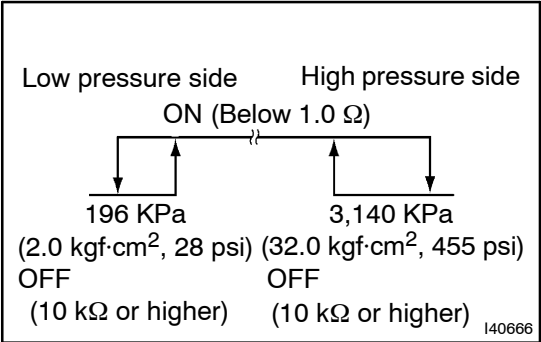


DTC	AUTO,LO	PRESSURE SWITCH CIRCUIT
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CIRCUIT DESCRIPTION

RHD 2AZ-FE model:

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, the compressor does not compress refrigerant.

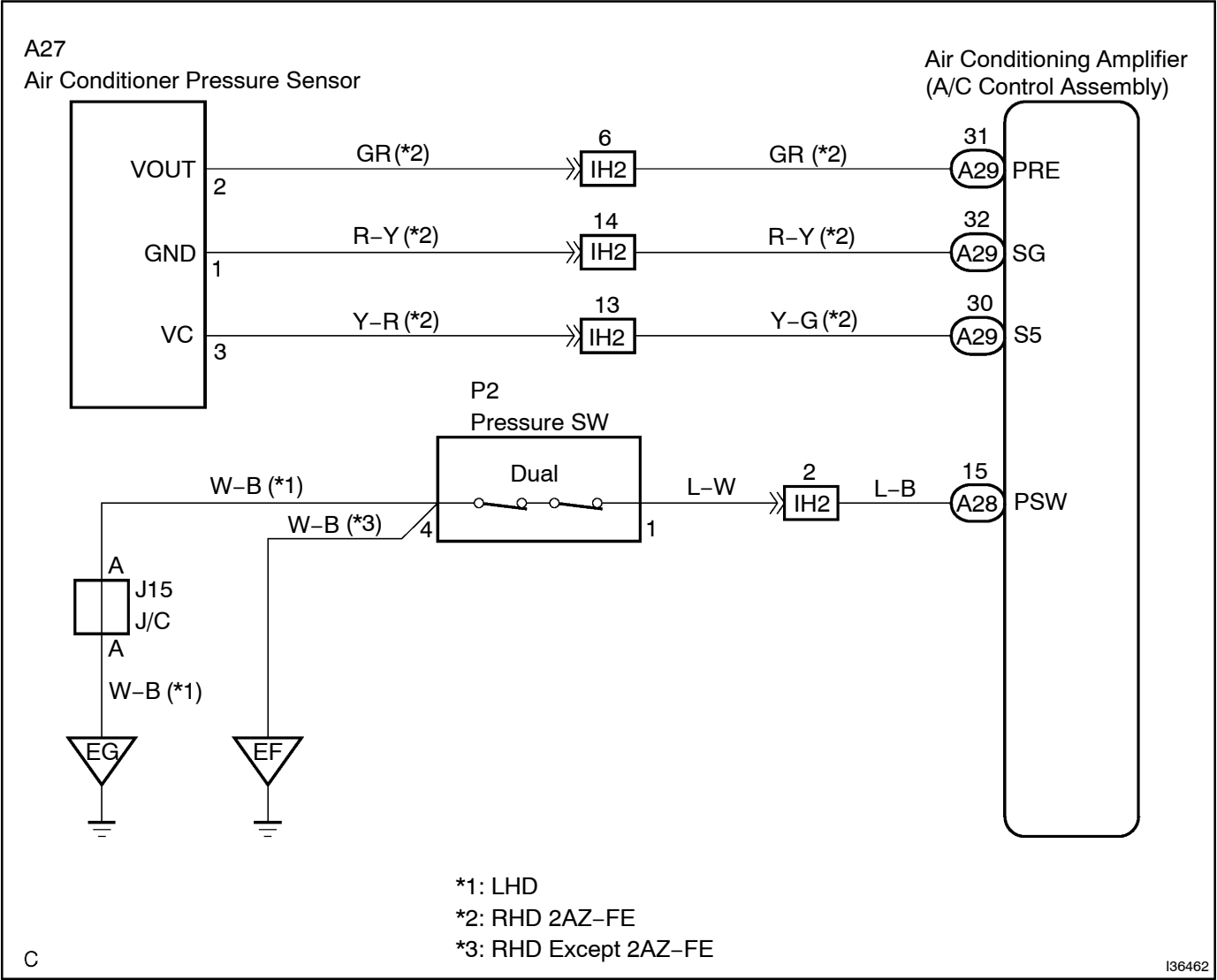


LHD, RHD Except 2AZ-FE model:

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 through the A/C amplifier to turn the magnet clutch relay off and turns the magnetic clutch off.

