

2012 - Mazda6 - Body and Accessories

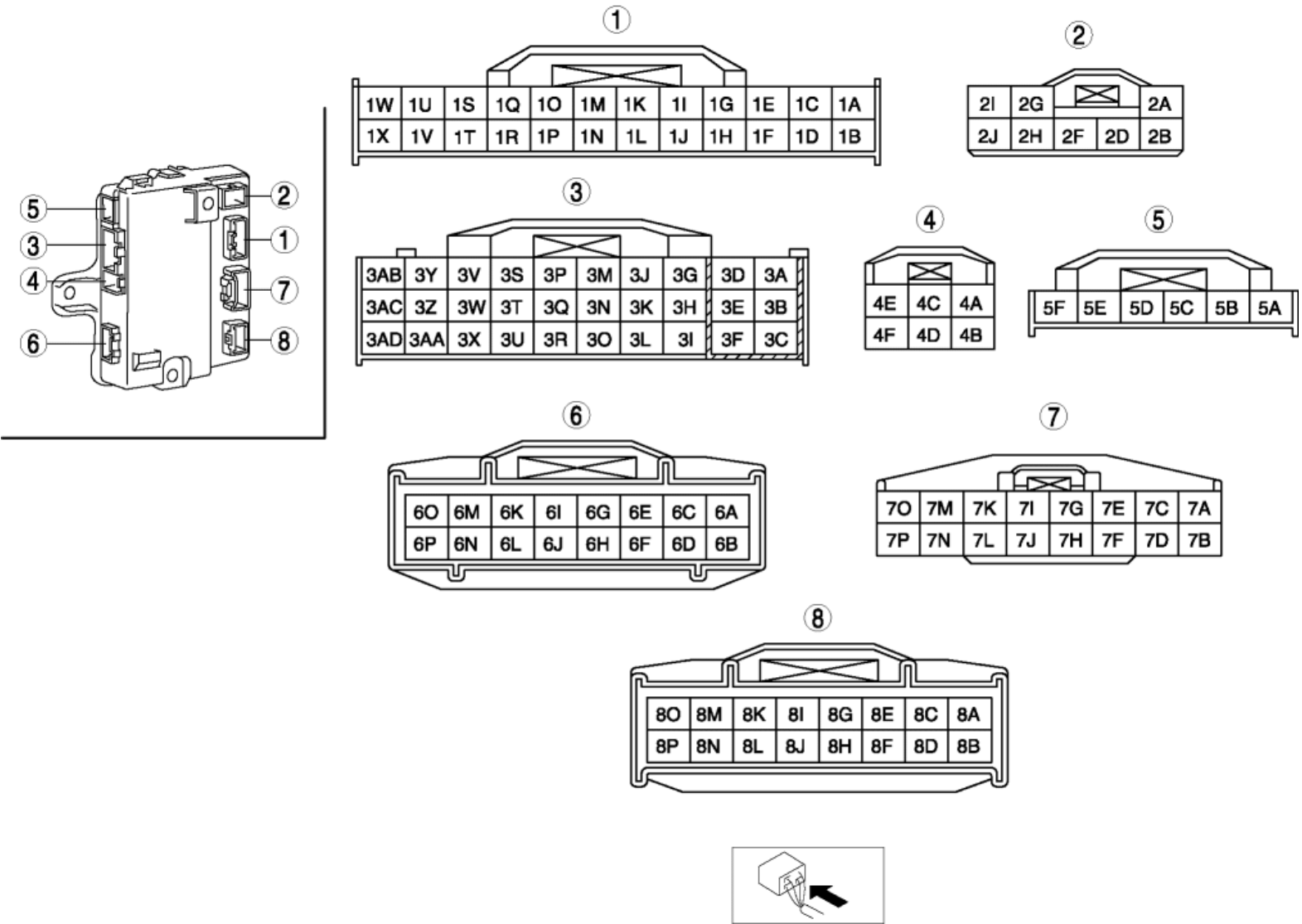
BODY CONTROL MODULE (BCM) INSPECTION

1. Remove the front scuff plate. (driver-side) (See [FRONT SCUFF PLATE REMOVAL/ INSTALLATION.](#))
2. Remove the front side trim. (driver-side) (See [FRONT SIDE TRIM REMOVAL/ INSTALLATION.](#))
3. Remove the BCM with the connector connected. (See [BODY CONTROL MODULE \(BCM\) REMOVAL/ INSTALLATION.](#))
4. Measure the voltage at each terminal is as indicated in the Terminal Voltage Tables.

• If the voltage is not as specified in the Terminal Voltage Table, inspect the parts under "Inspection item (s)".

▪ If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the BCM.

Terminal Voltage Table (Reference)



Terminal	Signal	Connected to	Measurement condition	Voltage (V)	Inspection item (s)

1A	IG2	- A/C relay - Blower relay	Switch the ignition to ON		B+	- A/C relay - Blower relay - Related wiring harnesses
			Switch the ignition to off		1.0 or less	
1B	—	—	—		—	—
1C	—	—	—		—	—
1D	—	—	—		—	—
1E	—	—	—		—	—
1F	—	—	—		—	—
1G	Horn control	Horn relay	Horn sounded		1.0 or less	- Horn relay - Related wiring harnesses
			Horn not sounded		B+	
1H	—	—	—		—	—
1I	—	—	—		—	—
1J	—	—	—		—	—
1K	—	—	—		—	—
1L	—	—	—		—	—
1M	—	—	—		—	—
1N	—	—	—		—	—
1O	—	—	—		—	—
1P	Front turn light (RH) control	Front turn light (RH)	Turn switch (RH) ON	Front turn light (RH) flashes	Alternates between 1.0 or less and B+	- Front turn light (RH) - Related wiring harnesses
			Hazard warning switch ON			
			Front turn light (RH) not illuminated		1.0 or less	
1Q	Brake fluid level signal	Brake fluid level sensor	Switch the ignition to ON	Brake fluid level above MIN.	B+	- Brake fluid level sensor - Related wiring harnesses
				Brake fluid level below MIN.	1.0 or less	
1R	Front turn light (LH) control	Front turn light (LH)	Turn switch (LH) ON	Front turn light (LH) flashes	Alternates between 1.0 or less and B+	- Front turn light (LH) - Related wiring
			Hazard warning switch ON			

					harnesses
			Front turn light (LH) not illuminated	1.0 or less	
1S*1	Hood latch switch signal	Hood latch switch	Hood open (Hood latch switch off)	Wave pattern (See Pattern 2.)	- Hood latch switch - Related wiring harnesses
			Hood closed (Hood latch switch ON)	1.0 or less	
1T	—	—	—	—	—
1U	—	—	—	—	—
1V	Signal ground	Body ground	Under any condition	1.0 or less	Related wiring harness
1W	—	—	—	—	—
1X	TNS switch signal	- Parking light - Tail light	TNS ON	B+	- Parking light - Tail light - Related wiring harnesses
			TNS off	1.0 or less	
2A	Power ground	Body ground	Under any condition	1.0 or less	Related wiring harnesses
2B	—	—	—	—	—
2C	—	—	—	—	—
2D	TNS power supply	TAIL 15 A fuse	Under any condition	B+	- TAIL 15 A fuse - Related wiring harnesses
2E	—	—	—	—	—
2F	—	—	—	—	—
2G	IG1	- TCM - AT main relay - Transaxle range switch (ATX) - Back-up light switch (MTX)	Switch the ignition to ON	B+	- TCM - AT main relay - Transaxle range switch (ATX) - Back-up light switch (MTX) - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
2H	Back-up light power supply	- Transaxle range switch (ATX) - Back-up light switch (MTX)	The selector lever is in the R position	B+	- Transaxle range switch (ATX) - Back-up light switch (MTX) - Related wiring harnesses
			Other	1.0 or less	

