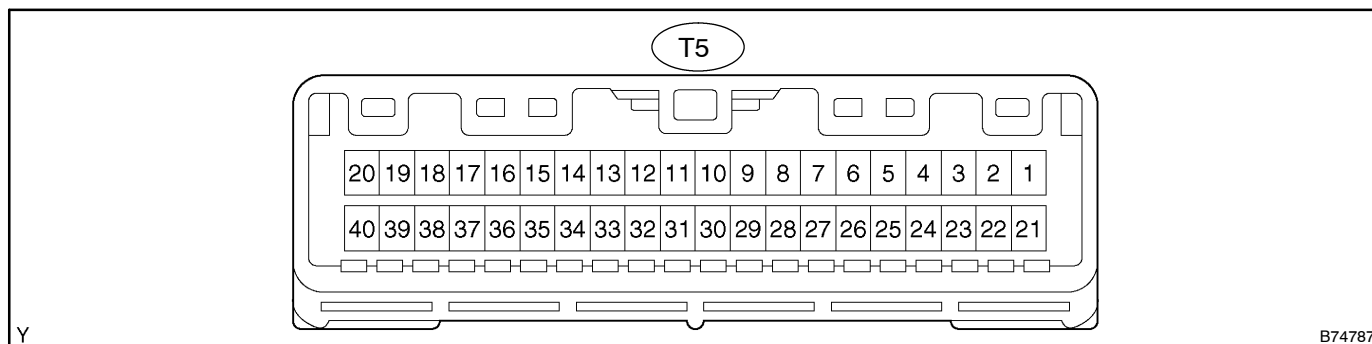


## TERMINALS OF ECU

### 1. CHECK THEFT DETERRENT ECU



- (a) Disconnect the T5 ECU connector.
- (b) Measure the resistance and voltage of each terminal of the wire harness side connector.

#### Standard:

| Symbols (Terminal No.)        | Wiring Color      | Terminal Description           | Condition                            | Specified Condition                                       |
|-------------------------------|-------------------|--------------------------------|--------------------------------------|-----------------------------------------------------------|
| GND (T5-20) –<br>Body ground  | W-B – Body ground | Ground                         | Constant                             | Below 1 $\Omega$                                          |
| +B1 (T5-1) –<br>Body ground   | V-Y – Body ground | +B power supply                | Constant                             | 10 to 14 V                                                |
| +B2 (T5-21) –<br>Body ground  | G-W – Body ground | +B power supply                | Constant                             | 10 to 14 V                                                |
| IG (T5-24) –<br>Body ground   | R-L – Body ground | Ignition power supply          | Ignition switch OFF $\rightarrow$ ON | 0 V $\rightarrow$ 10 to 14 V                              |
| CNSL (T5-10) –<br>Body ground | P-B – Body ground | Smart key system cancel switch | Cancel switch OFF $\rightarrow$ ON   | 10 k $\Omega$ or higher $\rightarrow$<br>Below 1 $\Omega$ |

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

- (c) Reconnect the T5 ECU connector.
- (d) Measure the voltage and frequency of each terminal of the connector.

#### Standard:

| Symbols (Terminal No.)        | Wiring Color                                | Terminal Description                | Condition                                                                                                                                                                                                     | Specified Condition                |
|-------------------------------|---------------------------------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------|
| IND2 (T5-2) –<br>Body ground  | V-R*1 – Body ground<br>R*2 – Body ground    | Smart indicator                     | Smart indicator illuminates (When ignition switch is turned from OFF to ON and vehicle interior check passes, it illuminates. When ignition switch is OFF and any door is unlocked, it flashes continuously.) | 3 to 6 V                           |
| RCO (T5-15) –<br>Body ground  | B-Y*1 – Body ground<br>BR-W*2 – Body ground | Power source                        | Ignition switch OFF, no key inserted, all doors closed and transmitter switch OFF $\rightarrow$ ON                                                                                                            | 0V to 6 V $\rightarrow$ 6 V        |
| RDA1 (T5-29) –<br>Body ground | Y*1 – Body ground<br>BR*2 – Body ground     | Door control receiver input signal  | No key in ignition key cylinder, all doors closed and transmitter switch OFF $\rightarrow$ ON                                                                                                                 | Below 1 V $\rightarrow$ 12 V       |
| RSS1 (T5-30) –<br>Body ground | G-Body ground                               | Door control receiver output signal | Ignition switch OFF, no key inserted, all doors closed and transmitter switch OFF $\rightarrow$ ON                                                                                                            | 0 V to 6 V $\rightarrow$ Below 1 V |
| RCO2 (T5-34) –<br>Body ground | B-Y*1 – Body ground<br>B-O*2 – Body ground  | Power source                        | Luggage door closed and ignition switch OFF $\rightarrow$ ON                                                                                                                                                  | 0 V $\rightarrow$ 6 V              |

