

HOW TO PROCEED WITH TROUBLESHOOTING

HINT:

- Use this procedure to troubleshoot the multiplex communication system.
- The intelligent tester should be used in step 2.

1 VEHICLE BROUGHT TO WORKSHOP

NEXT

2 CHECK FOR DTC

- (a) Check for DTCs and note any codes that are output.
- (b) Delete the DTC.
- (c) Recheck for DTCs. Try to prompt the DTC by simulating the original activity that the DTC suggests.

Result

| Result | Proceed to |
|--------------------|------------|
| DTC does not recur | A |
| DTC recurs | B |

B GO TO DTC CHART

A

3 OVERALL ANALYSIS AND TROUBLESHOOTING

- (a) Terminals of ECU (See page [MP-6](#)).

NEXT

4 ADJUST, REPAIR OR REPLACE

NEXT

5 CONFIRMATION TEST

NEXT

END

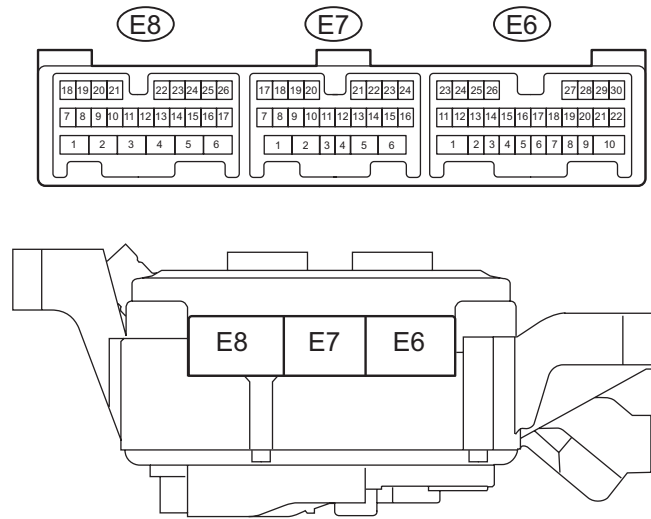
TERMINALS OF ECU

1. CHECK MAIN BODY ECU

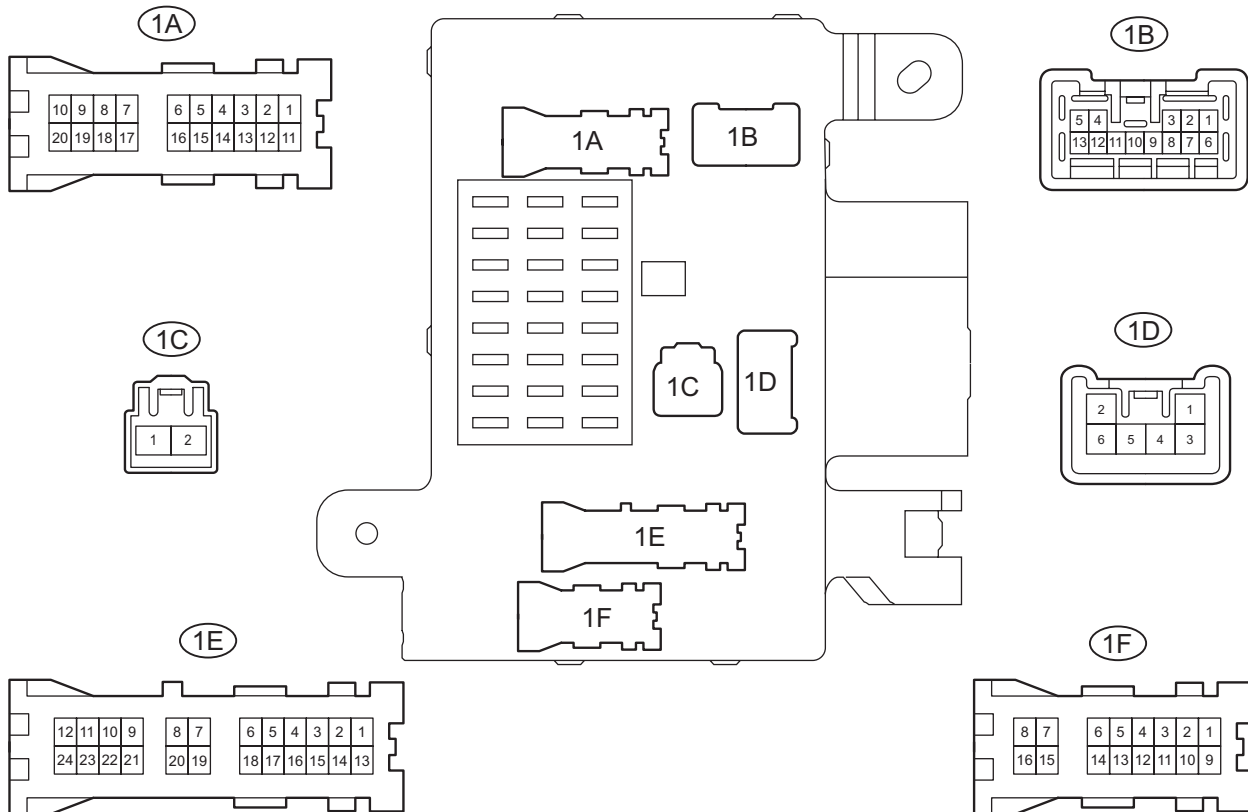
- (a) Disconnect the 1B, 1E, 1F, 1L and E6 main body ECU connectors.