2I	—	—	—	—	—	
2J	Hazard power supply	HAZARD 10 A fuse	Under any condition	B+		- HAZARD 10 A fuse - Related wiring harnesses
3A	—	—	—	—	—	
3B	—	—	—	—	—	
3C	—	—	—	—	—	
3D	—	—	—	—	—	
3E	Turn switch input (LH)	Turn switch	Switch the ignition to ON	Turn switch in LH position	1.0 or less	- Turn switch - Related wiring harnesses
				Other	B+	
3F	—	—	—	—	—	
3G	—	—	—	—	—	
3H	Turn switch input (RH)	Turn switch	Switch the ignition to ON	Turn switch in RH position	1.0 or less	- Turn switch - Related wiring harnesses
				Other	B+	
3I	Parking brake switch signal	- Auto light/wiper control module (with auto light/wiper system) - Audio unit/car-navigation unit*2	Switch the ignition to ON	Parking brake is activated	1.0 or less	- Auto light/wiper control module (with auto light/wiper system) - Audio unit/car-navigation unit*2 - Related wiring harnesses
				Parking brake is not activated	B+	
3J	—	—	—	—	—	
3K	—	—	—	—	—	
3L	—	—	—	—	—	
3M	—	—	—	—	—	
3N	—	—	—	—	—	
3O	TNS switch signal	- Headlight switch - Auto light/wiper control module (with	Switch the ignition to ON	Headlight switch in TNS position	1.0 or less	- Headlight switch - Auto light/wiper control module (with auto light/wiper

		auto light/wiper system)		Other	B+	system) • Related wiring harnesses
3P	CAN_L	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
3Q	—	—	—	—	—	—
3R	—	—	—	—	—	—
3S	CAN_H	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
3T	—	—	—	—	—	—
3U	Key reminder switch	- Steering lock unit*3 - Key reminder switch*4	Key inserted	B+	- Steering lock unit*3 - Key reminder switch*4 - Related wiring harnesses	
			Key removed	1.0 or less		
3V	Horn control	- Clock spring - Horn switch	Horn switch is pressed.	1.0 or less	- Clock spring - Horn switch - Related wiring harnesses	
			Other	B+		
3W	Hazard warning switch signal	Hazard warning switch	Hazard warning switch ON	1.0 or less	- Hazard warning switch - Related wiring harnesses	
			Hazard warning switch off	4.5		
3X	Trunk lid opener switch (vehicle interior) signal	Trunk lid opener switch (vehicle interior)	Trunk lid opener switch (vehicle interior) ON	1.0 or less	- Trunk lid opener switch (vehicle interior) - Related wiring harnesses	
			Trunk lid opener switch (vehicle interior) off	4.5		
3Y	Ignition key illumination control	Push button start illumination*3	Switch the ignition to off and driver-side door opened or TNS ON.	1.0 or less	- Push button start illumination*3 - Related wiring harnesses	
			15 s or more after all doors closed and TNS off.	B+		
	Ignition key illumination control	Coil antenna*4	Switch the ignition to off and driver-side door opened.	1.0 or less	- Coil antenna*4 - Related wiring harnesses	
			15 s or more after all doors closed.	B+		
3Z	—	—	—	—	—	—
3AA	—	—	—	—	—	—
	SAS		Switch the ignition to ON	B+	SAS 5 A fuse	

3AB	(IG1)	SAS 5 A fuse	Switch the ignition to off	1.0 or less	Related wiring harnesses
3AC	IG2	A/C 10 A fuse	Switch the ignition to ON	B+	- A/C 10 A fuse - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
3AD	—	—	—	—	—
4A	IG1	METER IG 15 A fuse	Switch the ignition to ON	B+	- METER IG 15 A fuse - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
4B	Interior light power supply	ROOM 15 A fuse	Under any condition	B+	- ROOM 15 A fuse - Related wiring harnesses
4C	Door lock power supply	D.LOCK 25 A fuse	Under any condition	B+	- D.LOCK 25 A fuse - Related wiring harnesses
4D	TNS switch signal	- ILL 7.5 A fuse - Information display	TNS ON	B+	- ILL 7.5 A fuse - Information display - Related wiring harnesses
			TNS off	1.0 or less	
4E	—	—	—	—	—
4F	—	—	—	—	—
5A	Steering angle sensor GND	Steering angle sensor	Under any condition	1.0 or less	- Steering angle sensor - Related wiring harnesses
5B	Steering angle sensor signal (Z)	Steering angle sensor	Steering wheel is in center position	0.25—0.75	- Steering angle sensor - Related wiring harnesses
			Steering wheel is not in center position	4.00—4.75	
5C	Steering angle sensor signal (C)	Steering angle sensor	Turn the steering wheel to the left and right.	Alternates between 4.00—4.75 and 0.25—0.75	- Steering angle sensor - Related wiring harnesses
5D	Steering angle sensor signal (B)	Steering angle sensor	Turn the steering wheel to the left and right.	Alternates between 4.00—4.75 and 0.25—0.75	- Steering angle sensor - Related wiring harnesses
5E	Steering angle sensor signal (A)	Steering angle sensor	Turn the steering wheel to the left and right.	Alternates between 4.00—4.75 and 0.25—	Steering angle sensor

