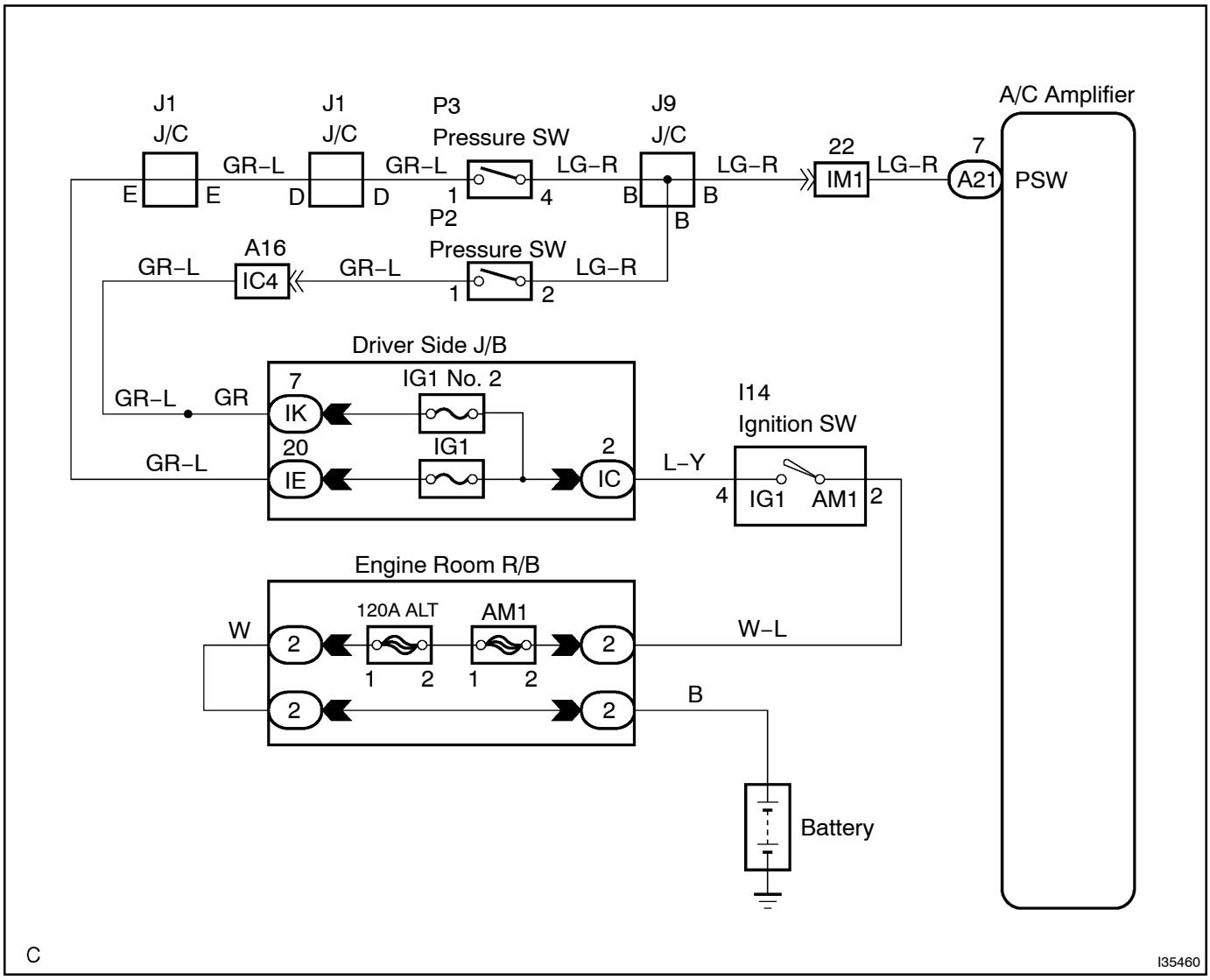
# DTC 23 PRESSURE SWITCH CIRCUIT

## 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 turn OFF the compressor relay the magnetic clutch.

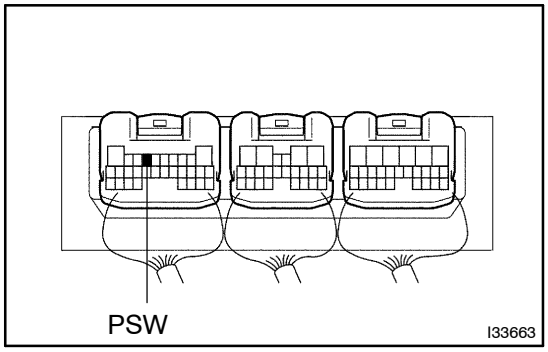
| DTC No. | Detection Item | Trouble Area |
|---|---|---|
| 23 | • Open in pressure sensor circuit.<br>• Abnormal refrigerant pressure.<br>below 196 kPa (2.0 kgf/cm$^2$, 28 psi)<br>over 3,140 kPa (32.0 kgf/cm$^2$, 455 psi) | • A/C tube assy (pressure switch)<br>• Harness or connector between A/C tube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

## WIRING DIAGRAM



# INSPECTION PROCEDURE

## 1 INSPECT AIR CONDITIONING AMPLIFIER(PSW)




(a) Install the manifold gauge set.
(b) Remove the A/C amplifier.
(c) Turn the ignition switch to ON.
(d) Check the voltage between the terminal PSW of the 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.

**Standard:**

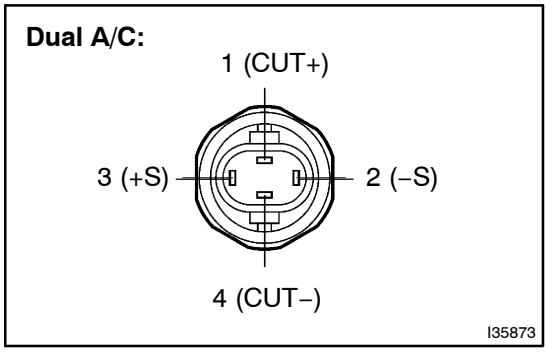
| Low Pressure Cut Side | Reference : High Pressure Cut Side |
|---|---|
| ON (0V) ↑ 225 kPa<br>196 kPa ↓<br>OFF (12V) | ON (0V)<br>2,550 kPa ↑<br>↓ 3,140 kPa<br>OFF (12V) |

**OK** → **PROCEED TO NEXT CIRCUIT INSPECTION SHOWN ON PROBLEM SYMPTOMS TABLE (See page 05–349)**

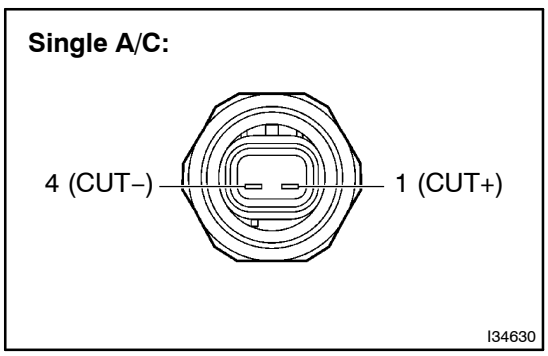
