

## DATA LIST / ACTIVE TEST

### 1. READ DATA LIST

#### HINT:

Using the intelligent tester's DATA LIST allows a switch, actuator and other item values to be read without removing any parts. Reading the DATA LIST early in troubleshooting is one way to save time.

- (a) Connect the intelligent tester with CAN VIM to the DLC3.
- (b) Turn the ignition switch ON.
- (c) Read the DATA LIST.

#### BODY:

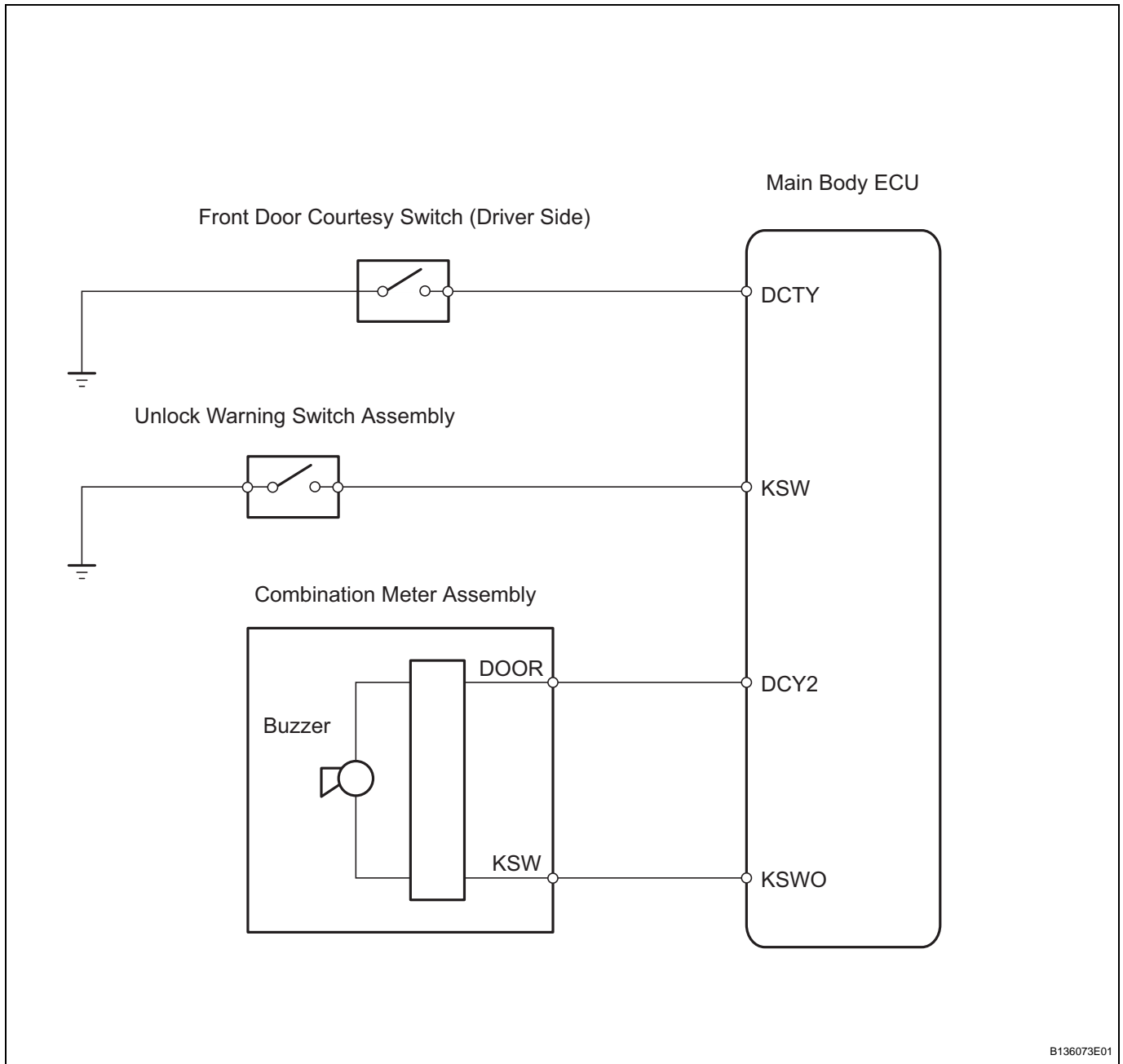
| Item            | Measurement Item / Display (Range)                 | Normal Condition   | Diagnostic Note |
|-----------------|--|--|-----------------|
| KEY UNLK WRN SW | Unlock warning switch signal /ON or OFF            | ON: Key is in ignition key cylinder<br>OFF: No key is in ignition key cylinder | -               |
| D DOR CTY SW    | Driver side door courtesy switch signal /ON or OFF | ON: Driver side door is open<br>OFF: Driver side door is closed                | -               |

## Key Reminder Buzzer does not Sound

### DESCRIPTION

The key reminder warning buzzer sounds when the driver side door is opened while the ignition switch is in the LOCK or ACC position. The key reminder warning buzzer is activated when the main body ECU sends a key switch signal and driver side courtesy switch signal to the combination meter.