				0.75	Related wiring harnesses
5F	Steering angle sensor power supply	Steering angle sensor	Specified time elapsed since key removal and all doors closed	Wave pattern (See Pattern 3.)	- Steering angle sensor - Related wiring harnesses
			Other	approx. 5	
6A	Trunk lid opener switch GND	Trunk lid opener switch	Under any condition	1.0 or less	- Trunk lid opener switch - Related wiring harnesses
6B	CAN_L	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.		
6C	Trunk lid latch switch	Trunk lid latch switch	Trunk lid is open. (Trunk lid latch switch ON)	1.0 or less	- Trunk lid latch switch - Related wiring harnesses
			Trunk lid is closed. (Trunk lid latch switch off)	B+	
6D	CAN_H	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.		
6E	Trunk lid opener switch	Trunk lid opener switch ^{*3}	Trunk lid opener switch pressed	3.1	- Trunk lid opener switch^{*3} - Related wiring harnesses
			Trunk lid opener switch not pressed	4.6	
		Trunk lid opener switch ^{*4}	Trunk lid opener switch pressed	2.2	- Trunk lid opener switch^{*4} - Related wiring harnesses
			Trunk lid opener switch not pressed	4.6	
6F	—	—	—	—	—
6G	Lock/unlock signal	Door lock switch	Door lock switch is pressed to lock.	2.2	- Door lock switch - Related wiring harnesses
			Door lock switch is pressed to unlock.	1.0 or less	
			Other	4.5	
6H	—	—	—	—	—
6I	IG2	- Sunroof motor - Seat warmer module	Switch the ignition to ON	B+	- Sunroof motor - Seat warmer module - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
		Keyless control^{*3}			

6J	Serial communication	- module • Keyless receiver*4 • Instrument cluster	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
6K	SAS (IG1)	• SAS control module • Seat weight sensor control module	Switch the ignition to ON		B+	• SAS control module • Seat weight sensor control module • Related wiring harnesses
			Switch the ignition to off		1.0 or less	
6L	Driver-side door key cylinder switch signal	Driver-side door key cylinder switch	At the moment key cylinder is unlocked		1.0 or less	• Driver-side door key cylinder switch • Related wiring harnesses
			At the moment key cylinder is locked		2.2	
			Other		4.6	
6M	Interior light control	• Map light • Interior light	Interior light on by opening any door	Interior light off by closing all doors	(See Pattern 4.)	• Map light • Interior light • Related wiring harnesses
6N	Serial communication	• Power window main switch • Position memory control module (with seat memory)	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
6O	Courtesy light control	Courtesy light	Courtesy light on by opening any door	Courtesy light off by closing all doors	(See Pattern 4.)	• Courtesy light • Related wiring harnesses
6P	Serial communication	Sunroof motor	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
7A	Back-up light control	• Auto dimming mirror (with auto dimming mirror) • Back-up light	Switch the ignition to ON	The selector lever is in the R position	B+	• Auto dimming mirror (with auto dimming mirror) • Back-up light • Related wiring harnesses
				Other	1.0 or less	
7B	Trunk compartment light control	Trunk compartment light control	Trunk room light on by opening trunk		B+	• Trunk compartment light • Related wiring harnesses
			Trunk room light off by closing trunk		1.0 or less	
	Trunk lid latch and		Trunk lid opener switch pressed, trunk lid lock		1.0 or less → B+ → 1.0 or less	• Trunk lid release

7C	lock actuator power supply	Trunk lid release actuator	actuator operation		actuator • Related wiring harnesses
			Not operating	1.0 or less	
7D	—	—	—	—	—
7E	—	—	—	—	—
7F	—	—	—	—	—
7G	—	—	—	—	—
7H	—	—	—	—	—
7I	Door lock control	Door lock actuators	Door lock actuators locking	1.0 or less → B+ → 1.0 or less	• Door lock actuators • Related wiring harnesses
			Other	1.0 or less	
7J	—	—	—	—	—
7K	Door unlock control (driver-side)	Driver-side door lock actuator	Door lock actuators unlocking	1.0 or less → B+ → 1.0 or less	• Driver-side door lock actuator • Related wiring harnesses
			Other	1.0 or less	
7L	—	—	—	—	—
7M	2-step unlocking system door lock control	Door lock actuators	Door lock actuators unlocking	1.0 or less → B+ → 1.0 or less	• Door lock actuators • Related wiring harnesses
			Other	1.0 or less	
7N	Interior light power supply	• Map light • Interior light	Under any condition	B+	• Map light • Interior light • Related wiring harnesses
7O	IG1	• Power window main switch • Auto dimming mirror (with auto dimming mirror) • Rain sensor (with rain sensor) • Position memory control module • BSM control module (with BSM system)	Switch the ignition to ON	B+	• Power window main switch • Auto dimming mirror (with auto dimming mirror) • Rain sensor (with rain sensor) • Position memory control module • BSM control module (with BSM system) • Related wiring harnesses
			Switch the ignition to off	1.0 or less	

7P	Power supply	- Trunk compartment light - Ground illumination light - Courtesy light	Under any condition	B+	Trunk compartment light - Ground illumination light - Courtesy light - Related wiring harnesses
8A	Parking brake switch signal	Parking brake switch	Parking brake is activated	1.0 or less	- Parking brake switch - Related wiring harnesses
			Parking brake is not activated	5	
8B	Front door latch switch (driver side) input signal	- Front door latch switch (driver side) - Position memory control module (with seat memory)	Front door (driver side) open (Front door switch (driver side) off)	B+	- Front door latch switch (driver side) - Position memory control module (with seat memory) - Related wiring harnesses
			Front door (driver side) closed (Front door switch (driver side) ON)	1.0 or less	
		Front door latch switch (driver side)	Front door (driver side) open (Front door switch (driver side) off)	Wave pattern (See Pattern 2.)	- Front door latch switch (driver side) - Position memory control module (with seat memory) - Related wiring harnesses
			Front door (driver side) closed (Front door switch (driver side) ON)	1.0 or less	
8C*1	Lock/unlock input	- Passenger-side door lock-link switch - Rear door lock-link switch (LH) - Rear door lock-link switch (RH)	Door locked	Wave pattern (See Pattern 2.)	- Passenger-side door lock-link switch - Rear door lock-link switch (LH) - Rear door lock-link switch (RH) - Related wiring harnesses
			Door unlocked	1.0 or less	
8D	Front door latch switch (passenger side) signal	Front door latch switch (passenger side)	Front door (passenger side) open (Front door switch (passenger side) off)	Wave pattern (See Pattern 2.)	- Front door latch switch (passenger side) - Related wiring harnesses
			Front door (passenger side) closed (Front door switch (passenger side) ON)	1.0 or less	