| Symbols (Terminal No.)        | Wiring Color                               | Terminal Description                    | Condition                                                                                                   | Specified Condition    |
|-------------------------------|--------------------------------------------|-----------------------------------------|-------------------------------------------------------------------------------------------------------------|------------------------|
| RDA2 (T5-32) –<br>Body ground | Y-G – Body ground                          | Door control receiver input signal      | No key in ignition key cylinder, all doors closed and transmitter switch OFF → ON                           | Below 1 V → 12 V       |
| RSS2 (T5-12) –<br>Body ground | R-G – Body ground                          | Door control receiver output signal     | Luggage door closed, smart key within trunk detection area and ignition switch OFF → ON                     | 0 V to 6 V → Below 1 V |
| CLG1 (T5-16) –<br>Body ground | G-W*1 – Body ground<br>L-R*2 – Body ground | Driver door oscillator sensor signal    | With smart key in door oscillator's detection area, lock switch OFF → ON                                    | 0 Hz → Above 0 Hz      |
| CLG2 (T5-17) –<br>Body ground | L-B – Body ground                          | passenger door oscillator sensor signal | With smart key in door oscillator's detection area, lock switch OFF → ON                                    | 0 Hz → Above 0 Hz      |
| CLG3 (T5-36) –<br>Body ground | B*1 – Body ground<br>L-W*2 – Body ground   | Rear door LH oscillator sensor signal   | With smart key in door oscillator's detection area, lock switch OFF → ON                                    | 0 Hz → Above 0 Hz      |
| CLG4 (T5-37) –<br>Body ground | V*1 – Body ground<br>B*2 – Body ground     | Rear door LH oscillator sensor signal   | With smart key in door oscillator's detection area, lock switch OFF → ON                                    | 0 Hz → Above 0 Hz      |
| CLG5 (T5-18) –<br>Body ground | B-W – Body ground                          | Room oscillator front sensor signal     | 30 seconds elapses after driver door open → closed; or closed → open and ignition switch PUSH OFF/ PUSH ON; | 0 Hz → Above 0 Hz      |
| CLG6 (T5-19) –<br>Body ground | LG-B – Body ground                         | Luggage oscillator outer sensor signal  | 30 seconds elapses after driver door open → closed; or closed → open and ignition switch PUSH OFF/ PUSH ON; | 0 Hz → Above 0 Hz      |
| CLG7 (T5-38) –<br>Body ground | R-B – Body ground                          | Room oscillator rear sensor signal      | 30 seconds elapses after driver door open → closed; or closed → open and ignition switch PUSH OFF/ PUSH ON; | 0 Hz → Above 0 Hz      |
| CLG8 (T5-39) –<br>Body ground | L-Y*1 – Body ground<br>LG*2 – Body ground  | Luggage oscillator inner sensor signal  | With luggage door closed and smart key in trunk oscillator's detection area, ignition switch PUSH OFF → ON  | 0 Hz → Above 0 Hz      |

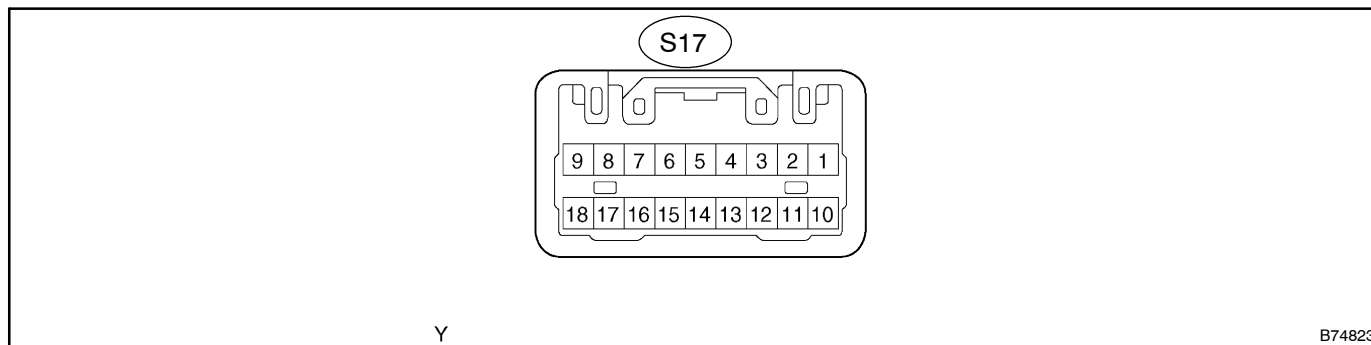
HINT:

\*1: LHD

\*2: RHD

If the result is not as specified, the theft deterrent ECU may have a malfunction.

## 2. CHECK STEERING LOCK ECU



- (a) Disconnect the S17 ECU connector.  
 (b) Measure the resistance and voltage of each terminal of the wire harness side connector.

### Standard:

| Symbols (Terminal No.)         | Wiring Color                               | Terminal Description                      | Condition                                 | Specified Condition                           |
|--------------------------------|--------------------------------------------|-------------------------------------------|-------------------------------------------|-----------------------------------------------|
| GND (S17-9) –<br>Body ground   | W-B – Body ground                          | Ground                                    | Constant                                  | Below 1 $\Omega$                              |
| CPUB (S17-1) –<br>Body ground  | V-Y – Body ground                          | +B power supply                           | Constant                                  | 10 to 14 V                                    |
| +B (S17-10) –<br>Body ground   | R-L*1 – Body ground<br>B-L*2 – Body ground | +B power supply                           | Constant                                  | 10 to 14 V                                    |
| IG2 (S17-2) –<br>Body ground   | B-Body ground                              | Ignition power supply                     | Ignition switch PUSH OFF<br>→ Ignition ON | 0 V → 10 to 14 V                              |
| PUSH (S17-11) –<br>Body ground | P-B – Body ground                          | Push switch input signal                  | Ignition switch PUSH OFF<br>→ Ignition ON | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |
| KSW (S17-12) –<br>Body ground  | LG-B – Body ground                         | Key unlock warning switch<br>input signal | Ignition switch PUSH OFF<br>→ Ignition ON | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |

### HINT:

\*1: LHD

\*2: RHD

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

- (c) Reconnect the S17 ECU connector.  
 (d) Check the resistance and voltage of each terminal of the connector.

### Standard:

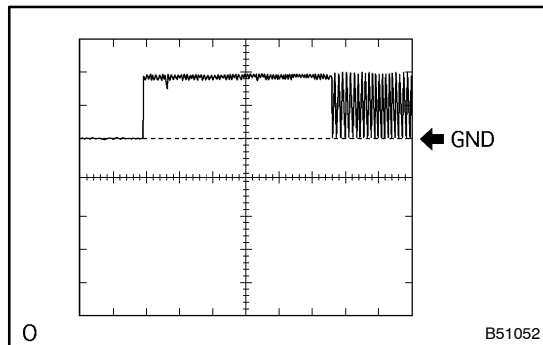
| Symbols (Terminal No.)         | Wiring Color             | Terminal Description                              | Condition                                    | Specified Condition                  |
|--------------------------------|--------------------------|---------------------------------------------------|----------------------------------------------|--------------------------------------|
| PUSH (S17-11) –<br>GND (S17-9) | P-B – W-B                | Push switch input signal                          | Igniton switch PUSH OFF<br>→<br>Ignition ON  | 0 V → 10 to 14 V                     |
| KSW (S17-12) –<br>GND (S17-9)  | LG-B – W-B               | Key unlock warning switch<br>input signal         | Igniton switch PUSH OFF<br>→<br>Ignition ON  | 0 V → 10 to 14 V                     |
| VC5 (S17-7) –<br>GND (S17-9)   | R – W-B                  | Power source                                      | Key inserted → Ignition ON                   | 0 V → 5 V                            |
| TXCT (S17-16) –<br>GND (S17-9) | Y-B – W-B                | Key code output signal                            | Key inserted → Ignition ON                   | Pulse generation<br>(see waveform 1) |
| CODE (S17-17) –<br>GND (S17-9) | O – W-B                  | Demodulated signal or key<br>code data            | Key inserted → Ignition ON                   | Pulse generation<br>(see waveform 2) |
| RXCK (S17-8) –<br>GND (S17-9)  | L*1 – W-B<br>L-W*2 – W-B | transponder key amplifier<br>communication signal | Key inserted → Ignition ON                   | Pulse generation<br>(see waveform 3) |
| EFIO (S17-13) –<br>GND (S17-9) | B-Y*1 – W-B<br>GR*2-G    | ECM output signal                                 | Ignition switch PUSH OFF<br>→<br>Ignition ON | Pulse generation<br>(see waveform 4) |
| EFII (S17-4) –<br>GND (S17-9)  | GR-R – W-B               | ECM output signal                                 | Ignition switch PUSH OFF<br>→<br>Ignition ON | Pulse generation<br>(see waveform 5) |

