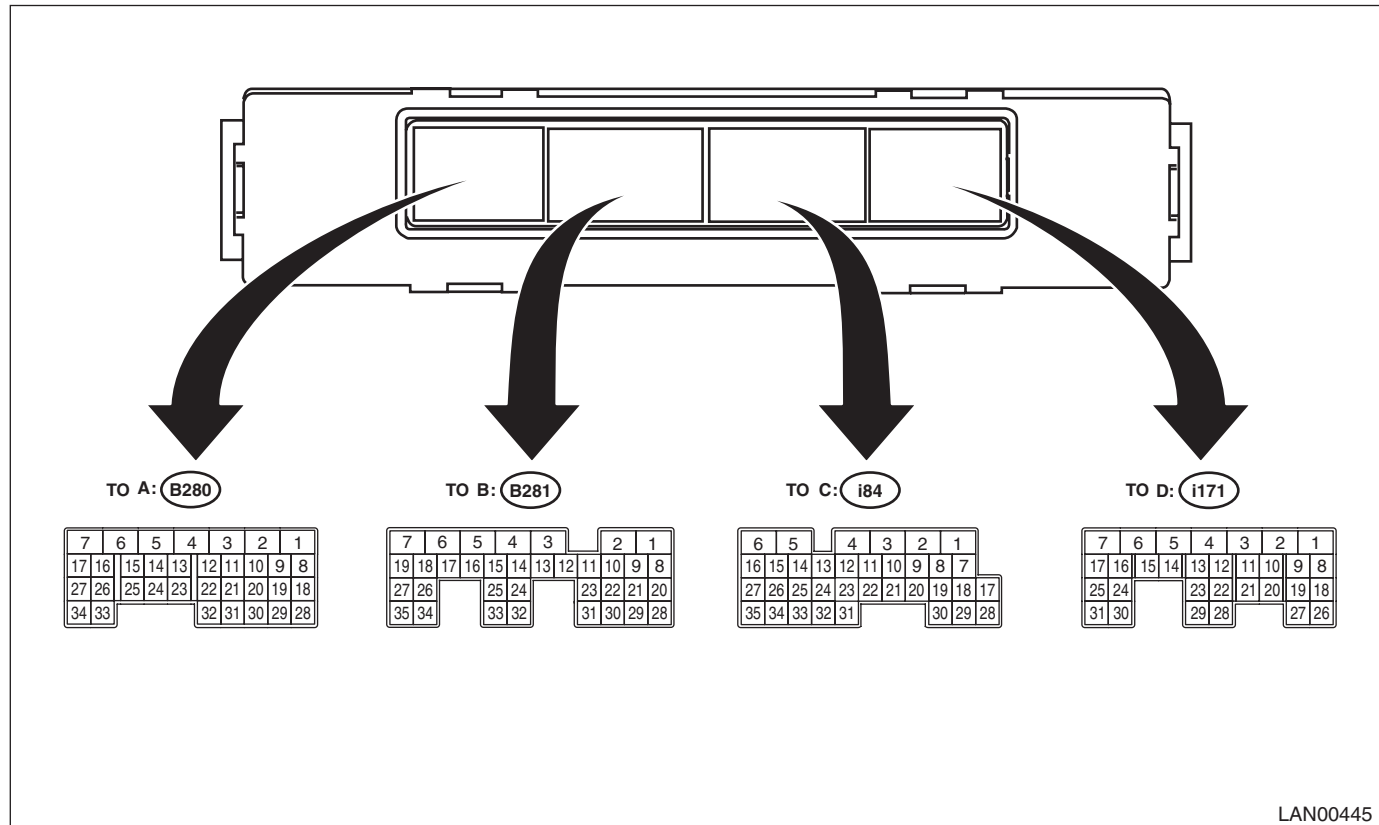


# Control Module I/O Signal

## BODY CONTROL SYSTEM (DIAGNOSTICS)

### 5. Control Module I/O Signal

#### A: ELECTRICAL SPECIFICATION



LAN00445

| Description                                | Terminal No.                             | Signal (V or $\Omega$ )                   | Note   |
|--|--|---|--|
|  |  | Ignition switch ON (engine OFF)           |  |
| Ignition power supply (rear wiper)         | A5 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V $\rightarrow$ 10 — 13 V   | Ignition switch OFF $\rightarrow$ ON           |
| Battery power supply (shift lock/key lock) | B6 $\longleftrightarrow$ Chassis ground  | 10 — 13 V                                 | Always   |
| Battery power supply (door lock)           | D1 $\longleftrightarrow$ Chassis ground  | 10 — 13 V                                 | Always   |
| Battery power supply (control)             | C6 $\longleftrightarrow$ Chassis ground  | 10 — 13 V                                 | Always   |
| Ground                                     | A1 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V                           | Always   |
|  | C1 $\longleftrightarrow$ Chassis ground  |   |  |
| Battery power supply (back-up)             | B7 $\longleftrightarrow$ Chassis ground  | 10 — 13 V                                 | Always   |
| Ignition power supply                      | B3 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V $\rightarrow$ 10 — 13 V   | Ignition switch OFF $\rightarrow$ ON           |
| ACC power supply                           | A32 $\longleftrightarrow$ Chassis ground | Less than 1.5 V $\rightarrow$ 10 — 13 V   | Ignition switch OFF $\rightarrow$ Accessory ON |
| Key-in switch                              | A4 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V $\rightarrow$ 10 — 13 V   | Key inserted (models without keyless access)   |
| ACC input                                  | A4 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V $\rightarrow$ 10 — 13 V   | ACC ON (model with keyless access)             |
| P range SW                                 | B18 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V | P range to other than P range                  |
| Stop light SW                              | A10 $\longleftrightarrow$ Chassis ground | Less than 1.5 V $\rightarrow$ 8 V         | Stop light switch OFF $\rightarrow$ ON         |
| Door SW (driver's)                         | C14 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V | Front right door closed $\rightarrow$ open     |
| Door SW (passenger's)                      | C13 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V | Front left door closed $\rightarrow$ open      |

# Control Module I/O Signal

## BODY CONTROL SYSTEM (DIAGNOSTICS)

| Description                                | Terminal No.                             | Signal (V or $\Omega$ )                     | Note  |
|--|--|---|---|
|  |  | Ignition switch ON<br>(engine OFF)          |   |
| Door SW (rear right)                       | C25 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Rear right door closed $\rightarrow$ open   |
| Door SW (rear left)                        | C24 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Rear left door closed $\rightarrow$ open    |
| Rear gate SW/trunk SW                      | C33 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Rear gate/trunk closed $\rightarrow$ open   |
| Opener SW (trunk/rear gate)                | C10 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Rear gate/trunk opener switch ON            |
| Manual switch (LOCK)                       | C9 $\longleftrightarrow$ Chassis ground  | 8 V or more $\rightarrow$ less than 1.5 V   | Door lock switch ON                         |
| Manual switch (UNLOCK)                     | C20 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Door unlock switch ON                       |
| Lighting AUTO                              | B16 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at AUTO position                     |
| Lighting II                                | A34 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at II position                       |
|  | B34 $\longleftrightarrow$ Chassis ground |   |   |