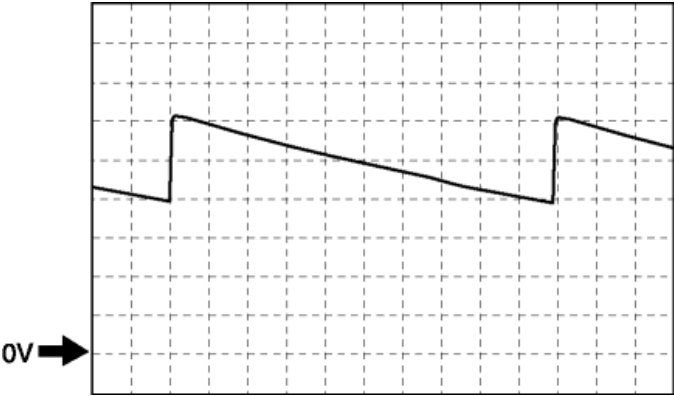
8E	Unlock input (Driver-side door lock-link switch)	Driver-side door lock-link switch	Driver-side door locked		Wave pattern (See Pattern 2.)	Driver-side door lock-link switch Related wiring harnesses
			Driver-side door unlocked		1.0 or less	
8F	Rear door switch (RH) signal	Rear door switch (RH)	Rear door (RH) open (Rear door switch off)		Wave pattern (See Pattern 2.)	- Rear door switch (RH) - Related wiring harnesses
			Rear door (RH) closed (Rear door switch ON)		1.0 or less	
8G	Lock input (Driver-side door lock-link switch)	Driver-side door lock-link switch	Driver-side door locked		1.0 or less	- Driver-side door lock-link switch - Related wiring harnesses
			Driver-side door unlocked	Wave pattern*3 (See Pattern 1.)		
				Wave pattern*4 (See Pattern 2.)		
8H	Rear door switch (LH) signal	Rear door switch (LH)	Rear door (LH) open (Rear door switch off)		Wave pattern (See Pattern 2.)	- Rear door switch (LH) - Related wiring harnesses
			Rear door (LH) closed (Rear door switch ON)		1.0 or less	
8I	Rear turn light (RH) control	Rear turn light (RH)	Turn switch (RH) ON	Rear turn light (RH) flashes	Alternates between 1.0 or less and B+	- Rear turn light (RH) - Related wiring harnesses
			Hazard warning switch ON			
			Rear turn light (RH) not illuminated		1.0 or less	
8J	Front turn light (RH) control	Front side turn light (RH)	Turn switch (RH) ON	Front turn light (RH) flashes	Alternates between 1.0 or less and B+	- Front side turn light (RH) - Related wiring harnesses
			Hazard warning switch ON			
			Front turn light (RH) not illuminated		1.0 or less	
8K	Front turn light (LH) control	Front side turn light (LH)	Turn switch (LH) ON	Front turn light (RH) flashes	Alternates between 1.0 or less and B+	- Front side turn light (LH) - Related wiring harnesses
			Hazard warning switch ON			
			Front turn light (LH) not illuminated		1.0 or less	
			Turn switch (LH) ON	Rear turn light	Alternates between 1.0 or	Rear turn light

8L	Rear turn light (LH) control	Rear turn light (LH)	Hazard warning switch ON	(LH) flashes	less and B+	(LH) • Related wiring harnesses
			Rear turn light (LH) not illuminated		1.0 or less	
8M	—	—	—	—	—	—
8N	—	—	—	—	—	—
8O	TNS switch signal	Taillight	TNS ON		B+	• Taillight • Related wiring harnesses
			TNS off		1.0 or less	
8P	—	—	—	—	—	—

- *1
- With theft-deterrent system
- *2
- With car-navigation system
- *3
- With advanced keyless entry and push button start system
- *4
- Without advanced keyless entry and push button start system

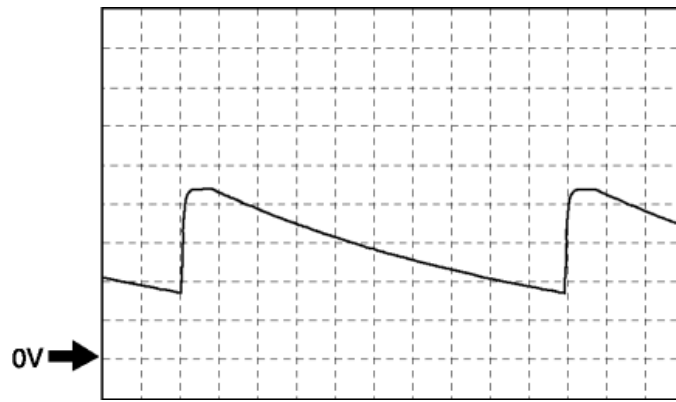
Generated pulse (reference)

Pattern 1



- Terminal: 8G (+) ↔ body ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 1 ms/DIV (X), DC range

Pattern 2



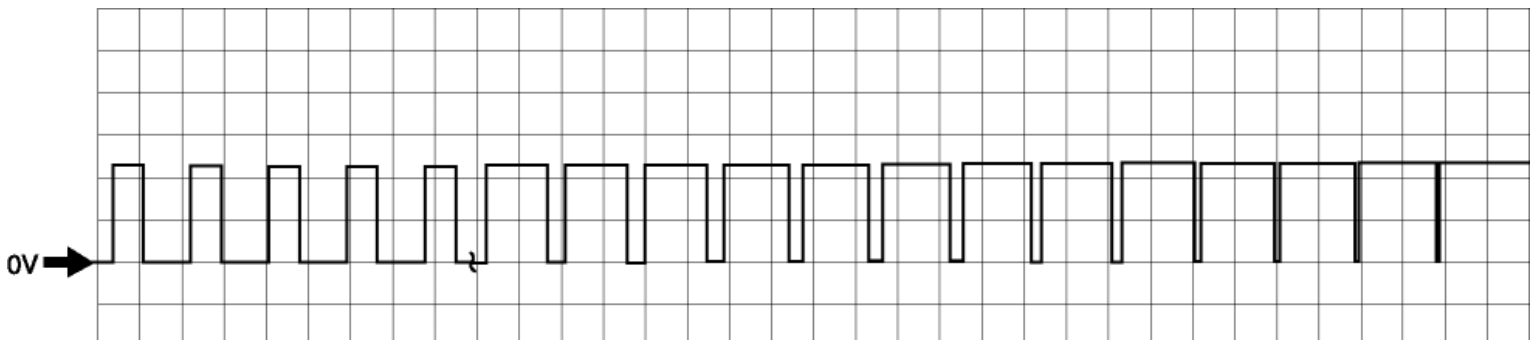
- Terminal:
 - Bonnet latch switch signal: 1S (+) ↔ body ground (-)
 - Front door latch switch (driver side) input signal: 8B (+) ↔ body ground (-)
 - Lock/unlock input: 8C (+) ↔ body ground (-)
 - Front door latch switch (passenger side) signal: 8D (+) ↔ body ground (-)
 - Unlock input (Driver-side door lock-link switch): 8E (+) ↔ body ground (-)
 - Rear door switch (RH) signal: 8F (+) ↔ body ground (-)
 - Lock input (Driver-side door lock-link switch): 8G (+) ↔ body ground (-)
 - Rear door switch (LH) signal: 8H (+) ↔ body ground (-)
- Oscilloscope setting: 1 V/DIV (Y), 1 ms/DIV (X), DC range

Pattern 3



- Terminal: 5F (+) ↔ body ground (-)
- Oscilloscope setting: 1 V/DIV (Y), 200μs/DIV (X), DC range

Pattern 4



- Terminal:

- Interior light control: 6M (+) ↔ body ground (-)
 - Courtesy light control: 6O (+) ↔ body ground (-)
 - Trunk room light control: 7B (+) ↔ body ground (-)
- Oscilloscope setting: 5 V/DIV (Y), 5 ms/DIV (X), DC range

