

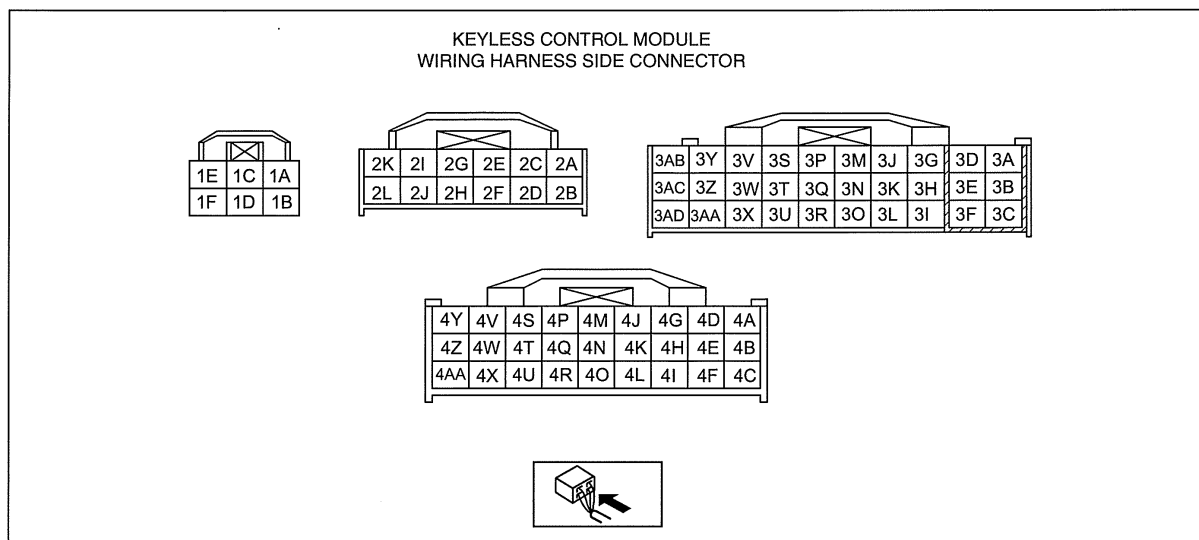
SECURITY AND LOCKS

KEYLESS CONTROL MODULE INSPECTION

id091400513900

- Remove the following parts:
 - (1) Passenger-side front scuff plate (See 09-17-67 FRONT SCUFF PLATE REMOVAL/INSTALLATION.)
 - (2) Passenger-side front side trim (See 09-17-53 FRONT SIDE TRIM REMOVAL/INSTALLATION.)
 - (3) Glove compartment (See 09-17-33 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
 - (4) Passenger-side lower panel (See 09-17-27 LOWER PANEL REMOVAL/INSTALLATION.)
- Measure the voltage according to the terminal voltage table.
 - If the voltages cannot be verified as indicated in the terminal voltage table, inspect the parts under "Inspection item (s)".
 - If the system does not work normally even though the inspection items or related wiring harnesses do not have any malfunction, replace the keyless control module.

Terminal Voltage Table (Reference)



am3uuw00004547

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
1A	Power supply	ESCL15 A fuse	Under any condition	B+	ESCL15 A fuse
1B	GND	Body ground	Under any condition	1.0 or less	Battery
1C	Power supply	Steering lock unit	Steering lock unit During lock/unlock control	B+	Steering lock unit
			Other	1.0 or less	
1D	Steering lock unit ground	Steering lock unit	Steering lock unit During lock/unlock control	1.0 or less	Steering lock unit
			Other	2.7 (Typical)	
1E	Power supply	ROOM 15 A fuse	Under any condition	B+	ROOM 15 A fuse
1F	Power supply	ENG+B 10 A fuse	Under any condition	B+	Battery
2A	Power supply	METER 15 A fuse	Switch the ignitions to ON	B+	IG1 relay
			Switch the ignitions to off or ACC	1.0 or less	METER 15 A fuse
2B	Push button start	Push button start	Push button start is pushed	1.0 or less	Push button start
			Push button start is not pushed	B+	
2C	Power supply	MIRROR 10 A fuse	Switch the ignitions to ACC	B+	ACC relay
			Switch the ignitions to off	1.0 or less	MIRROR 10 A fuse
2E	Power supply	HEATER 10 A fuse	Switch the ignitions to ON	B+	IG2 relay
			Switch the ignitions to off or ACC	1.0 or less	HEATER 10 A fuse
					Battery