| Lighting I                                 | B17 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at I position                        |
| Dimmer passing                             | B25 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at passing position                  |
| Dimmer Hi beam                             | B15 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at Hi beam position                  |
| Front fog light SW                         | B26 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Front fog light switch ON                   |
| Illumination sensor power supply           | B1 $\longleftrightarrow$ A29             | Less than 1.5 V $\rightarrow$ 4.5 V or more | Ignition switch OFF $\rightarrow$ ON        |
| Illumination sensor signal                 | A19                                      | 0.2 — 4.5 V                                 | Ignition switch OFF $\rightarrow$ ON        |
| Ground (illumination sensor)               | A29 $\longleftrightarrow$ Chassis ground | Less than 1.5 V                             | Always                                      |
| Rear wiper SW ON                           | A12 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at ON position                       |
| Rear wiper SW INT                          | A22 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at INT position                      |
| Rear washer SW                             | A30 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at ON position                       |
| Illumination SW (Vi1)                      | D12 $\longleftrightarrow$ Chassis ground | Approx. 5 V                                 | While clearance light illuminates           |
| Illumination SW (Vi2)                      | D22 $\longleftrightarrow$ Chassis ground | 0.5 — 4.8 V                                 |   |
| Illumination SW (Vi3)                      | D28 $\longleftrightarrow$ Chassis ground | Less than 1.5 V                             | Always                                      |
| Bright SW                                  | C21 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | Switch at ON position                       |
| Reverse SW (MT)                            | B12 $\longleftrightarrow$ Chassis ground | Less than 1.5 V $\rightarrow$ 8 V or more   | Reverse SW ON                               |
| Impact sensor                              | A11 $\longleftrightarrow$ Chassis ground | 8 V or more                                 | Apply an impact                             |
| Hi-speed CAN communication circuit 1 (Hi)  | B20                                      | Serial communication                        | Except for sleep status*1                   |
| Hi-speed CAN communication circuit 1 (Lo)  | B28                                      |   |   |
| Hi-speed CAN communication circuit 2 (Hi)  | C27                                      | Serial communication                        | Except for sleep status*1                   |
| Hi-speed CAN communication circuit 2 (Lo)  | C35                                      |   |   |
| Immobilizer antenna (B)                    | B22                                      | Serial communication                        | Communication with ignition key in progress |
| Immobilizer antenna (A)                    | B10                                      |   |   |
| Immobilizer antenna amplifier GND          | B30 $\longleftrightarrow$ Chassis ground | Less than 1.5 V                             | Always                                      |
| Immobilizer antenna amplifier power supply | B2 $\longleftrightarrow$ B30             | 4.5 — 5.5 V                                 | Communication with ignition key in progress |
| Security UART                              | A21                                      | Serial communication                        | Always                                      |
| Front wiper return                         | A2 $\longleftrightarrow$ Chassis ground  | 8 V   | When front wiper is operated                |
| Rear washer switch                         | A30 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V   | When rear washer switch is ON               |
| Door UNLOCK (driver's seat) output         | D4 $\longleftrightarrow$ Chassis ground  | Less than 0.5 V $\rightarrow$ 8 V or more   | When driver's side door unlock is output    |