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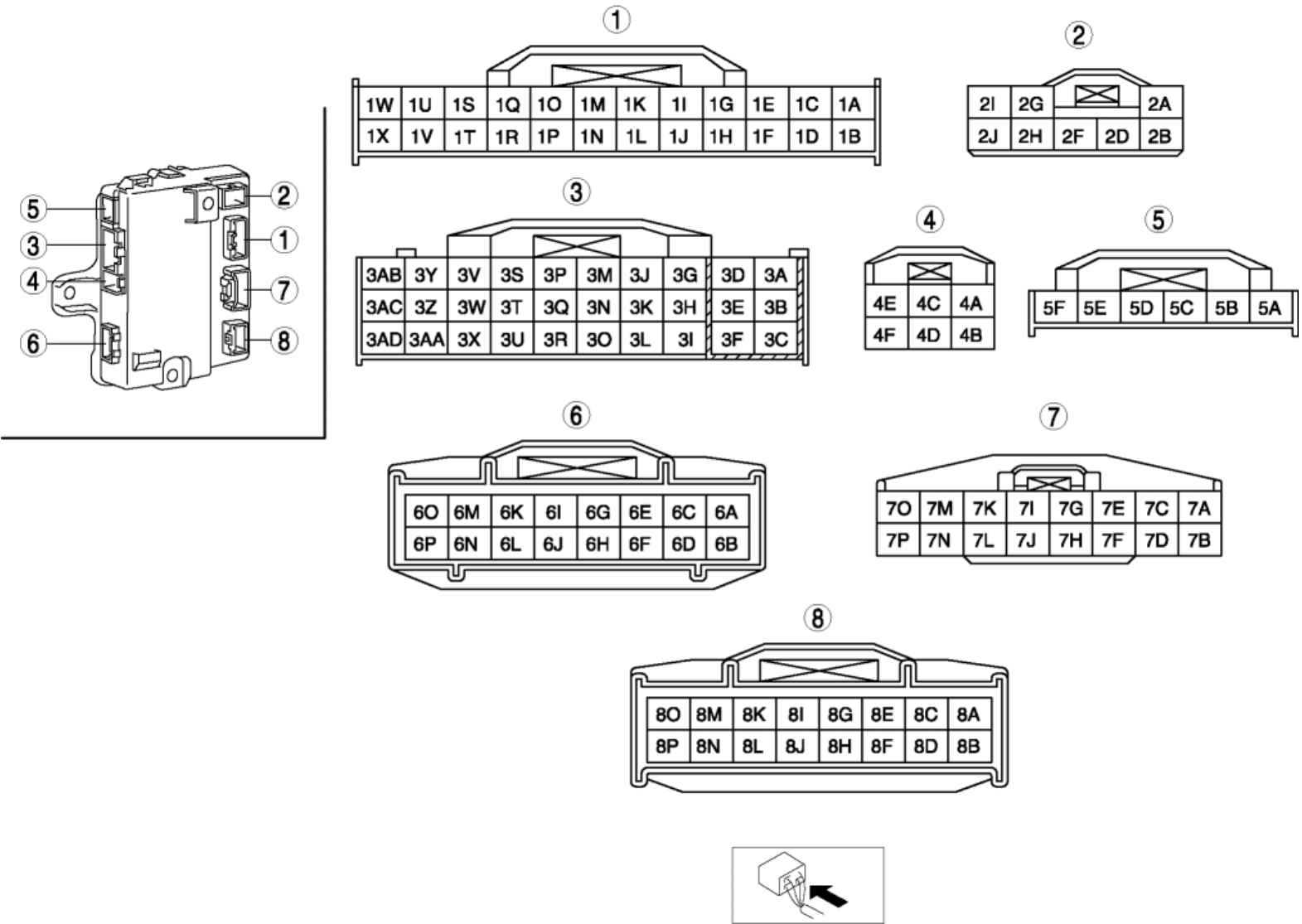
BODY CONTROL MODULE (BCM) INSPECTION

1. Remove the front scuff plate. (driver-side) (See FRONT SCUFF PLATE REMOVAL/ INSTALLATION.)
2. Remove the front side trim. (driver-side) (See FRONT SIDE TRIM REMOVAL/ INSTALLATION.)
3. Remove the BCM with the connector connected. (See BODY CONTROL MODULE (BCM) REMOVAL/ INSTALLATION.)
4. Measure the voltage at each terminal is as indicated in the Terminal Voltage Tables.

If the voltage is not as specified in the Terminal Voltage Table, inspect the parts under "Inspection item (s)".

If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the BCM.

Terminal Voltage Table (Reference)



Terminal	Signal	Connected to	Measurement condition	Voltage (V)	Inspection item (s)

1A	IG2	- A/C relay - Blower relay	Switch the ignition to ON		B+	- A/C relay - Blower relay - Related wiring harnesses
			Switch the ignition to off		1.0 or less	
1B	—	—	—		—	—
1C	—	—	—		—	—
1D	—	—	—		—	—
1E	—	—	—		—	—
1F	—	—	—		—	—
1G	Horn control	Horn relay	Horn sounded		1.0 or less	- Horn relay - Related wiring harnesses
			Horn not sounded		B+	
1H	—	—	—		—	—
1I	—	—	—		—	—
1J	—	—	—		—	—
1K	—	—	—		—	—
1L	—	—	—		—	—
1M	—	—	—		—	—
1N	—	—	—		—	—
1O	—	—	—		—	—
1P	Front turn light (RH) control	Front turn light (RH)	Turn switch (RH) ON	Front turn light (RH) flashes	Alternates between 1.0 or less and B+	- Front turn light (RH) - Related wiring harnesses
			Hazard warning switch ON			
			Front turn light (RH) not illuminated		1.0 or less	
1Q	Brake fluid level signal	Brake fluid level sensor	Switch the ignition to ON	Brake fluid level above MIN.	B+	- Brake fluid level sensor - Related wiring harnesses
				Brake fluid level below MIN.	1.0 or less	
1R	Front turn light (LH) control	Front turn light (LH)	Turn switch (LH) ON	Front turn light (LH) flashes	Alternates between 1.0 or less and B+	- Front turn light (LH) - Related wiring
			Hazard warning switch ON			

					harnesses
			Front turn light (LH) not illuminated	1.0 or less	
1S*1	Hood latch switch signal	Hood latch switch	Hood open (Hood latch switch off)	Wave pattern (See Pattern 2.)	- Hood latch switch - Related wiring harnesses
			Hood closed (Hood latch switch ON)	1.0 or less	
1T	—	—	—	—	—
1U	—	—	—	—	—
1V	Signal ground	Body ground	Under any condition	1.0 or less	Related wiring harness
1W	—	—	—	—	—
1X	TNS switch signal	- Parking light - Tail light	TNS ON	B+	- Parking light - Tail light - Related wiring harnesses
			TNS off	1.0 or less	
2A	Power ground	Body ground	Under any condition	1.0 or less	Related wiring harnesses
2B	—	—	—	—	—
2C	—	—	—	—	—
2D	TNS power supply	TAIL 15 A fuse	Under any condition	B+	- TAIL 15 A fuse - Related wiring harnesses
2E	—	—	—	—	—
2F	—	—	—	—	—
2G	IG1	- TCM - AT main relay - Transaxle range switch (ATX) - Back-up light switch (MTX)	Switch the ignition to ON	B+	- TCM - AT main relay - Transaxle range switch (ATX) - Back-up light switch (MTX) - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
2H	Back-up light power supply	- Transaxle range switch (ATX) - Back-up light switch (MTX)	The selector lever is in the R position	B+	- Transaxle range switch (ATX) - Back-up light switch (MTX) - Related wiring harnesses
			Other	1.0 or less	

