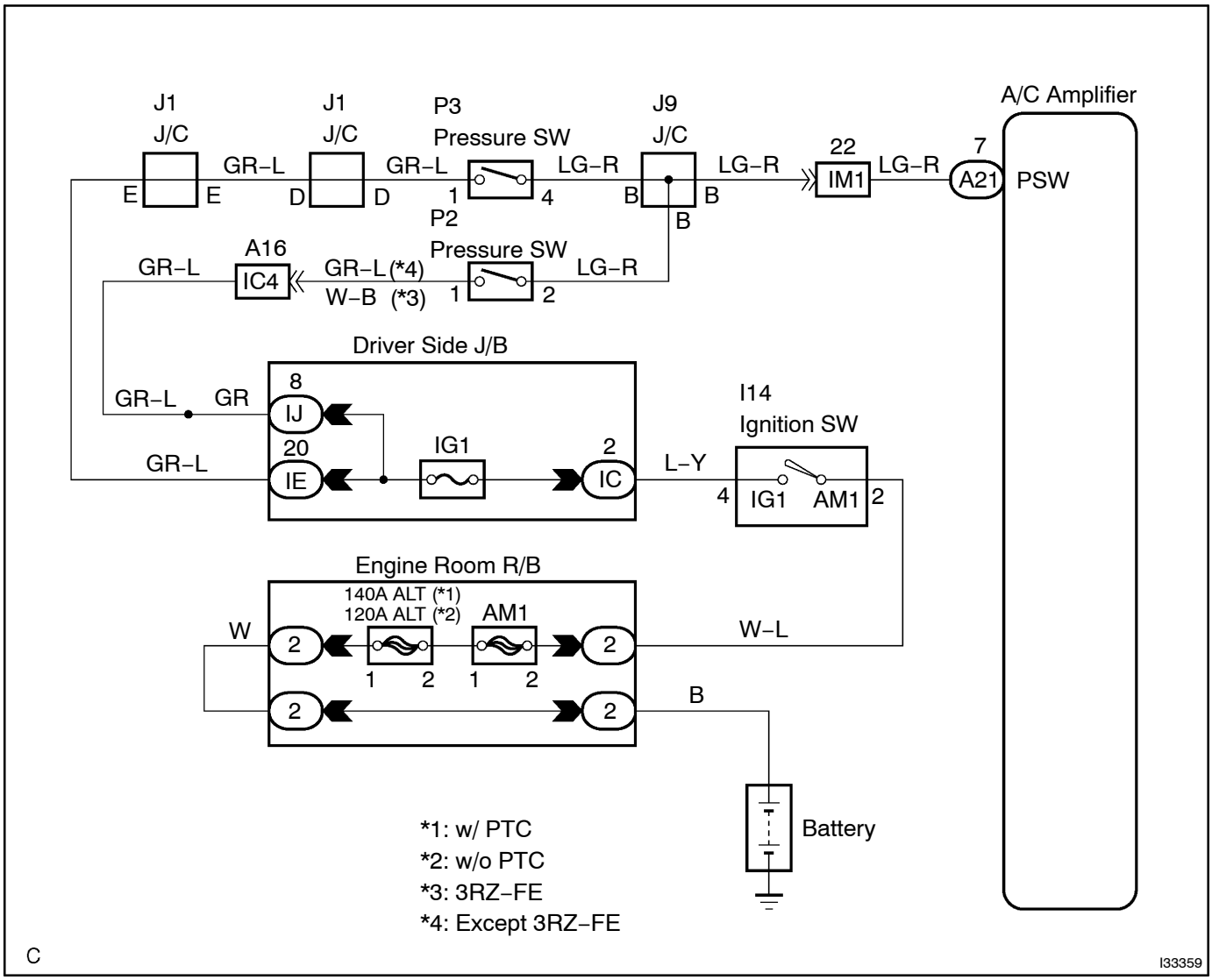
DTC 23 PRESSURE SWITCH CIRCUIT

CIRCUIT DESCRIPTION

The pressure switch sends the appropriate signals to the A/C amplifier assy 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.

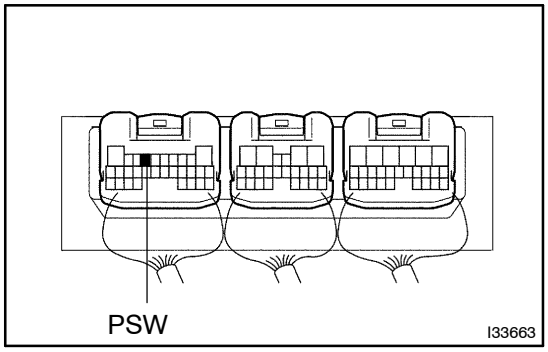
DTC No.	Detection Item	Trouble Area
23	• Open in pressure sensor circuit. • Abnormal refrigerant pressure. below 196 kPa (2.0 kgf/cm^2, 28 psi) over 3,140 kPa (32.0 kgf/cm^2, 455 psi)	• A/C tube assy (pressure switch) • Harness or connector between A/C tube assy (pressure switch) and A/C amplifier assy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

WIRING DIAGRAM



INSPECTION PROCEDURE

1 INSPECT AIR CONDITIONING AMPLIFIER(PSW)



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

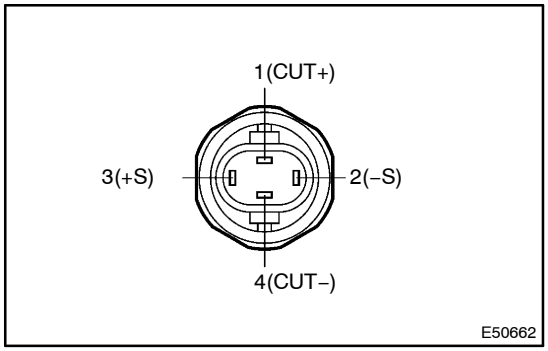
Voltage:

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)

OK → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE**

NG

2 INSPECT AIR CONDITIONING TUBE ASSY(PRESURE SW)



(a) Disconnect pressure SW connector.
(b) Turn ignition switch ON.
(c) Check continuity between terminal 1 and 4 of pressure SW when refrigerant pressure is changed.
(d) 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 AIR CONDITIONING TUBE ASSY**

OK

3 CHECK HARNESS AND CONNECTOR(PRESSURE SW – A/C AMPLIFIER)

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

OK

4	READ OUTPUT DTC

(a) Clear the sensor check codes.
(b) At least 8.5 minutes pass after turning the IG switch to ON position, read DTC.
Standard: Normal codes are output.

OK → **SYSTEM OK**

NG

CHECK AND REPLACE AIR CONDITIONING AMPLIFIER