HOW TO PROCEED WITH TROUBLESHOOTING

HINT:
Troubleshoot in accordance with the procedures on the following pages.

1	VEHICLE BROUGHT TO WORKSHOP

NEXT

2	DTC CHECK

(a) Check for DTCs and make a note of the code that is output (See page MP-14).
(b) Delete the DTC.
(c) Check if the DTC is output once again when the problem symptom is simulated based on the noted code.
  (1) When no code is output (symptom check and simulation are possible), proceed to A.
  (2) When a code is output, proceed to B.

B	Go to step 4

A

3	PERFORM TROUBLESHOOTING ACCORDING TO MALFUNCTION SYMPTOM

(a) Terminals of ECU (See page MP-5)

4	ADJUST, REPAIR OR REPLACE

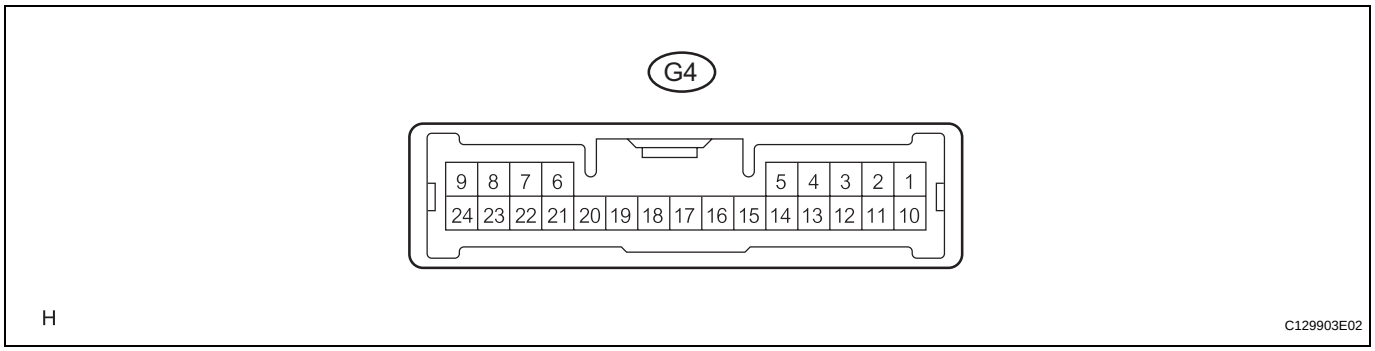
NEXT

END

TERMINALS OF ECU

1. MULTIPLEX NETWORK GATEWAY ECU

(a) Disconnect the G4 ECU connector.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
G4-1 (IG) - Body ground	B-R - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V
G4-2 (ACC) - Body ground	P - Body ground	Power source (ACC)	Ignition switch: ACC	11 to 14 V
G4-10 (BATT) - Body ground	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