2I	—	—	—		—	—
2J	Hazard power supply	HAZARD 10 A fuse	Under any condition		B+	- HAZARD 10 A fuse - Related wiring harnesses
3A	—	—	—		—	—
3B	—	—	—		—	—
3C	—	—	—		—	—
3D	—	—	—		—	—
3E	Turn switch input (LH)	Turn switch	Switch the ignition to ON	Turn switch in LH position	1.0 or less	- Turn switch - Related wiring harnesses
				Other	B+	
3F	—	—	—		—	—
3G	—	—	—		—	—
3H	Turn switch input (RH)	Turn switch	Switch the ignition to ON	Turn switch in RH position	1.0 or less	- Turn switch - Related wiring harnesses
				Other	B+	
3I	Parking brake switch signal	- Auto light/wiper control module (with auto light/wiper system) - Audio unit/car-navigation unit*2	Switch the ignition to ON	Parking brake is activated	1.0 or less	- Auto light/wiper control module (with auto light/wiper system) - Audio unit/car-navigation unit*2 - Related wiring harnesses
				Parking brake is not activated	B+	
3J	—	—	—		—	—
3K	—	—	—		—	—
3L	—	—	—		—	—
3M	—	—	—		—	—
3N	—	—	—		—	—
3O	TNS switch signal	- Headlight switch - Auto light/wiper control module (with	Switch the ignition to ON	Headlight switch in TNS position	1.0 or less	- Headlight switch - Auto light/wiper control module (with auto light/wiper

		auto light/wiper system)		Other	B+	system) • Related wiring harnesses
3P	CAN_L	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
3Q	—	—	—	—	—	—
3R	—	—	—	—	—	—
3S	CAN_H	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
3T	—	—	—	—	—	—
3U	Key reminder switch	- Steering lock unit*3 - Key reminder switch*4	Key inserted	B+	- Steering lock unit*3 - Key reminder switch*4 - Related wiring harnesses	
			Key removed	1.0 or less		
3V	Horn control	- Clock spring - Horn switch	Horn switch is pressed.	1.0 or less	- Clock spring - Horn switch - Related wiring harnesses	
			Other	B+		
3W	Hazard warning switch signal	Hazard warning switch	Hazard warning switch ON	1.0 or less	- Hazard warning switch - Related wiring harnesses	
			Hazard warning switch off	4.5		
3X	Trunk lid opener switch (vehicle interior) signal	Trunk lid opener switch (vehicle interior)	Trunk lid opener switch (vehicle interior) ON	1.0 or less	- Trunk lid opener switch (vehicle interior) - Related wiring harnesses	
			Trunk lid opener switch (vehicle interior) off	4.5		
3Y	Ignition key illumination control	Push button start illumination*3	Switch the ignition to off and driver-side door opened or TNS ON.	1.0 or less	- Push button start illumination*3 - Related wiring harnesses	
			15 s or more after all doors closed and TNS off.	B+		
	Ignition key illumination control	Coil antenna*4	Switch the ignition to off and driver-side door opened.	1.0 or less	- Coil antenna*4 - Related wiring harnesses	
			15 s or more after all doors closed.	B+		
3Z	—	—	—	—	—	—
3AA	—	—	—	—	—	—
	SAS		Switch the ignition to ON	B+	SAS 5 A fuse	

3AB	(IG1)	SAS 5 A fuse	Switch the ignition to off	1.0 or less	Related wiring harnesses
3AC	IG2	A/C 10 A fuse	Switch the ignition to ON	B+	- A/C 10 A fuse - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
3AD	—	—	—	—	—
4A	IG1	METER IG 15 A fuse	Switch the ignition to ON	B+	- METER IG 15 A fuse - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
4B	Interior light power supply	ROOM 15 A fuse	Under any condition	B+	- ROOM 15 A fuse - Related wiring harnesses
4C	Door lock power supply	D.LOCK 25 A fuse	Under any condition	B+	- D.LOCK 25 A fuse - Related wiring harnesses
4D	TNS switch signal	- ILL 7.5 A fuse - Information display	TNS ON	B+	- ILL 7.5 A fuse - Information display - Related wiring harnesses
			TNS off	1.0 or less	
4E	—	—	—	—	—
4F	—	—	—	—	—
5A	Steering angle sensor GND	Steering angle sensor	Under any condition	1.0 or less	- Steering angle sensor - Related wiring harnesses
5B	Steering angle sensor signal (Z)	Steering angle sensor	Steering wheel is in center position	0.25—0.75	- Steering angle sensor - Related wiring harnesses
			Steering wheel is not in center position	4.00—4.75	
5C	Steering angle sensor signal (C)	Steering angle sensor	Turn the steering wheel to the left and right.	Alternates between 4.00—4.75 and 0.25—0.75	- Steering angle sensor - Related wiring harnesses
5D	Steering angle sensor signal (B)	Steering angle sensor	Turn the steering wheel to the left and right.	Alternates between 4.00—4.75 and 0.25—0.75	- Steering angle sensor - Related wiring harnesses
5E	Steering angle sensor signal (A)	Steering angle sensor	Turn the steering wheel to the left and right.	Alternates between 4.00—4.75 and 0.25—	Steering angle sensor

				0.75	Related wiring harnesses
5F	Steering angle sensor power supply	Steering angle sensor	Specified time elapsed since key removal and all doors closed	Wave pattern (See Pattern 3.)	- Steering angle sensor - Related wiring harnesses
			Other	approx. 5	
6A	Trunk lid opener switch GND	Trunk lid opener switch	Under any condition	1.0 or less	- Trunk lid opener switch - Related wiring harnesses
6B	CAN_L	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.		
6C	Trunk lid latch switch	Trunk lid latch switch	Trunk lid is open. (Trunk lid latch switch ON)	1.0 or less	- Trunk lid latch switch - Related wiring harnesses
			Trunk lid is closed. (Trunk lid latch switch off)	B+	
6D	CAN_H	CAN system related module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.		
6E	Trunk lid opener switch	Trunk lid opener switch ^{*3}	Trunk lid opener switch pressed	3.1	- Trunk lid opener switch^{*3} - Related wiring harnesses
			Trunk lid opener switch not pressed	4.6	
		Trunk lid opener switch ^{*4}	Trunk lid opener switch pressed	2.2	- Trunk lid opener switch^{*4} - Related wiring harnesses
			Trunk lid opener switch not pressed	4.6	
6F	—	—	—	—	—
6G	Lock/unlock signal	Door lock switch	Door lock switch is pressed to lock.	2.2	- Door lock switch - Related wiring harnesses
			Door lock switch is pressed to unlock.	1.0 or less	
			Other	4.5	
6H	—	—	—	—	—
6I	IG2	- Sunroof motor - Seat warmer module	Switch the ignition to ON	B+	- Sunroof motor - Seat warmer module - Related wiring harnesses
			Switch the ignition to off	1.0 or less	
		Keyless control^{*3}			

