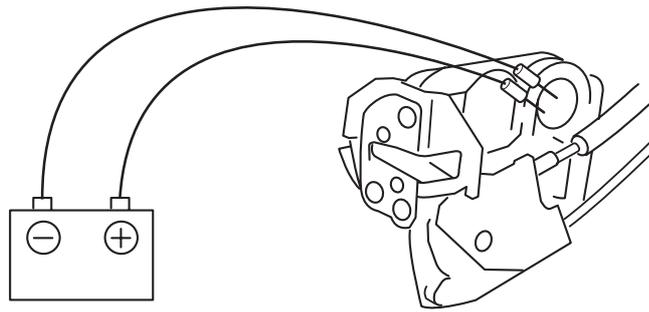
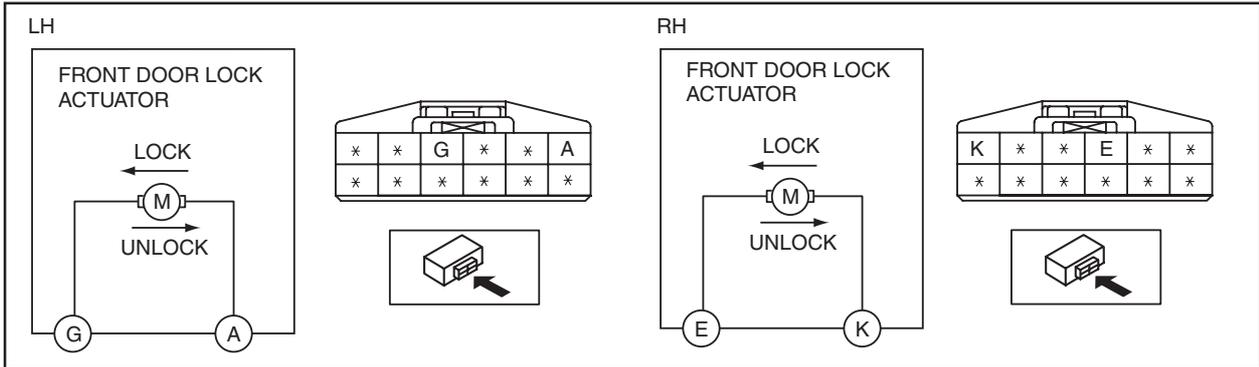


SECURITY AND LOCKS

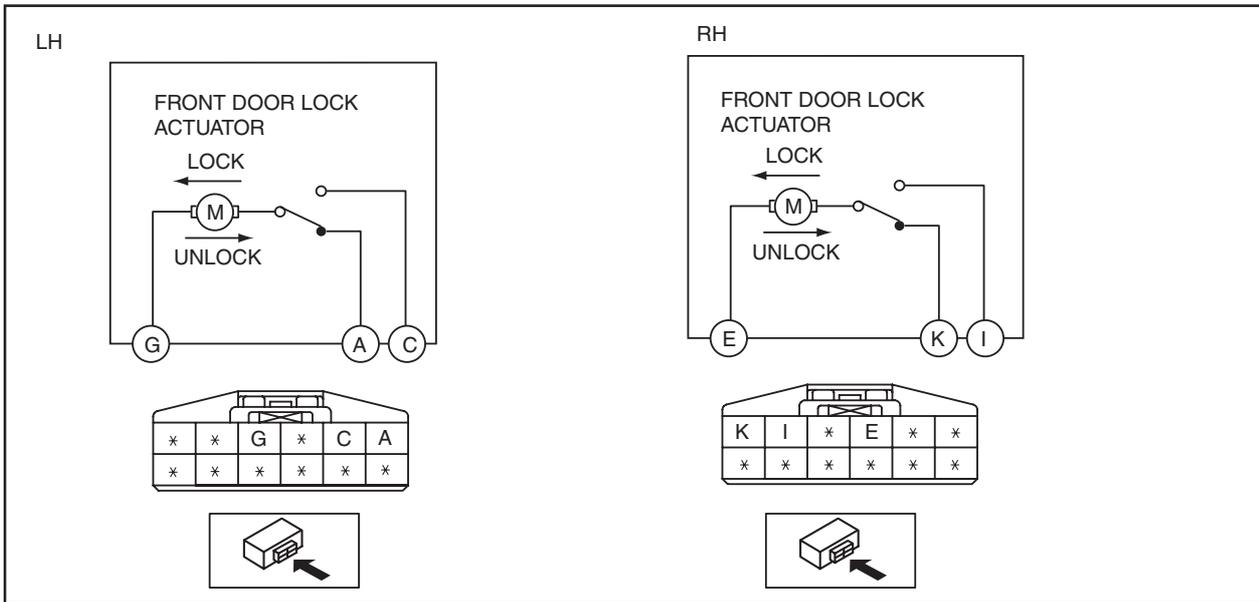
4. Apply battery positive voltage and connect the ground to each terminal, and then verify the operation.



POWER DOOR LOCK SYSTEM



DOUBLE LOCKING SYSTEM



am2zzw0000379

- If not as indicated in the table, replace the front door latch and lock actuator.

SECURITY AND LOCKS

Power Door Lock System

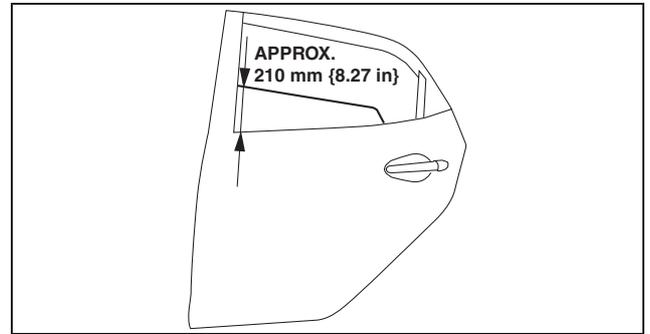
Operation		Terminal	
		B+	Ground
LOCK	RH	K	E
	LH	A	G
UNLOCK	RH	E	K
	LH	G	A

Double Locking System

Operation		Terminal	
		B+	Ground
LOCK	RH	I	E
	LH	C	G
DOUBLE LOCK	RH	K	E
	LH	A	G
UNLOCK	RH	E	K,I
	LH	G	A,C

4SD

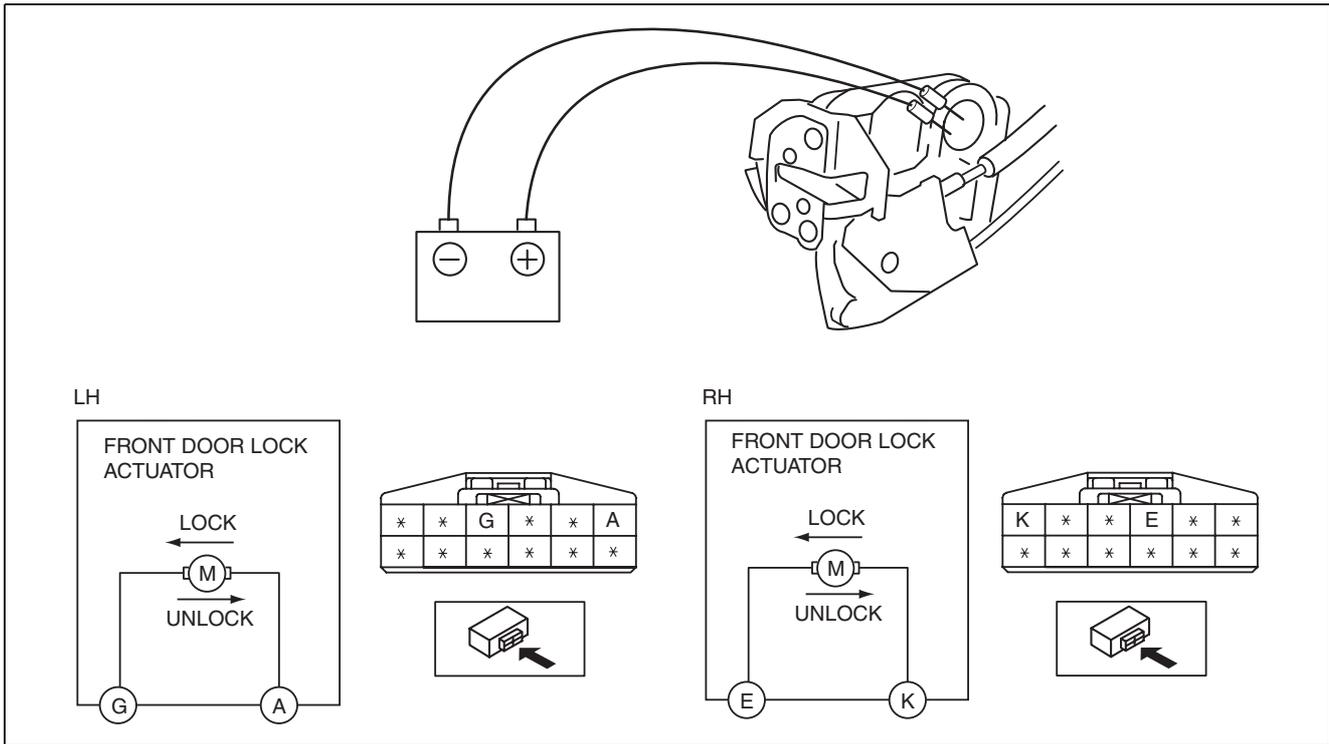
1. To access the glass installation bolt, position the rear door glass so that the distance from the top of the rear door glass to the upper part of the rear beltline molding is **approx. 210 mm {8.27 in}**.
2. Disconnect the negative battery cable.
3. Remove the following parts:
 - (1) Rear door trim (See 09-17-65 REAR DOOR TRIM REMOVAL/INSTALLATION.)
 - (2) Rear door speaker (See 09-20-8 REAR DOOR SPEAKER REMOVAL/INSTALLATION.)
 - (3) Rear door glass (See 09-12-10 REAR DOOR GLASS REMOVAL/INSTALLATION [4SD].)
 - (4) Rear door module panel (See 09-11-20 REAR DOOR MODULE PANEL REMOVAL/INSTALLATION [4SD].)
 - (5) Rear door latch and lock actuator (See 09-14-79 REAR DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION.)



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SECURITY AND LOCKS

4. Apply battery positive voltage and connect the ground to each terminal, and then verify the operation.



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- If not as indicated in the table, replace the front door latch and lock actuator.

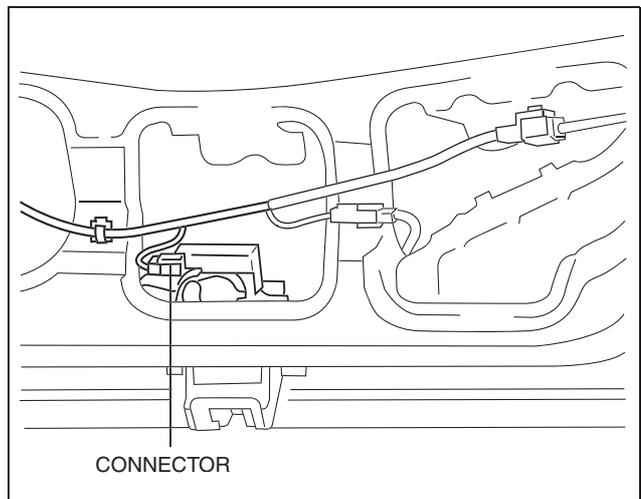
Power Door Lock System

Operation		Terminal	
		B+	Ground
LOCK	RH	K	E
	LH	A	G
UNLOCK	RH	E	K
	LH	G	A

LIFTGATE LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION

id091400433100

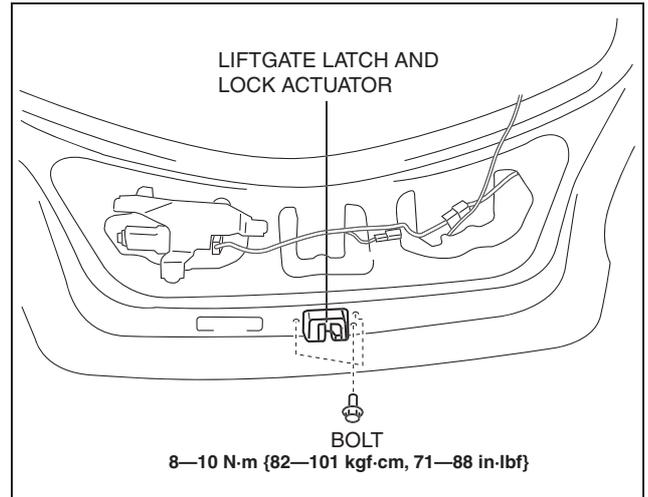
1. Disconnect the negative battery cable.
2. Remove the liftgate lower trim. (See 09-17-79 LIFTGATE LOWER TRIM REMOVAL/INSTALLATION)
3. Disconnect the connector.



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SECURITY AND LOCKS

4. Remove the bolts.
5. Remove the liftgate latch and lock actuator.
6. Install in the reverse order of removal.

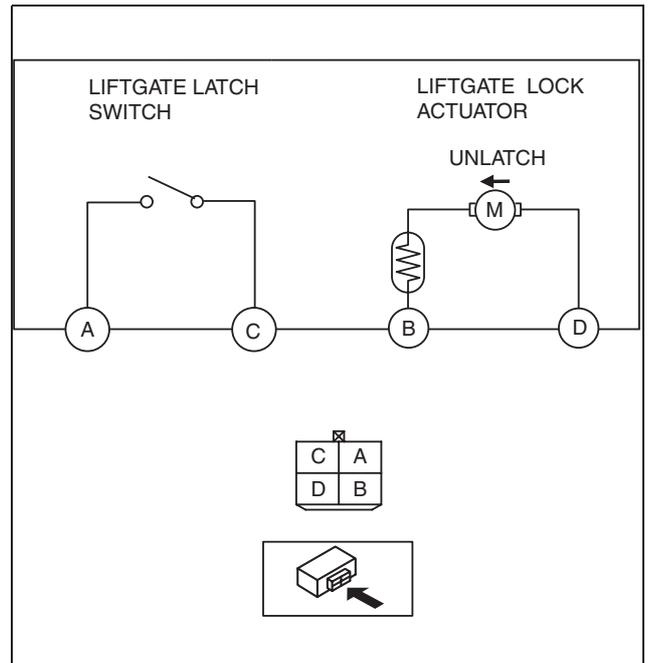


am2zzw0000069

LIFTGATE LATCH AND LOCK ACTUATOR INSPECTION

id091400434100

1. The following actuator and switch are integrated with the liftgate latch and lock actuator. Inspect the liftgate latch and lock actuator according to each inspection procedure for the following items.
 - Liftgate latch switch (See 09-14-90 LIFTGATE LATCH SWITCH INSPECTION.)
 - Liftgate lock actuator (See 09-14-89 LIFTGATE LOCK ACTUATOR INSPECTION.)



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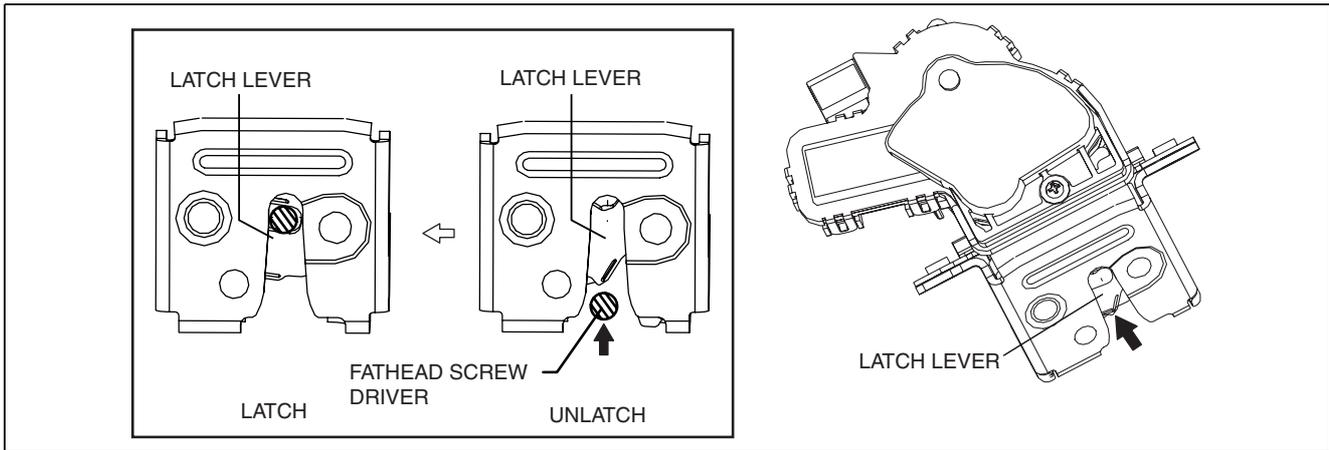
LIFTGATE LOCK ACTUATOR INSPECTION

id091400433200

1. Disconnect the negative battery cable.
2. Remove the liftgate lower trim. (See 09-17-79 LIFTGATE LOWER TRIM REMOVAL/INSTALLATION.)
3. Remove the liftgate latch and lock actuator. (See 09-14-88 LIFTGATE LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

4. Press the latch in using a flathead screwdriver to inspect the latch lever condition.

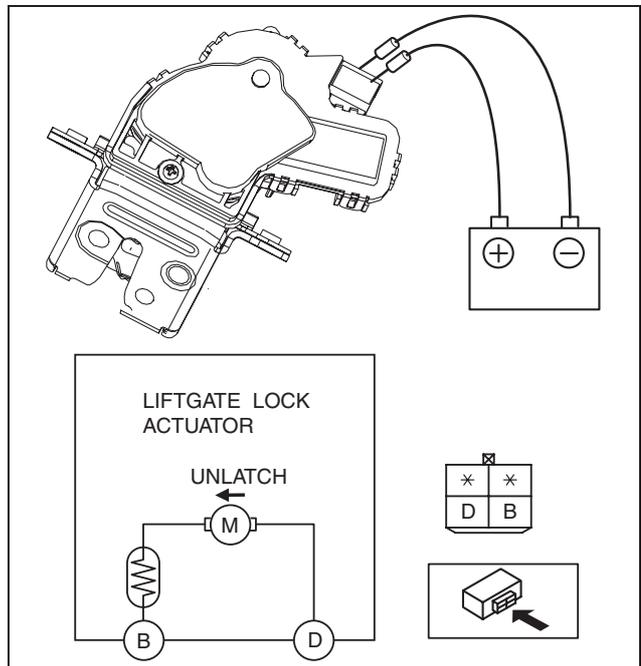


am2zzw0000260

5. Apply battery positive voltage and connect the ground to each terminal, and then verify the operation.

- If not as indicated in the table, replace the liftgate latch and lock actuator.