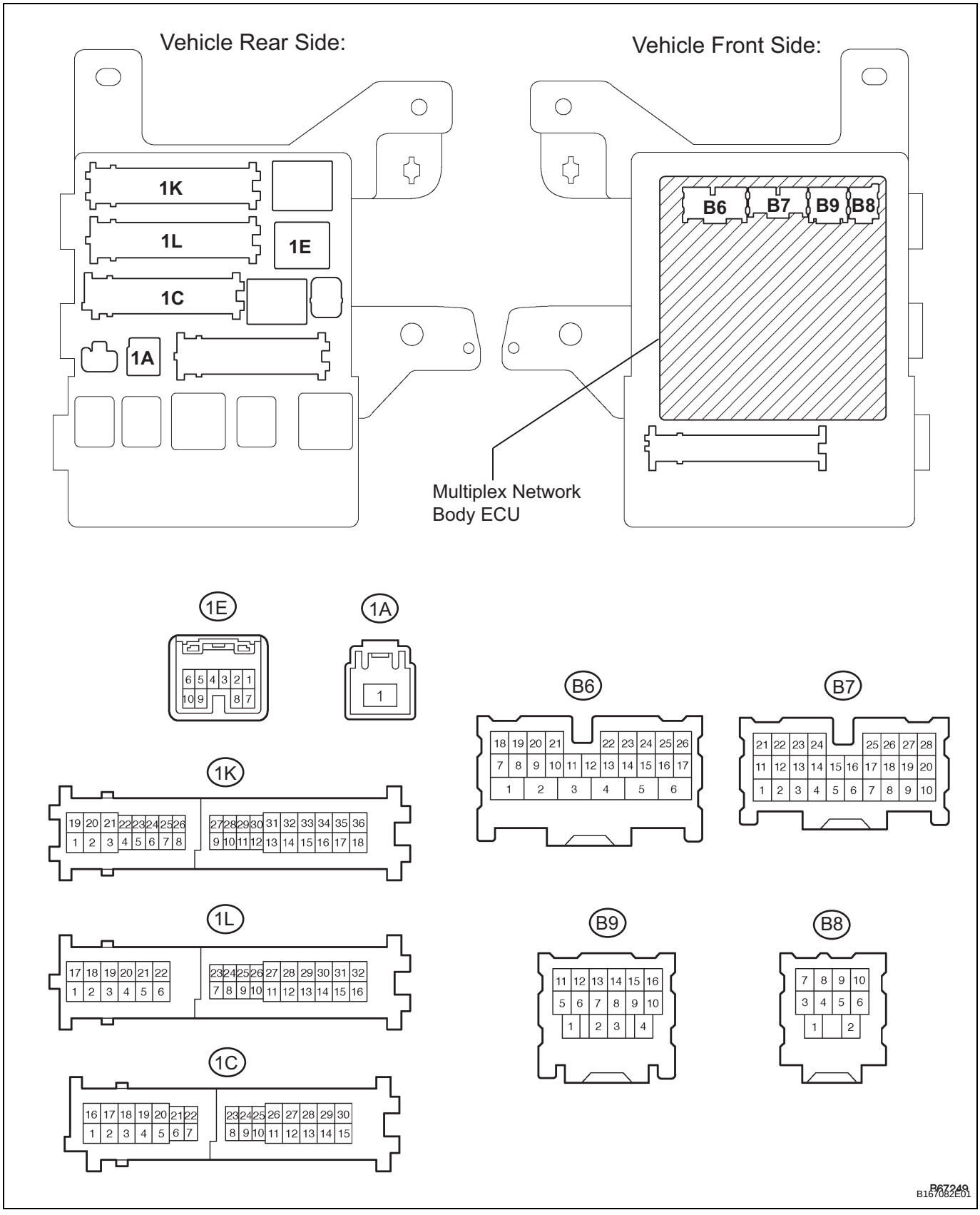
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
G4-3 (MPD1) - Body ground	R-G - Body ground	MPX line	Always	10 kΩ or higher
G4-12 (MPD2) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
G4-24 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

2. MULTIPLEX NETWORK BODY ECU

(a) Disconnect the B7 ECU, 1A, 1C, 1E, 1K and 1L junction block connectors.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
1A-1 - Body ground	W - Body ground	Power supply (Battery)	Always	11 to 14 V
1C-30 (ALTB) - Body ground	B - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