HINT:

\*1: LHD

\*2: RHD

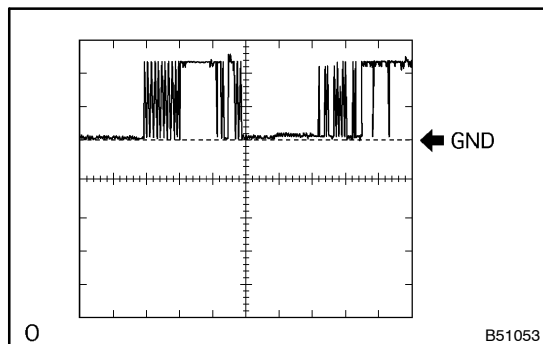
If the result is not as specified, the steering lock ECU may have a malfunction.



(1) Inspect using an oscilloscope.

**Waveform 1 (Reference)**

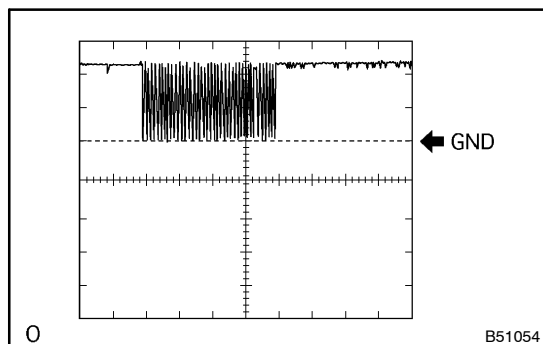
|              |                                   |
|--------------|-----------------------------------|
| Terminal     | TXCT - GND                        |
| Tool Setting | 2 V/DIV 10 ms/DIV                 |
| Condition    | Key inserted → Ignition switch ON |



(2) Inspect using an oscilloscope.

**Waveform 2 (Reference)**

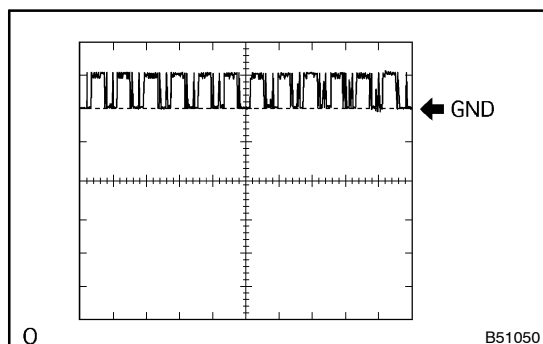
|              |                                   |
|--------------|-----------------------------------|
| Terminal     | CODE - GND                        |
| Tool Setting | 5 V/DIV 10 ms/DIV                 |
| Condition    | Key inserted → Ignition switch ON |



(3) Inspect using an oscilloscope.

**Waveform 3 (Reference)**

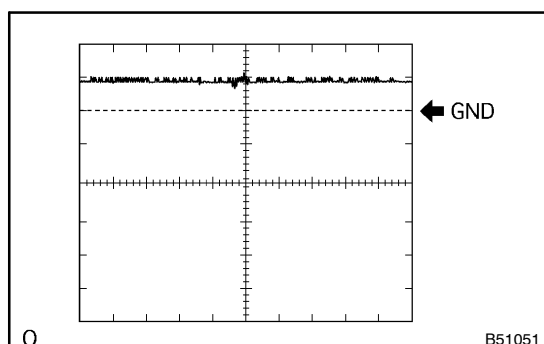
|              |                                   |
|--------------|-----------------------------------|
| Terminal     | RXCK - GND                        |
| Tool Setting | 5 V/DIV 10 ms/DIV                 |
| Condition    | Key inserted → Ignition switch ON |



(4) Inspect using an oscilloscope.