DTC No.	Detection Item	Trouble Area
AUTO, LO	<ul style="list-style-type: none">• Open in pressure switch circuit• Abnormal refrigerant pressure: Below 196 kPa (2.0 kgf/cm², 28 psi) Over 3,140 kPa (32.0 kgf/cm², 455 psi)	<ul style="list-style-type: none">• Pressure switch• Harness or connector between pressure switch and A/C amplifier• Refrigerant pipe line• A/C amplifier

WIRING DIAGRAM



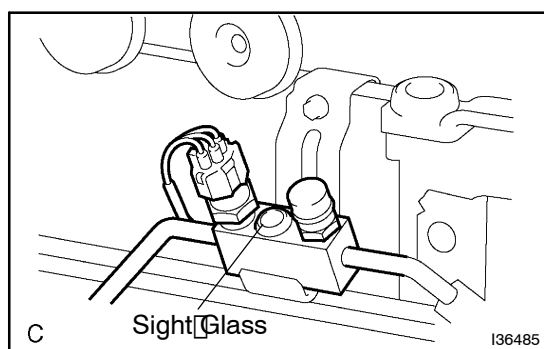
INSPECTION PROCEDURE

1	CONFIRM MODEL
---	---------------

Result:
A: RHD 2AZ-FE
B: LHD, RHD Except 2AZ-FE

B Go to step 6

A

2 CHECK REFRIGERANT VOLUME

(a) Observe the sight glass on the liquid tube.

Test conditions:

- Running engine at 1,500 rpm
- Blower speed control switch at "HI"
- A/C switch ON
- Temperature control dial at "MAX. COOL"
- Fully open the doors

OK:

Immediately after air conditioning is turned off, refrigerant foams and then becomes clear.

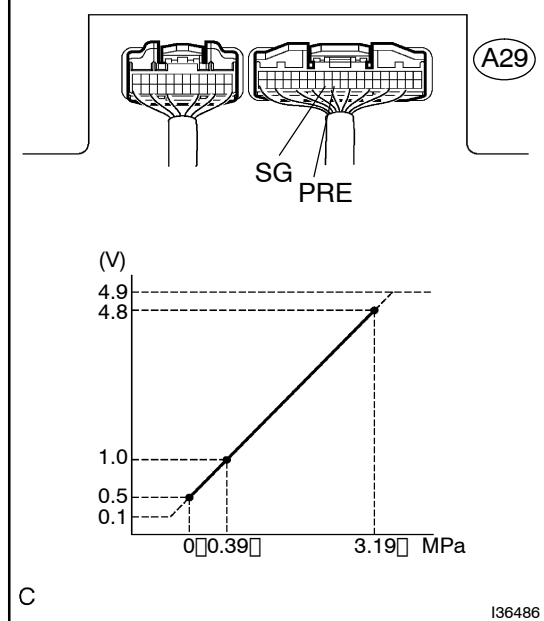
NG

ADJUST REFRIGERANT (SEE PUB. NO. RM864E ON PAGE 55-22)

OK

3 INSPECT AIR CONDITIONING AMPLIFIER (PRS, SG)

Air Conditioning Amplifier Connector Wire Harness View:



(a) Remove the A/C amplifier with the connectors still connected.

(b) Install the manifold gauge set (see Pub. No. RM864E on page 55-22).

(c) Turn the ignition switch to the ON position.

(d) Measure the voltage according to the value(s) in the table below.

OK:

The voltage depends on the refrigerant pressure as shown in the chart.

Result:

NG	A
OK (Checking from the PROBLEM SYMPTOMS TABLE)	B
OK (Checking from the DTC)	C

A

Go to step 4

B

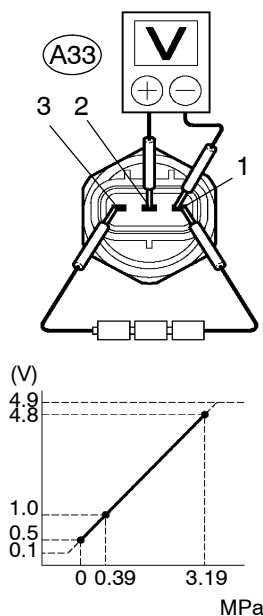
PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05-862)

OK

REPLACE AIR CONDITIONING AMPLIFIER (SEE PUB. NO. RM864E ON PAGE 55-96)

4 INSPECT A/C PRESSURE SENSOR

A/C Pressure Sensor Connector Front View:



- Disconnect the A/C pressure sensor connector.
- Install the manifold gauge set (see Pub. No. RM864E on page 55-22).
- Connect the positive (+) lead from the three 1.5 V dry cell batteries to terminal 3 and negative (-) lead to terminal 1.
- Check voltage between terminals 2 and 1 of the A/C pressure sensor.

OK:

The voltage depends on the refrigerant pressure as shown in the chart.

