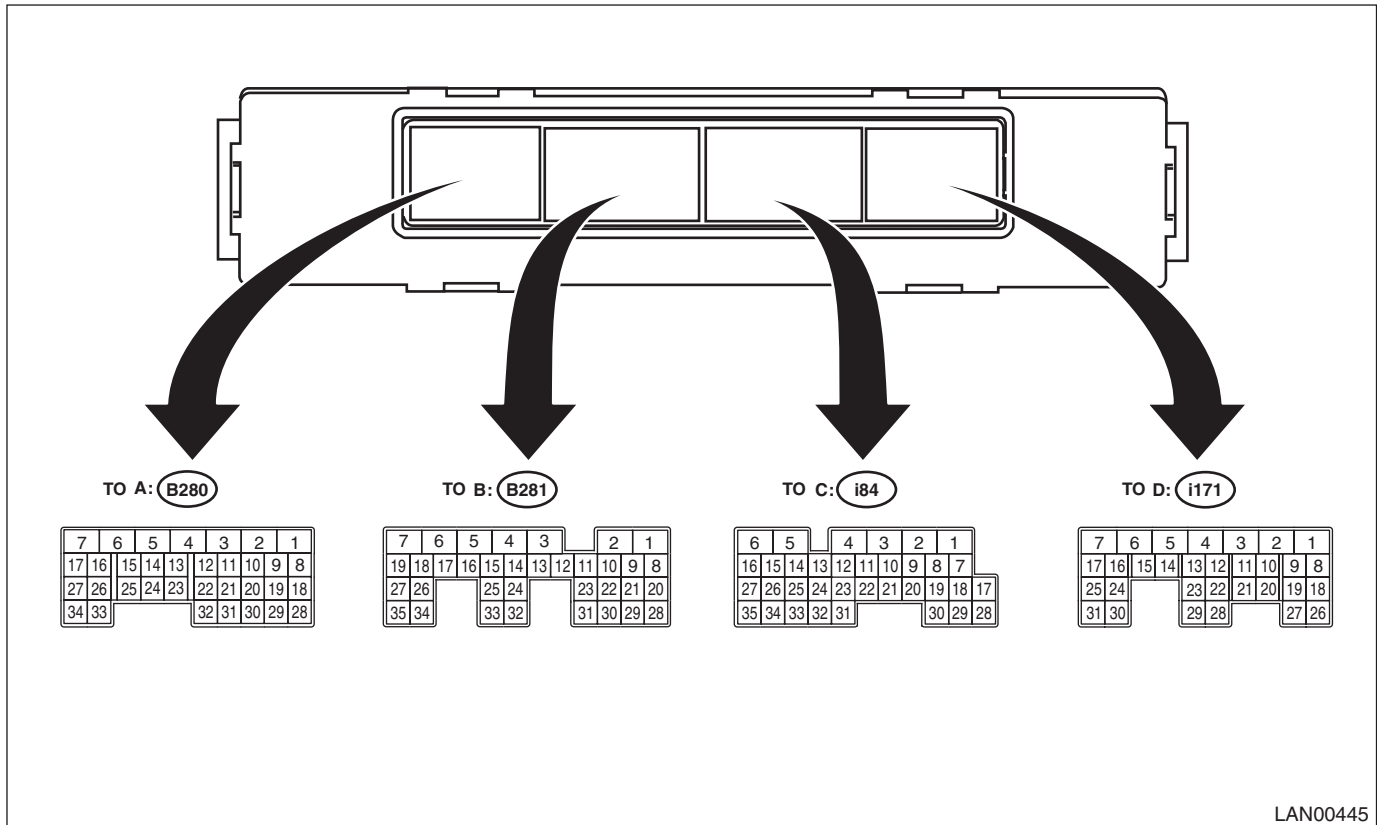


Control Module I/O Signal

BODY CONTROL SYSTEM (DIAGNOSTICS)