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Ter min al	Signal name	Connected to	Measurement condition		Voltage (V)	Inspection item (s)	
2F	Starter monitor	Starter relay	Switch the ignitions to off	Clutch pedal is not depressed (MTX)	B+	Starter relay	
				Shift position is not P or N range (ATX)			
				Switch the ignitions to ON	Clutch pedal is depressed (MTX)		6.0
					Shift position is P or N range (ATX)		
			Switch the ignitions to ON		Clutch pedal is not depressed (MTX)		B+
					Shift position is not P or N range (ATX)		
				Clutch pedal is depressed (MTX)	1.0 or less		
							Shift position is P or N range (ATX)
2G	Tx-PATS	Coil antenna	Communication lines, cannot be determined by voltage only (B+ when not communicating)		B+	Coil antenna	
2H	Rx-PATS	Coil antenna	Communication lines, cannot be determined by voltage only (B+ when not communicating)		B+	Coil antenna	
2I	Steering lock unit communication	Steering lock unit	Terminal used for communication therefore determination based on terminal voltage inspection not possible.				
2K	HS-CAN+	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.				
2L	HS-CAN-	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.				
3B	Starter relay	Starter relay	Cranking		B+	Starter relay	
			Switch the ignitions to off	Clutch pedal is depressed (MTX)	1.0 or less		
				Shift position is P or N range (ATX)			
			Switch the ignitions to ON	Clutch pedal is depressed (MTX)	1.0 or less		
Shift position is P or N range (ATX)							
3C	GND	Body ground	Under any condition		1.0 or less	Body ground	
3D	IG 1 relay control	IG 1 Relay	Switch the ignitions to ON		B+	IG 1 Relay	
			Switch the ignitions to off or ACC		1.0 or less		
3F	Push button illumination (ON)	Push button start	Switch the ignitions to off	Clutch pedal (MTX)/ Brake pedal (ATX) is depressed Push button start is pushed	1.0 or less	Push button start	
3G	IG 2 relay control	IG 2 Relay	Switch the ignitions to ON		B+	IG 2 Relay	
			Switch the ignitions to off or ACC		1.0 or less		
3H	Push button illumination (Umber)	Push button start	System is malfunctioning		1.0 or less	Push button start	
			Other		B+		
3I	Push button illumination (green)	Push button start	Engine start is available		1.0 or less	Push button start	
			Other		B+		
3J	ACC relay control	ACC Relay	Switch the ignitions to ACC		B+	ACC Relay	
			Switch the ignitions to off		1.0 or less		
3K	Push button illumination (ACC)	Push button start	In the case of ACC		1.0 or less	Push button start	
			Case except the ACC		B+		

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Ter min al	Signal name	Connected to	Measurement condition		Voltage (V)	Inspection item (s)
3M	Power supply	Coil antenna	Communication lines, cannot be determined by voltage only (B+ when not communicating)		B+	Coil antenna
3N	Ignition key illumination control	Coil antenna	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3O* 1	Starter interlock switch	Starter interlock switch	Clutch pedal is not depressed		B+	Starter interlock switch
			Clutch pedal is depressed		1.0 or less	
3Q	Push button start	Push button start	Push button start is pushed		1.0 or less	Push button start
			Push button start is not pushed		B+	
3R	Brake switch	Brake switch	Brake pedal is depressed		B+	Brake switch
			Brake pedal is not depressed		1.0 or less	
3S* ²	P position	P position switch	Shift position is P		B+	P position switch
			Other		1.0 or less	
3T	Starter cut relay (MTX)	Starter cut relay	Switch the ignitions to off	Clutch pedal is depressed	6.0	Starter cut relay
				Shift position is P or N range		
	TR switch (ATX)	TR switch		Clutch pedal is not depressed	1.0 or less	TR switch
				Shift position is not P or N range		
3U	Key reminder switch signal	Key reminder switch	Key inserted in steering lock		B+	Key reminder switch
			Other		1.0 or less	
3V	Power supply	Keyless receiver	Under any condition		B+	Keyless receiver
3W	Keyless entry communication	Keyless receiver	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3X	BCM communication	BCM	Communication lines, cannot be determined by voltage only (B+ when not communicating)		B+	BCM
3Y	Keyless antenna (interior, center)	Keyless antenna (interior, center)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3Z	Keyless antenna (interior, front)	Keyless antenna (interior, front)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3AA	Keyless entry communication	Keyless receiver	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3AB	Keyless antenna (interior, center)	Keyless antenna (interior, center)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3AC	Keyless antenna (interior, front)	Keyless antenna (interior, front)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
3AD	GND	Body ground	Under any condition		1.0 or less	Body ground
4A	Keyless antenna (RF)	Keyless antenna (RF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
4B	Keyless antenna (LF)	Keyless antenna (LF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
4C	Keyless antenna (exterior, rear)	Keyless antenna (exterior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
4D	Keyless antenna (RF)	Keyless antenna (RF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			
4E	Keyless antenna (LF)	Keyless antenna (LF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.			

