DI8A4–01

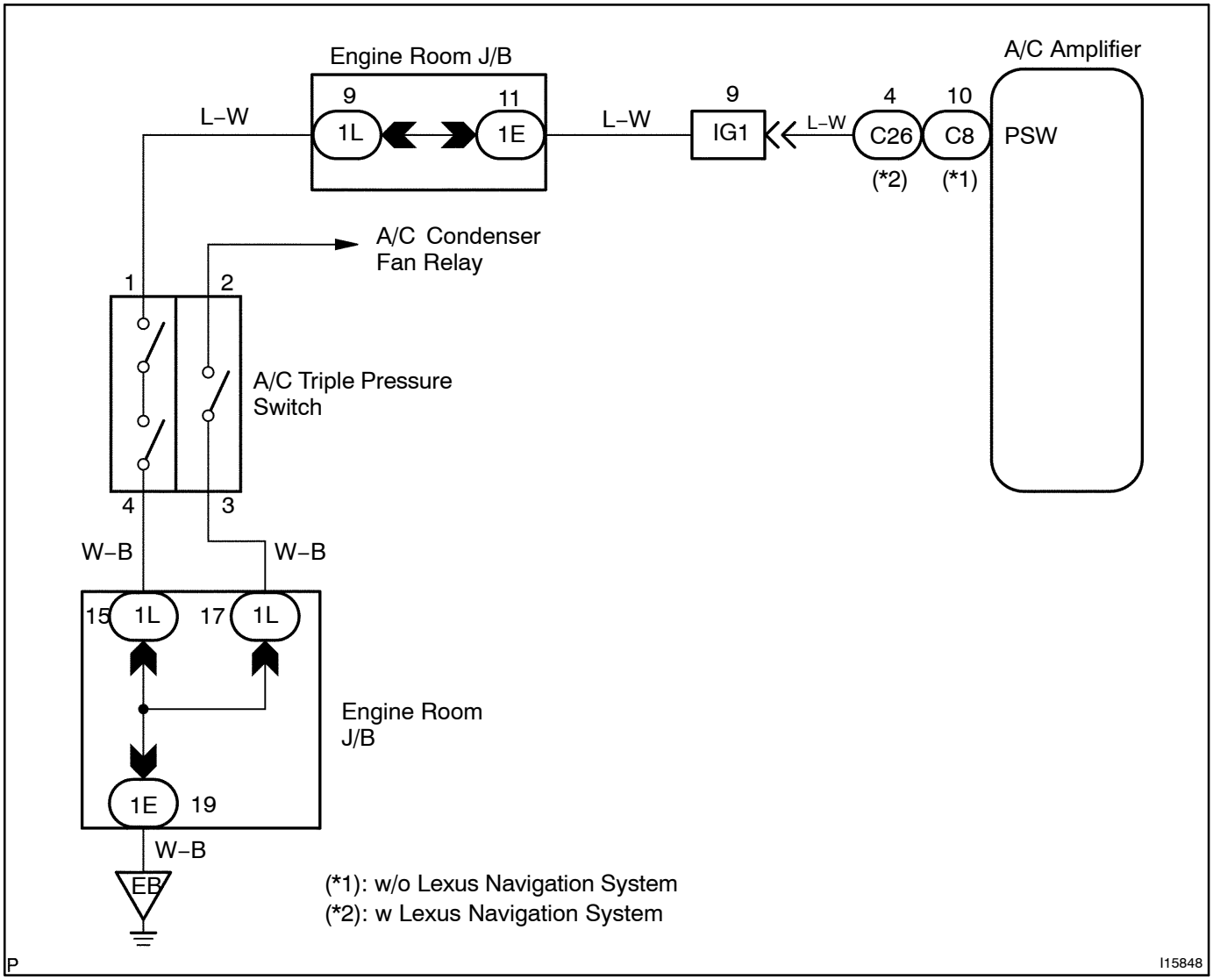
DTC	23	Pressure Switch Circuit

CIRCUIT DESCRIPTION

The pressure switch sends the appropriate signals to the A/C amprifier 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 kg/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

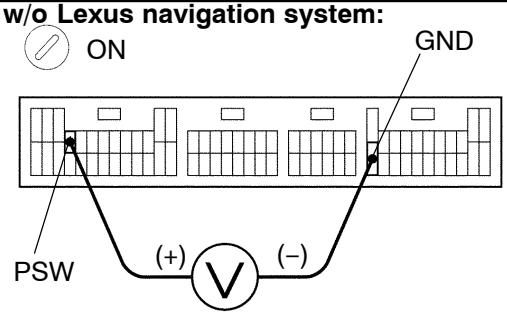
WIRING DIAGRAM



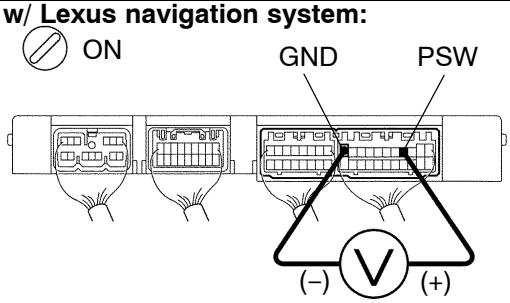
INSPECTION PROCEDURE

1	Check voltage between terminal PSW and GND of A/C amplifier.

w/o Lexus navigation system:



w/ Lexus navigation system:



PREPARATION:

Install the manifold gauge set.

CHECK:

(a) Turn ignition switch to ON.

(b) Check voltage between terminals PRE and GND of A/C amplifier connector when A/C gas pressure is changed.

OK:

The voltage changes with gas pressure, as shown in the diagram below.

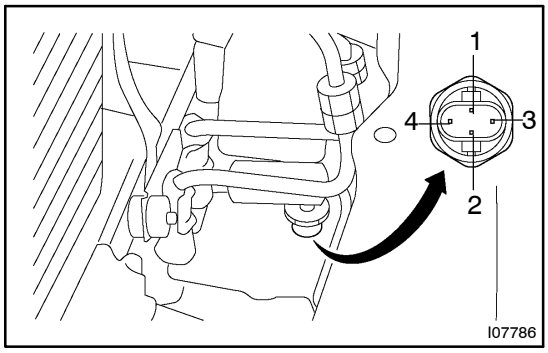
Low Pressure Cut Side	Reference : High Pressure Cut Side
ON (0V) 225 kPa 196 kPa OFF (12V)	ON (0V) 2,550 kPa 3,140 kPa OFF (12V)

NG → **Go to step 2.**

OK

Proceed to next circuit inspection shown on problem symptoms table (See page DI–937). However, if DTC 23 is displayed, check and replace A/C amplifier.

2	Check pressure switch.



PREPARATION:

Disconnect pressure switch connector.

CHECK:

(a) Turn ignition switch ON.

(b) Check continuity between terminals 1 and 4 of pressure switch when A/C gas pressure is changed.

OK:

The continuity changes with gas pressure as shown below.

Low Pressure Cut Side	Reference : High Pressure Cut Side
ON (continuity) 196 kPa ↑ 211 kPa OFF (continuity)	ON (continuity) 2,550 kPa ↓ 3,140 kPa OFF (continuity)

NG → **Replace pressure switch.**

OK ↓

3	Check harness and connector between A/C amplifier and pressure switch (See page IN–34).

NG → **Repair or replace harness or connector.**

OK ↓

Check and replace A/C amplifier.