5. Control Module I/O Signal

A: ELECTRICAL SPECIFICATION



LAN00445

Description	Connector No.	Terminal No.	Signal (V or Ω)	Note
			Ignition switch ON (engine OFF)	
Ignition power supply (rear wiper)	B280	5 ← → chassis ground	Less than 1.5 V → 10 — 13 V	Ignition ON
Battery power supply (shift lock/key lock)	B281	6 ← → chassis ground	10 — 13 V	Always
Battery power supply (door lock)	i171	1 ← → chassis ground	10 — 13 V	Always
Battery power supply (control)	i84	6 ← → chassis ground	10 — 13 V	Always
GND	B280	1 ← → chassis ground	Less than 1.5 V	Always
	B281	31 ← → chassis ground		
	i84	1 ← → chassis ground		
	i171	29 ← → chassis ground		
Battery power supply (back-up)	B281	7 ← → chassis ground	10 — 13 V	Always
Ignition power supply	i171	17 ← → chassis ground	Less than 1.5 V → 10 — 13 V	Ignition ON
ACC power supply	i171	25 ← → chassis ground	Less than 1.5 V → 10 — 13 V	ACC ON
Key-in switch	B280	4 ← → chassis ground	Less than 1.5 V → 10 — 13 V	When key inserted
P range SW	B281	21 ← → chassis ground	8 V or more → less than 1.5 V	Shift lever shifted from P to other than P
Stop light SW	B280	10 ← → chassis ground	Less than 1.5 V → 8 V	Stop light switch ON
Door SW (driver's)	i84	14 ← → chassis ground	8 V or more → less than 1.5 V	Front right door open
Door SW (passenger's)	i84	13 ← → chassis ground	8 V or more → less than 1.5 V	Front left door open
Door SW (rear right)	i84	25 ← → chassis ground	8 V or more → less than 1.5 V	Rear right door open

Control Module I/O Signal

BODY CONTROL SYSTEM (DIAGNOSTICS)

Description	Connector No.	Terminal No.	Signal (V or Ω)	Note
			Ignition switch ON (engine OFF)	
Door SW (rear left)	i84	24 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Rear left door open
Rear gate SW	B281	303 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Rear gate open (wagon model)
Trunk SW	i84	33 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Trunk open (sedan model)
Request SW (driver's)	i171	14 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Request switch ON
Opener SW (trunk/rear gate)	i84	10 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Rear gate/trunk opener switch ON
Manual switch (LOCK)	i84	9 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Door lock switch ON
Manual switch (UNLOCK)	i84	20 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Door unlock switch ON
Door lock status switch (driver's)	i84	12	Less than 1 Ω	Door in UNLOCK status
Door lock status switch (passenger's)	i84	23	Less than 1 Ω	Door in UNLOCK status
Door lock status switch (driver's)	i84	12 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Door in UNLOCK status
Door lock status switch (passenger's)	i84	23 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Door in UNLOCK status
TPMS	i84	34	Less than 1 Ω	At answer-back of transmitter registration
Lighting AUTO	B281	16 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at AUTO position
Lighting II	B280	34 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at II position
	B281	34 $\leftarrow \rightarrow$ chassis ground		
Lighting I	B281	17 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at I position
Dimmer passing	B281	25 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at passing position
Dimmer Hi beam	B281	15 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at Hi beam position
Front fog light SW	B281	26 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Front fog light switch ON
Front wiper Lo	B281	11 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V \rightarrow 8 V or more	Switch at Lo position
Front wiper Hi	B281	23 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V \rightarrow 8 V or more	Switch at Hi position
	B280	28 $\leftarrow \rightarrow$ chassis ground		
Rear wiper SW ON	B280	12 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at ON position
Rear wiper SW INT	B280	22 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at INT position
Front washer SW	B281	32 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at ON position
Rear washer SW	B280	32 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at ON position
Illumination SW (Vi1)	i171	12 $\leftarrow \rightarrow$ chassis ground	Approx. 5 V	While clearance light illuminates
Illumination SW (Vi2)	i171	22 $\leftarrow \rightarrow$ chassis ground	0.3 — 4.5 V	
Illumination SW (Vi3)	i171	28 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V	Always
Bright SW	i84	21 $\leftarrow \rightarrow$ chassis ground	8 V or more \rightarrow less than 1.5 V	Switch at ON position
Reverse SW (MT)	B281	22 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V \rightarrow 8 V or more	Reverse SW ON
Fuel level sensor	i84	17 $\leftarrow \rightarrow$ chassis ground	2 — 96 Ω	Always
Seat belt SW (driver's)	i84	30 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V \rightarrow 8 V or more	Buckle removal \rightarrow insert
Seat belt SW (passenger's)	i84	29 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V \rightarrow 8 V or more	Buckle removal \rightarrow insert
Impact sensor	i84	28 $\leftarrow \rightarrow$ chassis ground	Less than 1.5 V \rightarrow 8 V or more	Apply an impact

Control Module I/O Signal

BODY CONTROL SYSTEM (DIAGNOSTICS)