Lock actuator operation	Terminal	
	B+	Ground
UNLATCH	D	B



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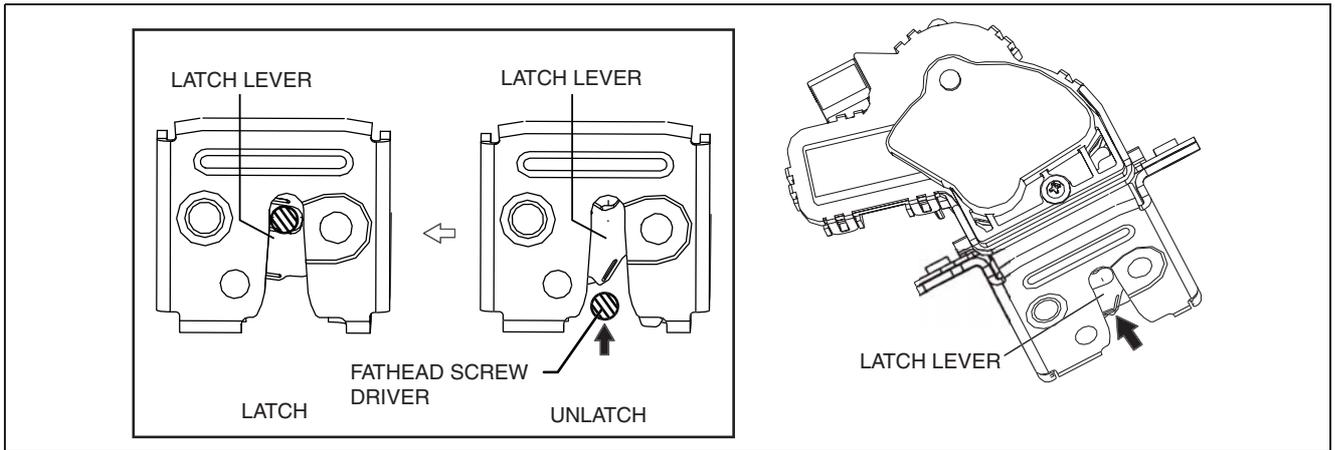
LIFTGATE LATCH SWITCH INSPECTION

id091400433300

1. Disconnect the negative battery cable.
2. Remove the liftgate lower trim. (See 09-17-79 LIFTGATE LOWER TRIM REMOVAL/INSTALLATION.)
3. Remove the liftgate latch and lock actuator. (See 09-14-88 LIFTGATE LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

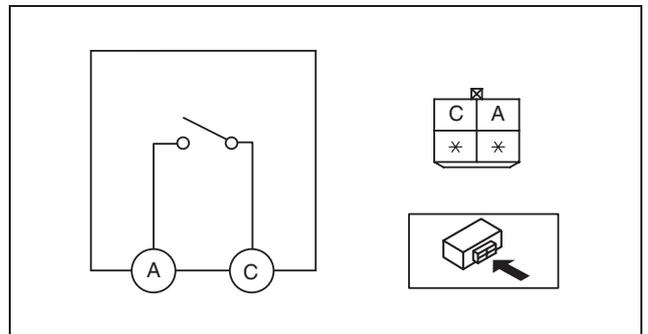
4. Press the latch in using a flathead screwdriver to inspect the latch lever condition.



am2zzw0000069

5. Verify that the continuity is as indicated in the table.

- If not as indicated in the table, replace the liftgate latch and lock actuator.



am2zzw0000379

○—○: CONTINUITY

LATCH CONDITION	TERMINAL	
	A	C
LATCH (LIFTGAE CLOSE)	○—○	○—○
UNLATCH (LIFTGAE OPEN)	○—○	○—○

am2zzw0000069

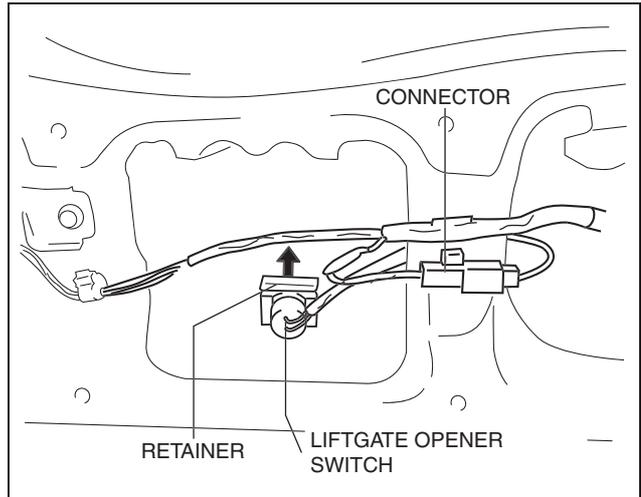
LIFTGATE OPENER SWITCH REMOVAL/INSTALLATION

id09140044200

1. Disconnect the negative battery cable.
2. Remove the liftgate lower trim. (See 09-17-79 LIFTGATE LOWER TRIM REMOVAL/INSTALLATION.)

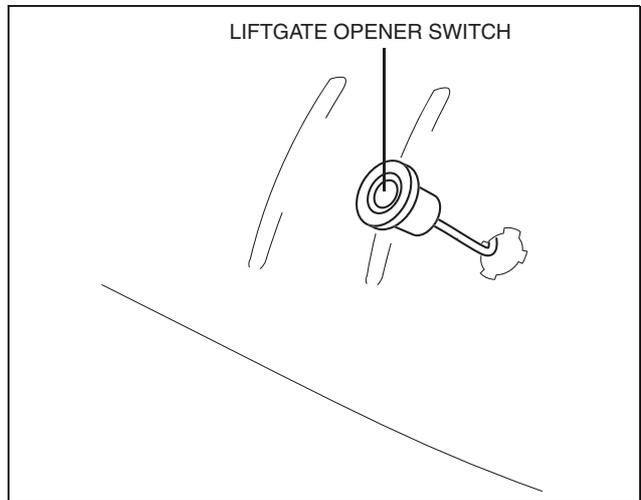
SECURITY AND LOCKS

3. Disconnect the connector.
4. Pull out the retainer in the direction of the arrow.



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5. Remove the liftgate opener switch.
6. Install in the reverse order of removal.

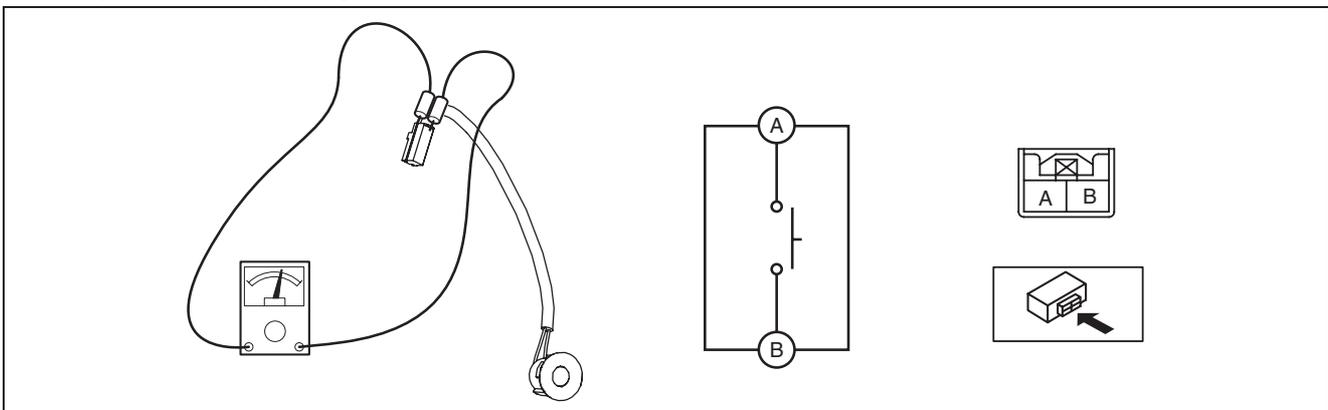


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LIFTGATE OPENER SWITCH INSPECTION

id091400444300

1. Disconnect the negative battery cable.
2. Remove the liftgate lower trim. (See 09-17-79 LIFTGATE LOWER TRIM REMOVAL/INSTALLATION.)
3. Remove the liftgate opener switch. (See 09-14-91 LIFTGATE OPENER SWITCH REMOVAL/INSTALLATION.)
4. Verify the continuity of liftgate opener switch terminals A and B.



am2zzw0000380

SECURITY AND LOCKS

5. Verify that the continuity is as indicated in the table.
 - If not as indicated in the table, replace the liftgate opener switch.

SWITCH POSITION	TERMINAL	
	A	B
ON (PUSH)	○—○	○—○
OFF (RELEASE)	○	○

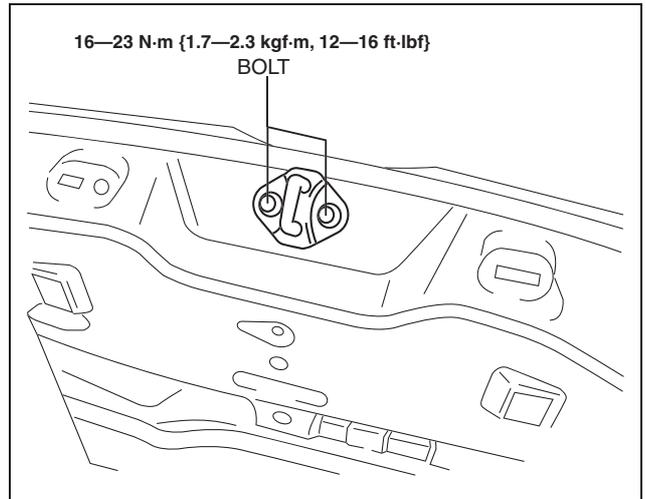
○—○: CONTINUITY

am2zzw0000070

LIFTGATE LOCK STRIKER REMOVAL/INSTALLATION

id091400433400

1. Remove the trunk end trim. (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
2. Remove the bolts, then remove the liftgate lock striker.
3. Install in the reverse order of removal.
4. Adjust the liftgate lock striker. (See 09-11-30 LIFTGATE ADJUSTMENT.)



am2zzw0000069

TRUNK LID LATCH MANUAL RELEASE PROCEDURE

id091400827100

Note

- If the trunk lid cannot be opened due to a discharged battery or malfunction in the electrical system, it can be opened using the following procedure.

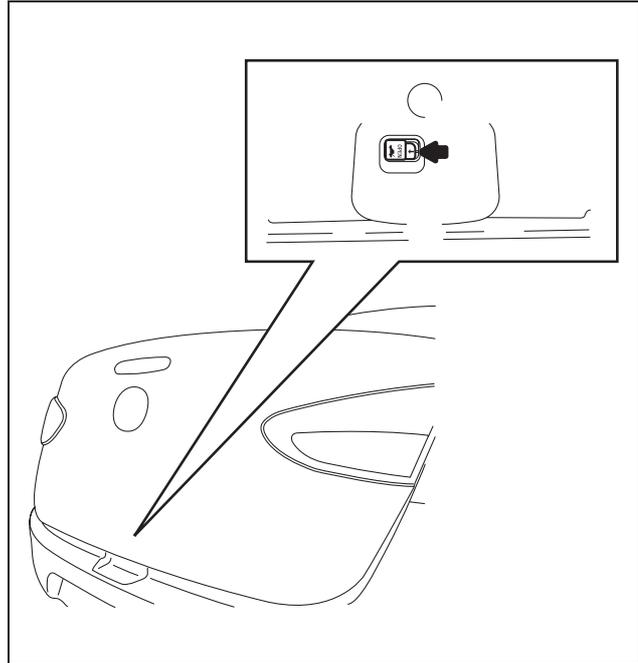
1. Fold down the rear seat back.

Caution

- Wear gloves when performing the procedure. The body edge can injure bare hands.

SECURITY AND LOCKS

2. Move the lever shown in the figure to the left to open the trunk lid.

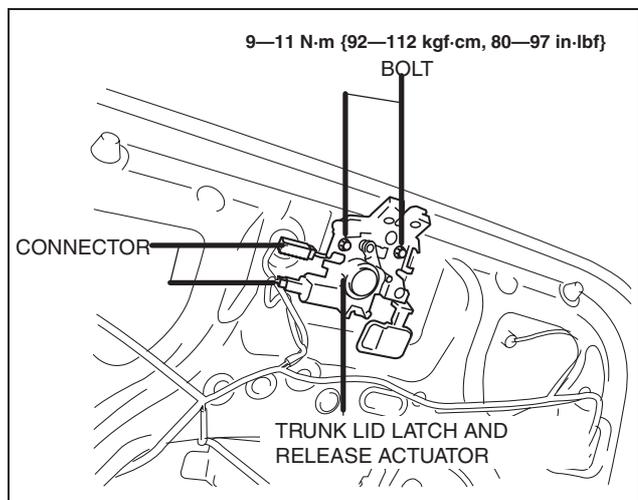


am2ccw0000014

TRUNK LID LATCH AND RELEASE ACTUATOR REMOVAL/INSTALLATION

id091400828100

1. Disconnect the negative battery cable.
2. Remove the trunk lid trim. (See 09-17-77 TRUNK LID TRIM REMOVAL/INSTALLATION [4SD].)
3. Disconnect the connector.
4. Remove the bolts.
5. Remove the trunk lid latch and release actuator.
6. Install in the reverse order of removal.



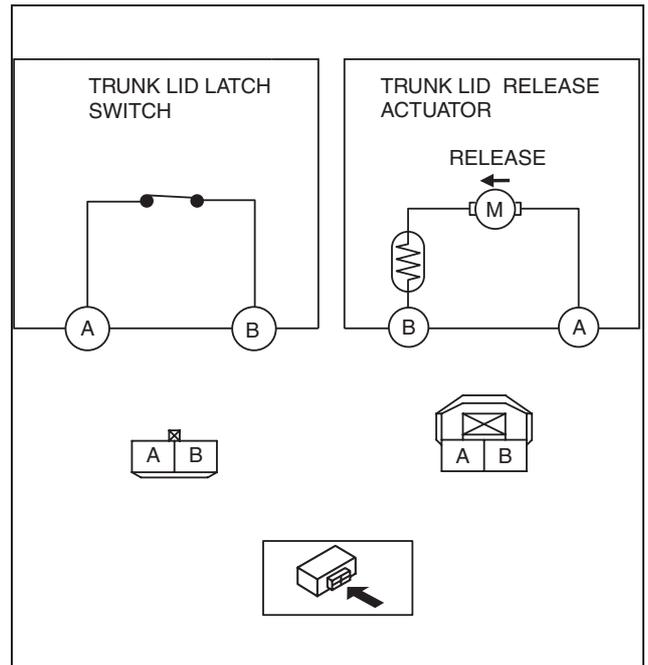
am2zzw0000512

TRUNK LID LATCH AND RELEASE ACTUATOR INSPECTION

id091400457300

1. The following actuator and switch are integrated with the trunk lid latch and release actuator. Inspect the trunk lid latch and release actuator according to each inspection procedure for the following items.
 - Trunk lid latch switch (See 09-14-96 TRUNK LID LATCH SWITCH INSPECTION.)
 - Trunk lid release actuator (See 09-14-94 TRUNK LID LATCH AND RELEASE ACTUATOR INSPECTION.)

SECURITY AND LOCKS

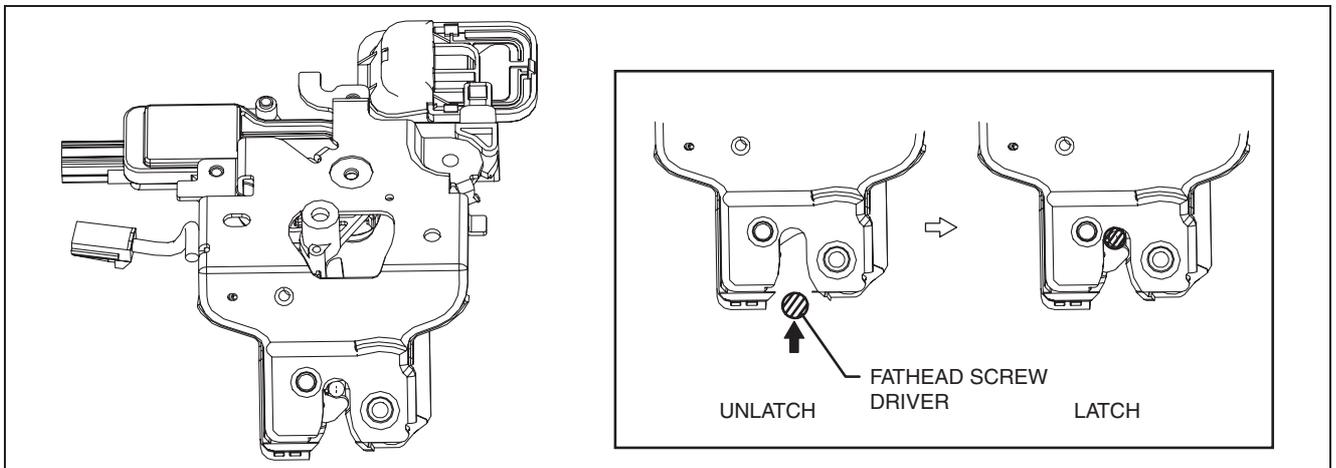


am2ccw0000027

TRUNK LID RELEASE ACTUATOR INSPECTION

id091400457400

1. Disconnect the negative battery cable.
2. Remove the trunk lid trim. (See 09-17-77 TRUNK LID TRIM REMOVAL/INSTALLATION [4SD].)
3. Remove the trunk lid latch and release actuator. (See 09-14-94 TRUNK LID LATCH AND RELEASE ACTUATOR REMOVAL/INSTALLATION.)
4. Press the latch in using a flathead screwdriver to inspect the latch lever condition.



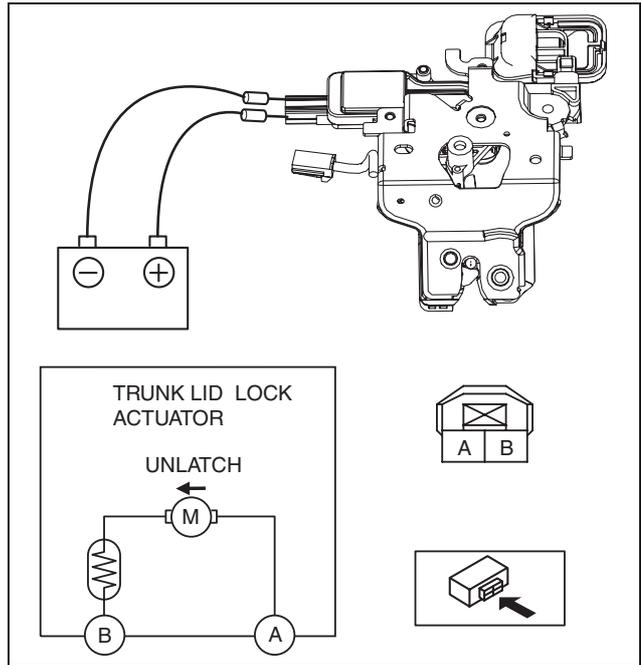
am2ccw0000015

SECURITY AND LOCKS

5. Apply battery positive voltage and connect the ground to each terminal, and then verify the operation.

- If not as indicated in the table, replace the trunk lid latch and release actuator.

release actuator operation	Terminal	
	B+	Ground
UNLATCH	A	B

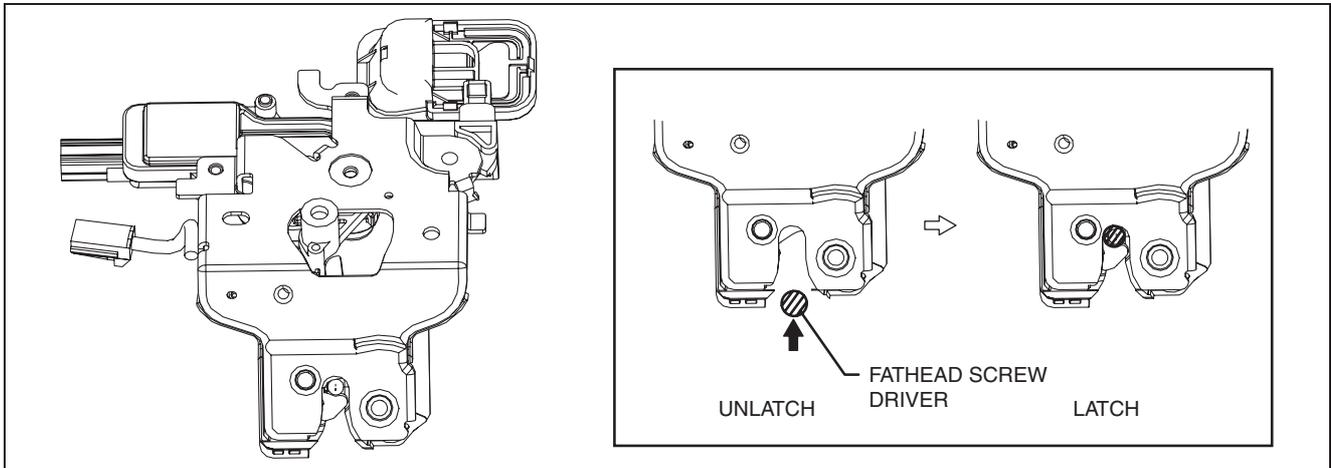


am2ccw0000015

TRUNK LID LATCH SWITCH INSPECTION

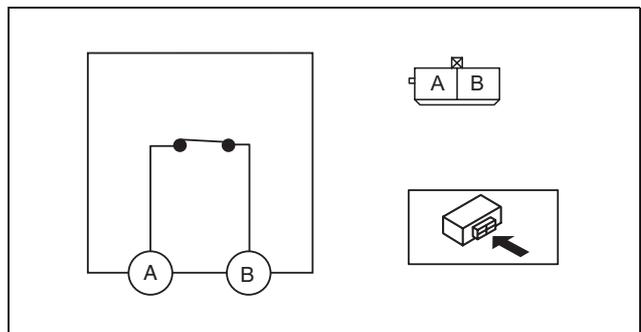
id091400811200

1. Disconnect the negative battery cable.
2. Remove the trunk lid trim. (See 09-17-77 TRUNK LID TRIM REMOVAL/INSTALLATION [4SD].)
3. Remove the trunk lid latch and release actuator. (See 09-14-94 TRUNK LID LATCH AND RELEASE ACTUATOR REMOVAL/INSTALLATION.)
4. Press the latch in using a flathead screwdriver to inspect the latch lever condition.



am2ccw0000014

5. Verify that the continuity is as indicated in the table.



am2ccw0000014

SECURITY AND LOCKS

- If not as indicated in the table, replace the trunk lid latch and release actuator.