### WIRING DIAGRAM



### INSPECTION PROCEDURE

|          |  |
|----------|--|
| <b>1</b> | <b>READ VALUE OF INTELLIGENT TESTER (D DOR CTY SW)</b> |
|----------|--|

(a) Connect the intelligent tester with CAN VIM to the DLC3.

- (b) Turn the ignition switch ON and turn the intelligent tester main switch ON.
- (c) Select the items below in the "DATA LIST" and read the display on the intelligent tester.

**BODY**

| Item         | Measurement Item / Display (Range)                  | Normal Condition  | Diagnostic Note |
|--------------|---|---|-----------------|
| D DOR CTY SW | Driver side door courtesy switch signal / ON or OFF | ON: Driver side door is open<br>OFF: Driver side door is closed | -               |

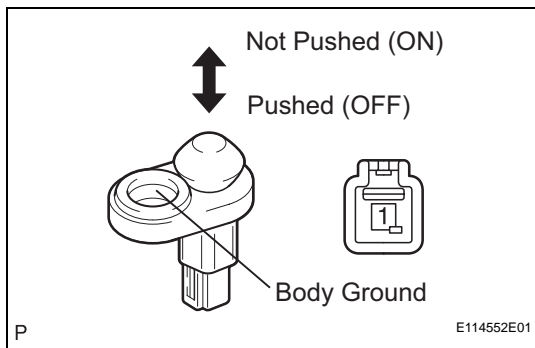
**OK:**

When the driver side door is opened/closed, the display will change as shown above.

**OK** → **Go to step 4**

**NG**

**2 INSPECT FRONT DOOR COURTESY SWITCH (DRIVER SIDE)**



- (a) Remove the front door courtesy switch (driver side).
- (b) Measure the resistance.

**Standard resistance**

| Tester Connection | Condition       | Specified Condition |
|-------------------|-----------------|---------------------|
| 1 - Body ground   | Not pushed (ON) | Below 1 Ω           |
| 1 - Body ground   | Pushed (OFF)    | 10 kΩ or higher     |

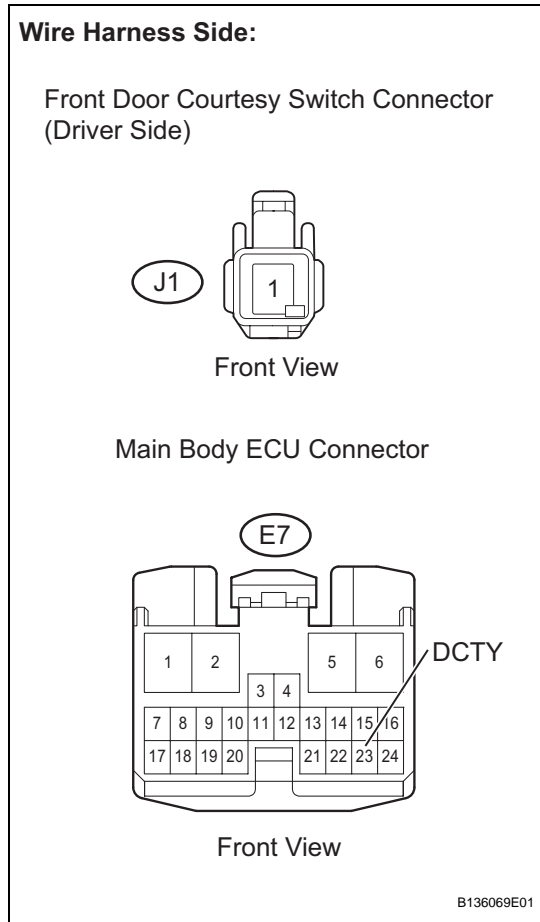
- (c) Reinstall the front door courtesy switch (driver side).