6J	Serial communication	- module • Keyless receiver*4 • Instrument cluster	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
6K	SAS (IG1)	• SAS control module • Seat weight sensor control module	Switch the ignition to ON		B+	• SAS control module • Seat weight sensor control module • Related wiring harnesses
			Switch the ignition to off		1.0 or less	
6L	Driver-side door key cylinder switch signal	Driver-side door key cylinder switch	At the moment key cylinder is unlocked		1.0 or less	• Driver-side door key cylinder switch • Related wiring harnesses
			At the moment key cylinder is locked		2.2	
			Other		4.6	
6M	Interior light control	• Map light • Interior light	Interior light on by opening any door	Interior light off by closing all doors	(See Pattern 4.)	• Map light • Interior light • Related wiring harnesses
6N	Serial communication	• Power window main switch • Position memory control module (with seat memory)	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
6O	Courtesy light control	Courtesy light	Courtesy light on by opening any door	Courtesy light off by closing all doors	(See Pattern 4.)	• Courtesy light • Related wiring harnesses
6P	Serial communication	Sunroof motor	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.			
7A	Back-up light control	• Auto dimming mirror (with auto dimming mirror) • Back-up light	Switch the ignition to ON	The selector lever is in the R position	B+	• Auto dimming mirror (with auto dimming mirror) • Back-up light • Related wiring harnesses
				Other	1.0 or less	
7B	Trunk compartment light control	Trunk compartment light control	Trunk room light on by opening trunk		B+	• Trunk compartment light • Related wiring harnesses
			Trunk room light off by closing trunk		1.0 or less	
	Trunk lid latch and		Trunk lid opener switch pressed, trunk lid lock		1.0 or less → B+ → 1.0 or less	• Trunk lid release

7C	lock actuator power supply	Trunk lid release actuator	actuator operation		actuator • Related wiring harnesses
			Not operating	1.0 or less	
7D	—	—	—	—	—
7E	—	—	—	—	—
7F	—	—	—	—	—
7G	—	—	—	—	—
7H	—	—	—	—	—
7I	Door lock control	Door lock actuators	Door lock actuators locking	1.0 or less → B+ → 1.0 or less	• Door lock actuators • Related wiring harnesses
			Other	1.0 or less	
7J	—	—	—	—	—
7K	Door unlock control (driver-side)	Driver-side door lock actuator	Door lock actuators unlocking	1.0 or less → B+ → 1.0 or less	• Driver-side door lock actuator • Related wiring harnesses
			Other	1.0 or less	
7L	—	—	—	—	—
7M	2-step unlocking system door lock control	Door lock actuators	Door lock actuators unlocking	1.0 or less → B+ → 1.0 or less	• Door lock actuators • Related wiring harnesses
			Other	1.0 or less	
7N	Interior light power supply	• Map light • Interior light	Under any condition	B+	• Map light • Interior light • Related wiring harnesses
7O	IG1	• Power window main switch • Auto dimming mirror (with auto dimming mirror) • Rain sensor (with rain sensor) • Position memory control module • BSM control module (with BSM system)	Switch the ignition to ON	B+	• Power window main switch • Auto dimming mirror (with auto dimming mirror) • Rain sensor (with rain sensor) • Position memory control module • BSM control module (with BSM system) • Related wiring harnesses
			Switch the ignition to off	1.0 or less	

7P	Power supply	• Trunk compartment light • Ground illumination light • Courtesy light	Under any condition	B+	• Trunk compartment light • Ground illumination light • Courtesy light • Related wiring harnesses
8A	Parking brake switch signal	Parking brake switch	Parking brake is activated	1.0 or less	• Parking brake switch • Related wiring harnesses
			Parking brake is not activated	5	
8B	Front door latch switch (driver side) input signal	• Front door latch switch (driver side) • Position memory control module (with seat memory)	Front door (driver side) open (Front door switch (driver side) off)	B+	• Front door latch switch (driver side) • Position memory control module (with seat memory) • Related wiring harnesses
			Front door (driver side) closed (Front door switch (driver side) ON)	1.0 or less	
		Front door latch switch (driver side)	Front door (driver side) open (Front door switch (driver side) off)	Wave pattern (See Pattern 2.)	• Front door latch switch (driver side) • Position memory control module (with seat memory) • Related wiring harnesses
			Front door (driver side) closed (Front door switch (driver side) ON)	1.0 or less	
8C*1	Lock/unlock input	• Passenger-side door lock-link switch • Rear door lock-link switch (LH) • Rear door lock-link switch (RH)	Door locked	Wave pattern (See Pattern 2.)	• Passenger-side door lock-link switch • Rear door lock-link switch (LH) • Rear door lock-link switch (RH) • Related wiring harnesses
			Door unlocked	1.0 or less	
8D	Front door latch switch (passenger side) signal	Front door latch switch (passenger side)	Front door (passenger side) open (Front door switch (passenger side) off)	Wave pattern (See Pattern 2.)	• Front door latch switch (passenger side) • Related wiring harnesses
			Front door (passenger side) closed (Front door switch (passenger side) ON)	1.0 or less	