LATCH CONDITION	TERMINAL	
	A	B
LATCH (TRUNK LID CLOSE)	○—○	○—○
UNLATCH (TRUNK LID OPEN)	○—○	○—○

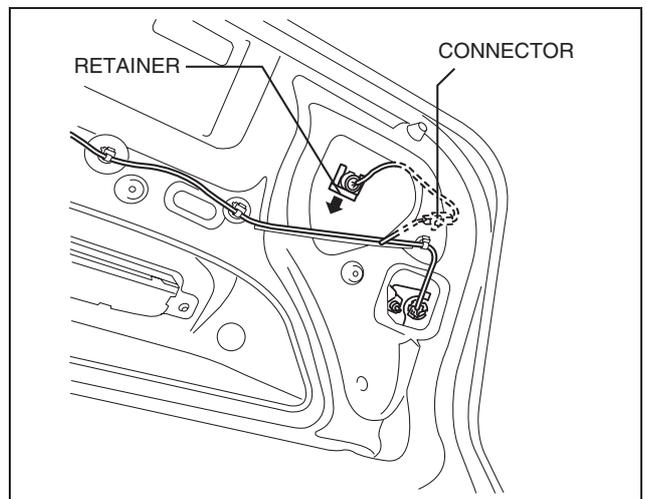
○—○: CONTINUITY

am2ccw0000014

TRUNK LID OPENER SWITCH REMOVAL/INSTALLATION

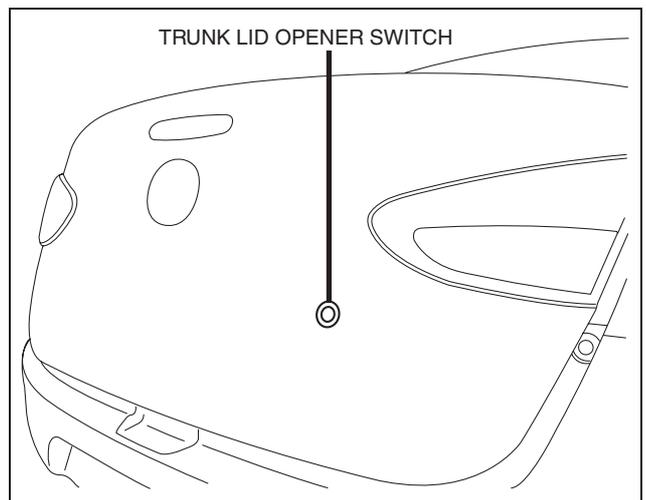
id091400445400

1. Disconnect the negative battery cable.
2. Remove the trunk lid trim. (See 09-17-77 TRUNK LID TRIM REMOVAL/INSTALLATION [4SD].)
3. Disconnect the connector.
4. Pull out the retainer in the direction of the arrow.



am2ccw0000015

5. Remove the trunk lid opener switch.
6. Install in the reverse order of removal.



am2ccw0000015

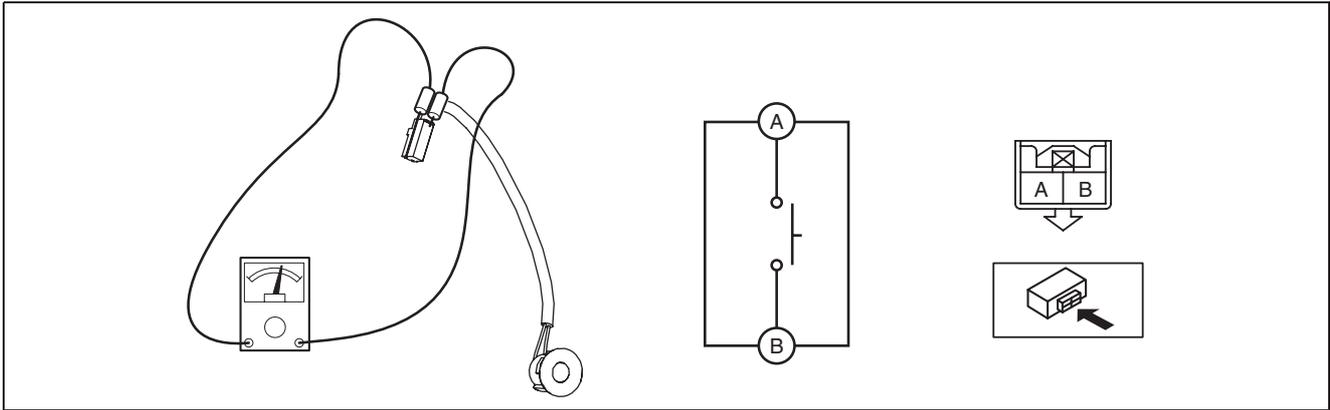
TRUNK LID OPENER SWITCH INSPECTION

id091400445500

1. Disconnect the negative battery cable.
2. Remove the trunk lid trim. (See 09-17-77 TRUNK LID TRIM REMOVAL/INSTALLATION [4SD].)
3. Remove the trunk lid opener switch. (See 09-14-97 TRUNK LID OPENER SWITCH REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

4. Verify the continuity of trunk lid opener switch terminals A and B.



am2ccw0000023

5. Verify that the continuity is as indicated in the table.

- If not as indicated in the table, replace the trunk lid opener switch.

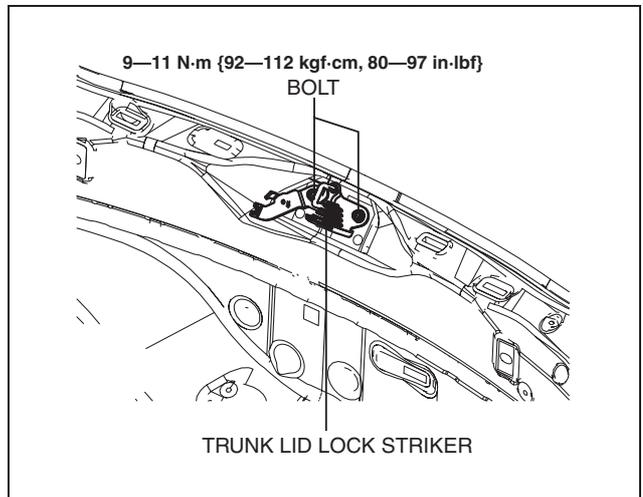
○—○: CONTINUITY		
SWITCH POSITION	TERMINAL	
	A	B
ON (PUSH)	○—○	○—○
OFF (RELEASE)	○—○	○—○

am2zzw0000070

TRUNK LID LOCK STRIKER REMOVAL/INSTALLATION

id091400811300

1. Remove the trunk end trim. (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
2. Remove the bolts, then remove the trunk lid lock striker.
3. Install in the reverse order of removal.
4. Adjust the trunk lid lock striker. (See 09-10-6 TRUNK LID ADJUSTMENT [4SD].)



am2zzw0000513

KEYLESS CONTROL MODULE REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004384b0

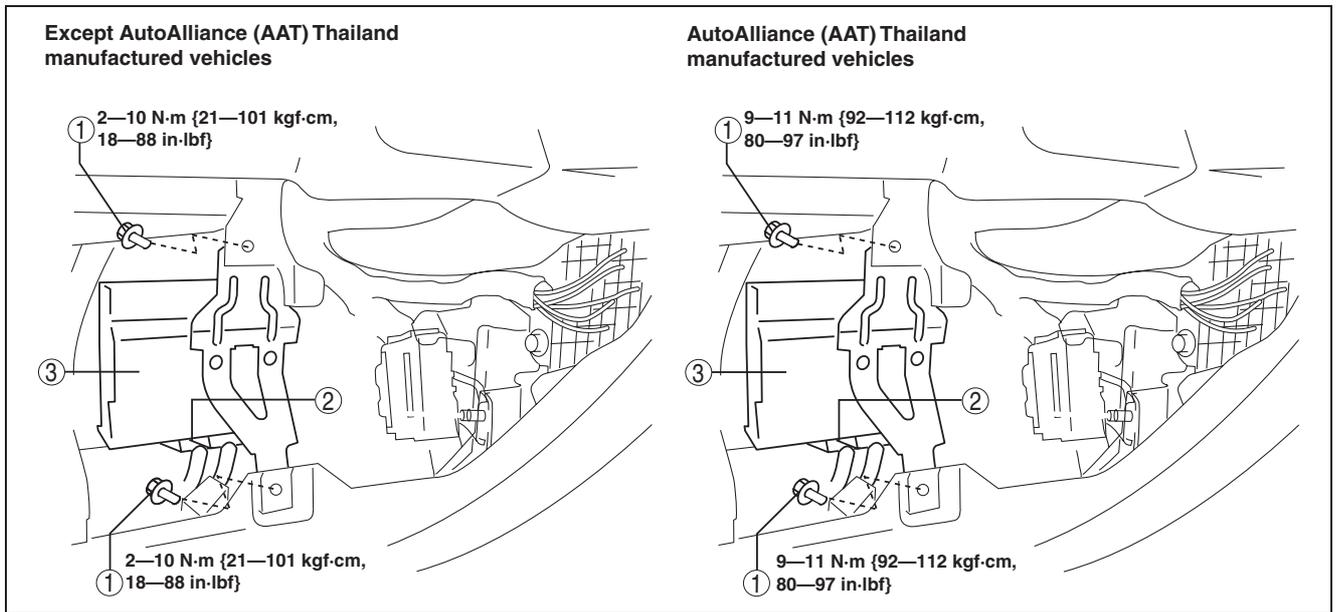
Note

- If the keyless control module is replaced, always perform the following procedure.
 - Configuration (See 09-14-102 KEYLESS CONTROL MODULE CONFIGURATION [ADVANCED KEYLESS AND START SYSTEM].)
 - Advanced key programming (See 09-14-123 ADVANCED KEY ID CODE REGISTRATION [ADVANCED KEYLESS AND START SYSTEM].)
 - Steering lock unit programming (See 09-14-134 STEERING LOCK UNIT ID CODE REGISTRATION [ADVANCED KEYLESS AND START SYSTEM].)
 - Immobilizer system-related parts programming (See 09-14-136 IMMOBILIZER SYSTEM-RELATED PARTS PROGRAMMING [ADVANCED KEYLESS AND START SYSTEM].)

1. Disconnect the negative battery cable.

SECURITY AND LOCKS

2. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
3. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/INSTALLATION.)
4. Remove in the order indicated in the table.



am2zzw0000512

1	Bolt
2	Connector
3	Keyless control module

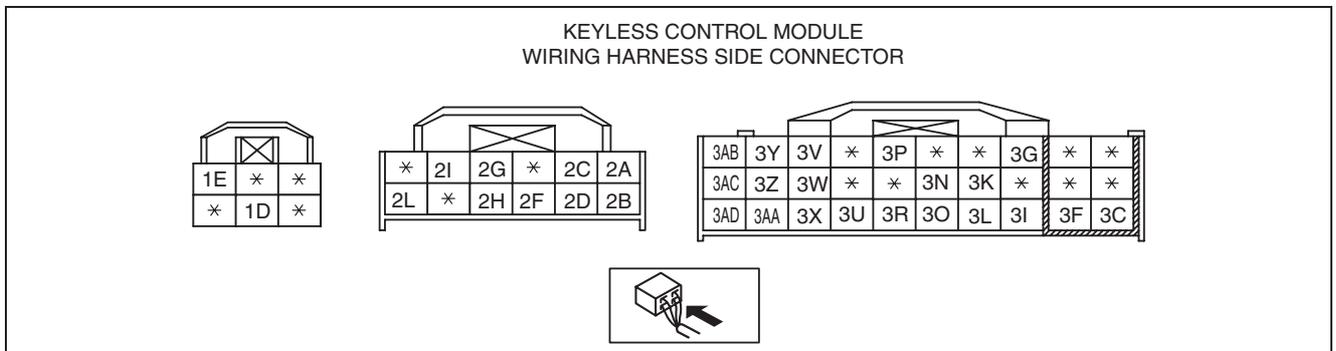
5. Install in the reverse order of removal.

KEYLESS CONTROL MODULE INSPECTION [ADVANCED KEYLESS AND START SYSTEM]

id0914004385b0

1. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
2. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/INSTALLATION.)
3. 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)



am2zzw0000509

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
1D	Power supply	BCM	Under any condition	B+	ROOM 15 A fuse BCM Battery

SECURITY AND LOCKS

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
1E	Power supply	P/W 20 A fuse	Under any condition	B+	P/W 20 A fuse Battery
2A	Power supply	MIRROR 7.5 A fuse	Ignition switch at ACC position	B+	Ignition switch MIRROR 7.5 A fuse Battery
			Ignition switch at LOCK position	1.0 or less	
2B	Rx-PATS* ¹	Coil antenna	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
2C	Power supply	ENG 10 A fuse	Ignition switch is at ON position	B+	Ignition switch ENG 10 A fuse Battery
			Ignition switch at LOCK position	1.0 or less	
2D	Tx-PATS* ¹	Coil antenna	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
2F	BCM communication	BCM	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
2G	HS-CAN+	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
2H	Keyless entry communication	Keyless receiver	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
2I	HS-CAN-	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
2L	Steering lock unit communication	Steering lock unit	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3C	Keyless antenna (exterior, rear)	Keyless antenna (exterior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3F	Keyless antenna (LF)	Keyless antenna (LF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3G	Liftgate unlock input* ² /Trunk lid unlock input* ³	Liftgate opener switch* ² /Trunk lid opener switch* ³	Liftgate opener switch/Trunk lid opener switch pressed	3.0	Liftgate opener switch* ² / Trunk lid opener switch* ³
			Liftgate opener switch/Trunk lid opener switch released	4.7	
3I	Keyless antenna (interior, rear)	Keyless antenna (interior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3K	Keyless beeper power supply	Keyless beeper	Exterior keyless beeper sounds (transmitter lock button pressed)	Wave pattern (See 09-14-101 Pattern 1.)	Keyless beeper
			Exterior keyless beeper sounds (transmitter unlock button pressed)	Wave pattern (See 09-14-102 Pattern 2.)	
			Other	1.0 or less	
3L* ³	Keyless antenna (interior, center)	Keyless antenna (interior, center)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3N	GND	Body ground	Under any condition	1.0 or less	Ground
3O	Keyless antenna (RF)	Keyless antenna (RF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3P	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 09-14-102 Pattern 3.)	
3R	Keyless antenna (interior, front)	Keyless antenna (interior, front)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		

SECURITY AND LOCKS

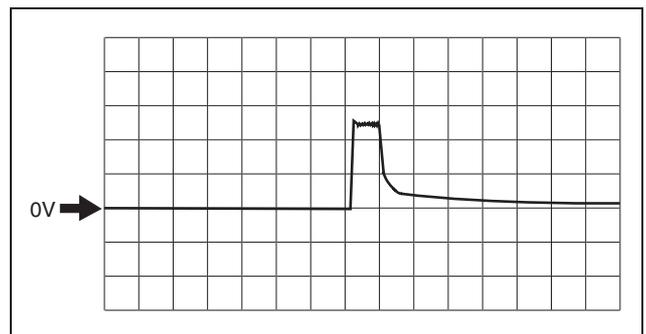
Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
3U	Request switch input (RF)	Request switch (RF)	Outer handle (RF) side request switch ON	1.0 or less	Front outer handle (RF)
			Outer handle (RF) side request switch OFF	B+	
3V	Start knob (push switch)	Steering lock unit	Push switch in pressed condition	B+	Steering lock unit
			Other	1.0 or less	
3W	Key reminder switch	Steering lock unit	Key inserted in steering lock	B+	Steering lock unit
			Other	1.0 or less	
3X	Request switch input (LF)	Request switch (LF)	Outer handle (LF) side request switch ON	1.0 or less	Front outer handle (LF)
			Outer handle (LF) side request switch OFF	B+	
3Y*3	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, rear)	Keyless antenna (interior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3AA	Keyless antenna (interior, front)	Keyless antenna (interior, front)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3AB	Keyless antenna (LF)	Keyless antenna (LF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3AC	Keyless antenna (exterior, rear)	Keyless antenna (exterior, rear)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
3AD	Keyless antenna (RF)	Keyless antenna (RF)	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		

*1 : With immobilizer system

*2 : 3HB, 5HB

*3 : 4SD

Generated pulse (reference) Pattern 1

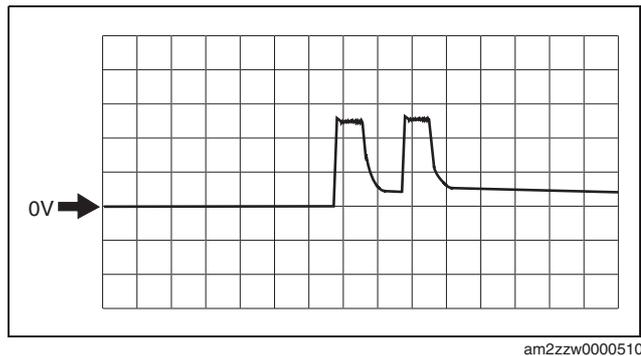


am2zzw0000510

- Terminal:
 - Keyless beeper power supply: 3K (+) \leftrightarrow body ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 100 ms/DIV (X), DC range

SECURITY AND LOCKS

Pattern 2



am2zzw0000510

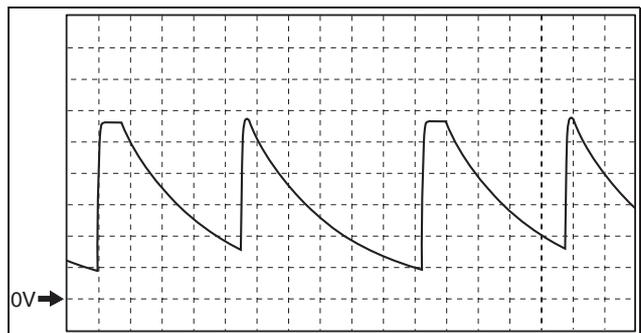
- Terminal:
 - Keyless beeper power supply: 3K (+) \leftrightarrow body ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 100 ms/DIV (X), DC range

Pattern 3

Note

- A wave pattern is displayed when keyless control module terminal 3P is measured using an oscilloscope. However, it may overlap with the output wave pattern of BCM terminal 7K which is displayed simultaneously.

- Terminal:
 - Lock input (Door lock-link switch (driver's door): 3P (+) \leftrightarrow body ground (-)
- Oscilloscope setting: 2 V/DIV (Y), 1 ms/DIV (X), DC range



am2zzw0000415

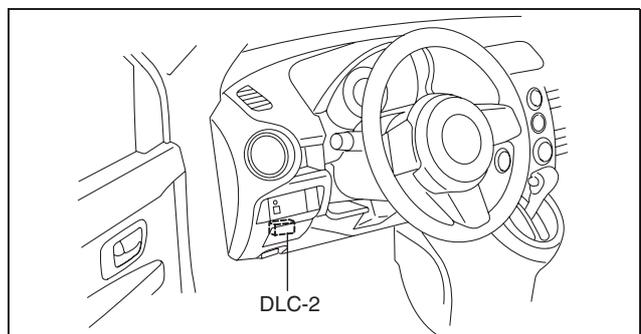
KEYLESS CONTROL MODULE CONFIGURATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004394b0

Note

- Use the IDS (laptop PC) because the PDS (Pocket PC) does not support the KEYLESS CONTROL MODULE CONFIGURATION.