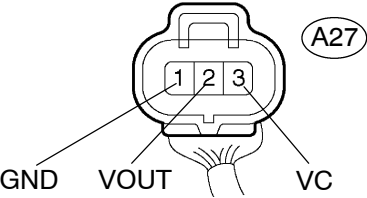
NG

REPLACE A/C PRESSURE SENSOR

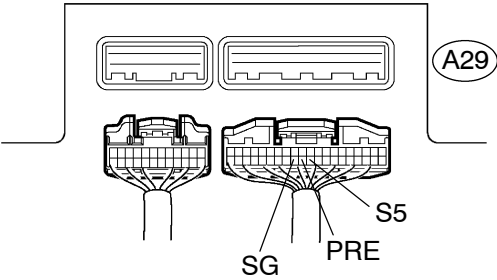
OK

5 CHECK HARNESS AND CONNECTOR (A/C PRESSURE SENSOR - AIR CONDITIONING AMPLIFIER) (SEE PAGE 01-32)

A/C Pressure Sensor Connector
Wire Harness View:



Air Conditioning Amplifier Connector
Wire Harness View:



C

I36488

- (a) Disconnect the connectors from the A/C pressure sensor and A/C amplifier.
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Condition	Specified Condition
A27-1 (GND) - A29-32 (SG)	Always	Below 1 Ω
A27-2 (VOUT) - A29-31 (PRE)	Always	Below 1 Ω
A27-3 (VC) - A29-30 (S5)	Always	Below 1 Ω
A29-32 (SG) - Body Ground	Always	10 kΩ or higher
A29-31 (PRE) - Body Ground	Always	10 kΩ or higher
A29-30 (S5) - Body Ground	Always	10 kΩ or higher

Result:

NG	A
OK (Checking from the PROBLEM SYMPTOMS TABLE)	B
OK (Checking from the DTC)	C

A

REPAIR OR REPLACE HARNESS OR CONNECTOR

B

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05-862)

C

REPLACE AIR CONDITIONING AMPLIFIER (SEE PUB. NO. RM864E ON PAGE 55-96)

6 INSPECT REFRIGERANT PRESSURE

- (a) Set the manifold gauge.
 (b) Read the manifold gauge pressure when these conditions are established.

Test conditions:

- Temperature at the air inlet with the switch set at RECIRC is 30 to 35°C (86 to 95°F)
- Engine running at 1,500 rpm
- Blower speed control switch at "HI"
- Temperature control dial at "COOL"
- A/C switch ON
- Fully open doors

Standard:

Pressure on high pressure side:

1.37 to 1.57 MPa (13.9 to 16.0 kgf·cm², 198 to 228 psi)

HINT:

If the refrigerant pressure is below 196 KPa (2.0 kgf·cm², 28 psi), the refrigerant amount the air conditioning cycle may have decreased significantly for reasons such as gas leakage.

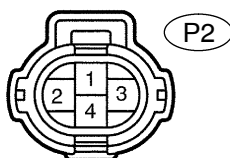
NG

INSPECT AND REPAIR AIR CONDITIONING CYCLE (SEE PUB. NO. RM864E ON PAGE 55-22)

OK

7 CHECK AIR CONDITIONING OPERATION

**Pressure Switch
Connector Wire Harness View:**



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- (a) Disconnect the pressure switch connector.
 (b) Connect terminals 1 and 4 of the connector of the pressure switch on the vehicle wire harness side using a service wire.
 (c) Start the engine.
 (d) Turn the air conditioning switch on and check that the magnet clutch is turned on.
 (e) Check that the magnet clutch is turned off when disconnecting terminals 1 and 4 (that are connected in the prior step).

OK:

Terminals 1 and 4 connected: magnet clutch is on

Terminals 1 and 4 disconnected: magnet clutch is off

NG

Go to step 8

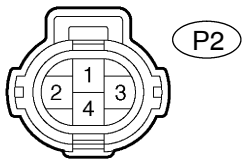
OK

REPLACE PRESSURE SWITCH (COOLER CONDENSER ASSY)

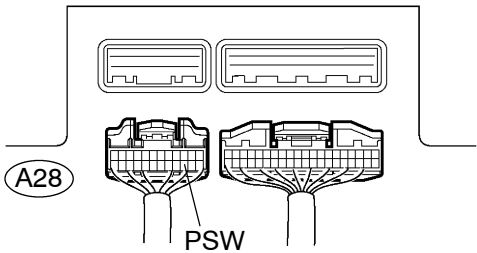
8

CHECK HARNESS AND CONNECTOR (PRESSURE SWITCH - AIR CONDITIONING AMPLIFIER) (SEE PAGE 01-32)

Pressure Switch
Connector
Wire Harness View:



Air Conditioning Amplifier Connector
Wire Harness View:



C

I36489

- (a) Disconnect the connectors from the pressure switch and A/C amplifier.
- (b) Measure the resistance according to the value(s) in the table below.

Standard:

Tester Connection	Condition	Specified Condition
A28-15 (PSW) - P2-1	Always	Below 1 Ω
P2-4 - Body ground	Always	Below 1 Ω
A28-15 (PSW) - Body ground	Always	10 kΩ or higher
P2-1 - Body ground	Always	10 kΩ or higher

Result:

NG	A
OK (Checking from the PROBLEM SYMPTOMS TABLE)	B
OK (Checking from the DTC)	C

A

REPAIR OR REPLACE HARNESS OR CONNECTOR

B

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05-862)

C

REPLACE AIR CONDITIONING AMPLIFIER (SEE PUB. NO. RM864E ON PAGE 55-96)