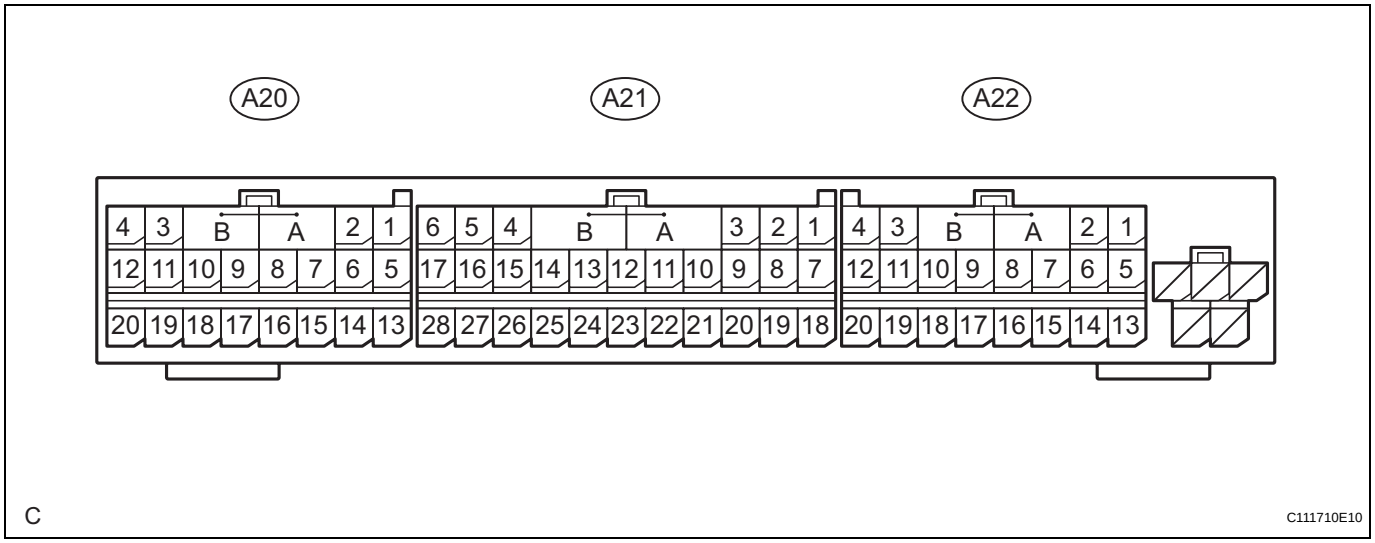
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
1E-7 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
B7-21 (MPX2) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
1L-16 (GND1) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω
1K-17 (GND2) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

3. AIRBAG SENSOR ASSEMBLY

(a) Disconnect the A21 ECU connector.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
A21-5 (IG2) - Body ground	B-O - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

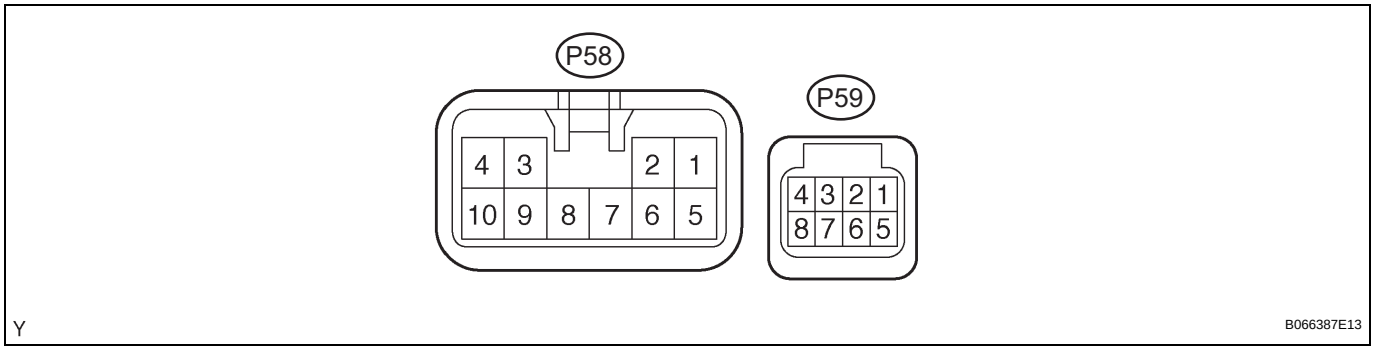
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
A21-24 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
A21-22 (MPX2) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
A21-27 (E1) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω
A21-28 (E2) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

4. SEAT POSITION CONTROL ECU (with Driving Position Memory)

(a) Disconnect the P58 and P59 ECU connectors.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P59-4 (IG) - Body ground	Y - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V
P59-8 (SYSB) - Body ground	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
P58-5 (+B) - Body ground	V - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