1. Connect the M-MDS to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.
 - When using the IDS (laptop PC)
 1. Select "Module Programming".
3. Then, select items from the screen menu in the following order.
 1. Select "Programmable Module Installation".
 2. Select "RKE".
4. Perform the configuration according to the directions on the screen.



am2zzw0000210

THEFT-DETERRENT SIREN REMOVAL/INSTALLATION

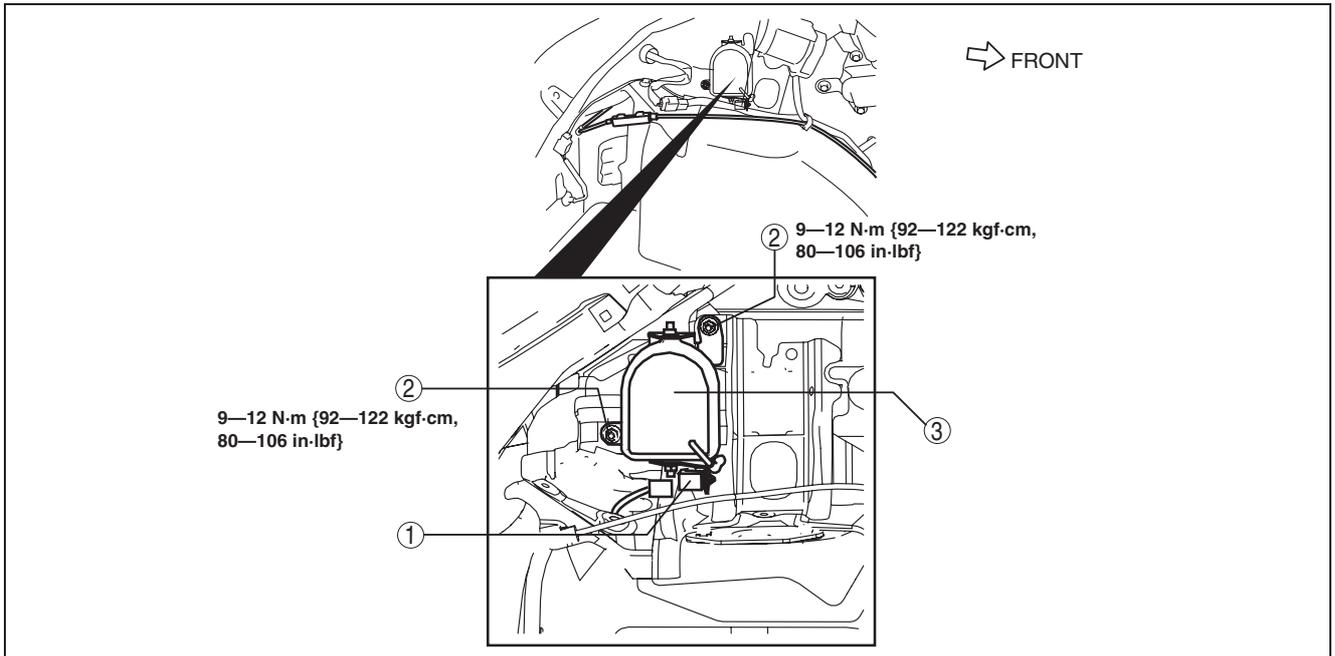
id091400809500

5HB

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - (1) Rear scuff plate (passenger's side) (See 09-17-58 REAR SCUFF PLATE REMOVAL/INSTALLATION.)
 - (2) Rear seat back (See 09-13-27 REAR SEAT BACK REMOVAL/INSTALLATION [Except AutoAlliance (AAT) Thailand manufactured vehicles].)
 - (3) Rear seat cushion (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

- (4) Trunk end trim (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
 - (5) Trunk side trim (passenger's side) (See 09-17-70 TRUNK SIDE TRIM REMOVAL/INSTALLATION.)
3. Remove in the order indicated in the table.



am2zzw000044

1	Connector
2	Nut
3	Theft-deterrent siren

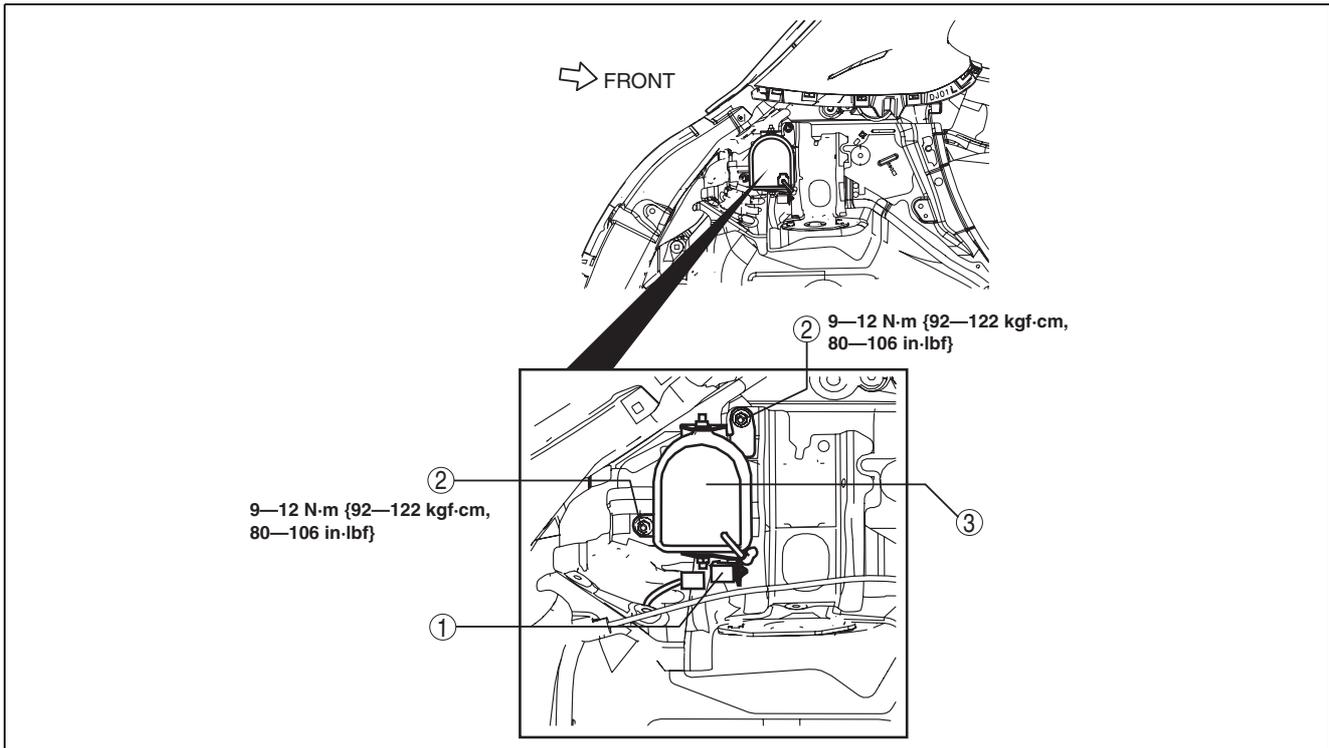
4. Install in the reverse order of removal.

3HB

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - (1) Front scuff plate (See 09-17-57 FRONT SCUFF PLATE REMOVAL/INSTALLATION [3HB].)
 - (2) Rear seat back (See 09-13-27 REAR SEAT BACK REMOVAL/INSTALLATION [Except AutoAlliance (AAT) Thailand manufactured vehicles])
 - (3) Rear seat cushion (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)
 - (4) Trunk end trim (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
 - (5) Trunk side trim (See 09-17-73 TRUNK SIDE TRIM REMOVAL/INSTALLATION [3HB].)

SECURITY AND LOCKS

3. Remove in the order indicated in the table.



am2zzw0000328

1	Connector
2	Nut
3	Theft-deterrent siren

4. Install in the reverse order of removal.

THEFT-DETERRENT SIREN INSPECTION

id091400819500

5HB

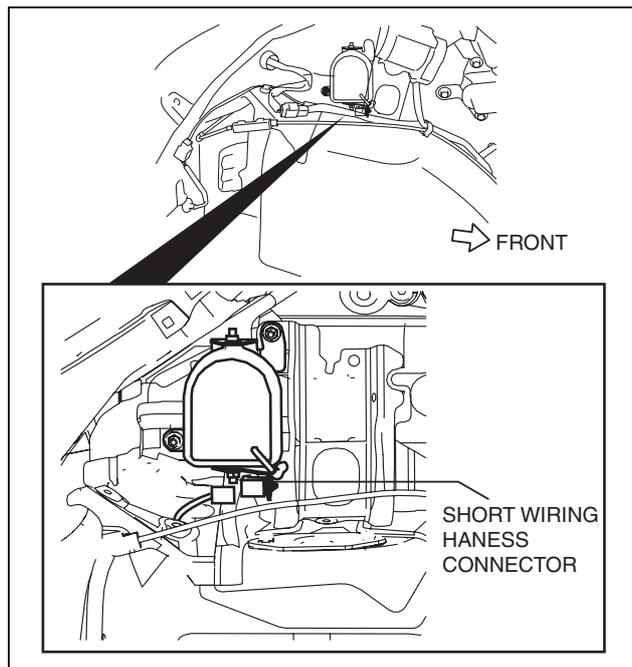
- Remove the following parts:
 - Rear scuff plate (passenger's side) (See 09-17-58 REAR SCUFF PLATE REMOVAL/INSTALLATION.)
 - Rear seat cushion (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)
 - Rear seat back (See 09-13-27 REAR SEAT BACK REMOVAL/INSTALLATION [Except AutoAlliance (AAT) Thailand manufactured vehicles].)
 - Trunk end trim (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
 - Trunk side trim (passenger's side) (See 09-17-70 TRUNK SIDE TRIM REMOVAL/INSTALLATION.)
- Remove the theft-deterrent siren with the connector connected.

SECURITY AND LOCKS

3. Measure the theft-deterrent siren terminal voltage using the short wiring harness connector in the position shown in the figure.

Note

- The theft-deterrent siren cannot be connected to a tester due to its water-resistance processing, therefore the short wiring harness connector is used for measuring the terminal voltage.
- If the terminal voltage is not as indicated in the table, inspect the short wiring harness connector for continuity. (See 09-14-105 Terminal Voltage Table (Reference).) If the short wiring harness connector is normal, inspect the parts under "Inspection items".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the theft-deterrent siren.



am2zzw0000157

Terminal Voltage Table (Reference)

THEFT-DETERRENT SIREN
SHORT WIRING
HANESS CONNECTOR

am2zzw0000348

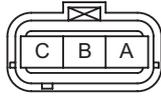
Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
A	Power supply	BCM	Under any condition	B+	BCM
B	DATA	theft-deterrent control module	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
D	Ground	Body ground	Under any condition	1.0 or less	Ground

Continuity Inspection Of Short Wiring Harness Connector

1. Verify that the continuity between the short wiring harness connector terminals is as indicated in the table.
 - If the continuity is not as indicated in the table, replace the short wiring harness connector.

SECURITY AND LOCKS

THEFT-DETERRENT SIREN
WIRING HARNESS SIDE CONNECTOR



THEFT-DETERRENT SIREN
SHORT WIRING
HANESS CONNECTOR



○—○ : Continuity

Test condition	THEFT-DETERRENT SIREN CONNECTOR SIDE			SHORT HARNESS CONNECTOR SIDE		
	C	B	A	A	B	D
Under any condition			○—○			
		○—○			○—○	
	○—○					○—○

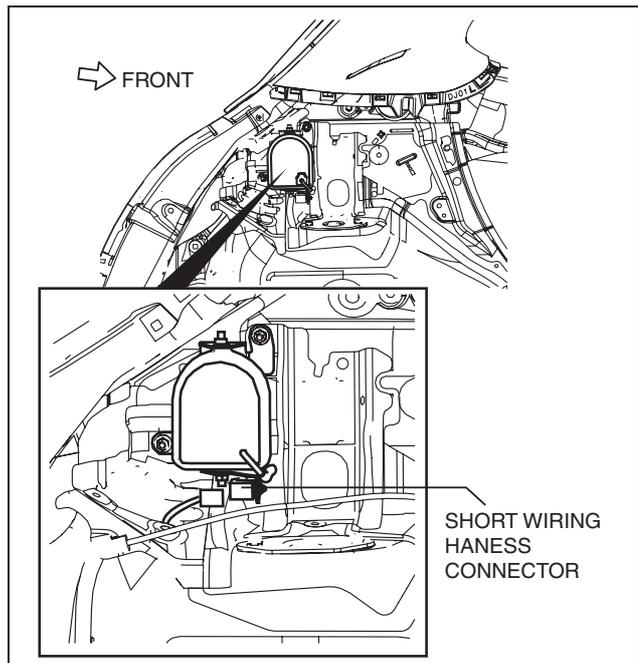
am2zzw000044

3HB

1. Disconnect the negative battery cable.
2. Remove the following parts:
 - (1) Front scuff plate (See 09-17-57 FRONT SCUFF PLATE REMOVAL/INSTALLATION [3HB].)
 - (2) Rear seat back (See 09-13-27 REAR SEAT BACK REMOVAL/INSTALLATION [Except AutoAlliance (AAT) Thailand manufactured vehicles].)
 - (3) Rear seat cushion (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)
 - (4) Trunk end trim (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
 - (5) Trunk side trim (See 09-17-73 TRUNK SIDE TRIM REMOVAL/INSTALLATION [3HB].)
3. Remove the theft-deterrent siren with the connector connected.
4. Measure the theft-deterrent siren terminal voltage using the short wiring harness connector in the position shown in the figure.

Note

- The theft-deterrent siren cannot be connected to a tester due to its water-resistance processing, therefore the short wiring harness connector is used for measuring the terminal voltage.
- If the terminal voltage is not as indicated in the table, inspect the short wiring harness connector for continuity. (See 09-14-105 Terminal Voltage Table (Reference).) If the short wiring harness connector is normal, inspect the parts under "Inspection items".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the theft-deterrent siren.



am2zzw0000478

SECURITY AND LOCKS

Terminal Voltage Table (Reference)

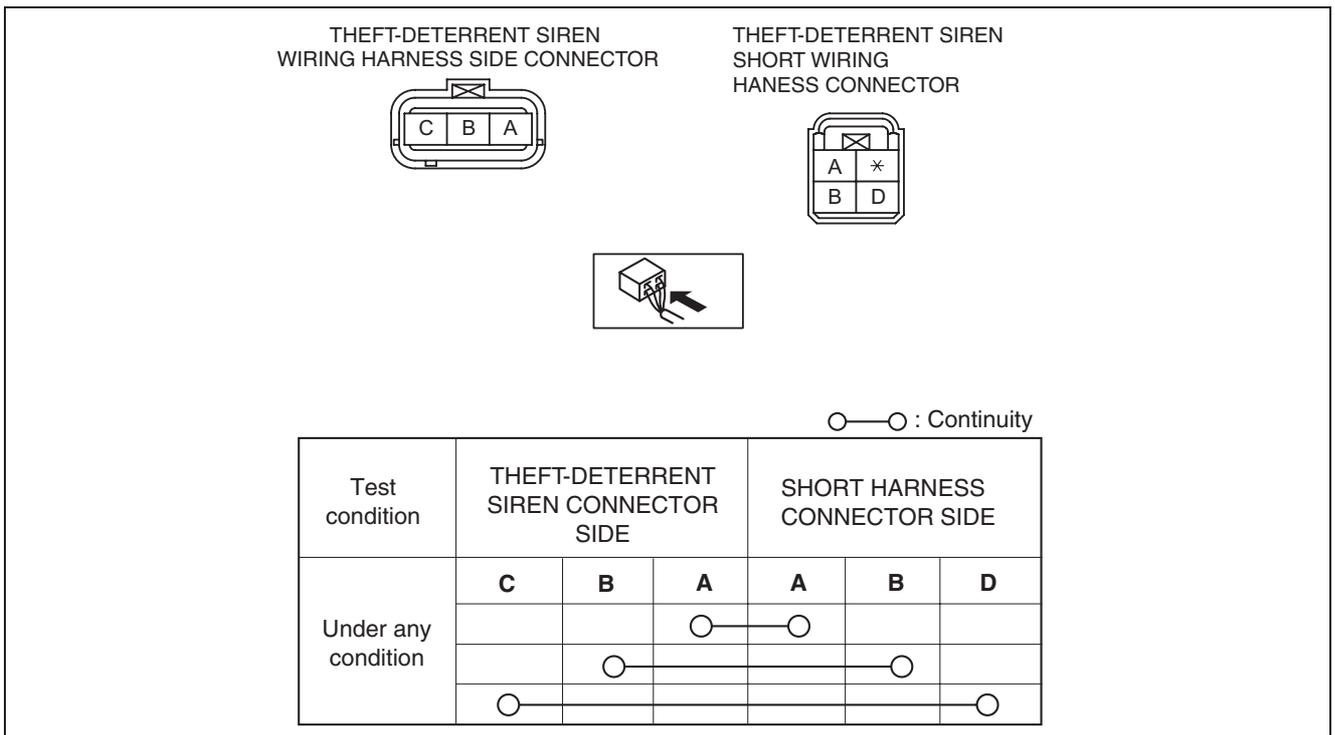


am2zzw0000348

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
A	Power supply	BCM	Under any condition	B+	BCM
B	DATA	theft-deterrent control module	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
D	Ground	Body ground	Under any condition	1.0 or less	Ground

Continuity Inspection Of Short Wiring Harness Connector

- Verify that the continuity between the short wiring harness connector terminals is as indicated in the table.
 - If the continuity is not as indicated in the table, replace the short wiring harness connector.



am2zzw0000044

THEFT-DETERRENT HORN REMOVAL/INSTALLATION

id091400525100

5HB

- Disconnect the negative battery cable.
- Remove the following parts:
 - Rear scuff plate (LH) (See 09-17-58 REAR SCUFF PLATE REMOVAL/INSTALLATION.)
 - Rear seat back (See 09-13-26 REAR SEAT BACK REMOVAL/INSTALLATION [AutoAlliance (AAT) Thailand manufactured vehicles].) (See 09-13-27 REAR SEAT BACK REMOVAL/INSTALLATION [Except AutoAlliance (AAT) Thailand manufactured vehicles].)
 - Rear seat cushion (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)
 - Trunk end trim (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)

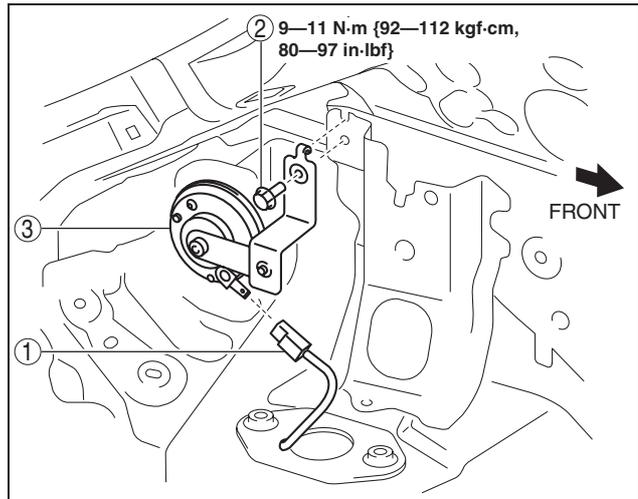
SECURITY AND LOCKS

(5) Trunk side trim (LH) (See 09-17-70 TRUNK SIDE TRIM REMOVAL/INSTALLATION.)

3. Remove in the order indicated in the table.

1	Connector
2	Bolt
3	Theft-deterrent siren

4. Install in the reverse order of removal.



am2zzw0000446

4SD

1. Disconnect the negative battery cable.

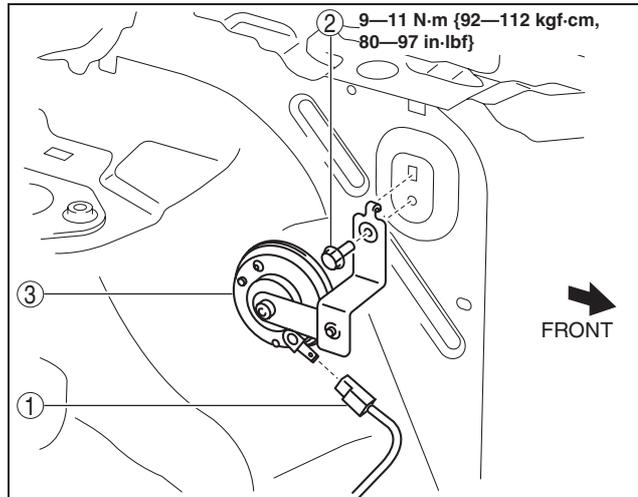
2. Remove the following parts:

- (1) Rear scuff plate (LH) (See 09-17-58 REAR SCUFF PLATE REMOVAL/INSTALLATION.)
- (2) Rear seat cushion (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)
- (3) Tire house trim (See 09-17-66 TIRE HOUSE TRIM REMOVAL/INSTALLATION [4SD].)
- (4) Trunk end trim (See 09-17-75 TRUNK END TRIM REMOVAL/INSTALLATION.)
- (5) Trunk side trim (LH) (See 09-17-70 TRUNK SIDE TRIM REMOVAL/INSTALLATION.)

3. Remove in the order indicated in the table.

1	Connector
2	Bolt
3	Theft-deterrent siren

4. Install in the reverse order of removal.



am2zzw0000494

KEYLESS RECEIVER REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004383b0

1. Disconnect the negative battery cable.

2. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)

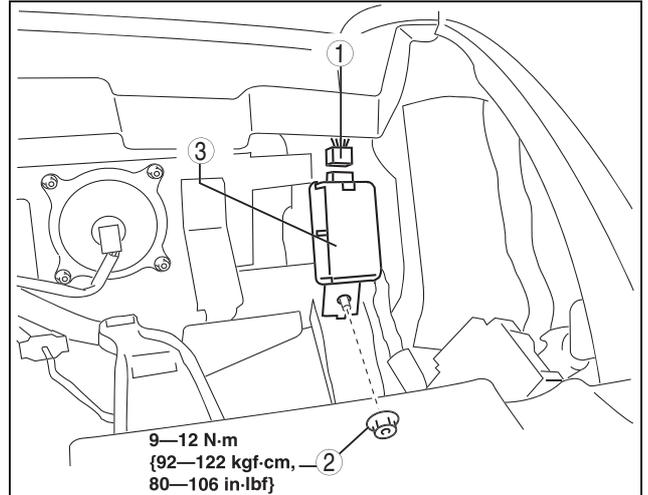
3. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

4. Remove in the order indicated in the table.

1	Connector
2	Nut
3	Keyless receiver

5. Install in the reverse order of removal.



am2zzw0000054

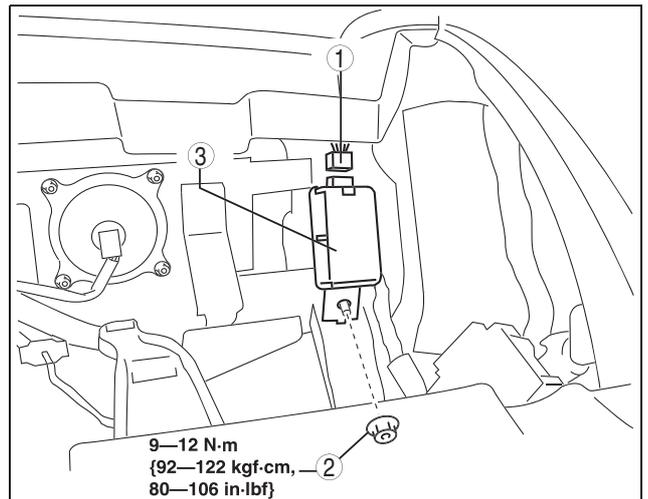
KEYLESS RECEIVER REMOVAL/INSTALLATION [KEYLESS ENTRY SYSTEM]

id0914004383b3

1. Disconnect the negative battery cable.
2. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
3. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/INSTALLATION.)
4. Remove in the order indicated in the table.