**Waveform 4 (Reference)**

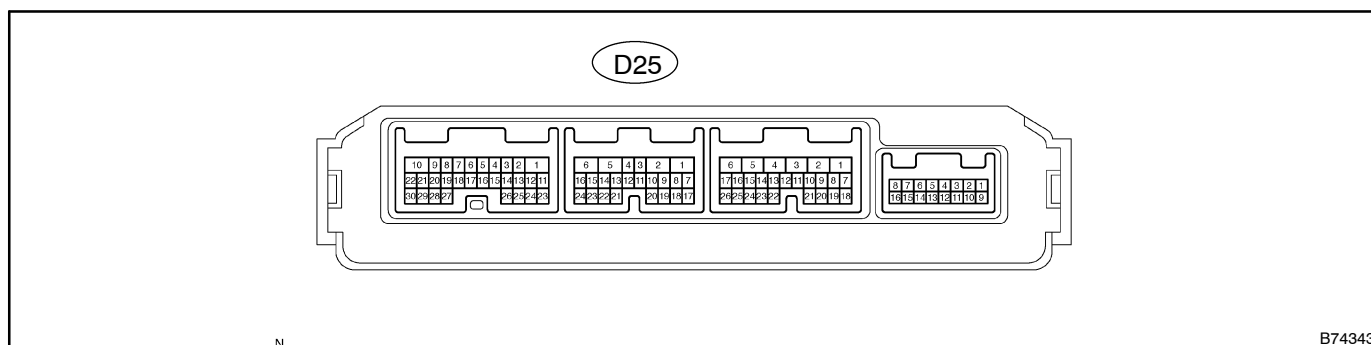
|              |                                   |
|--------------|-----------------------------------|
| Terminal     | EFIO - GND                        |
| Tool Setting | 5 V/DIV 5 ms/DIV                  |
| Condition    | Key inserted → Ignition switch ON |



(5) Inspect using an oscilloscope.

**Waveform 5 (Reference)**

| Terminal     | EFII – GND                        |
|--------------|-----------------------------------|
| Tool Setting | 5 V/DIV 5 ms/DIV                  |
| Condition    | Key inserted → Ignition switch ON |

**3. CHECK DRIVER DOOR ECU**

- (a) Disconnect the D25 ECU connector.  
 (b) Measure the resistance and voltage of each terminal of the wire harness side connector.

**Standard:**

| Symbols (Terminal No.)            | Wiring Color      | Terminal Description  | Condition                             | Specified Condition                           |
|-----------------------------------|-------------------|-----------------------|---------------------------------------|-----------------------------------------------|
| GND (D25-1) –<br>Body ground      | W-B – Body ground | Ground                | Constant                              | Below 1 $\Omega$                              |
| CPUB (D25-4)<br>Body ground       | V-Y – Body ground | +B power supply       | Constant                              | 10 to 14 V                                    |
| BDR (D25-6) –<br>Body ground      | R – Body ground   | +B power supply       | Constant                              | 10 to 14 V                                    |
| SIG (D25-5) –<br>Body ground      | R-L – Body ground | Ignition power supply | Ignition switch ON                    | 10 to 14 V                                    |
| TRG+ (D25-14) –<br>TRG – (D25-13) | GR – P            | Trigger switch signal | Trigger switch not pushed<br>→ Pushed | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |

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

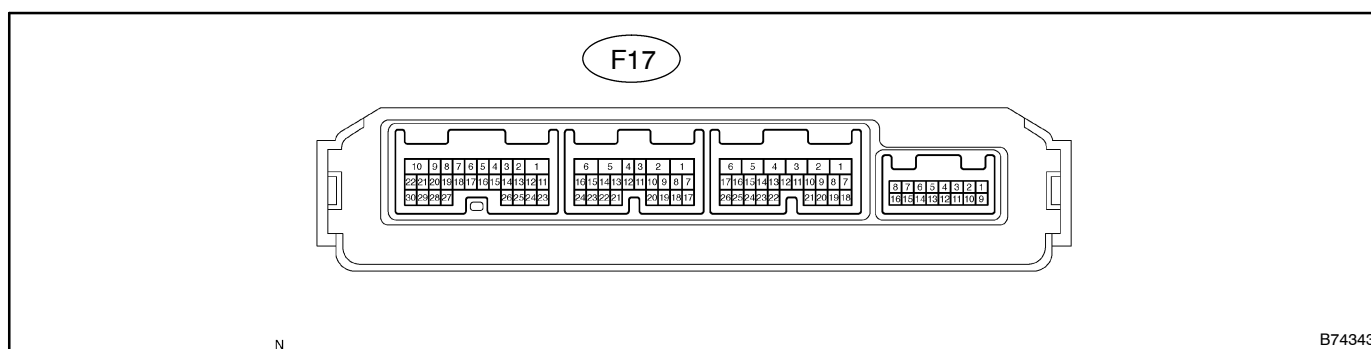
- (c) Reconnect the D25 ECU connector.  
 (d) Measure the resistance and voltage of each terminal of the connector.