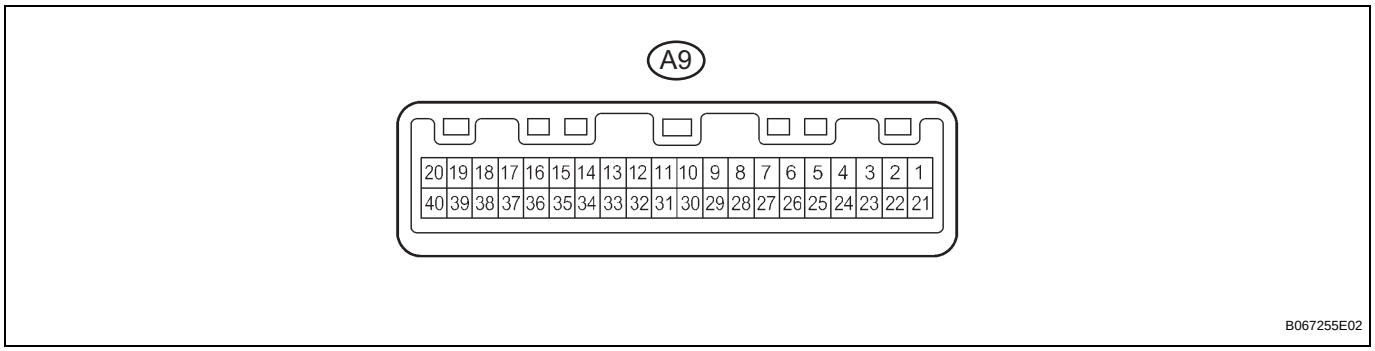
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P59-1 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
P58-1 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

5. AIR CONDITIONING AMPLIFIER

(a) Disconnect the A9 ECU connector.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
A9-20 (B) - Body ground (*1)	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
A9-17 (+B) - Body ground (*2)	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
A9-19 (ACC) - Body ground (*1)	P - Body ground	Power supply (ACC)	Ignition switch: ACC	11 to 14 V
A9-40 (ACC) - Body ground (*2)	P - Body ground	Power supply (ACC)	Ignition switch: ACC	11 to 14 V
A9-18 (IG) - Body ground (*1)	R-Y - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V
A9-38 (IG+) - Body ground (*2)	R-Y - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

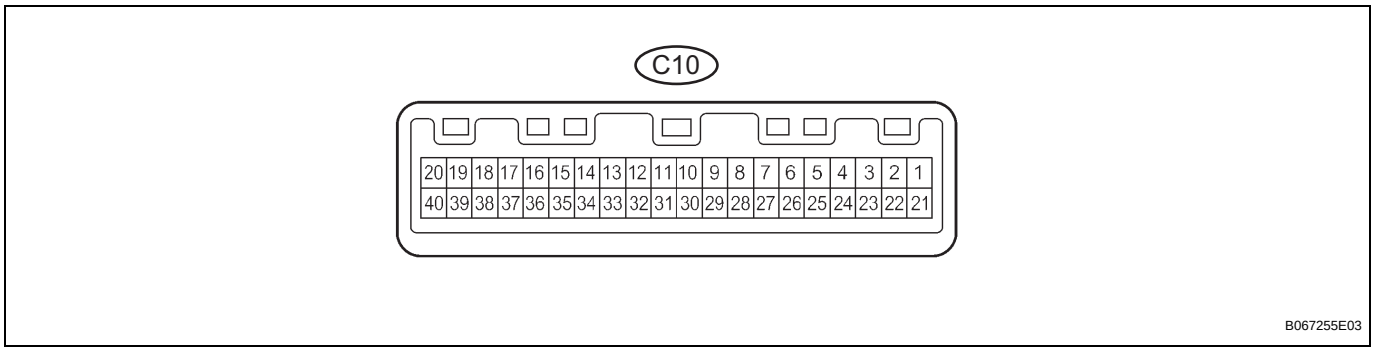
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
A9-2 (MPX+) - Body ground (*1)	V - Body ground	MPX line	Always	10 kΩ or higher
A9-4 (MPX+) - Body ground (*2)	V - Body ground	MPX line	Always	10 kΩ or higher
A9-3 (MPX-) - Body ground (*1)	R-L - Body ground	MPX line	Always	10 kΩ or higher
A9-5 (MPX-) - Body ground (*2)	R-L - Body ground	MPX line	Always	10 kΩ or higher
A9-1 (GND) - Body ground (*1)	W-B - Body ground	Ground	Always	Below 1 Ω
A9-6 (GND) - Body ground (*2)	W-B - Body ground	Ground	Always	Below 1 Ω