1	Connector
2	Nut
3	Keyless receiver

5. Install in the reverse order of removal.



am2zzw0000054

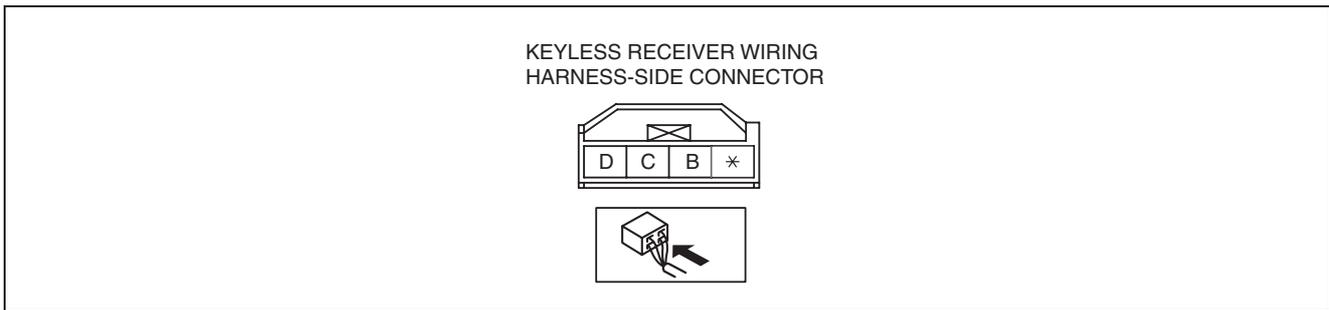
KEYLESS RECEIVER INSPECTION [ADVANCED KEYLESS AND START SYSTEM]

id0914004378b0

1. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
2. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/INSTALLATION.)
3. 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 parts or related wiring harnesses do not have any malfunction, replace the keyless receiver.
4. Disconnect the negative battery cable.

SECURITY AND LOCKS

Terminal Voltage Table (Reference)



am2zzw0000379

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
B	GND	Body ground	Under any condition	1.0 or less	Ground
C	DATA	Keyless control module	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		Keyless control module
D	Power supply	BCM	Under any condition	B+	<ul style="list-style-type: none"> • ROOM 15 A fuse • BCM • Battery

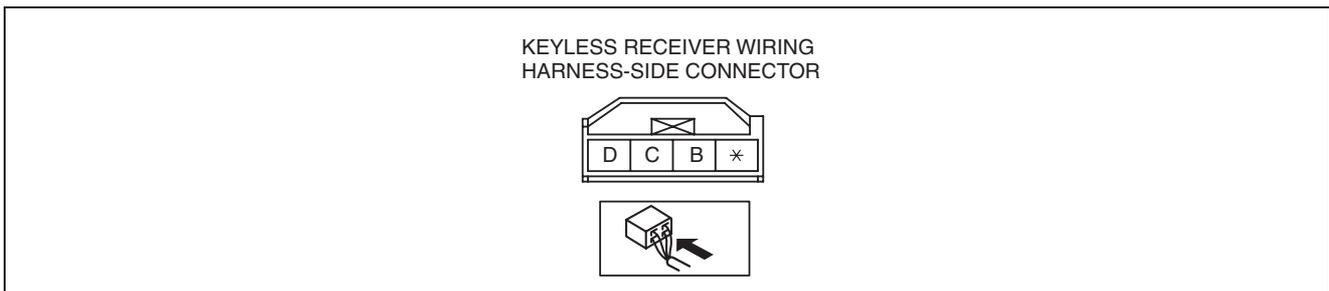
KEYLESS RECEIVER INSPECTION [KEYLESS ENTRY SYSTEM]

id0914004378b3

4-pin Connector Type

1. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
2. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/INSTALLATION.)
3. 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 parts or related wiring harnesses do not have any malfunction, replace the keyless receiver.
4. Disconnect the negative battery cable.

Terminal voltage table (reference)



am2zzw0000379

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
B	GND	Body ground	Under any condition	1.0 or less	Ground
C	DATA	BCM	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		BCM
D	Power supply	BCM	Under any condition	B+	<ul style="list-style-type: none"> • ROOM 15 A fuse • BCM • Battery

6-pin Connector Type

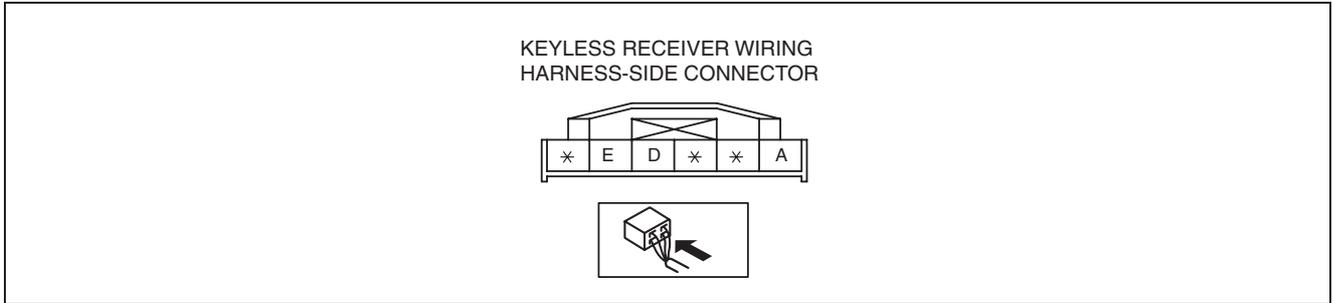
1. Remove the glove compartment. (See 09-17-26 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
2. Remove the glove compartment cover. (See 09-17-28 GLOVE COMPARTMENT COVER REMOVAL/

SECURITY AND LOCKS

INSTALLATION.)

3. 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 parts or related wiring harnesses do not have any malfunction, replace the keyless receiver.
4. Disconnect the negative battery cable.

Terminal voltage table (reference)



Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
A	Power supply	BCM	Under any condition	B+	<ul style="list-style-type: none"> ROOM 15 A fuse BCM Battery
D	DATA	BCM	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		BCM
E	GND	Body ground	Under any condition	1.0 or less	Ground

THEFT-DETERRENT CONTROL MODULE REMOVAL/INSTALLATION

id091400820800

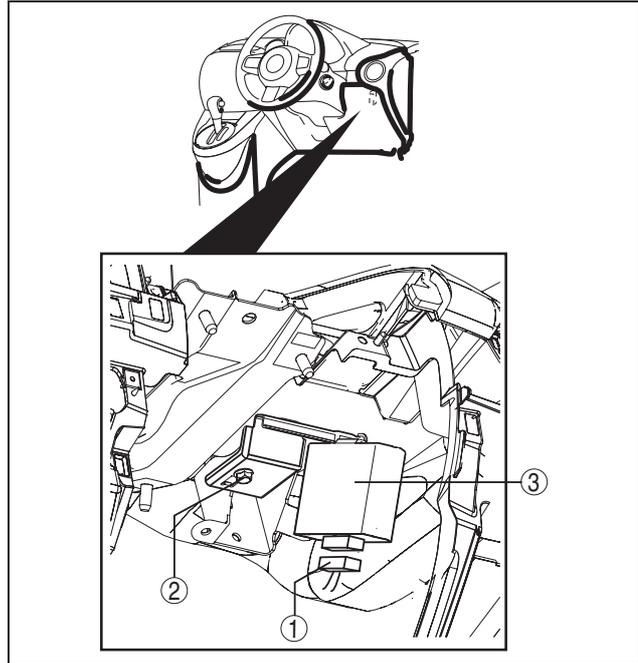
1. Disconnect the negative battery cable.
2. Remove the following parts:
 - (1) Front scuff plate (driver's side) (See 09-17-56 FRONT SCUFF PLATE REMOVAL/INSTALLATION.)
 - (2) Front scuff plate (driver's side)(3HB) (See 09-17-57 FRONT SCUFF PLATE REMOVAL/INSTALLATION [3HB].)
 - (3) Front side trim (driver's side) (See 09-17-53 FRONT SIDE TRIM REMOVAL/INSTALLATION.)
 - (4) Shift lever knob (MTX) (See 05-16A-1 MANUAL TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION [F35M-R].)(See 05-16B-2 MANUAL TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION [B65M-R].)
 - (5) Side wall (See 09-17-33 SIDE WALL REMOVAL/INSTALLATION.)
 - (6) Front console component (See 09-17-36 FRONT CONSOLE COMPONENT REMOVAL/INSTALLATION.)
 - (7) Bonnet release lever (See 09-14-28 BONNET LATCH AND RELEASE LEVER REMOVAL/INSTALLATION.)
 - (8) Lower panel (Driver's side) (See 09-17-29 LOWER PANEL REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

3. Remove in the order indicated in the table.

1	Connector
2	Bolt
3	Theft-deterrent control module

4. Install in the reverse order of removal.



am2zzw000045

THEFT-DETERRENT CONTROL MODULE INSPECTION

id091400820900

1. Remove the following parts:

- (1) Front scuff plate (driver's side) (See 09-17-56 FRONT SCUFF PLATE REMOVAL/INSTALLATION.)
- (2) Front scuff plate (driver's side)(3HB) (See 09-17-57 FRONT SCUFF PLATE REMOVAL/INSTALLATION [3HB].)
- (3) Front side trim (See 09-17-53 FRONT SIDE TRIM REMOVAL/INSTALLATION.)
- (4) Shift lever knob (See 05-16A-1 MANUAL TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION [F35M-R].)(See 05-16B-2 MANUAL TRANSAXLE SHIFT MECHANISM REMOVAL/INSTALLATION [B65M-R].)
- (5) Side wall (See 09-17-33 SIDE WALL REMOVAL/INSTALLATION.)
- (6) Front console component (See 09-17-36 FRONT CONSOLE COMPONENT REMOVAL/INSTALLATION.)
- (7) Bonnet release lever (See 09-14-28 BONNET LATCH AND RELEASE LEVER REMOVAL/INSTALLATION.)
- (8) Lower panel (See 09-17-29 LOWER PANEL REMOVAL/INSTALLATION.)

2. 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 theft-deterrent control module.

Except AutoAlliance Thailand (AAT) manufactured vehicles Terminal Voltage Table (Reference)

THEFT-DETERRENT CONTROL MODULE											
W	U	S	Q	O	M	K	I	G	E	C	*
X	V	T	R	P	N	K	J	H	*	*	*

am2zzw000059

SECURITY AND LOCKS

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
C	<ul style="list-style-type: none"> Intruder sensor signal Theft-deterrent siren signal 	<ul style="list-style-type: none"> Intruder sensor Theft-deterrent siren 	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
E	Start knob (push switch)	Steering lock unit (with advanced keyless system)	Start knob is pushed	B+	<ul style="list-style-type: none"> Steering lock unit (with advanced keyless system) Related wiring harnesses
			Other	1.0 or less	
G	Key reminder switch signal	Key reminder switch (with keyless entry system)	Key inserted	B+	<ul style="list-style-type: none"> Key reminder switch (with keyless entry system) Related wiring harnesses
			Key removed	1.0 or less	
	Push switch signal	Steering lock unit (with advanced keyless system)	Start knob is pressed	B+	<ul style="list-style-type: none"> Steering lock unit (with advanced keyless system) Related wiring harnesses
			Start knob is not pressed	1.0 or less	
H	Bonnet latch switch signal	Bonnet latch switch	Bonnet open (Bonnet latch switch off)	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> Bonnet latch switch Related wiring harnesses
			Bonnet closed (Bonnet latch switch on)	1.0 or less	
I	CAN_L	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
J	GND	Ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> Related wiring harnesses
K	CAN_H	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
M	Front door latch switch (passenger's door) signal	Front door latch switch (passenger's door)	Front door (passenger-side) open (Front door switch (passenger' door) off)	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> Front door switch (passenger' door) Related wiring harnesses
			Front door (passenger's door) closed (Front door switch (passenger's door) on)	1.0 or less	

SECURITY AND LOCKS

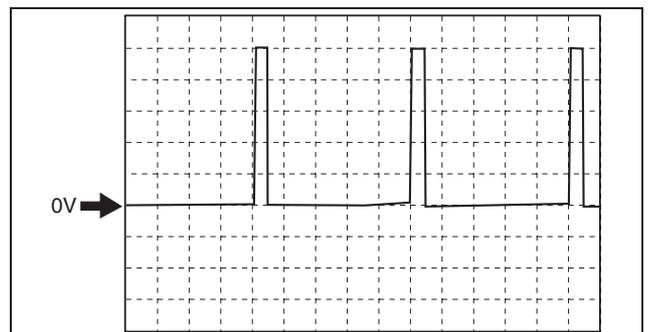
Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
N	Rear door latch switch (RH) signal* ¹	Rear door latch switch (RH)	Any rear doors open (Rear door switch off)	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> Rear door switches Related wiring harnesses
			All rear doors closed (Rear door switch on)	1.0 or less	
O	Front door latch switch (driver's door) signal	Front door latch switch (driver' door)	Front door (driver' door) open (Front door switch (driver' door) off)	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> Front door switch (driver' door) Related wiring harnesses
			Front door (driver' door) closed (Front door switch (driver' door) on)	1.0 or less	
P	Rear door latch switch (LH) signal* ¹	Rear door latch switch (LH)	Any rear door open (Rear door switch off)	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> Rear door switches Related wiring harnesses
			All rear doors closed (Rear door switch on)	1.0 or less	
Q	Serial communication	<ul style="list-style-type: none"> Keyless control module (with advanced keyless system) Keyless receiver (with keyless entry system) 	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
R	Liftgate latch switch signal	Liftgate latch switch	Liftgate is open. (Liftgate latch switch on)	1.0 or less	<ul style="list-style-type: none"> Liftgate latch switch Related wiring harnesses
			Liftgate is closed. (Liftgate latch switch off)	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	
S	Security light on/off	Instrument cluster	Security light on	1.0 or less	<ul style="list-style-type: none"> Instrument cluster Related wiring harnesses
			Security light off	B+	

SECURITY AND LOCKS

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
T	Lock/unlock signal	Door lock link switch	All doors except the driver's door are locked	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> • Door lock link switch (Except driver's side) • Related wiring harnesses
			Any door except the driver's door is unlocked	1.0 or less	
U	IG 1	METER 10 A fuse	IG ON	B+	<ul style="list-style-type: none"> • METER 10 A fuse • Ignition switch • Related wiring harnesses
			IG OFF	1.0 or less	
V	Unlock input (Driver's door lock-link switch)	Driver's door lock-link switch	Driver's door locked	Inspect using the wave Profile. (See 09-14-115 Inspection Using An Oscilloscope (Reference).)	<ul style="list-style-type: none"> • Driver's door lock-link switch • Related wiring harnesses
			Driver's door unlocked	1.0 or less	
W	Power supply	BCM	Under any condition	B+	<ul style="list-style-type: none"> • Related wiring harnesses • BCM • Room 15 A fuse
X	Hazard warning switch signal	BCM	Hazard flash	1.0 or less	<ul style="list-style-type: none"> • BCM • Related wiring harnesses
			Other	5	

*1 : 5HB

Inspection Using An Oscilloscope (Reference)

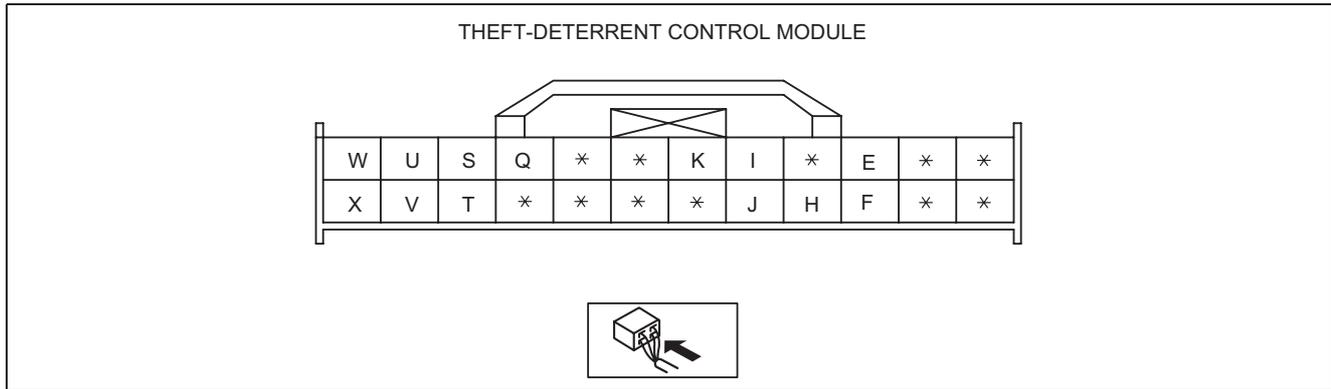


am2zzw0000349

- Oscilloscope setting: 1 V/DIV (Y): 2 ms/DIV (X), DC range

SECURITY AND LOCKS

AutoAlliance Thailand (AAT) manufactured vehicles Terminal Voltage Table (Reference)

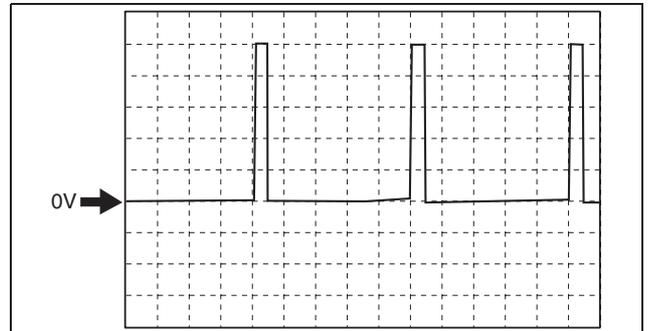


Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
E	Start knob (push switch)	Steering lock unit (with advanced keyless system)	Start knob is pushed	B+	<ul style="list-style-type: none"> Steering lock unit (with advanced keyless system) Related wiring harnesses
			Other	1.0 or less	
F	Theft-deterrent horn signal	Theft-deterrent horn relay	Theft-deterrent siren not sounded	B+	<ul style="list-style-type: none"> Theft-deterrent horn relay Related wiring harnesses
			Theft-deterrent siren sounded	1.0 or less	
H	Bonnet latch switch signal	Bonnet latch switch	Bonnet open (Bonnet latch switch off)	Wave pattern (See 09-14-117 Pattern1.)	<ul style="list-style-type: none"> Bonnet latch switch Related wiring harnesses
			Bonnet closed (Bonnet latch switch on)	1.0 or less	
I	CAN_L	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
J	GND	Ground	Under any condition	1.0 or less	<ul style="list-style-type: none"> Related wiring harnesses
K	CAN_H	-	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
Q	Serial communication	<ul style="list-style-type: none"> Keyless control module (with advanced keyless system) Keyless receiver (with keyless entry system) 	Terminal used for communication therefore determination based on terminal voltage inspection not possible.		
S	Security light on/off	Instrument cluster	Security light on	1.0 or less	<ul style="list-style-type: none"> Instrument cluster Related wiring harnesses
			Security light off	B+	
T	Lock/unlock signal	Door lock link switch	All doors except the driver's door are locked	Wave pattern (See 09-14-117 Pattern1.)	<ul style="list-style-type: none"> Door lock link switch (Except driver's side) Related wiring harnesses
			Any door except the driver's door is unlocked	1.0 or less	
U	IG 1	METER 10 A fuse	IG ON	B+	<ul style="list-style-type: none"> METER 10 A fuse Ignition switch Related wiring harnesses
			IG OFF	1.0 or less	

SECURITY AND LOCKS

Terminal	Signal name	Connected to	Measurement condition	Voltage (V)	Inspection item(s)
V	Unlock input (Driver's door lock-link switch)	Driver's door lock-link switch	Driver's door locked	Wave pattern (See 09-14-117 Pattern1.)	<ul style="list-style-type: none"> • Driver's door lock-link switch • Related wiring harnesses
			Driver's door unlocked	1.0 or less	
W	Power supply	BCMF	Under any condition	B+	<ul style="list-style-type: none"> • Related wiring harnesses • BCM • Room 15 A fuse
X	Hazard warning switch signal	BCM	Hazard flash	1.0 or less	<ul style="list-style-type: none"> • BCM • Related wiring harnesses
			Other	Wave pattern (See 09-14-117 Pattern2.)	