**Standard:**

| Symbols (Terminal No.)           | Wiring Color | Terminal Description         | Condition                                                   | Specified Condition |
|----------------------------------|--------------|------------------------------|-------------------------------------------------------------|---------------------|
| OSCB (D25-11) –<br>OSCE (D25-22) | R – G-Y      | +B power supply              | Constant                                                    | 10 to 14 V          |
| SEL (D25-21)<br>OSCE (D25-22)    | W – G-Y      | Sensor detection signal      | Smart key at least 3 m<br>away from door → Close to<br>door | 10 to 14 V → 0 V    |
| CLGI (D25-10) –<br>GND (D25-1)   | L-G – W-B    | Signal output to oscillator  | Smart key at least 3 m<br>away from door → Close to<br>door | Above 0 Hz → 0 Hz   |
| SENS (D25-9) –<br>GND (D25-1)    | G-W – W-B    | Lock switch detection signal | Outside door handle<br>touched → Not touched                | 10 to 14 V → 0 V    |
| CLGO (D25-12) –<br>GND – (D25-1) | L-R – W-B    | Sensor detection signal      | All doors locked and igni-<br>tion switch OFF → ON          | Above 0 Hz → 0 Hz   |

If the result is not as specified, the driver door ECU may have a malfunction.

#### 4. CHECK PASSENGER DOOR ECU



- (a) Disconnect the F17 ECU connector.
- (b) Measure the resistance and voltage of each terminal of the wire harness side connector.

##### Standard:

| Symbols (Terminal No.)          | Wiring Color      | Terminal Description  | Condition                             | Specified Condition                           |
|---------------------------------|-------------------|-----------------------|---------------------------------------|-----------------------------------------------|
| GND (F17-1) –<br>Body ground    | W-B – Body ground | Ground                | Constant                              | Below 1 $\Omega$                              |
| CPUB (F17-4)<br>Body ground     | V-Y – Body ground | +B power supply       | Constant                              | 10 to 14 V                                    |
| BDR (F17-6) –<br>Body ground    | R – Body ground   | +B power supply       | Constant                              | 10 to 14 V                                    |
| SIG (F17-5) –<br>Body ground    | R-L – Body ground | Ignition power supply | Ignition switch ON                    | 10 to 14 V                                    |
| TRG+ (F17-14) –<br>TRG (F17-13) | GR – P            | Trigger switch signal | Trigger switch not pushed<br>→ Pushed | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |

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

- (c) Reconnect the F17 ECU connector.
- (d) Measure the resistance and voltage of each terminal of the connector.