HINT:
*1: for Automatic A/C
*2: for Manual A/C
If the result is not as specified, there may be a malfunction on the wire harness side.

6. COMBINATION METER

(a) Disconnect the C10 ECU connector.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
C10-12 (+B) - Body ground	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
C10-32 (IG+) - Body ground	B-R - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

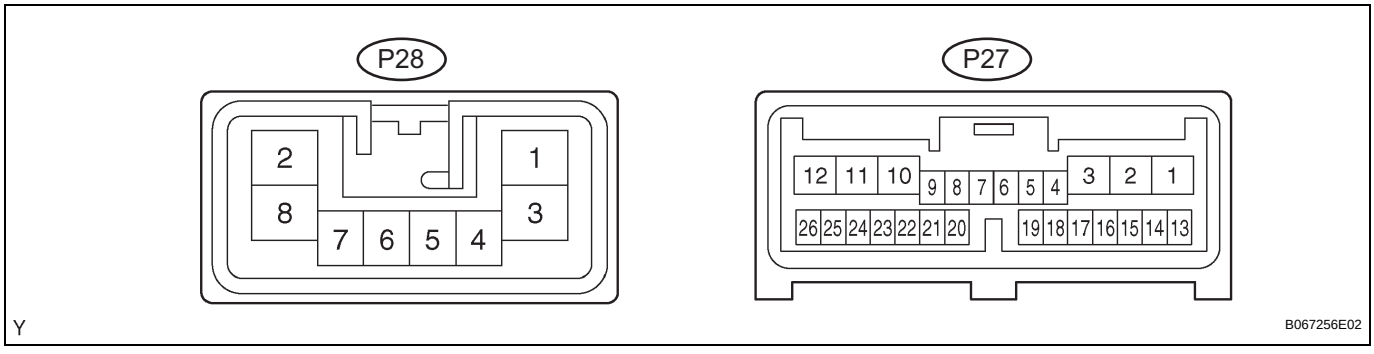
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
C10-29 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
C10-28 (MPX2) - Body ground	V - Body ground	MPX line	Always	10 kΩ or higher
C10-30 (ES) - Body ground	BR - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

7. POWER SLIDE DOOR ECU RH

(a) Disconnect the P27 and P28 ECU connectors.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P28-2 (B) - Body ground	B - Body ground	Power supply (Battery)	Always	11 to 14 V

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Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P27-10 (ECUB) - Body ground	W - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

