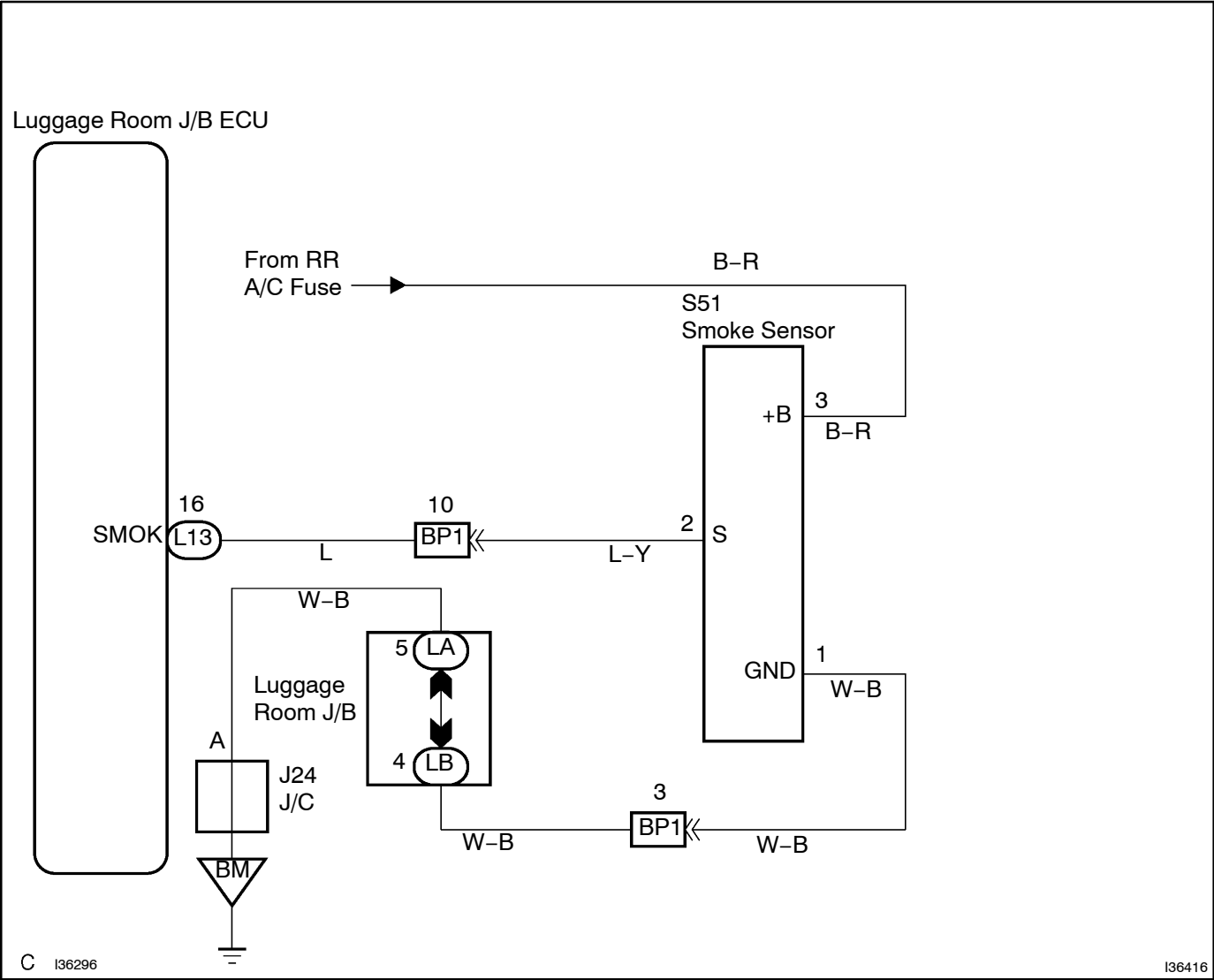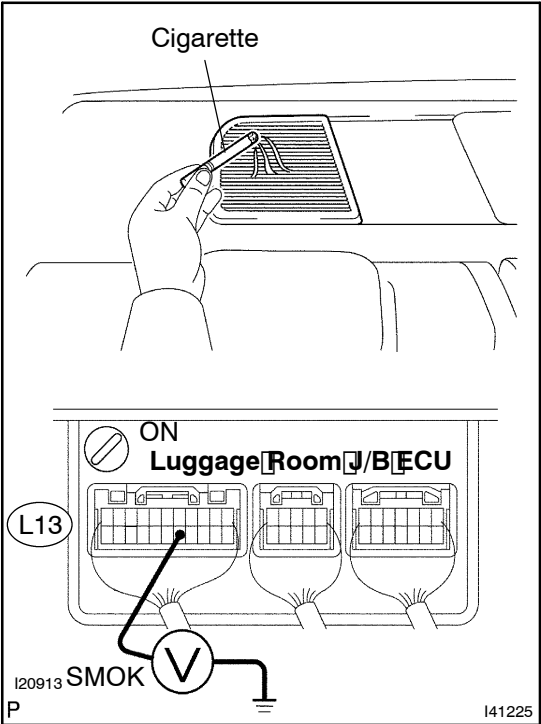# SMOKE SENSOR CIRCUIT

CIRCUIT DESCRIPTION

This sensor detects the smoke inside the cabin and sends the appropriate signals to the luggage room J/B ECU.

WIRING DIAGRAM

INSPECTION PROCEDURE

1	INSPECT LUGGAGE ROOM J/B ECU(RMGV – BODY GROUND)

(a) Remove the luggage room J/B ECU with connectors still connected.