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Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item (s)
4F	Keyless antenna (exterior, rear)	Keyless antenna (exterior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
4G	Keyless antenna (interior, rear)	Keyless antenna (interior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
4I	GND	Body ground	Under any condition	1.0 or less	Body ground
4J	Keyless antenna (interior, rear)	Keyless antenna (interior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
4L	Keyless beeper power supply	Keyless beeper	Exterior keyless beeper sounds	5.0 or more	Keyless beeper
			Other	1.0 or less	
4O	Request switch input (passenger's door)	Request switch (RF)	Passenger's side request switch ON	1.0 or less	Front outer handle (passenger's door)
			Passenger's side request switch OFF	4.0 or more	
4R	Request switch input (driver's door)	Request switch (LF)	Driver's side request switch ON	1.0 or less	Front outer handle (driver's door)
			Driver's side request switch OFF	4.0 or more	
4S	Trunk lid/liftgate release input	Trunk lid/liftgate opener switch	Trunk lid/liftgate opener switch pressed	3.0 or more	Trunk lid opener switch Liftgate opener switch
			Trunk lid/liftgate opener switch released	1.0 or less	
4T*3	Request switch input (Liftgate)	Request switch (Liftgate)	Liftgate request switch ON	1.0 or less	Request switch (Liftgate)
			Liftgate request switch OFF	4.0 or more	
4U	Lock input	Door lock-link switch (driver's door)	Driver's side door lock switch at LOCK	1.0 or less	Door lock-link switch
			Driver's side door lock switch at UNLOCK	Wave pattern (See 09-14-71 Generated pulse (reference).)	
4V*1	Clutch pedal position switch	Clutch pedal position switch	Clutch pedal is depressed	1.0 or less	Clutch pedal position switch
			Clutch pedal is not depressed	B+	
4W	Brake switch	Brake switch	Brake pedal is depressed	B+	Brake switch
			Brake pedal is not depressed	1.0 or less	
4X*1	Neutral switch	Neutral switch	Shift lever is in neutral position	1.0 or less	Neutral switch
			Shift lever is not in neutral position	B+	
4Z	GND	Keyless beeper	Under any condition	1.0 or less	Keyless beeper
4AA	GND	Body ground	Under any condition	1.0 or less	Body ground

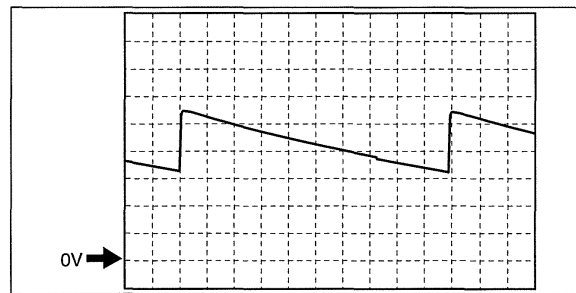
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*1 : MTX

*2 : ATX

*3 : 5HB

Generated pulse (reference)



- Terminal: 4U (+) ⇔ body ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 1 ms/DIV (X), DC range