## TERMINALS OF ECU

## 1. CHECK INSTRUMENT PANEL JUNCTION BLOCK (MAIN BODY ECU)



## Instrument Panel Junction Block (Rear View)


(a) Measure the voltage of the connectors.

| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
| :--- | :--- | :--- | :--- | :--- |
| HRLY (E15-20) - GND1 <br> $($ IE-17) | BR - W-B | Headlight Relay <br> (HEAD signal) | Light control switch is OFF <br> or TAIL | 10 to 14 V |
| HRLY (E15-20) - GND1 <br> (IE-17) | BR - W-B | Headlight Relay <br> (HEAD signal) | Light control switch is <br> HEAD | Below 1 V |
| DIM (E16-3) - GND1 (IE- <br> $17)$ | LG - W-B | Daytime running light <br> Relay <br> (High beam signal) | Light control switch is <br> HEAD | Below 1 V |
| DIM (E16-3) - GND1 (IE- <br> $17)$ | LG - W-B | Daytime running light <br> Relay <br> (High beam signal) | Light control switch is <br> HEAD | 10 to 14 V |
| TAIL (E15-21) - GND1 (IE- <br> $17)$ | W-W-B | Taillight relay <br> (TAIL signal) | Light control switch is OFF | Below 1 V |
| TAIL (E15-21) - GND1 (IE- <br> $17)$ | W - W-B | Taillight relay <br> (TAIL signal) | Light control switch is TAIL | 10 to 14 V |


| Symbols (Terminal No.) | Wiring Color | Terminal Description | Condition | Specified Condition |
| :---: | :---: | :---: | :---: | :---: |
| ILE (IK-2) - GND1 (IE-17) | W - W-B | Illumination signal | - Room light switch position is DOOR <br> - Door closed | 10 to 14 V |
| ILE (IK-2) - GND1 (IE-17) | W-W-B | Illumination signal | - Room light switch position is DOOR <br> - Door open | Below 1 V |
| $\begin{aligned} & \text { FSPT (E15-2) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | V - W-B | Foot light illumination (Illumination signal) | Foot light illumination OFF | 10 to 14 V |
| ```FSPT (E15-2) - GND1 (IE- 17)``` | V-W-B | Foot light illumination (Illumination signal) | Foot light illumination ON | Below 1 V |
| HU (IJ-4) - GND1 (IE-17) | O-W-B | Headlight dimmer switch (HIGH signal) | Light control switch is HEAD Headlight dimmer switch is LOW | 10 to 14 V |
| HU (IJ-4) - GND1 (IE-17) | O-W-B | Headlight dimmer switch (HIGH signal) | Light control switch is HEAD Headlight dimmer switch is HIGH | Below 1 V |
| $\begin{aligned} & \text { LCTY (E15-8) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | SB - W-B | Courtesy switch (Rear left door circuit) | Rear left door is closed | Below 1 V |
| $\begin{aligned} & \text { LCTY (E15-8) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | SB - W-B | Courtesy switch (Rear left door circuit) | Rear left door is open | 10 to 14 V |
| $\begin{aligned} & \text { FFGO (E17-17) - GND1 } \\ & \text { (IE-17) } \end{aligned}$ | G - W-B | Front fog relay (Front fog circuit) | Front fog light is OFF | 10 to 14 V |
| $\begin{aligned} & \text { FFGO (E17-17) - GND1 } \\ & \text { (IE-17) } \end{aligned}$ | G - W-B | Front fog relay (Front fog circuit) | Front fog light is ON | Below 1 V |
| $\begin{aligned} & \text { DCTY (IA-21) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | W-W-B | Courtesy switch (Front left door circuit) | Front left door is open | Below 1 V |
| $\begin{aligned} & \text { DCTY (IA-21) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | W-W-B | Courtesy switch (Front left door circuit) | Front left door is closed | 10 to 14 V |
| $\begin{aligned} & \text { RRCY (ID-7) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | LG - W-B | Courtesy switch (Rear right door circuit) | Rear right door is open | Below 1 V |
| $\begin{aligned} & \text { RRCY (ID-7) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | LG - W-B | Courtesy switch <br> (Rear right door circuit) | Rear right door is closed | 10 to 14 V |
| $\begin{aligned} & \text { HF (E15-22) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | R - W-B | Headlight dimmer switch (FLASH signal) | Headlight dimmer switch is OFF | 10 to 14 V |
| HF (E15-22) - GND1 (IE- 17) | R - W-B | Headlight dimmer switch (FLASH signal) | Headlight dimmer switch is FLASH | Below 1 V |
| $\begin{aligned} & \text { FFOG (E17-13) - GND1 } \\ & (\text { IE-17) } \end{aligned}$ | GR - W-B | Front fog light switch (Front fog light signal) | Light control switch is TAIL Fog light switch is OFF | 10 to 14 V |
| $\begin{aligned} & \text { FFOG (E17-13) - GND1 } \\ & \text { (IE-17) } \end{aligned}$ | GR - W-B | Front fog light switch (Front fog light signal) | Light control switch is TAIL Fog light switch is ON | Below 1 V |
| $\begin{aligned} & \text { PCTY (IC-14) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | BR - W-B | Courtesy switch <br> (Front right door circuit) | Front right door is open | Below 1 V |
| $\begin{aligned} & \text { PCTY (IC-14) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | BR - W-B | Courtesy switch <br> (Front right door circuit) | Front right door is closed | 10 to 14 V |
| $\begin{aligned} & \text { BCTY (IA-7) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | LG - W-B | Courtesy switch (Back door) | Back door is open | Below 1 V |
| $\begin{aligned} & \text { BCTY (IA-7) - GND1 (IE- } \\ & \text { 17) } \end{aligned}$ | LG - W-B | Courtesy switch (Back door) | Back door is closed | 10 to 14 V |
| $\begin{aligned} & \text { LSWP (E15-10) - GND1 } \\ & \text { (IE-17) } \end{aligned}$ | Y - W-B | Door lock position switch (Front right door) | Front right door is in unlock position | 10 to 14 V |
| $\begin{aligned} & \text { LSWP (E15-10) - GND1 } \\ & \text { (IE-17) } \end{aligned}$ | Y - W-B | Door lock position switch (Front right door) | Front right door is in lock position | Below 1 V |
| $\begin{aligned} & \text { LSWD (E15-25) - GND1 } \\ & (\mathrm{IE}-17) \end{aligned}$ | Y - W-B | Door lock position switch (Front left door) | Front left door is in unlock position | 10 to 14 V |
| $\begin{aligned} & \text { LSWD (E15-25) - GND1 } \\ & (\mathrm{IE}-17) \end{aligned}$ | Y - W-B | Door lock position switch (Front left door) | Front left door is in lock position | Below 1 V |