(b) Measure the voltage according to the value(s) in the table below when applying or not applying cigarette smoke.
Standard:

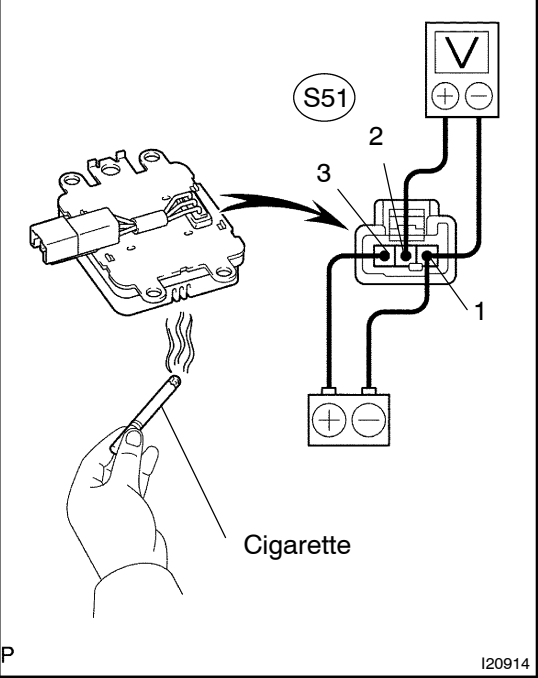| Tester connection	Condition	Specified condition
L13–16 (SMOK) – Body ground	Turn the ignition switch to ON position Turn the rear A/C mode to AUTO Apply cigarette smoke	Above 4.0 V
L13–16 (SMOK) – Body ground	Turn the ignition switch to ON position Turn the rear A/C mode to AUTO Not apply cigarette smoke	Below 1 V

NG >	Go to step 2

OK

PROCEED TO NEXT CIRCUIT INSPECTION SHOWN IN PROBLEM SYMPTOMS TABLE (SEE PAGE 05–778)

| 2 | INSPECT SMOKE SENSOR |

Smoke Sensor Connector Front View:

(S51)

2
3
1

Cigarette

P   I20914

(a) Remove the smoke sensor.

(b) Connect the positive (+) lead from the battery to terminal S51–1 and negative (–) lead to terminal S51–3.

(c) Measure the voltage according to the value(s) in the table below.
   Standard:

Tester connection	Condition	Specified condition
S51–2 – S51–3	There is no smoke	Below 1.0 V
S51–2 – S51–3	There is smoke	Above 4.0 V

NOTICE:
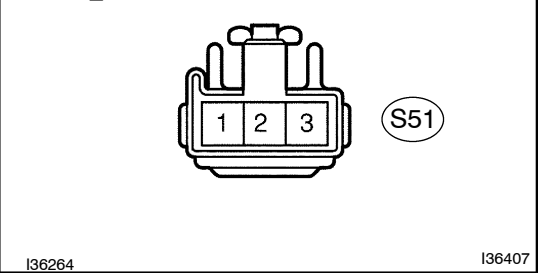**Since the sensor detects smoke with light, check the sensor in dark state.**

NG ⟩ | REPLACE SMOKE SENSOR |

OK

| 3 | CHECK HARNESS AND CONNECTOR(BATTERY – SMOKE SENSOR) |

Smoke Sensor Connector Front View:

| 1 | 2 | 3 | (S51)

I36264   I36407

(a) Measure the resistance according to the value(s) in the table below.
   Standard:

Tester connection	Condition	Specified condition
S51–1 (GND) – Body ground	Always	Below 1 Ω

(b) Measure the voltage according to the value(s) in the table below.
   Standard:

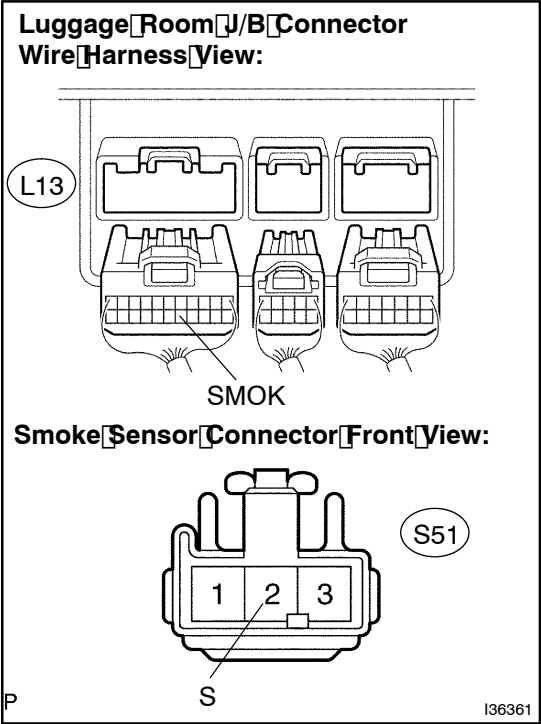| Tester connection	Condition	Specified condition
S51–3 (+B) – Body ground	IG ON	10 to 14 V

NG ⟩ | REPAIR OR REPLACE HARNESS OR CONNECTOR |

OK

4	CHECK HARNESS AND CONNECTOR(LUGGAGE ROOM J/B − SMOKE SENSOR) (SEE PAGE 01−44)

Luggage Room J/B Connector Wire Harness View:

L13

SMOK

Smoke Sensor Connector Front View:

S51

1 2 3

S

P   I36361

(a)   Measure the resistance according to the value(s) in the table below.

Standard:

Tester connection	Condition	Specified condition
L13−16 (SMOK) − S51−2	Always	Below 1 Ω
L13−16 (SMOK) − Body ground	Always	10 kΩ or higher

NG ▷ | REPAIR OR REPLACE HARNESS OR CONNECTOR |
|---|

OK

REPLACE LUGGAGE ROOM J/B ECU