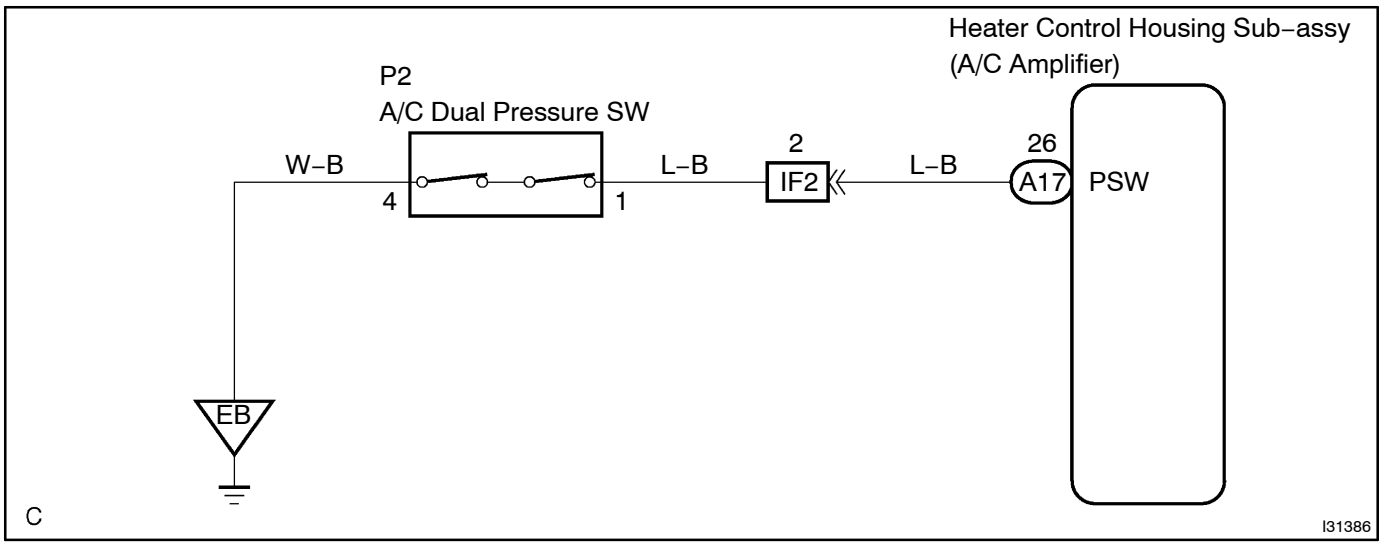
DTC 23 PRESSURE SWITCH CIRCUIT

CIRCUIT DESCRIPTION

The pressure switch sends the appropriate signals to the A/C amplifier when the A/C refrigerant pressure drops too low or rises too high. When the A/C amplifier receives these signals, it outputs signals via the A/C amplifier to switch OFF the compressor relay and turns the magnetic clutch OFF.

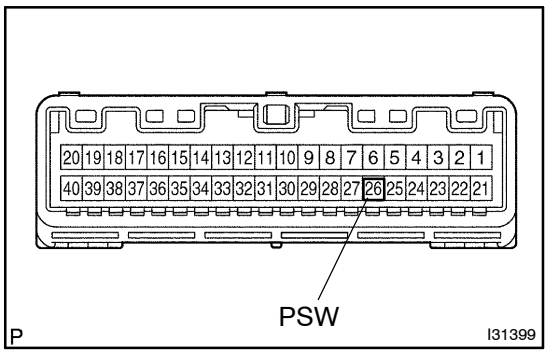
DTC No.	Detection Item	Trouble Area
23	• Open in pressure sensor circuit. • Abnormal refrigerant pressure. below 196 kPa (2.0 kgf/cm^2, 28 psi) over 3,140 kPa (32.0 kgf/cm^2, 455 psi)	• Pressure switch • Harness or connector between pressure switch and A/C amplifier • Refrigerant pipe line • A/C amplifier

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT HEATER CONTROL HOUSING SUB–ASSY(PSW)



(a) Install the manifold gauge set.
(b) Turn ignition switch ON.
(c) Check voltage between terminal PSW of A/C amplifier connector and body ground when refrigerant pressure is changed.
(d) The voltage changes with refrigerant pressure, as shown in the diagram below.

Voltage:

Low Pressure Cut Side	Reference : High Pressure Cut Side
ON (0V) 225 kPa 196 kPa OFF (12V)	ON (0V) 2,550 kPa 3,140 kPa OFF (12V)

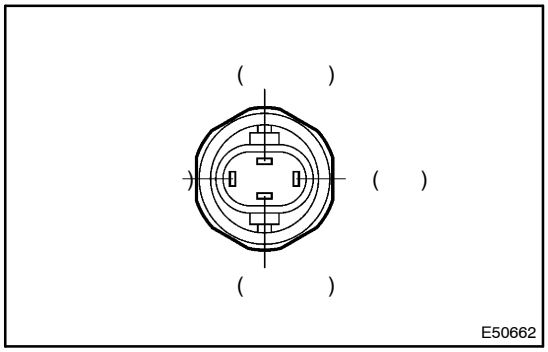
A	NG
B	OK (when checking from the PROBLEM SYMPTOM TABLE)
C	OK (Checking from the DTC)

B → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOM TABLE**

C → **CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY**

A

2 INSPECT COOLER CONDENSER ASSY(PRESURE SW)



(a) Turn ignition switch ON.
(b) Check continuity between terminals 1 and 4 of pressure switch when refrigerant pressure is changed.
(c) The continuity changes with refrigerant pressure as shown in the diagram below.

Continuity:

Low Pressure Cut Side	Reference : High Pressure Cut Side
ON (continuity) 225 kPa 196 kPa OFF (continuity)	ON (continuity) 2,550kPa 3,140kPa OFF (continuity)

NG → **REPLACE COOLER CONDENSER ASSY**

OK

3	**CHECK HARNESS AND CONNECTOR(BETWEEN PRESURE SW AND HEATER CONTROL HOUSING SUB–ASSY)**

NG → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

CHECK AND REPLACE HEATER CONTROL HOUSING SUB–ASSY