**NG** → **REPLACE FRONT DOOR COURTESY SWITCH (DRIVER SIDE)**

**OK**

**DL**

**3 CHECK HARNESS AND CONNECTOR (FRONT DOOR COURTESY SWITCH (DRIVER SIDE) - MAIN BODY ECU)**



- (a) Disconnect the J1 front door courtesy switch (driver side) connector.
  - (b) Disconnect the E7 main body ECU connector.
  - (c) Measure the resistance.
- Standard resistance**

| Tester Connection                  | Specified Condition |
|------------------------------------|---------------------|
| J1-1 - E7-23 (DCTY)                | Below 1 Ω           |
| J1-1 or E7-23 (DCTY) - Body ground | 10 kΩ or higher     |

- (d) Reconnect the courtesy switch and main body ECU connectors.

**NG** → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

**OK**

**4 READ VALUE OF INTELLIGENT TESTER (KEY UNLK WRN SW)**

- (a) Connect the intelligent tester with CAN VIM to the DLC3.
- (b) Turn the ignition switch ON and turn the intelligent tester main switch ON.
- (c) Select the item below in the "DATA LIST" and read the display on the intelligent tester.

**BODY**

| Item            | Measurement Item / Display (Range)       | Normal Condition   | Diagnostic Note |
|-----------------|--|--|-----------------|
| KEY UNLK WRN SW | Unlock warning switch signal / ON or OFF | ON: Key is in ignition key cylinder<br>OFF: No key is in ignition key cylinder | -               |

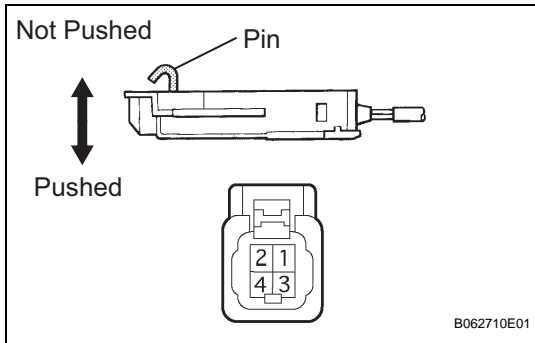
**OK:**

When the ignition key is operated, the display changes as shown above.

**OK** → **Go to step 7**

NG

**5 INSPECT UNLOCK WARNING SWITCH ASSEMBLY**



- (a) Remove the unlock warning switch assembly.
- (b) Measure the resistance.

**Standard resistance**

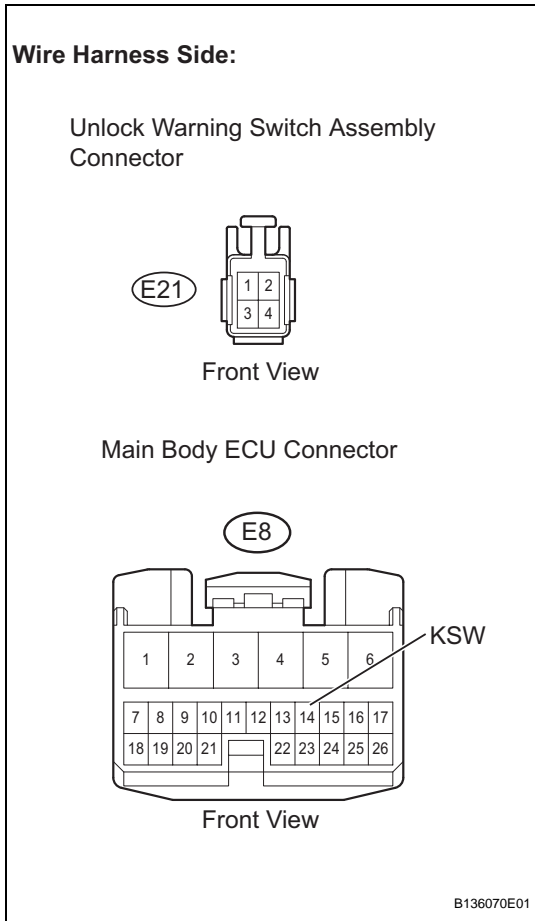
| Tester Connection | Condition  | Specified Condition |
|-------------------|------------|---------------------|
| 1 - 2             | Not pushed | 10 kΩ or higher     |
| 1 - 2             | Pushed     | Below 1 Ω           |

- (c) Reinstall the unlock warning switch assembly.

**NG REPLACE UNLOCK WARNING SWITCH ASSEMBLY**

OK

**6 CHECK HARNESS AND CONNECTOR (UNLOCK WARNING SWITCH ASSEMBLY - MAIN BODY ECU)**



- (a) Disconnect the E21 unlock warning switch assembly connector.
- (b) Disconnect the E8 main body ECU connector.
- (c) Measure the resistance.