Description	Connector No.	Terminal No.	Signal (V or Ω)	Note
			Ignition switch ON (engine OFF)	
Hi-speed CAN communication circuit 1 (Hi)	B281	20	Serial communication	Except for sleep status *1
Hi-speed CAN communication circuit 1 (Lo)	B281	28		
Hi-speed CAN communication circuit 2 (Hi)	i84	27	Serial communication	Except for sleep status *1
Hi-speed CAN communication circuit 2 (Lo)	i84	35		
Low-speed CAN circuit (Hi)	B280	11	Serial communication	Except for sleep status *1
Low-speed CAN circuit (Lo)	B280	21		
LIN circuit	i171	16	Serial communication	Except for sleep status *1
K-line	B281	9	Serial communication	Select Monitor communication in progress
Audio/Navigation communication circuit	i171	21	Serial communication	
Keyless entry communication line	i171	11	Serial communication	
Immobilizer antenna	B281	1	0 — 30 V	Communication with ignition key in progress
	B281	2		
Key lock solenoid (LOCK)	B281	4 ← →3	Less than 1.5 V → 8 V or more	LOCK status ON (AT models) *2
Key lock solenoid (UNLOCK)	B281	3 ← →4		UNLOCK status ON (AT models) *2
Shift lock solenoid	B281	5 ← → chassis ground	Less than 1.5 V → 8 V or more	When shift lock is operating (AT models)
Rear wiper ON output	B280	7 ← → chassis ground	Less than 0.5 V → 8 V or more	Rear wiper operation in progress
Rear wiper return output	B280	6 ← → chassis ground	Less than 0.5 V → 8 V or more	Wiper reversed operation in progress
Door LOCK output	i171	2 ← → chassis ground	Less than 0.5 V → 8 V or more	When LOCK signal is output
Door UNLOCK output	i171	3 ← → chassis ground	Less than 0.5 V → 8 V or more	When UNLOCK signal is output
Rear gate/trunk UNLOCK output	i171	7 ← → chassis ground	Less than 0.5 V → 8 V or more	When UNLOCK signal is output
Lighting relay power supply	B280	3 ← → chassis ground	10 — 13 V	ACC or key-in SW ON
	B281	19 ← → chassis ground	10 — 13 V	ACC or key-in SW ON
Lighting relay Hi output	B280	17 ← → chassis ground	8 V or more → less than 1.0 V	Dimmer SW at Hi position
Lighting relay Lo output	B281	35 ← → chassis ground	8 V or more → less than 1.0 V	Dimmer SW at Lo position
Lighting Lo relay output 2	B280	27 ← → chassis ground	8 V or more → less than 1.0 V	Lighting II SW at ON position
Lighting relay I output	B280	16 ← → chassis ground	8 V or more → less than 1.0 V	Lighting I SW at ON position
Front fog light output	B280	15 ← → chassis ground	8 V or more → less than 1.0 V	Front fog light SW at ON position
Illumination output	B281	8	Pulse output	Illumination ON
	i84	16	Pulse output	Illumination ON
Key ring illumination	B280	25	Pulse output	Illumination ON
Room light output	i84	4	Pulse output	Room light ON (doors interlocked)
Foot light output	B280	33	Pulse output	In sync with room light output

Control Module I/O Signal

BODY CONTROL SYSTEM (DIAGNOSTICS)

Description	Connector No.	Terminal No.	Signal (V or Ω)	Note
			Ignition switch ON (engine OFF)	
Map light output	i171	8	Pulse output	Map light ON (keyless answer-back, etc.)
Luggage/trunk light output	i84	3	Pulse output	Luggage/trunk at open state
Front wiper return	B280	2 ← → chassis ground	Less than 1.5 V → 8 V or more	When front wiper is reversed
Front wiper Lo output	B280	8 ← → chassis ground	Less than 1.5 V → 8 V or more	Front wiper Lo SW ON
Front wiper Hi output	B281	27 ← → chassis ground	Less than 1.5 V → 8 V or more	Front wiper Hi SW ON
Front wiper Hi output 2	B280	18 ← → chassis ground	Less than 1.5 V → 8 V or more	Front wiper Hi SW ON
Rear defogger relay output	B280	26 ← → chassis ground	8 V or more → less than 1.0 V	Rear defogger SW ON
Wiper deicer relay output	i171	9 ← → chassis ground	8 V or more → less than 1.0 V	Wiper deicer SW ON
Turn/hazard output	i171	18 ← → chassis ground	8 V or more → less than 1.0 V	When answer-back is output
Security horn output	B280	24 ← → chassis ground	8 V or more → less than 1.0 V	When security is operating
Security light	i171	15	Pulse control	When security light is illuminating
Impact sensor	i171	26 ← → chassis ground	8 V or more → less than 1.0 V	When security is operating
Answer-back buzzer output	B280	20 ← → chassis ground	8 V or more → less than 1.0 V	When answer-back operates
Immobilizer communication	B280	31	Serial communication	

*1:

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

*2:

Use an oscilloscope for measurement due to short output time.