**NG**

## 2 INSPECT AIR CONDITIONING TUBE ASSY(PRESURE SW)

**Dual A/C:**




**Single A/C:**




(a) Disconnect the pressure SW connector.
(b) Turn the ignition switch to ON.
(c) Check continuity between the terminal 1 and 4 of the pressure SW when refrigerant pressure is changed.
(d) Continuity changes with refrigerant pressure as shown in the diagram below.

**Standard:**

| Low Pressure Cut Side | Reference : High Pressure Cut Side |
|---|---|
| ON (Continuity) ↑ 225 kPa<br>196 kPa ↓<br>OFF (No continuity) | ON (Continuity)<br>2,550kPa ↑<br>↓ 3,140kPa<br>OFF (No continuity) |

**NG** → **REPLACE AIR CONDITIONING TUBE ASSY**

**OK**

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

(a) Check for open or short in harness and the connector between the pressure SW and the A/C amplifier (See page 01–35).

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

OK

| 4 | READ OUTPUT DTC |
|---|---|

(a) Clear the sensor check codes.
(b) Leave the IG switch to ON position for at least 8.5 minutes, and then read DTC.
**Standard: Normal codes are output.**

NG → **REPLACE AIR CONDITIONING AMPLIFIER**

OK

**SYSTEM OK**