**Standard resistance**

| Tester Connection                  | Specified Condition |
|------------------------------------|---------------------|
| E21-1 - E8-14 (KSW)                | Below 1 Ω           |
| E21-1 or E8-14 (KSW) - Body ground | 10 kΩ or higher     |
| E21-2 - Body ground                | Below 1 Ω           |

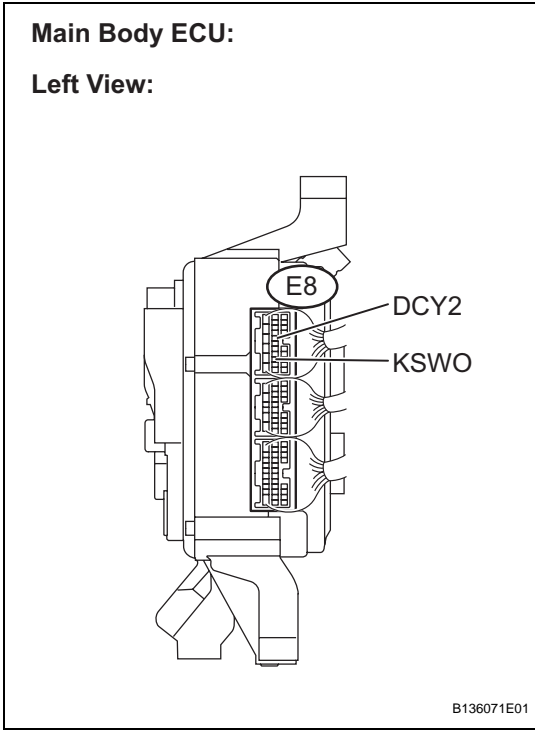
- (d) Reconnect the unlock warning switch and the main body ECU connectors.

**NG REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

DL

**7 INSPECT MAIN BODY ECU**



- (a) Measure the voltage.  
**Standard voltage**

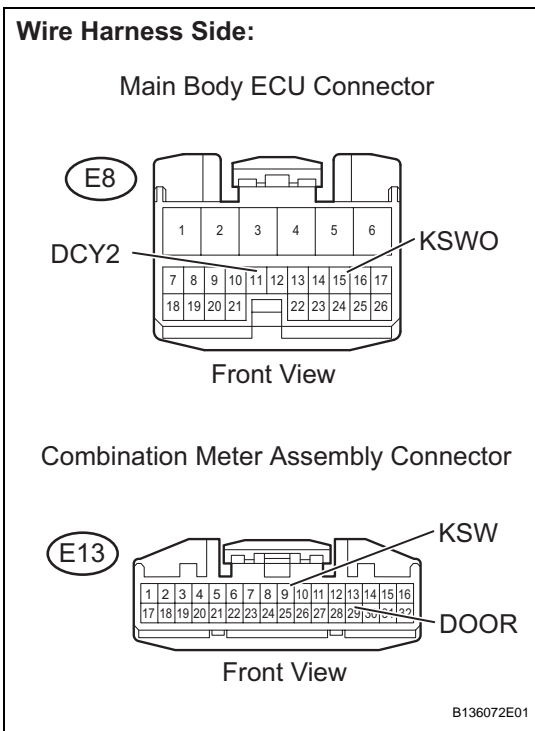
| Tester Connection          | Condition                          | Specified Condition |
|----------------------------|------------------------------------|---------------------|
| E8-15 (KSWO) - Body ground | Key is in ignition key cylinder    | Below 1 V           |
| E8-15 (KSWO) - Body ground | No key is in ignition key cylinder | 10 to 14 V          |
| E8-11 (DCY2) - Body ground | Driver side door is open           | Below 1 V           |
| E8-11 (DCY2) - Body ground | Driver side door is closed         | 10 to 14 V          |

**NG** → **REPLACE MAIN BODY ECU**

**OK**

**DL**

**8 CHECK HARNESS AND CONNECTOR (COMBINATION METER ASSEMBLY - MAIN BODY ECU)**



- (a) Disconnect the E8 main body ECU connector.  
 (b) Disconnect the E13 combination meter assembly connector.  
 (c) Measure the resistance.  
**Standard resistance**

| Tester Connection                           | Specified Condition |
|---|---------------------|
| E8-15 (KSWO) - E13-9 (KSW)                  | Below 1 Ω           |
| E8-15 (KSWO) or E13-9 (KSW) - Body ground   | 10 kΩ or higher     |
| E8-11 (DCY2) - E13-29 (DOOR)                | Below 1 Ω           |
| E8-11 (DCY2) or E13-29 (DOOR) - Body ground | 10 kΩ or higher     |

- (d) Reconnect the main body ECU and combination meter assembly connectors.

**NG** → **REPAIR OR REPLACE HARNESS OR CONNECTOR**

OK

REPLACE COMBINATION METER ASSEMBLY