Main Body ECU:

Left View:

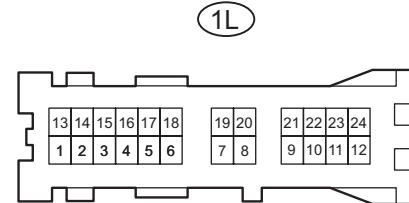
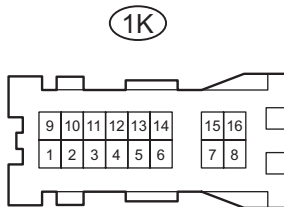
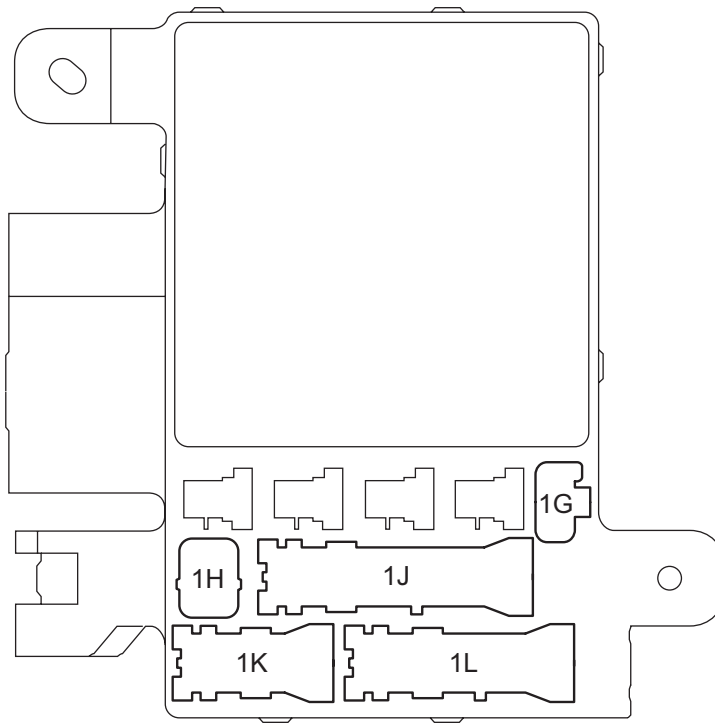
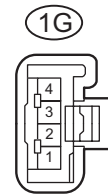
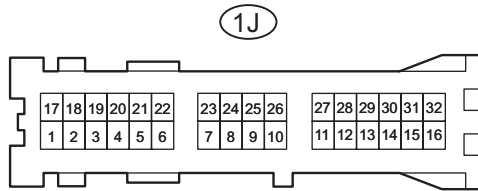
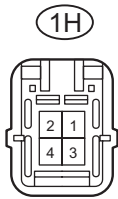