If the result is not as specified, the junction block (main body ECU) may have a malfunction.


Main body ECU

| Item | Measurement Item/ Display (Range) | Normal Condition | Diagnostic Note |
| :---: | :---: | :---: | :---: |
| ACC SW | ACC switch signal / ON or OFF | ON: Ignition switch is in ACC, ON or START position OFF: Ignition switch is in OFF position | - |
| IG SW | IG switch signal / ON or OFF | ON: Ignition switch is in ON or START position OFF: Ignition switch is in OFF or ACC position | - |
| D DOR CTY SW | Driver's door courtesy switch signal / ON or OFF | ON: Driver's door is open OFF: Driver's door is closed | - |
| D LOCK POS SW | Driver's door lock position switch signal / ON or OFF | ON: Door lock is in unlock position <br> OFF: Door lock is in lock position | - |
| P DOR CYT SW | Passenger's door courtesy switch signal / ON or OFF | ON: Front passenger's door is open <br> OFF: Front passenger's door is closed | - |
| P LOCK POS SW | Front passenger's door lock position switch signal / ON or OFF | ON: Front passenger's door lock is in unlock position OFF: Front passenger's door lock is in lock position | - |
| RR DOR CTY SW | Rear door RH courtesy switch signal / ON or OFF | ON: Right rear door is open OFF: Right rear door is closed | - |
| DIMMER SW | Headlight dimmer switch signal / ON or OFF | ON: Headlight dimmer switch is in HI or FLASH position OFF: Headlight dimmer switch is in LO position | - |
| HIGH FLASHER SW | Headlight dimmer switch signal / ON or OFF | ON: Headlight dimmer switch is in FLASH position OFF: Headlight dimmer switch is in except FLASH position | - |
| F FOG LIGHT SW | Front fog light switch signal / ON or OFF | ON: Front fog light switch is ON position <br> OFF: Front fog light switch is OFF position | - |
| HEAD LIGHT SW | Headlight control switch signal / ON or OFF | ON: Light control switch is in HEAD position OFF: Light control switch is in except HEAD position | - |


| Item | Measurement Item/ <br> Display (Range) | Normal Condition | Diagnostic Note |
| :--- | :--- | :--- | :--- |
| TAIL LIGHT SW | Taillight switch signal / ON or OFF | ON: Light control switch is in TAIL <br> or HEAD position <br> OFF: Light control switch is in <br> OFF position | - |
| RL DOR CTY SW | Rear door LH courtesy switch <br> signal / ON or OFF | ON: Left rear door is open <br> OFF Left rear door is closed | - |
| BK DOR CTY SW | Back door courtesy switch signal / <br> ON or OFF | ON: Back door is open <br> OFF: Back door is closed | - |

## 2. PERFORM ACTIVE TEST

## HINT:

Performing the intelligent tester's ACTIVE TEST allows relay, VSV, actuator and other items to be operated without removing any parts. Performing the ACTIVE TEST early in troubleshooting is one way to save time. The DATA LIST can be displayed during the ACTIVE TEST.
(a) Connect the intelligent tester (with CAN VIM) to the DLC3.
(b) Turn the ignition switch ON.
(c) Perform the ACTIVE TEST by following the directions on the tester screen.
Main body ECU

| Item | Test Details | Diagnostic Note |
| :--- | :--- | :--- |
| HAZARD | Turn hazard light flasher relay ON / OFF | - |
| F FOG LIGHT RLY | Turn front fog light relay ON / OFF | - |
| HEAD LIGHT | Turn headlight relay ON / OFF | - |
| HEAD LIGHT (HI) | Turn headlight dimmer relay (Headlight <br> dimmer switch HI position) ON / OFF | - |
| TAIL LIGHT | Turn taillight relay ON / OFF | - |
| ILLUMI OUTPUT | Test Details: <br> Turn interior light and key illumination ON / <br> OFF <br> Vehicle Condition: <br> Interior light switch is in DOOR position and <br> all doors are closed | - |
| STEP LIGHT | Foot light illumination ON / OFF | - |

