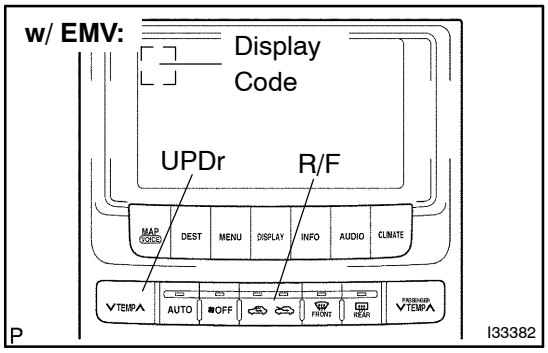
(a) Connect the hand–held tester to the DLC3.

(b) Turn the ignition switch ON.

(c) According to the display on tester, read the ”ACTIVE TEST”.

Item	Test Details	Diagnostic Note
A/C CUT SIG	Control the A/C cut signal ON/OFF	—





9. 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 manually.
If the slower display is desired, press the UPDr switch and change it to step operation. Each time the UPDr 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.

Step No.	Display code	Conditions				
		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	17	FACE	FRESH *1 FRESH/RECIRCULATION *2	ON	”COLD” side (Full closed)
4	3	17	FACE	FRESH *1 FRESH/RECIRCULATION *2	ON	”COLD” side (Full closed)
5	4	17	B/L	FRESH	ON	”COLD”/ ”HOT ” (50 % open)
6	5	17	AUTO FOOT	FRESH	ON	”COLD”/ ”HOT ” (50 % open)
7	6	17	MANUAL FOOT	FRESH	ON	”COLD”/ ”HOT ” (50 % open)
8	7	17	MANUAL FOOT	FRESH	ON	”HOT” side (Full opened)
9	8	17	FOOT/ DEF	FRESH	ON	”HOT” side (Full opened)
10	9	31	DEF	FRESH	ON	”HOT” side (Full opened)

*1: Europe, G.C.C. Countries Models

*2: Except Europe, G.C.C. Countries Models