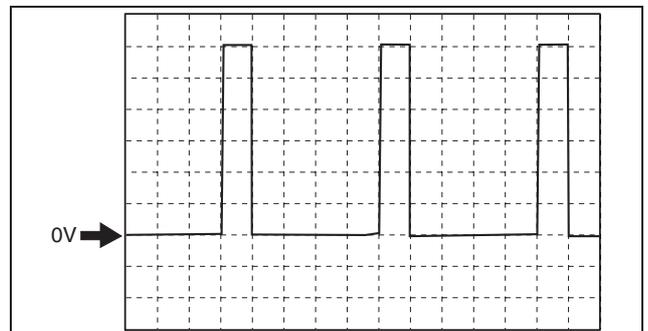
Generated pulse (reference) Pattern1



am2zzw0000349

- Oscilloscope setting: 1 V/DIV (Y): 2 ms/DIV (X), DC range

Pattern2



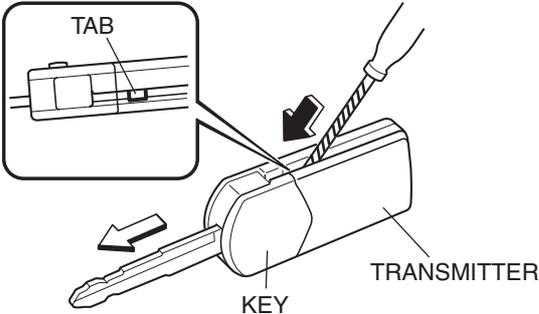
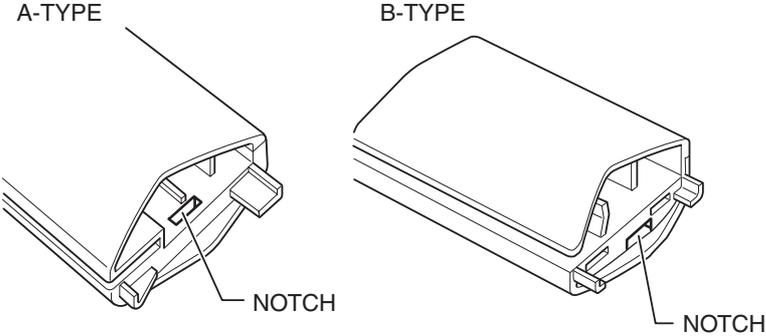
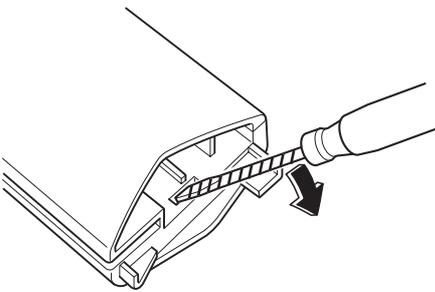
am2zzw0000462

- Oscilloscope setting: 2 V/DIV (Y): 2 ms/DIV (X), DC range

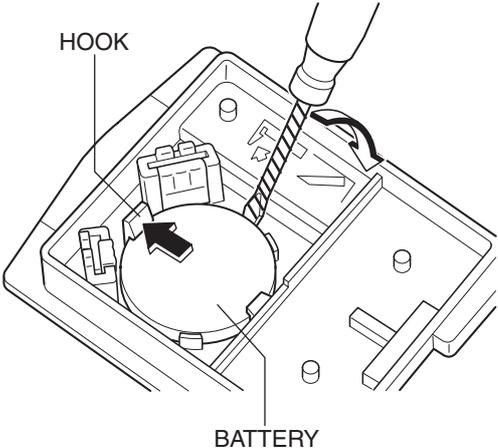
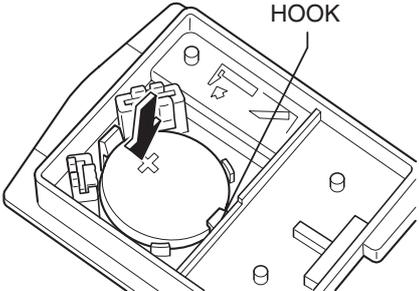
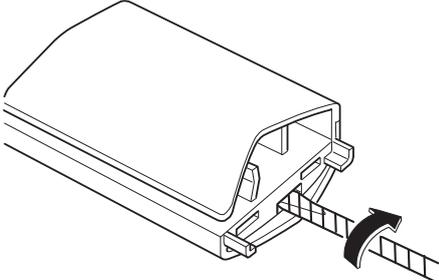
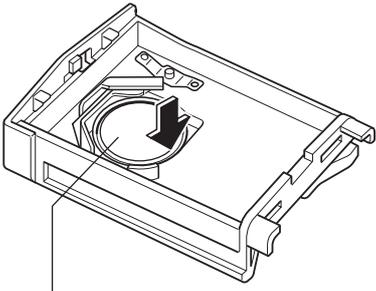
SECURITY AND LOCKS

TRANSMITTER BATTERY REPLACEMENT [KEYLESS ENTRY SYSTEM]

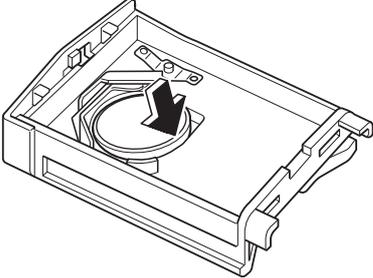
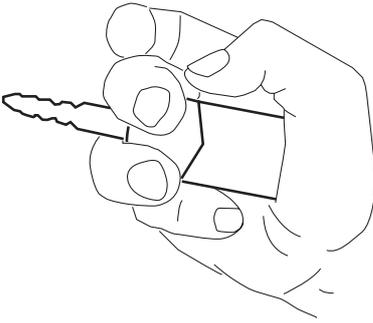
id0914004374b3

Step	Procedure	Action after procedure
1	<p>Disconnecting key from transmitter</p> <p>1. Insert a flathead screwdriver into the transmitter notch and remove the key from the transmitter by pressing the tab.</p> 	Go to the next step.
2	<p>Notch position verification</p> <p>1. Verify the position of the transmitter notch.</p> <p>A-TYPE B-TYPE</p> 	<ul style="list-style-type: none"> • For the A-type notch, go to Step 3. • For the B-type notch, go to Step 6.
3	<p>Opening transmitter</p> <p>1. Insert a flathead screwdriver into the transmitter notch and open the transmitter.</p> 	Go to the next step.

SECURITY AND LOCKS

Step	Procedure	Action after procedure
4	<p>Battery removal</p> <p>1. Press the hook in the direction of the arrow and remove the battery using the flathead screwdriver.</p> 	Go to the next step.
5	<p>Battery installation</p> <p>1. Install the new battery (CR1620) with the positive (+) pole facing up.</p> 	Go to Step 9.
6	<p>Opening transmitter</p> <p>1. Insert a flathead screwdriver into the transmitter notch and open the transmitter.</p> 	Go to the next step.
7	<p>Battery removal</p> <p>1. Remove the battery by pressing it in the direction of the arrow shown in the figure.</p> 	Go to the next step.

SECURITY AND LOCKS

Step	Procedure	Action after procedure
8	<p>Battery installation</p> <p>1. Install the new battery (CR1620) with the plus pole facing down.</p> 	Go to the next step.
9	<p>Battery removal</p> <p>1. Align the upper and lower covers and close the transmitter.</p> <p>Battery type — Lithium battery CR1620</p> <p>Battery life — Approx. 2 years (when used approx. 10 times/day)</p> <p>2. Install the key to the transmitter.</p>	Go to the next step.
10	<p>Verification of key and transmitter connection</p> <p>1. When connecting the key to the transmitter, grip the key and the transmitter as shown in the figure and connect until a click sound is heard.</p> <p>Note</p> <ul style="list-style-type: none"> • If the key is not completely connected to the transmitter, they may come apart. 	Procedure is completed

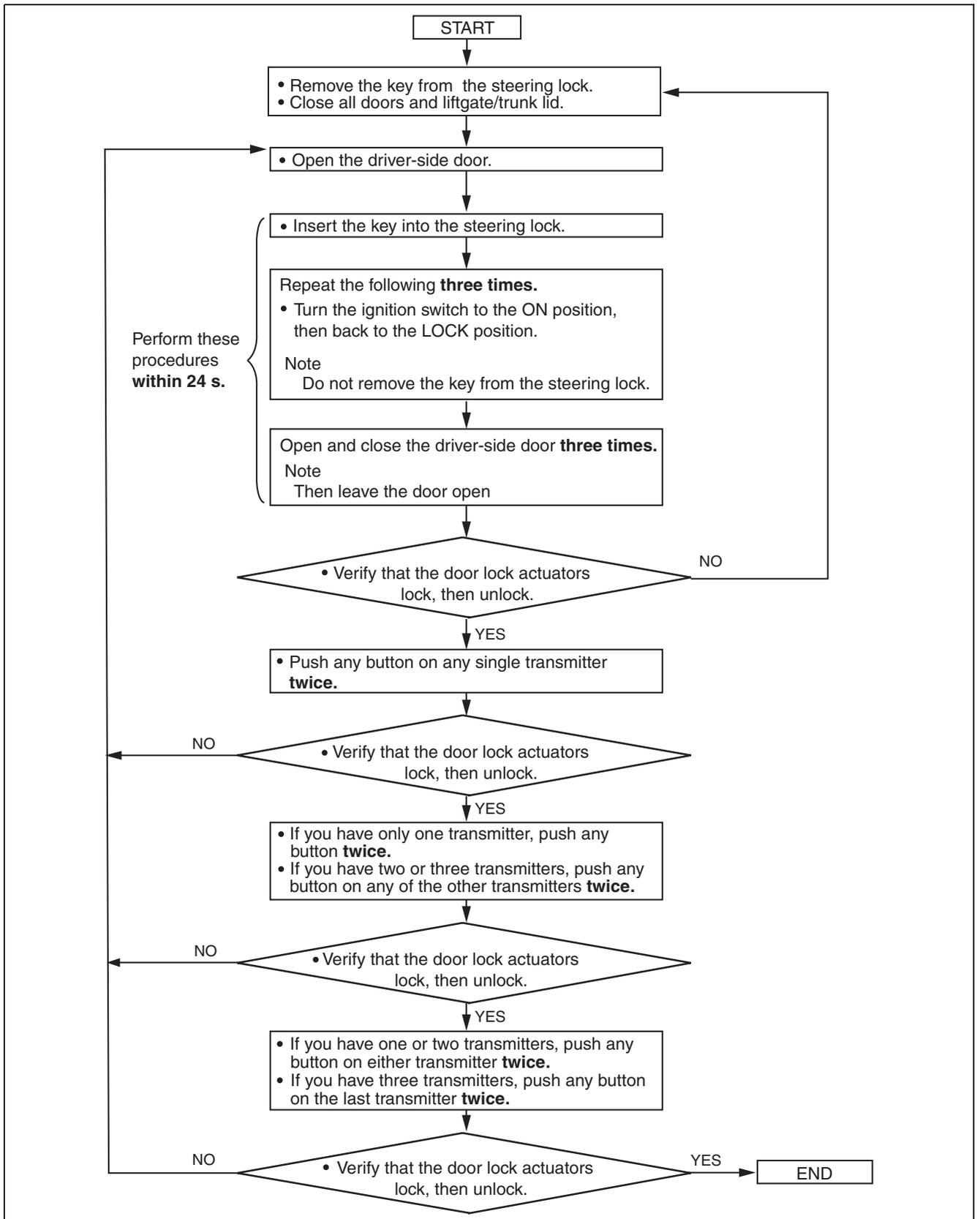
TRANSMITTER ID CODE REGISTRATION [KEYLESS ENTRY SYSTEM]

id0914004376b3

Note

- Verify that the other transmitter is not being operated around the servicing area while updating the ID code.
- After completing the work, remove the key from the steering lock and verify that all the door lock/unlock operation using the transmitter is correct.

SECURITY AND LOCKS



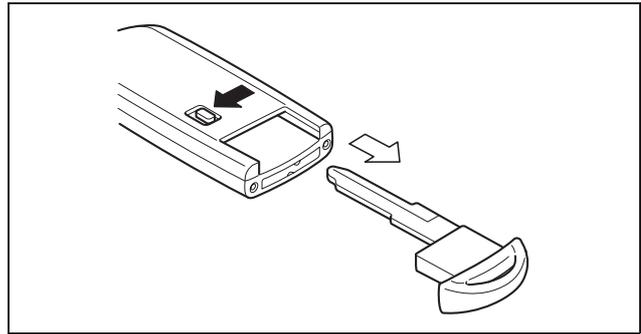
am2zzw0000513

SECURITY AND LOCKS

ADVANCED KEY BATTERY REPLACEMENT [ADVANCED KEYLESS AND START SYSTEM]

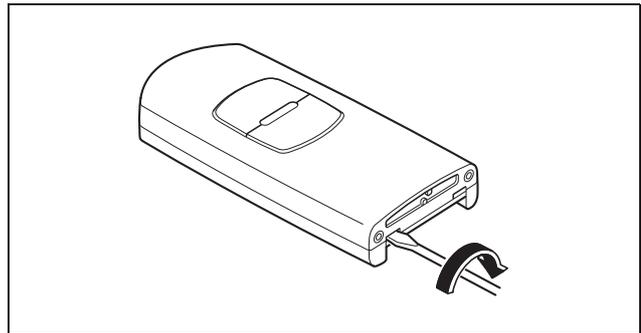
id0914004477b0

1. Pull out the auxiliary key.



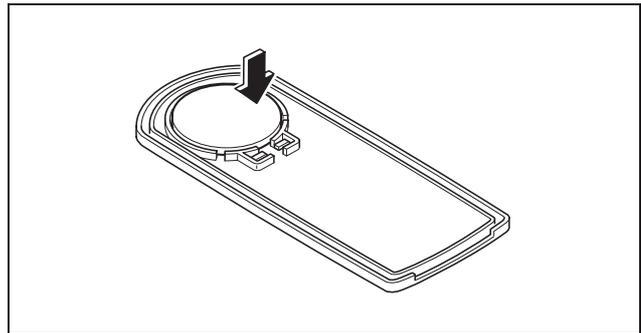
adejjw00001676

2. Insert a flathead screwdriver into the notch in the transmitter and rotate it in the direction shown in the figure to open the transmitter.



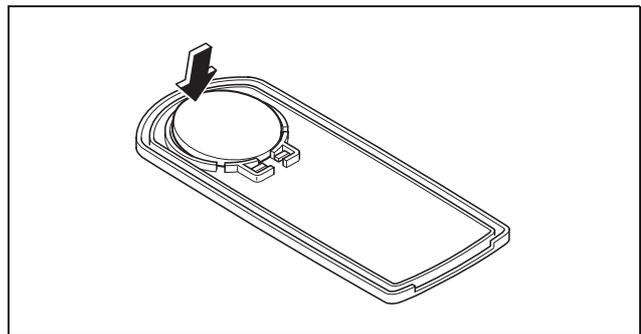
adejjw00001677

3. Remove the battery.



adejjw00001678

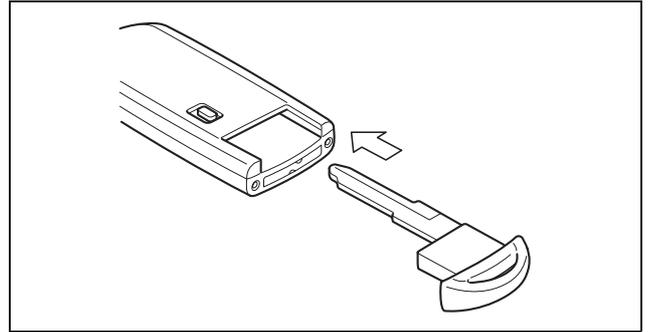
4. Install the new battery (CR1620) with the positive pole facing down.
5. Align the upper and lower covers and close the transmitter.



adejjw00001679

SECURITY AND LOCKS

6. Insert the auxiliary key.



adejiw00001705

ADVANCED KEY ID CODE REGISTRATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004493b0

Caution

- Do not place the following devices in the vehicle while programming, otherwise programming cannot be performed:
 - M-MDS
 - Personal computer
 - Devices that can send/receive radio waves
- Verify that the other transmitter is not being operated around the servicing area during advanced key programming.

Note

- Use the M-MDS and start programming if the condition corresponds to the following:
 - No programmed advanced keys (two or more)
 - Keyless control module is replaced
- If six advanced keys are already programmed, the programming mode does not launch. If programming is needed, use the M-MDS to erase the unnecessary advanced key programming.

Two Programmed Advanced Keys Available

1. Bring two programmed advanced keys and one unprogrammed advanced key into the vehicle.

VALID KEY	 ADVANCED KEY 1	 ADVANCED KEY 2
KEY FOR REGISTRATION ADVANCED KEY	 ADVANCED KEY	

am2zzw0000053

2. Close all doors.
3. Insert the auxiliary key into the ignition key cylinder.

Note

- Complete the procedures up to Step 7 within 30 s after the auxiliary key is inserted.
4. Turn the ignition switch to the ON position.
 5. Wait until the keyless indicator light in the instrument cluster illuminates. (Turns off 3 s after ignition switch is turned to ON)
 6. Press the UNLOCK button of advanced key 1.
 7. Press the UNLOCK button of advanced key 2.
 8. From the ignition switch in the ON position, turn the ignition switch in the order indicated below.
 - ACC_ON→ACC_ON→ACC_ON
 9. Open/close the driver's door 3 times.

SECURITY AND LOCKS

Note

- After Step 9 is completed and the advanced key programming is activated, the door lock actuator operates to lock, and then operates to unlock.
- If the door lock actuator does not operate, repeat the procedure from Step 2.

10. Press the UNLOCK button of the unprogrammed advanced key and wait approx. 5 s.

Note

- After Step 10 is completed and the advanced key is programmed, the door lock actuator operates to lock, and then operates to unlock.

11. If programming more advanced keys, remove the auxiliary key once, and then repeat the procedure from Step 2.

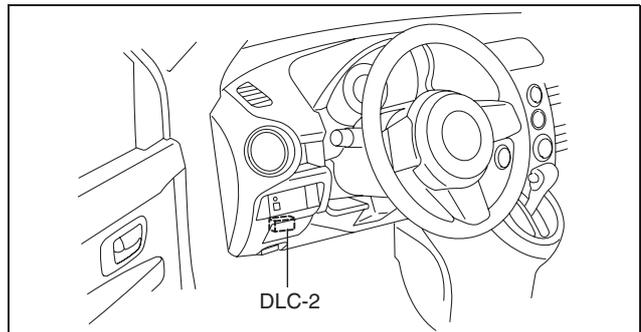
Using the M-MDS

1. Fully lower the driver-side door glass.
2. Connect the M-MDS to the DLC-2.
3. Set the M-MDS outside the vehicle with its cable passing through the door glass opening.

Caution

- **Cover the vehicle body with a clean rag so as not to damage the vehicle body with the cable.**

4. After the vehicle is identified, select the following items from the initial screen of the M-MDS.
 - Using an IDS (laptop PC)
 1. Select "Body".
 2. Select "Security".
 3. Select "PATS Functions".
 - Using a PDS (Pocket PC):
 1. Select "All Tests and Calibrations".
 2. Select "PATS Functions".
5. Select the following from the screen menu.
 1. Select "Program Additional Advanced Key".
6. Perform the security access according to the directions on the M-MDS screen.



am2zzw0000216

CLEARING ADVANCED KEY [ADVANCED KEYLESS AND START SYSTEM]

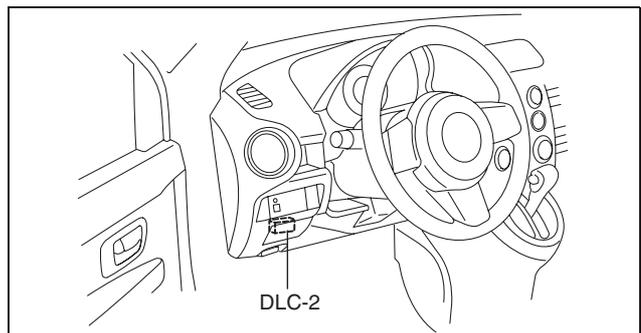
id0914004496b0

1. Fully lower the driver-side door glass.
2. Connect the M-MDS to the DLC-2.
3. Pull out the M-MDS cable from the door glass opening and set the M-MDS outside the vehicle.