##### Standard:

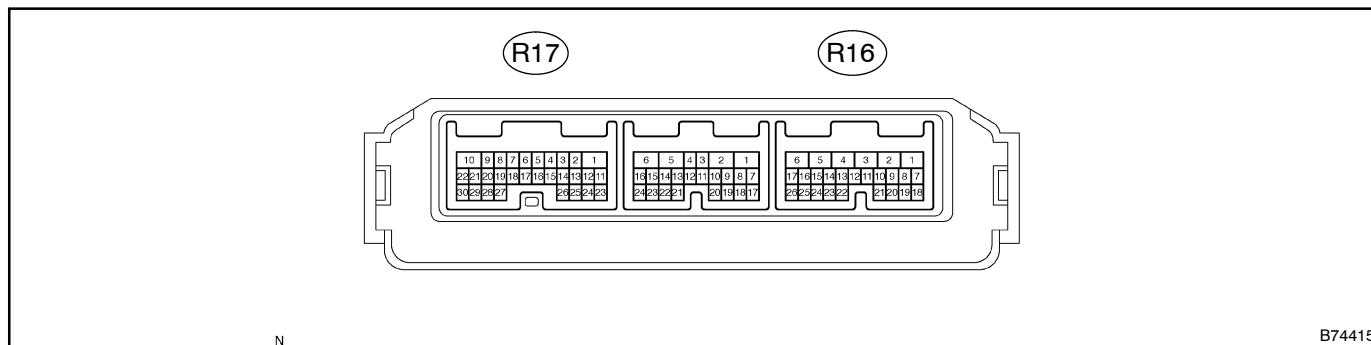
| Symbols (Terminal No.)           | Wiring Color | Terminal Description         | Condition                                                   | Specified Condition |
|----------------------------------|--------------|------------------------------|-------------------------------------------------------------|---------------------|
| OSCB (F17-11) –<br>OSCE (D25-22) | R – G-Y      | +B power supply              | Constant                                                    | 10 to 14 V          |
| SEL (F17-21)<br>OSCE (D25-22)    | W – G-Y      | Sensor detection signal      | Smart key at least 3 m<br>away from door → Close to<br>door | 10 to 14 V → 0 V    |
| CLGI (F17-10) –<br>GND (D25-1)   | L-B – W-B    | Signal output to oscillator  | Smart key at least 3 m<br>away from door → Close to<br>door | Above 0 Hz → 0 Hz   |
| SENS (F17-9) –<br>GND (D25-1)    | G-W – W-B    | Lock switch detection signal | Outside door handle<br>touched → Not touched                | 10 to 14 V → 0 V    |
| CLGO (F17-12) –<br>GND (D25-1)   | L-B – W-B    | Sensor detection signal      | All doors locked and ignition<br>switch OFF → ON            | Above 0 Hz → 0 Hz   |

If the result is not as specified, the passenger door ECU may have a malfunction.

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If the result is not as specified, the rear door LH ECU may have a malfunction.

## 6. CHECK REAR DOOR RH ECU



- (a) Disconnect the R16 and R17 ECU connectors.  
 (b) Measure the resistance and voltage of each terminal of the wire harness side connectors.

**Standard:**

| Symbols (Terminal No.)         | Wiring Color      | Terminal Description  | Condition                             | Specified Condition                           |
|--------------------------------|-------------------|-----------------------|---------------------------------------|-----------------------------------------------|
| GND (R16-6) –<br>Body ground   | W-B – Body ground | Ground                | Constant                              | Below 1 $\Omega$                              |
| CPUB (R16-1) –<br>Body ground  | V-Y – Body ground | +B power supply       | Constant                              | 10 to 14 V                                    |
| BDR (R16-2) –<br>Body ground   | R-W – Body ground | +B power supply       | Constant                              | 10 to 14 V                                    |
| SIG (R16-26) –<br>Body ground  | R-L – Body ground | Ignition power supply | Ignition switch ON                    | 10 to 14 V                                    |
| TRG+ (R17-2) –<br>TRG (R17-28) | GR – L-P          | Trigger switch signal | Trigger switch not pushed<br>→ Pushed | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |

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

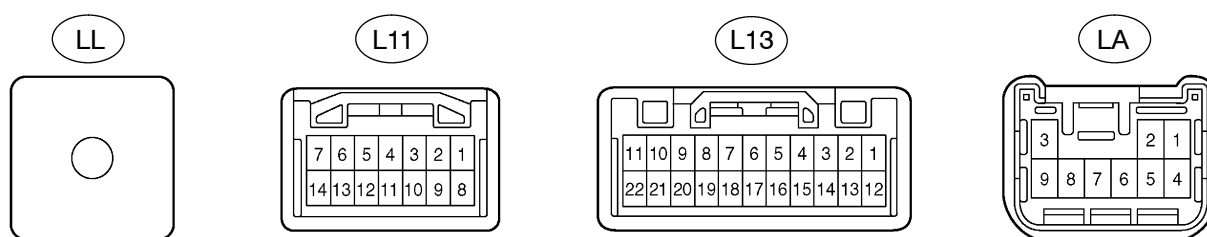
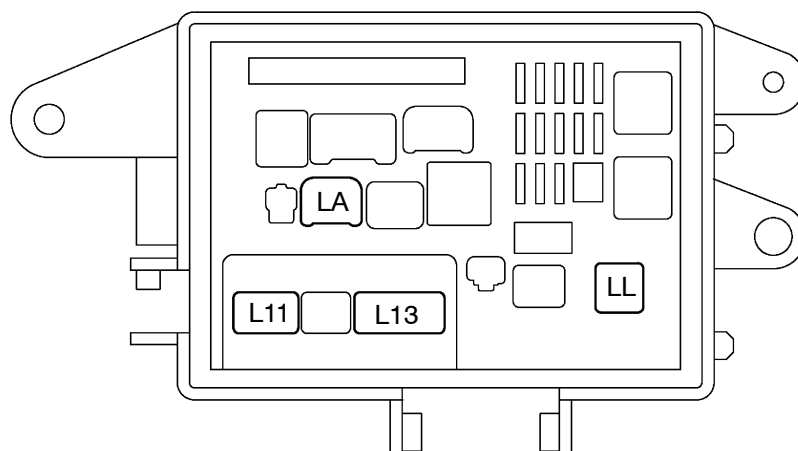
- (c) Reconnect the R16 and R17 ECU connectors.  
 (d) Measure the resistance and voltage of each terminal of the connectors.