# Control Module I/O Signal

## BODY CONTROL SYSTEM (DIAGNOSTICS)

| Description                      | Terminal No.                             | Signal (V or $\Omega$ )                   | Note   |
|----------------------------------|--|---|--|
|                                  |  | Ignition switch ON<br>(engine OFF)        |  |
| Keyless entry communication line | D11                                      | Serial communication                      | When door lock/unlock is operated with the keyless transmitter, or when TPMS is operated |
| Rear defogger switch             | C18 $\longleftrightarrow$ Chassis ground | Less than 1.5 V $\rightarrow$ 8 V or more | When the rear defogger switch is ON  |
| Parking brake switch             | C32 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.5 V | When parking brake is ON   |
| Shift lock solenoid              | B5 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V $\rightarrow$ 8 V or more | When shift lock is operating (AT models)   |
| Key lock solenoid                | B4 $\longleftrightarrow$ Chassis ground  | Less than 1.5 V $\rightarrow$ 8 V or more | LOCK status is ON (AT models without keyless access)                                     |
| Rear wiper ON output             | A7 $\longleftrightarrow$ Chassis ground  | Less than 0.5 V $\rightarrow$ 8 V or more | Rear wiper operation in progress   |
| Rear wiper return                | A6 $\longleftrightarrow$ Chassis ground  | Less than 0.5 V $\rightarrow$ 8 V or more | Rear wiper operation in progress   |
| Door LOCK output                 | D2 $\longleftrightarrow$ Chassis ground  | Less than 0.5 V $\rightarrow$ 8 V or more | When LOCK signal is output   |
| Door UNLOCK output               | D3 $\longleftrightarrow$ Chassis ground  | Less than 0.5 V $\rightarrow$ 8 V or more | When UNLOCK signal is output   |
| Rear gate/trunk UNLOCK output    | D7 $\longleftrightarrow$ Chassis ground  | Less than 0.5 V $\rightarrow$ 8 V or more | When UNLOCK signal is output   |
| Lighting relay power supply      | A3 $\longleftrightarrow$ Chassis ground  | 10 — 13 V                                 | ACC or key-in SW ON  |
|                                  | B19 $\longleftrightarrow$ Chassis ground | 10 — 13 V                                 | ACC or key-in SW ON  |
| Lighting relay Hi output         | A17 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Dimmer SW at Hi position   |
| Lighting relay Lo output         | B35 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Lighting II SW at ON position  |
| Lighting Lo relay output 2       | A27 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Lighting II SW at ON position  |
| Lighting relay I output          | A16 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Lighting I SW at ON position   |
| Front fog light output           | A15 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Front fog light SW at ON position  |
| DRL cancel output                | D10 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Headlight switch ON or Hi beam ON, passing switch ON                                     |
| Illumination output              | B8                                       | Pulse output                              | Illumination ON  |
|                                  | C16                                      | Pulse output                              | Illumination ON  |
| Key ring illumination            | A25                                      | Pulse output                              | Illumination ON  |
| Room light output                | C4                                       | Pulse output                              | Room light ON (doors interlocked)  |
| Map light output                 | D8                                       | Pulse output                              | Map light ON (keyless answer-back, etc.)   |
| Luggage/trunk light output       | C3                                       | Pulse output                              | Luggage/trunk at open state  |
| Rear defogger relay output       | A26 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | Rear defogger SW ON  |
| Wiper deicer relay output        | D9 $\longleftrightarrow$ Chassis ground  | 8 V or more $\rightarrow$ less than 1.0 V | Wiper deicer SW ON   |
| Turn/hazard output               | D18 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | When answer-back is output   |
| Security horn output             | A24 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | When security is operating   |
| Security light                   | D26                                      | Pulse control                             | When security light is illuminating  |
| Answer-back buzzer output        | A20 $\longleftrightarrow$ Chassis ground | 8 V or more $\rightarrow$ less than 1.0 V | When answer-back operates  |
| Immobilizer communication        | A31                                      | Serial communication                      | (Model without keyless access)   |

\*1: For CAN sleep state, hold on for approx. one minute with ignition OFF and the doors, trunk, and rear gate all closed.