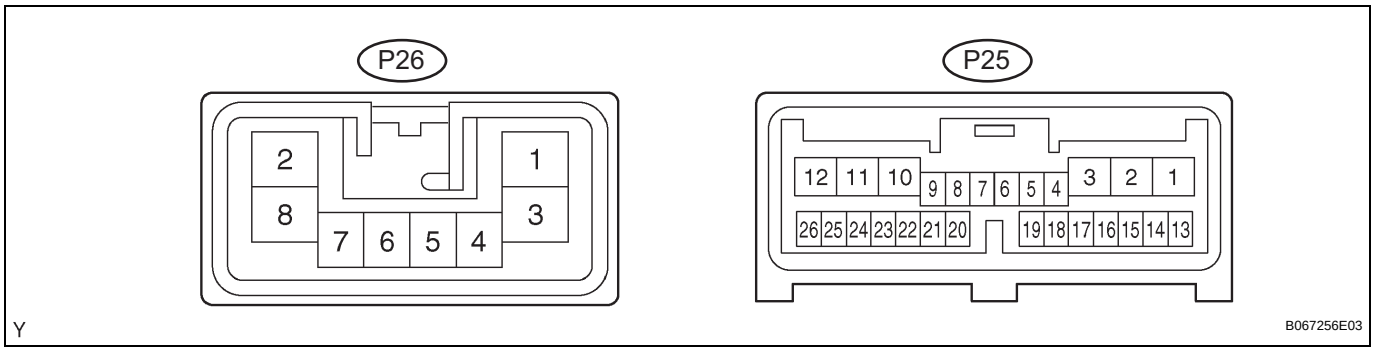
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P27-22 (MPX1) - Body ground	R - Body ground	MPX line	Always	10 kΩ or higher
P28-8 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

8. POWER SLIDE DOOR ECU LH

(a) Disconnect the P25 and P26 ECU connectors.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P26-2 (B) - Body ground	B-W - Body ground	Power supply (Battery)	Always	11 to 14 V
P25-10 (ECUB) - Body ground	W - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

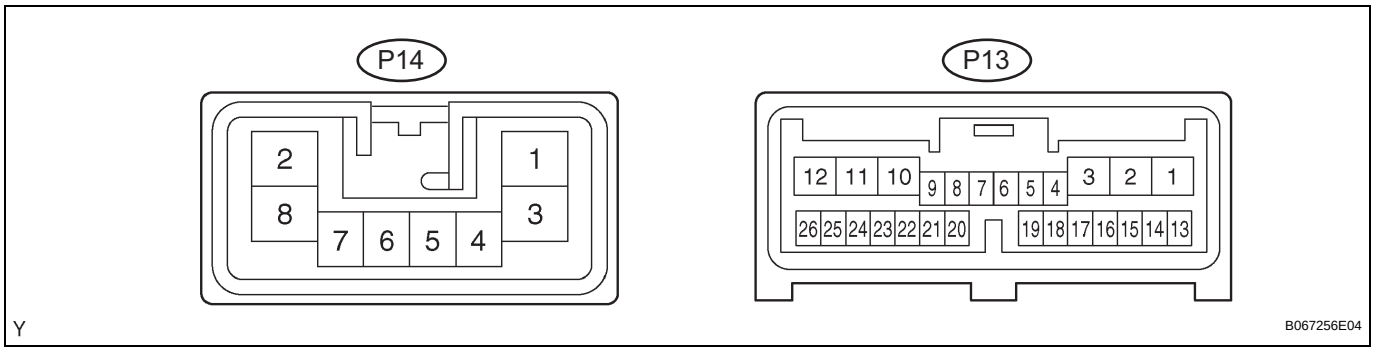
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P25-22 (MPX1) - Body ground	R - Body ground	MPX line	Always	10 kΩ or higher
P26-8 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

9. POWER BACK DOOR ECU

(a) Disconnect the P13 and P14 ECU connectors.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P14-2 (B) - Body ground	B-R - Body ground	Power supply (Battery)	Always	11 to 14 V
P13-10 (ECUB) - Body ground	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
P13-9 (IG) - Body ground	B-R - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