**Standard:**

| Symbols (Terminal No.)           | Wiring Color | Terminal Description          | Condition                                                  | Specified Condition |
|----------------------------------|--------------|-------------------------------|------------------------------------------------------------|---------------------|
| OSCB (R17-13) –<br>OSCE (R17-27) | R – G-Y      | • +B power supply<br>• Ground | Constant                                                   | 10 to 14 V          |
| SEL (R17-1) –<br>OSCE (R17-27)   | W – G-Y      | Sensor detection signal       | Smart key at least 3m<br>away from door → Close to<br>door | 10 to 14 V → 0 V    |
| CLGI (R16-22) –<br>GND (R16-6)   | L-W – W-B    | Signal output to oscillator   | Smart key at least 3m<br>away from door → Close to<br>door | Above 0 Hz → 0 Hz   |
| SENS (R17-3) –<br>GND (R16-6)    | G-W – W-B    | Lock switch detection signal  | Outside door handle<br>touched → Not touched               | 10 to 14 V → 0 V    |
| CLGO (R17-23) –<br>GND (R16-6)   | L-R – W-B    | Sensor detection signal       | All doors locked and ignition<br>switch OFF → ON           | Above 0 Hz → 0 Hz   |

If the result is not as specified, the rear door RH ECU may have a malfunction.

## 7. CHECK LUGGAGE ROOM J/B ECU



Y

B74257

- (a) Disconnect the LA, LL, L11 and L13 ECU connectors.
- (b) Measure the resistance and voltage of each terminal of the wire harness side connectors.

### Standard:

| Symbols (Terminal No.)        | Wiring Color                                                    | Terminal Description                          | Condition                                           | Specified Condition                           |
|-------------------------------|-----------------------------------------------------------------|-----------------------------------------------|-----------------------------------------------------|-----------------------------------------------|
| HIC (LL-1)<br>Body ground     | B-W – Body ground                                               | +B                                            | Constant                                            | 10 to 14 V                                    |
| P GND (LA-5) –<br>Body ground | W-B – Body ground                                               | Ground                                        | Constant                                            | Below 1 $\Omega$                              |
| SG (L14-5)<br>Body ground     | W-B – Body ground                                               | Ground                                        | Constant                                            | Below 1 $\Omega$                              |
| LCH (L11-1) –<br>Body ground  | V – Body ground                                                 | +B power supply                               | Constant                                            | 10 to 14 V                                    |
| LCTY (L11-4) –<br>Body ground | G – Body ground                                                 | Ignition power supply                         | Ignition switch ON                                  | 10 to 14 V                                    |
| BDCY (L13-2) –<br>Body ground | L* <sup>1</sup> – Body ground<br>GR* <sup>2</sup> – Body ground | Trigger switch signal                         | Trigger switch not pushed<br>→ Pushed               | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |
| LPSW (L11-2)<br>Body ground   | BR* <sup>1</sup> – Body ground<br>R* <sup>2</sup> – Body ground | Luggage compartment<br>door push switch input | Luggage compartment<br>door push switch<br>OFF → ON | 10 k $\Omega$ or higher →<br>Below 1 $\Omega$ |

**HINT:**

\*1: LHD

\*2: RHD

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

**Standard:**

| Symbols (Terminal No.)           | Wiring Color | Terminal Description                | Condition | Specified Condition |
|----------------------------------|--------------|-------------------------------------|-----------|---------------------|
| LCM + (L11-8) -<br>LCM - (L11-1) | V - L        | Luggage door closer motor<br>output | Constant  | Below 1 $\Omega$    |

If the result is not as specified, the luggage room J/B ECU may have a malfunction.