Caution

- **Protect the cable and body contact area with a clean rag, otherwise they could be damaged.**

4. After the vehicle is identified, select the following items from the initial screen of the M-MDS.
 - When using the IDS (laptop PC)
 1. Select "Body".
 2. Select "Security".
 3. Select "PATS Functions".
 - When using the PDS (Pocket PC)
 1. Select "All Tests and Calibrations".
 2. Select "PATS Functions".
5. Then, select items from the screen menu in the following order.
 1. Select "Advanced Key Code Erase and Program".
6. Perform the security access according to the directions on the M-MDS screen.



am2zzw0000153

SECURITY AND LOCKS

CUSTOMIZED FUNCTION SETTING PROCEDURE [ADVANCED KEYLESS AND START SYSTEM]

id0914004397b0

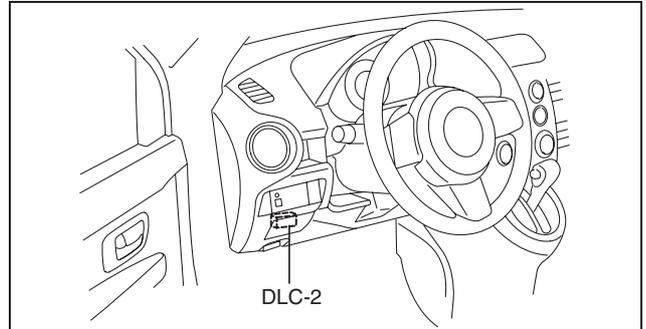
Note

- Use the IDS (laptop PC) because the PDS (Pocket PC) does not support the CUSTOMIZED FUNCTION SETTING PROCEDURE.

1. Connect the M-MDS to the DLC-2.
2. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.
 1. Select "Module Programming".
3. Then, select items from the screen menu in the following order.
 1. Select "Programmable Parameters".
 2. Select "RKE".
4. Select the item name, and then select option.

Item

- Advanced Keyless Function (Disabled / Enabled)
- Answer Back Buzzer Volume (Disabled / 5 — 10)
- Advanced Key Battery Low Warning (Disabled / Enabled)
- Prevention Function of Key Containment in Trunk or Liftgate (Disabled / Enabled)
- Warning Buzzer Volume (5 — 10)



am2zzw0000216

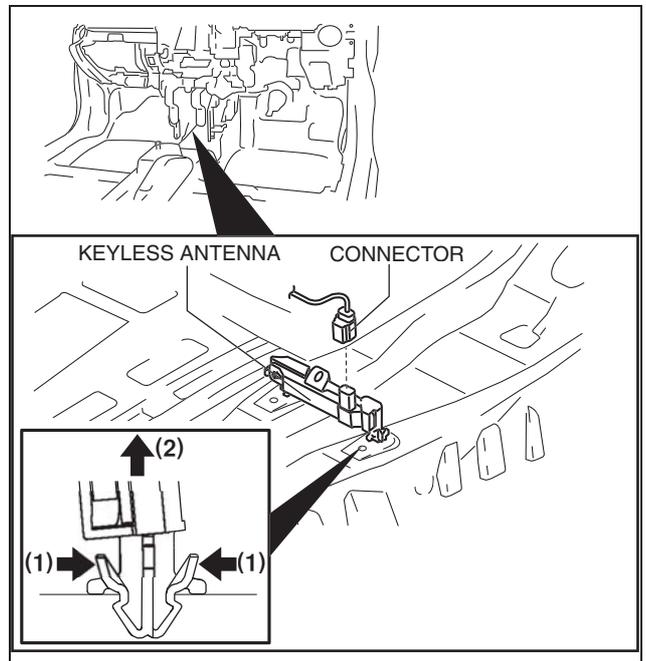
KEYLESS ANTENNA REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004405b0

3HB, 5HB

Vehicle Interior, Front

1. Disconnect the negative battery cable.
2. Remove the side wall. (See 09-17-33 SIDE WALL REMOVAL/INSTALLATION.)
3. Remove the front console component. (See 09-17-36 FRONT CONSOLE COMPONENT REMOVAL/INSTALLATION.)
4. Disconnect the connector.
5. Remove the keyless antenna (2) in the direction of the arrow shown in the figure while pressing the keyless antenna tabs (1).
6. Install in the reverse order of removal.



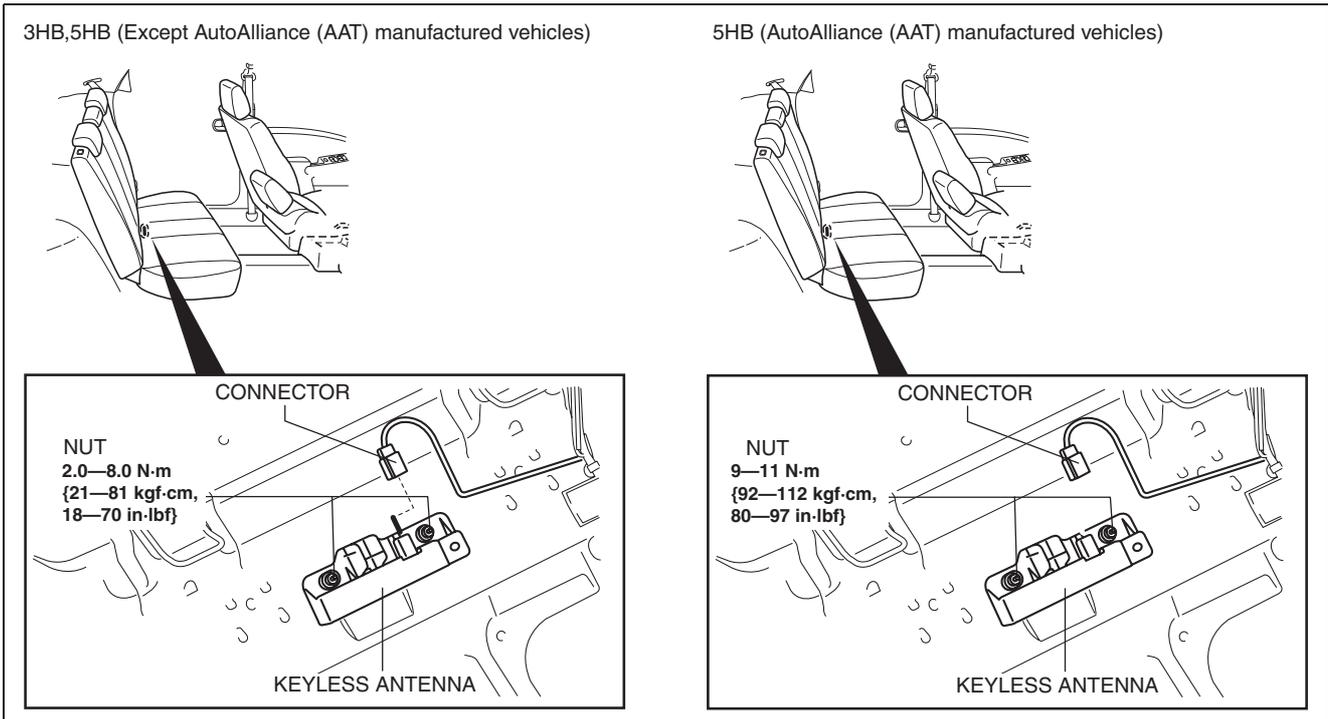
am2zzw0000054

Vehicle Interior, Rear

1. Disconnect the negative battery cable.
2. Remove the rear seat cushion. (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

3. Disconnect the connector.

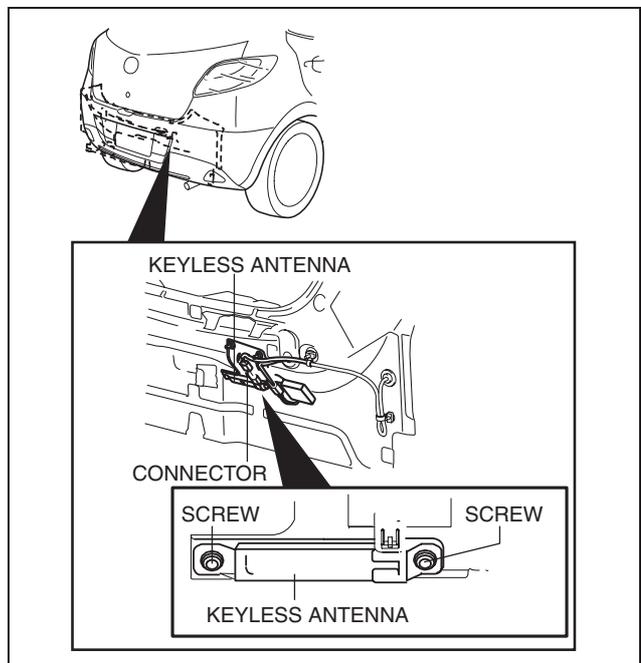


am2zzw0000515

4. Remove the bolts.
5. Remove the keyless antenna.
6. Install in the reverse order of removal.

Vehicle Exterior, Rear

1. Disconnect the negative battery cable.
2. Disconnect the connector.
3. Remove the screw.
4. Remove the keyless antenna.
5. Install in the reverse order of removal.



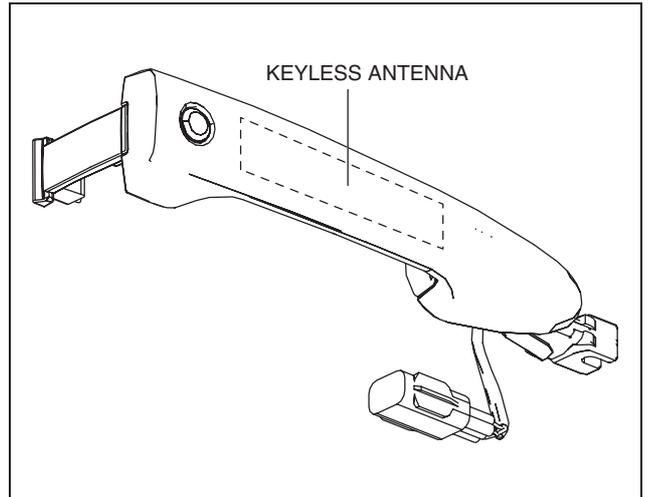
am2zzw0000329

Vehicle Exterior, Driver's Door/Passenger's Door

Note

- The keyless antenna (vehicle exterior, driver's door/passenger's door) is built into the front outer handle. (See 09-14-17 FRONT OUTER HANDLE REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

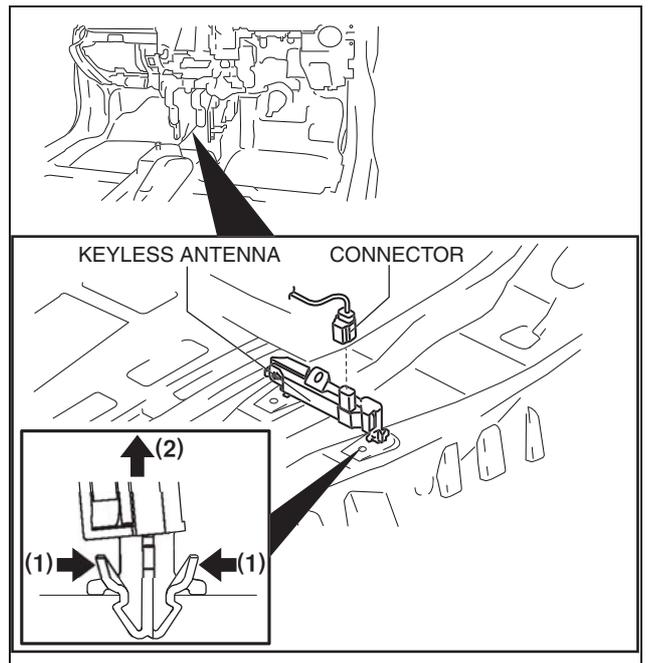


am2zzw0000055

4SD

Vehicle Interior, Front

1. Disconnect the negative battery cable.
2. Remove the side wall. (See 09-17-33 SIDE WALL REMOVAL/INSTALLATION.)
3. Remove the front console component. (See 09-17-36 FRONT CONSOLE COMPONENT REMOVAL/INSTALLATION.)
4. Disconnect the connector.
5. Remove the keyless antenna (2) in the direction of the arrow shown in the figure while pressing the keyless antenna tabs (1).
6. Install in the reverse order of removal.



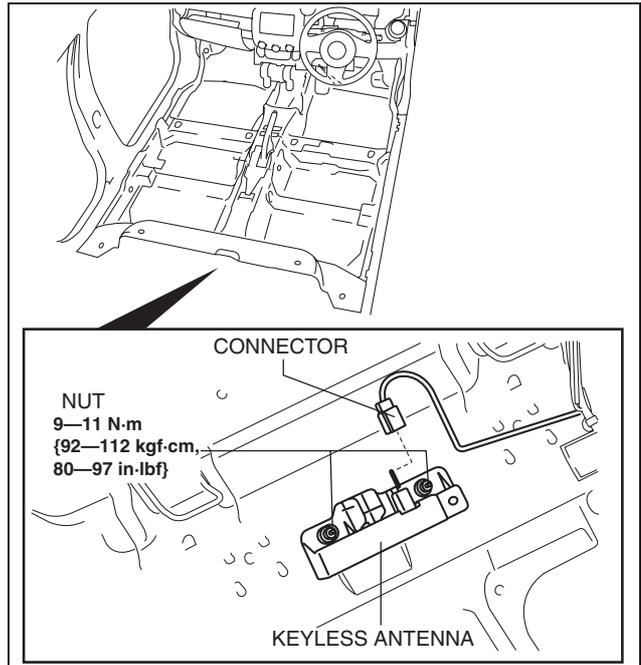
am2zzw0000054

Vehicle Interior, Center

1. Disconnect the negative battery cable.
2. Remove the rear seat cushion. (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

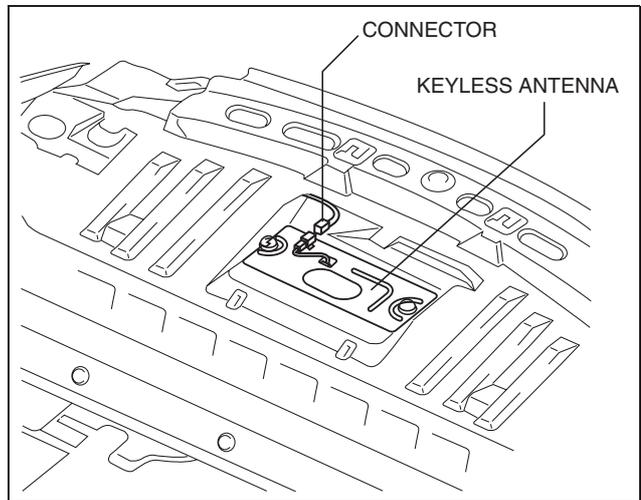
3. Disconnect the connector.
4. Remove the bolts.
5. Remove the keyless antenna.
6. Install in the reverse order of removal.



am2zzw0000512

Vehicle Interior, Rear

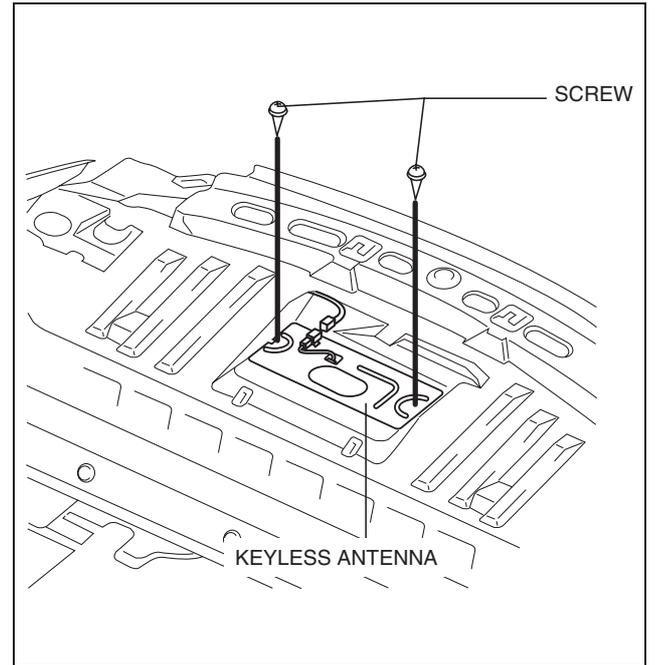
1. Remove the rear scuff plate. (See 09-17-58 REAR SCUFF PLATE REMOVAL/INSTALLATION.)
2. Remove the rear seat cushion. (See 09-13-31 REAR SEAT CUSHION REMOVAL/INSTALLATION.)
3. Remove the tire house trim. (See 09-17-66 TIRE HOUSE TRIM REMOVAL/INSTALLATION [4SD].)
4. Remove the C-pillar trim. (See 09-17-46 C-PILLAR TRIM REMOVAL/INSTALLATION.)
5. Remove the rear package trim. (See 09-17-68 REAR PACKAGE TRIM REMOVAL/INSTALLATION [4SD].)
6. Disconnect the connector.



am2ccw0000022

SECURITY AND LOCKS

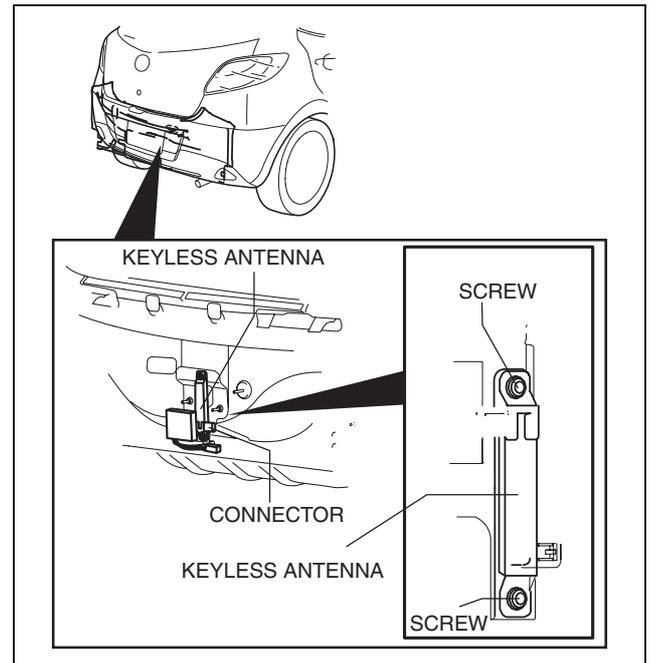
7. Remove the screw.
8. Remove the keyless antenna.
9. Install in the reverse order of removal.



am2ccw0000022

Vehicle Exterior, Rear

1. Disconnect the negative battery cable.
2. Disconnect the connector.
3. Remove the screw.
4. Remove the keyless antenna.
5. Install in the reverse order of removal.



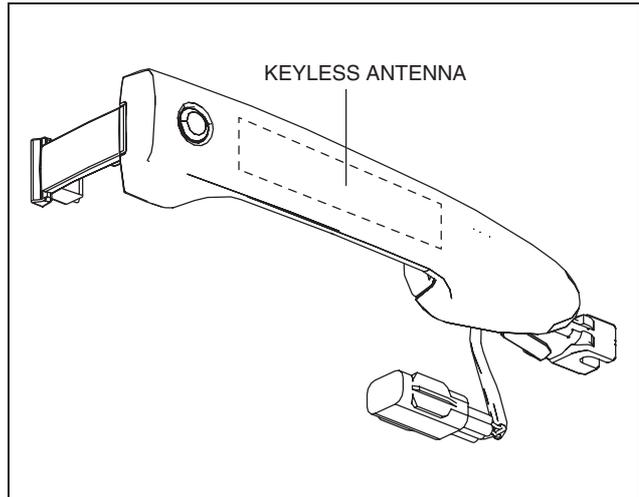
am2ccw0000022

Vehicle Exterior, Driver's Door/Passenger's Door

Note

- The keyless antenna (vehicle exterior, driver's door/passenger's door) is built into the front outer handle. (See 09-14-17 FRONT OUTER HANDLE REMOVAL/INSTALLATION.)

SECURITY AND LOCKS



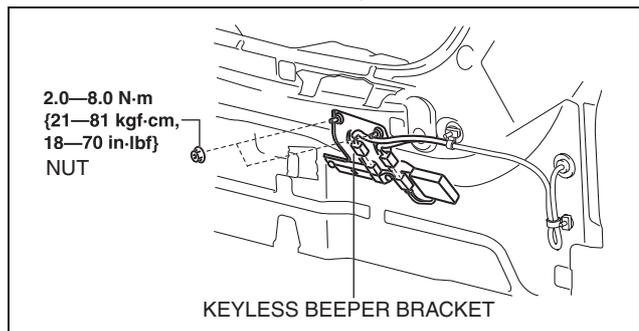
am2zzw0000055

KEYLESS BEEPER REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004406b0

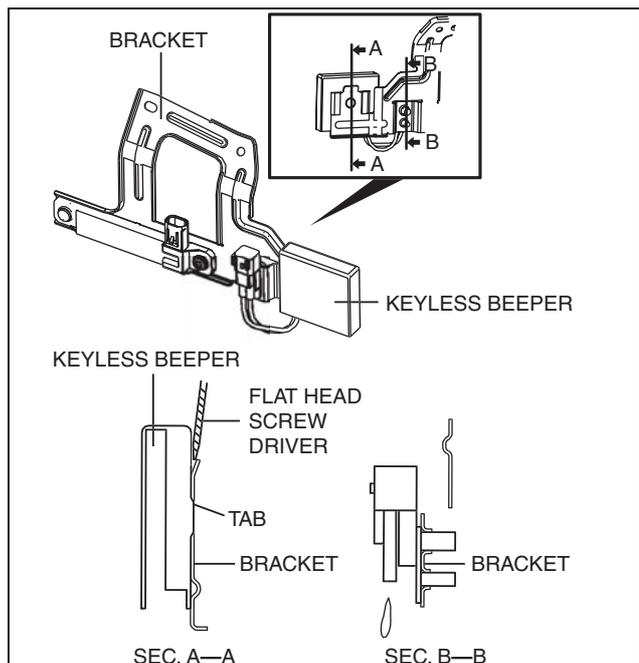
3HB, 5HB

1. Disconnect the negative battery cable.
2. Remove the rear combination light. (See 09-18-23 REAR COMBINATION LIGHT REMOVAL/INSTALLATION.)
3. Remove the splash shield. (See 09-16-9 SPLASH SHIELD REMOVAL/INSTALLATION.)
4. Remove the rear bumper. (See 09-10-23 REAR BUMPER REMOVAL/INSTALLATION.)
5. Disconnect the connector.
6. Remove the nuts.



am2zzw0000055

7. Press the keyless beeper tab aside using a tape-wrapped flathead screwdriver.
8. Remove the keyless beeper from the bracket.
9. Install in the reverse order of removal.