Rear View:



MP

Main Body ECU: Front View:



- (b) Measure the voltage of the wire harness side connectors.

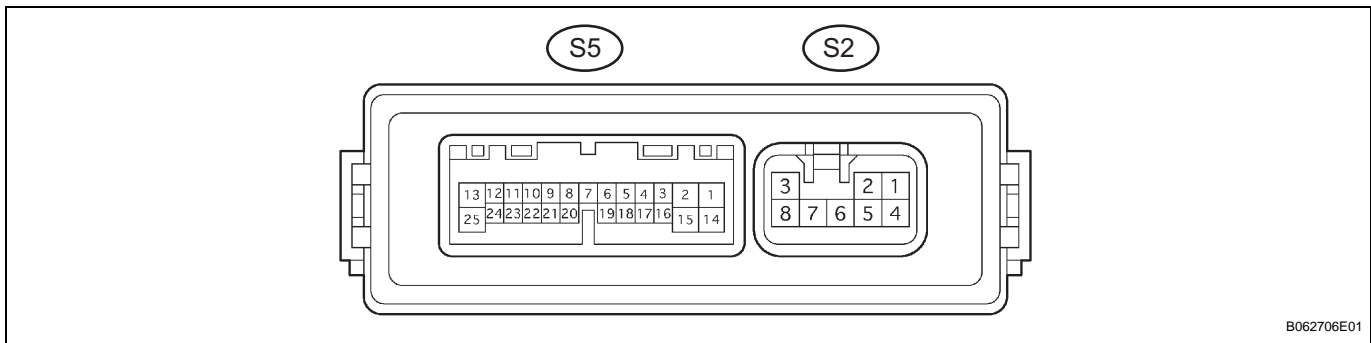
Standard voltage:

| Symbols (Terminals No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|----------------------------|--------------------|--------------------------------|----------------------|---------------------|
| BECU (1B-4) - Body ground | W-R - Body ground | Power source (+B) | Always | 11 to 14 V |
| BECU (1L-4) - Body ground | W-R - Body ground | Power source (+B) | Always | 11 to 14 V |
| BECU (1F-12) - Body ground | W-R - Body ground | Power source (+B) | Always | 11 to 14 V |
| BDR1 (1E-9) - Body ground | B-Y - Body ground | Power source (+B) | Always | 11 to 14 V |
| MPX2 (E6-23) - Body ground | BR-R - Body ground | Multiplex communication signal | During communication | Signal waveform |

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

2. CHECK BACK DOOR ECU

- (a) Disconnect the S2 ECU connector.



- (b) Measure the voltage of the wire harness side connector.

Standard voltage:

| Symbols (Terminals No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
|---------------------------|--------------------|--------------------------------|------------------------------|---------------------|
| GND (S2-3) - Body ground | W-B - Body ground | Ground for main power supply | Ground for main power supply | Below 1 V |
| BECU (S2-5) - GND (S2-3) | W-R - W-B | Power source (+B) | Always | 11 to 14 V |
| BDR (S2-4) - GND (S2-3) | L-O - W-B | Power source (+B) | Always | 11 to 14 V |
| MPX2 (S2-1) - Body ground | BR-R - Body ground | Multiplex communication signal | During communication | Signal waveform |
| SIG (S2-6) - Body ground | B-R - Body ground | Power source (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.