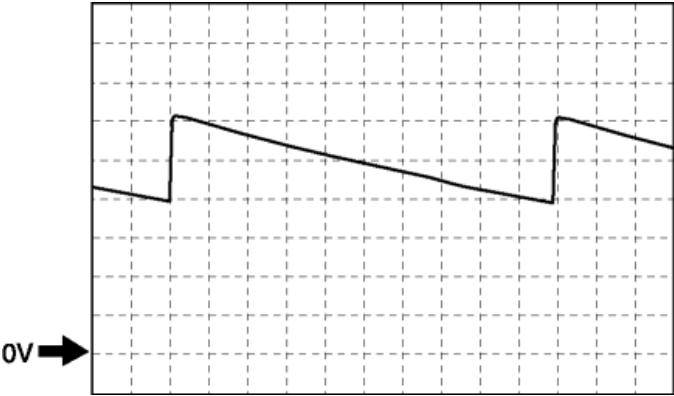
8E	Unlock input (Driver-side door lock-link switch)	Driver-side door lock-link switch	Driver-side door locked		Wave pattern (See Pattern 2.)	Driver-side door lock-link switch Related wiring harnesses
			Driver-side door unlocked		1.0 or less	
8F	Rear door switch (RH) signal	Rear door switch (RH)	Rear door (RH) open (Rear door switch off)		Wave pattern (See Pattern 2.)	- Rear door switch (RH) - Related wiring harnesses
			Rear door (RH) closed (Rear door switch ON)		1.0 or less	
8G	Lock input (Driver-side door lock-link switch)	Driver-side door lock-link switch	Driver-side door locked		1.0 or less	- Driver-side door lock-link switch - Related wiring harnesses
			Driver-side door unlocked	Wave pattern*3 (See Pattern 1.)		
				Wave pattern*4 (See Pattern 2.)		
8H	Rear door switch (LH) signal	Rear door switch (LH)	Rear door (LH) open (Rear door switch off)		Wave pattern (See Pattern 2.)	- Rear door switch (LH) - Related wiring harnesses
			Rear door (LH) closed (Rear door switch ON)		1.0 or less	
8I	Rear turn light (RH) control	Rear turn light (RH)	Turn switch (RH) ON	Rear turn light (RH) flashes	Alternates between 1.0 or less and B+	- Rear turn light (RH) - Related wiring harnesses
			Hazard warning switch ON			
			Rear turn light (RH) not illuminated		1.0 or less	
8J	Front turn light (RH) control	Front side turn light (RH)	Turn switch (RH) ON	Front turn light (RH) flashes	Alternates between 1.0 or less and B+	- Front side turn light (RH) - Related wiring harnesses
			Hazard warning switch ON			
			Front turn light (RH) not illuminated		1.0 or less	
8K	Front turn light (LH) control	Front side turn light (LH)	Turn switch (LH) ON	Front turn light (RH) flashes	Alternates between 1.0 or less and B+	- Front side turn light (LH) - Related wiring harnesses
			Hazard warning switch ON			
			Front turn light (LH) not illuminated		1.0 or less	
			Turn switch (LH) ON	Rear turn light	Alternates between 1.0 or	Rear turn light

8L	Rear turn light (LH) control	Rear turn light (LH)	Hazard warning switch ON	(LH) flashes	less and B+	(LH) • Related wiring harnesses
			Rear turn light (LH) not illuminated		1.0 or less	
8M	—	—	—	—	—	—
8N	—	—	—	—	—	—
8O	TNS switch signal	Taillight	TNS ON		B+	• Taillight • Related wiring harnesses
			TNS off		1.0 or less	
8P	—	—	—	—	—	—

- *1
- With theft-deterrent system
- *2
- With car-navigation system
- *3
- With advanced keyless entry and push button start system
- *4
- Without advanced keyless entry and push button start system

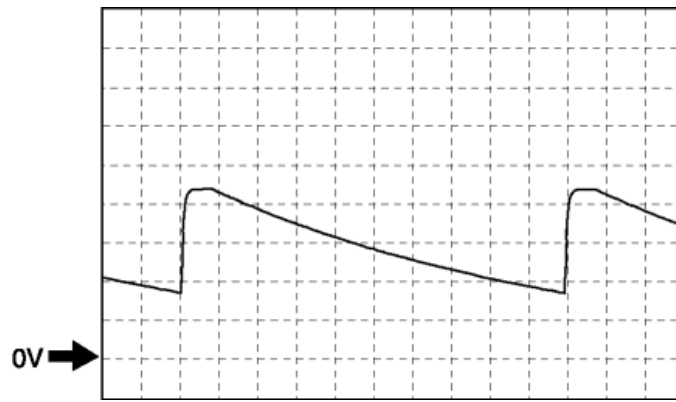
Generated pulse (reference)

Pattern 1



- Terminal: 8G (+) ↔ body ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 1 ms/DIV (X), DC range

Pattern 2



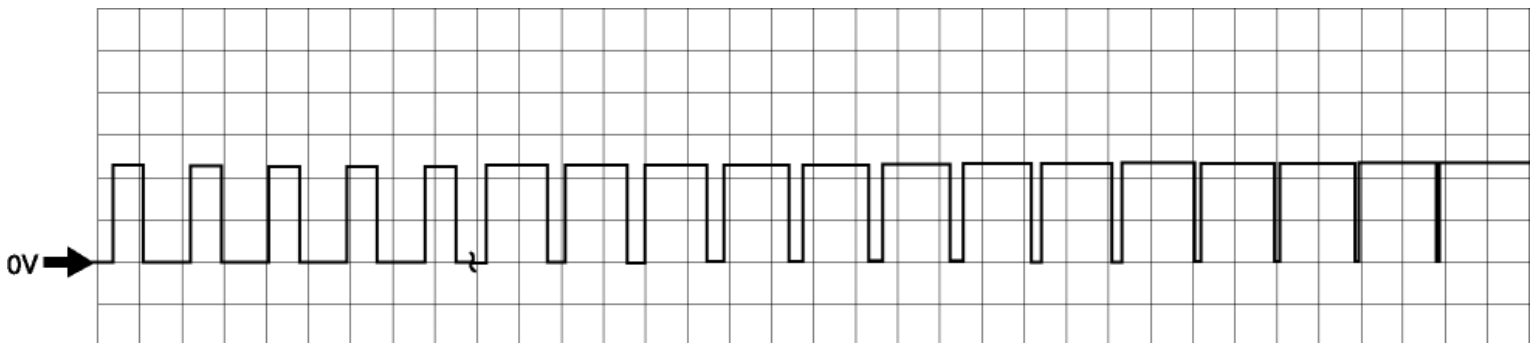
- Terminal:
 - Bonnet latch switch signal: 1S (+) ↔ body ground (-)
 - Front door latch switch (driver side) input signal: 8B (+) ↔ body ground (-)
 - Lock/unlock input: 8C (+) ↔ body ground (-)
 - Front door latch switch (passenger side) signal: 8D (+) ↔ body ground (-)
 - Unlock input (Driver-side door lock-link switch): 8E (+) ↔ body ground (-)
 - Rear door switch (RH) signal: 8F (+) ↔ body ground (-)
 - Lock input (Driver-side door lock-link switch): 8G (+) ↔ body ground (-)
 - Rear door switch (LH) signal: 8H (+) ↔ body ground (-)
- Oscilloscope setting: 1 V/DIV (Y), 1 ms/DIV (X), DC range

Pattern 3



- Terminal: 5F (+) ↔ body ground (-)
- Oscilloscope setting: 1 V/DIV (Y), 200μs/DIV (X), DC range

Pattern 4



- Terminal:

- Interior light control: 6M (+) ↔ body ground (-)
 - Courtesy light control: 6O (+) ↔ body ground (-)
 - Trunk room light control: 7B (+) ↔ body ground (-)
- Oscilloscope setting: 5 V/DIV (Y), 5 ms/DIV (X), DC range

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