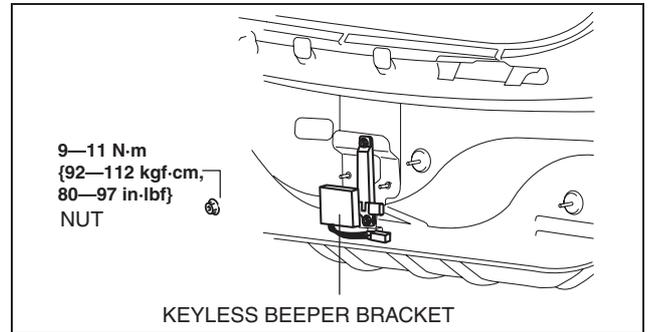


am2zzw0000055

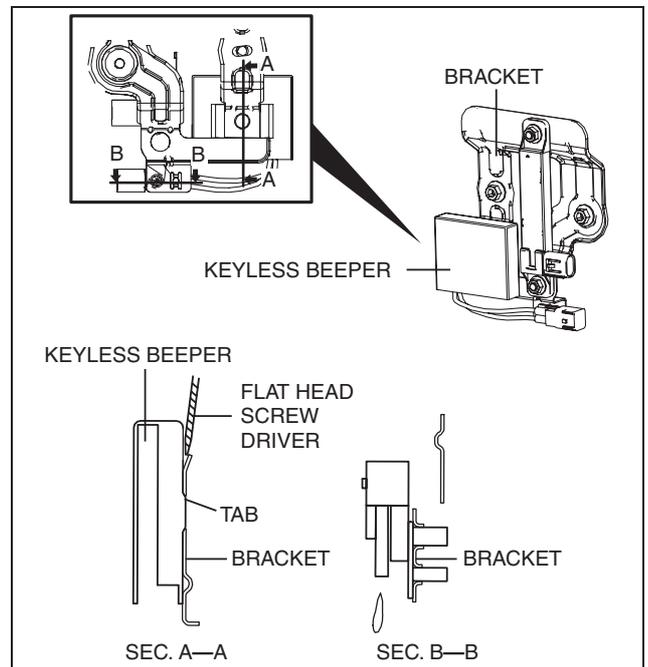
SECURITY AND LOCKS

4SD

1. Disconnect the negative battery cable.
2. Remove the rear combination light. (See 09-18-23 REAR COMBINATION LIGHT REMOVAL/INSTALLATION.)
3. Remove the splash shield. (See 09-16-9 SPLASH SHIELD REMOVAL/INSTALLATION.)
4. Remove the rear bumper. (See 09-10-23 REAR BUMPER REMOVAL/INSTALLATION.)
5. Disconnect the connector.
6. Remove the nuts.



7. Press the keyless beeper tab aside using a tape-wrapped flathead screwdriver.
8. Remove the keyless beeper from the bracket.
9. Install in the reverse order of removal.

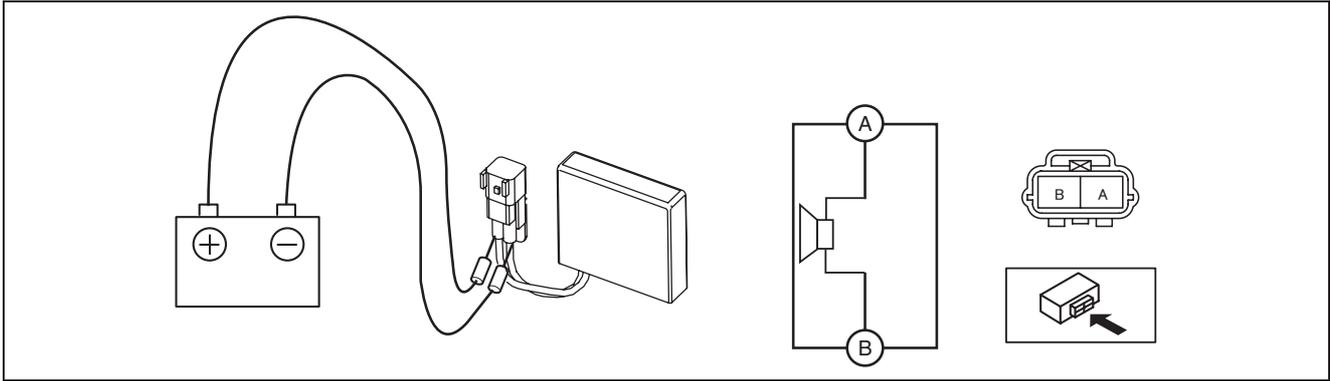


KEYLESS BEEPER INSPECTION [ADVANCED KEYLESS AND START SYSTEM]

id0914004416b0

1. Disconnect the negative battery cable.
2. Remove the rear combination light. (See 09-18-23 REAR COMBINATION LIGHT REMOVAL/INSTALLATION.)
3. Remove the splash shield. (See 09-16-9 SPLASH SHIELD REMOVAL/INSTALLATION.)
4. Remove the rear bumper. (See 09-10-23 REAR BUMPER REMOVAL/INSTALLATION.)
5. Remove the keyless beeper. (See 09-14-130 KEYLESS BEEPER REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM].)
6. Apply battery positive voltage and connect the ground to each terminal and verify the keyless beeper sound operation.
 - If the beep sound cannot be verified, replace the keyless beeper.

SECURITY AND LOCKS



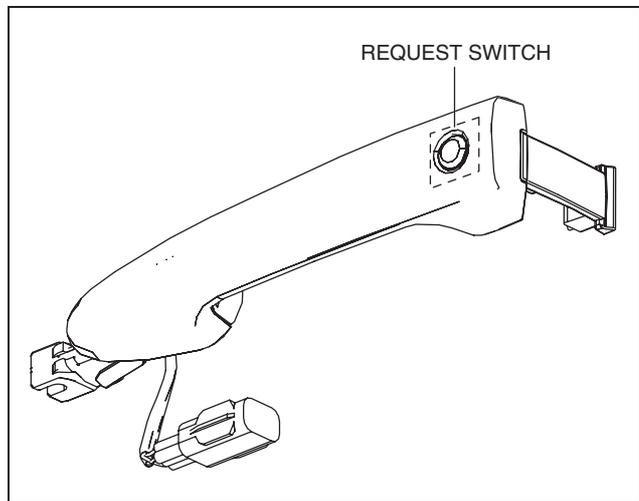
adejjw00003254

REQUEST SWITCH REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004400b0

Note

- The request switches are built into the front outer handles. (See 09-14-17 FRONT OUTER HANDLE REMOVAL/INSTALLATION.)

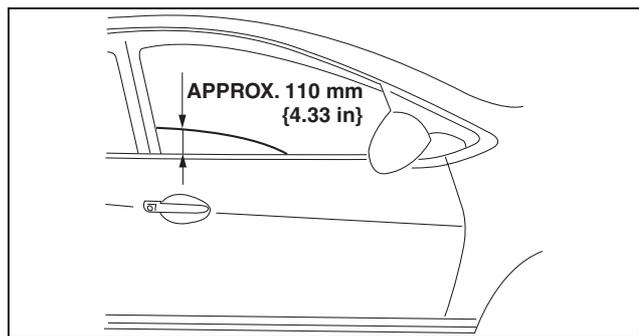


am2zzw0000054

REQUEST SWITCH INSPECTION [ADVANCED KEYLESS AND START SYSTEM]

id0914004401b0

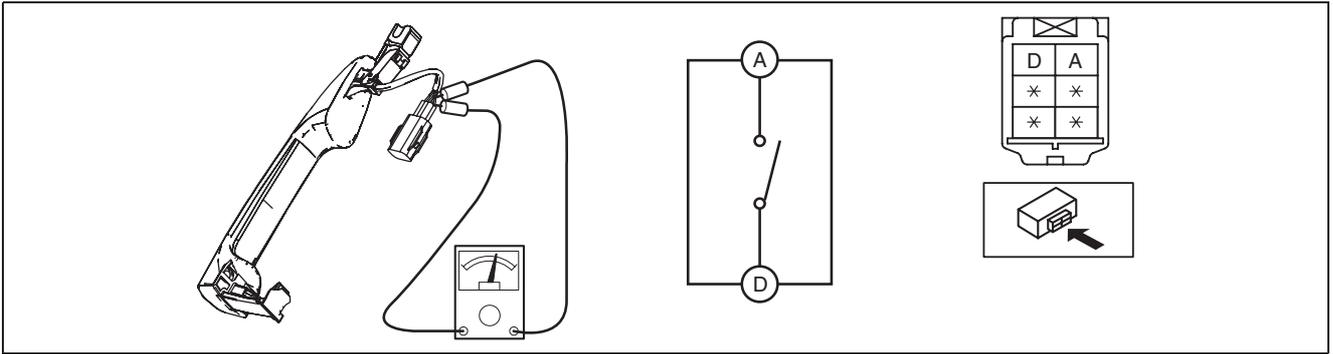
- To access the glass installation bolt, position the front door glass so that the distance from the top of the front door glass to the upper part of the front beltline molding is **approx. 110 mm {4.33 in}**.
- Disconnect the negative battery cable.
- Remove the following parts:
 - Inner garnish (See 09-17-34 INNER GARNISH REMOVAL/INSTALLATION.)
 - Front door trim (See 09-17-58 FRONT DOOR TRIM REMOVAL/INSTALLATION.)
 - Front door speaker (See 09-20-6 FRONT DOOR SPEAKER REMOVAL/INSTALLATION.)
 - Front door glass (See 09-12-7 FRONT DOOR GLASS REMOVAL/INSTALLATION.)
 - Front door module panel (See 09-11-12 FRONT DOOR MODULE PANEL REMOVAL/INSTALLATION.)
 - Front door key cylinder (Driver's side) (See 09-14-55 FRONT DOOR KEY CYLINDER REMOVAL/INSTALLATION.)
 - Front outer handle (See 09-14-17 FRONT OUTER HANDLE REMOVAL/INSTALLATION.)



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SECURITY AND LOCKS

4. Verify the continuity of request switch terminals A and D.



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5. Verify that the continuity is as indicated in the table.

- If not as indicated in the table, replace the front outer handle.

REQUEST SWITCH	TERMINAL	
	A	D
PUSH (ON)	○ — ○	○ — ○
NOT PUSH (OFF)		

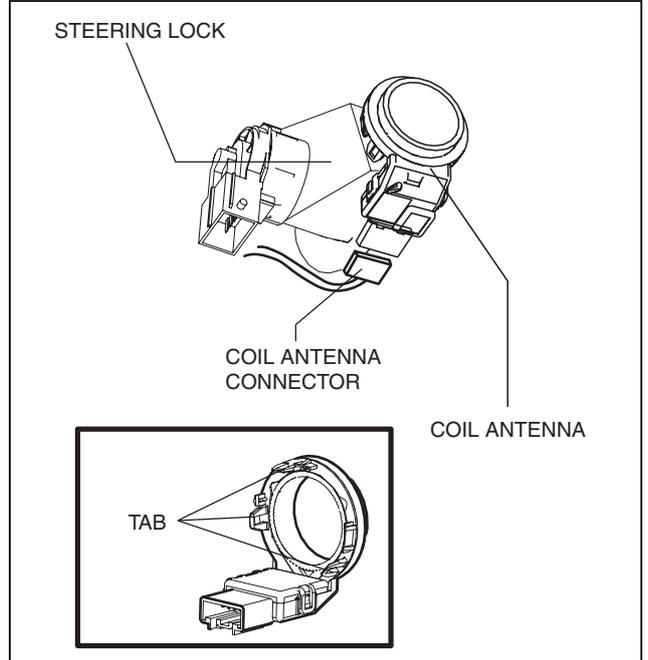
○ — ○ CONTINUITY

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COIL ANTENNA REMOVAL/INSTALLATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004359b0

1. Disconnect the negative battery cable.
2. Remove the column cover. (See 09-17-25 COLUMN COVER REMOVAL/INSTALLATION.)
3. Disconnect the coil antenna connector.
4. Detach the coil antenna hooks and remove the coil antenna from the steering lock.
5. Install in the reverse order of removal.



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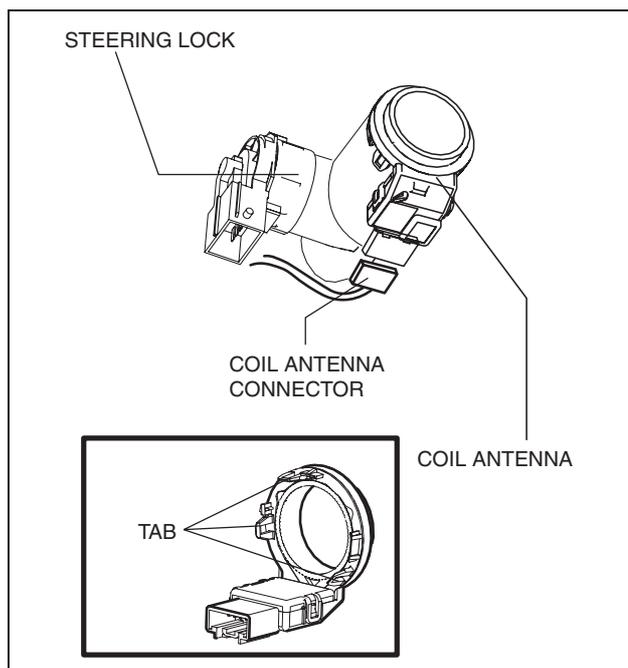
COIL ANTENNA REMOVAL/INSTALLATION [KEYLESS ENTRY SYSTEM]

id0914004359b3

1. Disconnect the negative battery cable.
2. Remove the column cover. (See 09-17-25 COLUMN COVER REMOVAL/INSTALLATION.)

SECURITY AND LOCKS

3. Disconnect the coil antenna connector.
4. Detach the coil antenna hooks and remove the coil antenna from the steering lock.
5. Install in the reverse order of removal.



am2zzw0000053

STEERING LOCK UNIT ID CODE REGISTRATION [ADVANCED KEYLESS AND START SYSTEM]

id0914004395b0

Caution

- Do not place the following devices in the vehicle while programming, otherwise programming cannot be performed:
 - M-MDS
 - Personal computer
 - Devices that can send/receive radio waves

Note

- The steering lock unit and steering lock component are a single unit. Therefore, replace the steering lock component when replacing steering lock unit. (See 06-13-10 STEERING WHEEL AND COLUMN REMOVAL/INSTALLATION [R.H.D.]
- For this procedure, a programmed card key is necessary. If there is no programmed card key, perform the steering lock unit programming after the card key programming.

1. Bring the programmed card key into the vehicle.
2. Fully lower the driver-side door glass.
3. Connect the M-MDS to the DLC-2.
4. Pull out the M-MDS cable from the door glass opening and set the M-MDS outside the vehicle.

Caution

- Cover the vehicle body with a clean rag so as not to damage the vehicle body with the cable.

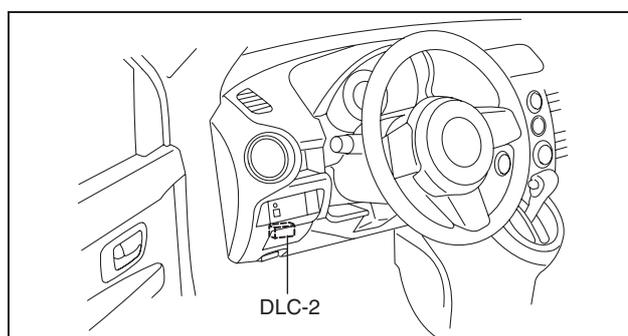
5. After the vehicle is identified, select the following items from the initialization screen of the M-MDS.

- When using the IDS (laptop PC)
 1. Select "Body".
 2. Select "Security".
 3. Select "PATS Functions".
- When using the PDS (Pocket PC)
 1. Select "All Tests and Calibrations".
 2. Select "PATS Functions".

6. Then, select items from the screen menu in the following order.

1. Select "Steering Lock Unit Programming".

7. Perform the security access according to the directions on the M-MDS screen.



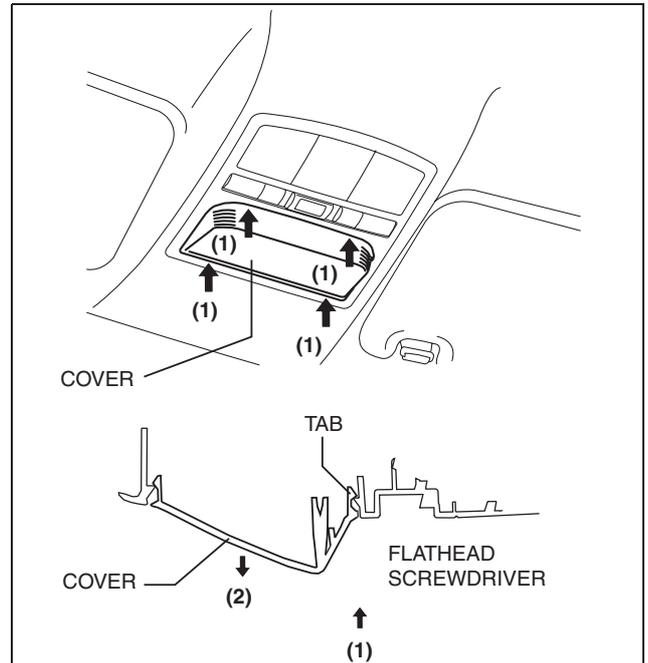
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SECURITY AND LOCKS

INTRUDER SENSOR REMOVAL/INSTALLATION

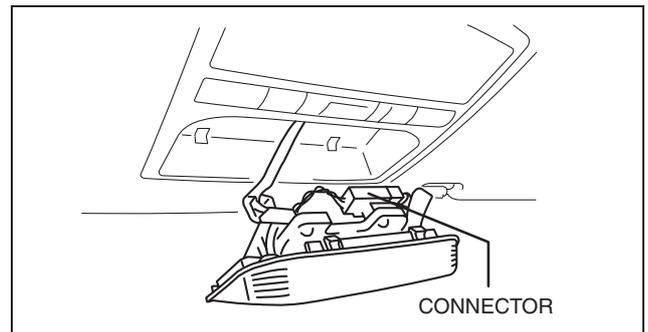
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1. Disconnect the negative battery cable.
2. Using a tape-wrapped flathead screwdriver, press the tabs in the direction of the arrows (1) shown in the figure, and remove the cover in the direction of the arrow (2).



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3. Remove the connector under the condition from procedure 2.
4. Install in the reverse order of removal.



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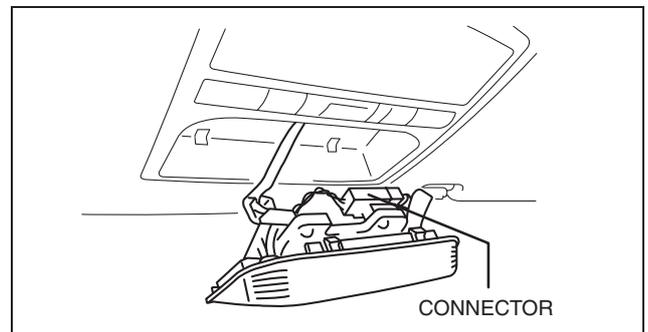
INTRUDER SENSOR INSPECTION

id091400819400

1. Remove the intruder sensor with the connector connected.
2. Measure the intruder sensor terminal voltage using the short wiring harness connector in the position shown in the figure.

Note

- The intruder sensor cannot be connected to a tester due to its water-resistance processing, therefore the short wiring harness connector is used for measuring the terminal voltage.
- If the terminal voltage is not as indicated in the table, inspect the short wiring harness connector for continuity. (See 09-14-136 Continuity Inspection Of Short Wiring Harness Connector.) If the short wiring harness connector is normal, inspect the parts under "Inspection items".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the intruder sensor.



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