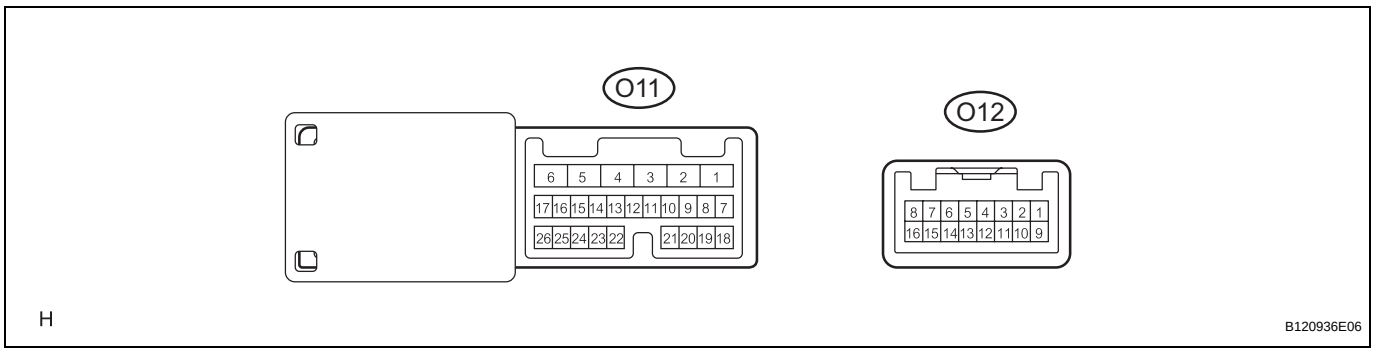
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
P13-22 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
P14-8 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

10. OUTER MIRROR CONTROL ECU RH (with Driving Position Memory)

(a) Disconnect the O11 ECU connector.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
O11-3 (SIG) - Body ground	B-R - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
O11-4 (CPUB) - Body ground	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
O11-6 (BDR) - Body ground	R-L - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

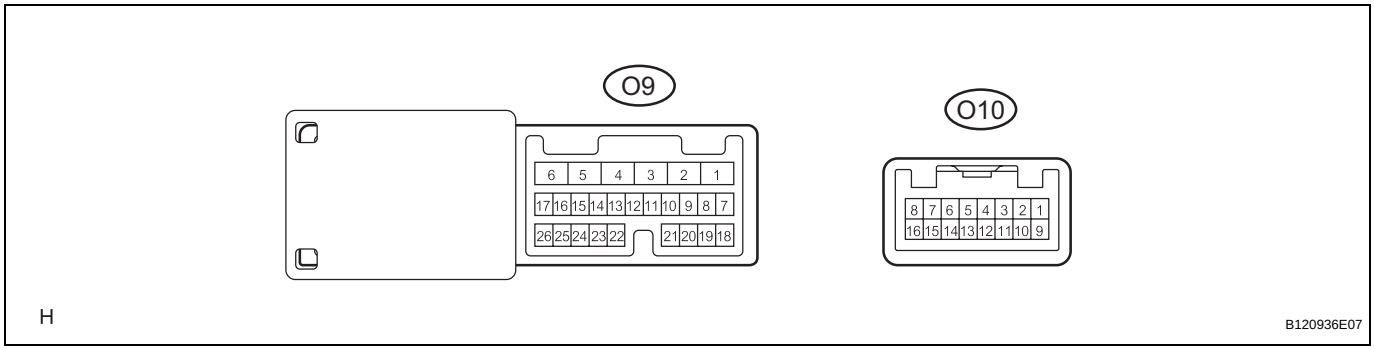
(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
O11-8 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
O11-1 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.

11. OUTER MIRROR CONTROL ECU LH (with Driving Position Memory)

(a) Disconnect the O9 ECU connector.



(b) Measure the voltage between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
O9-3 (SIG) - Body ground	B-R - Body ground	Power supply (IG)	Ignition switch: ON	11 to 14 V
O9-4 (CPUB) - Body ground	W-L - Body ground	Power supply (Battery)	Always	11 to 14 V
O9-6 (BDR) - Body ground	R-L - Body ground	Power supply (Battery)	Always	11 to 14 V

If the result is not as specified, there may be a malfunction on the wire harness side.

(c) Measure the resistance between the specified terminals on the wire harness side connector.

Terminal No. (Symbols)	Wiring Color	Terminal Description	Condition	Specified Condition
O9-8 (MPX1) - Body ground	R-L - Body ground	MPX line	Always	10 kΩ or higher
O9-1 (GND) - Body ground	W-B - Body ground	Ground	Always	Below 1 Ω

If the result is not as specified, there may be a malfunction on the wire harness side.