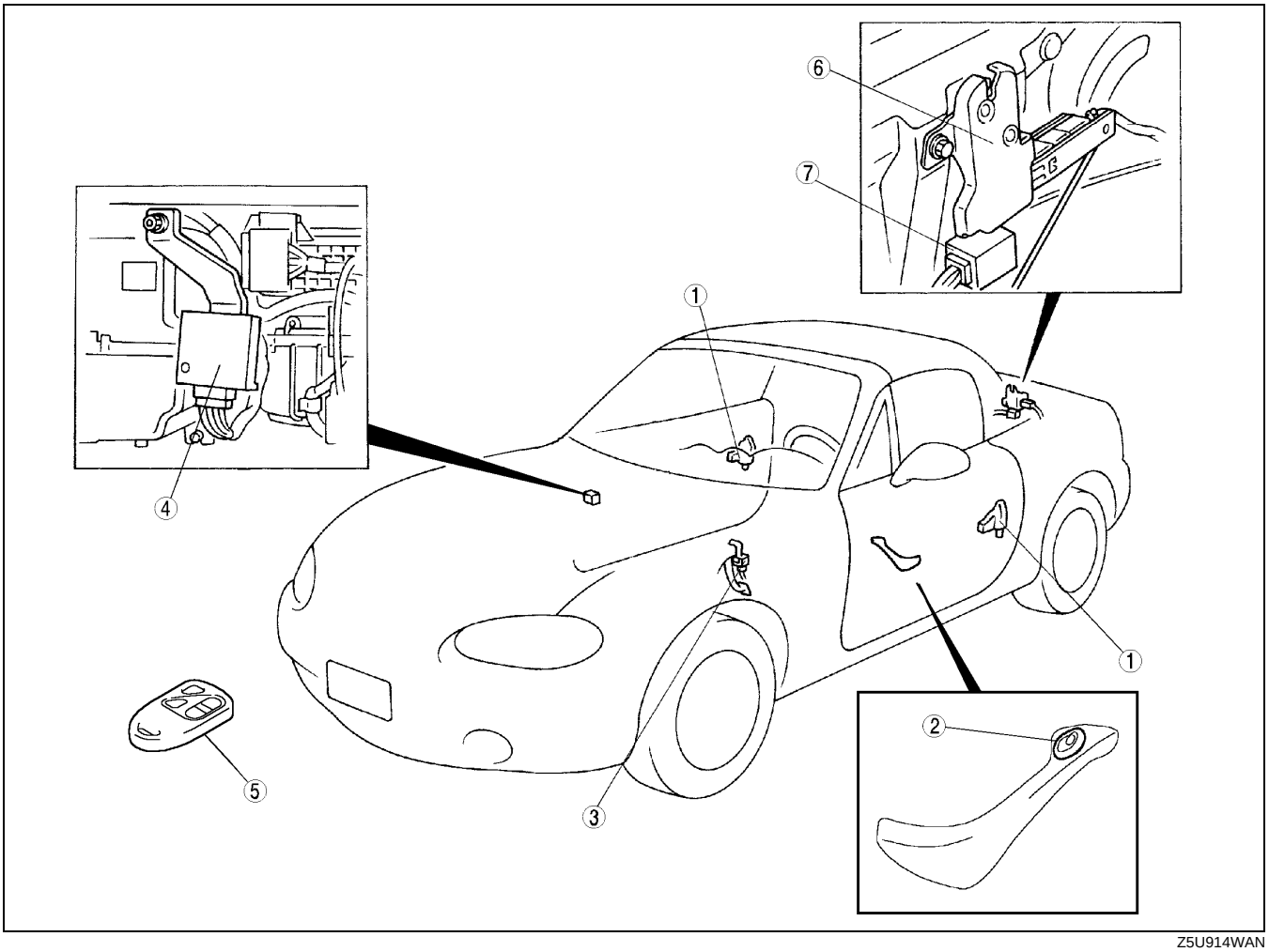
09–14 SECURITY AND LOCKS

POWER DOOR LOCK SYSTEM LOCATION INDEX

A5U091466000W01

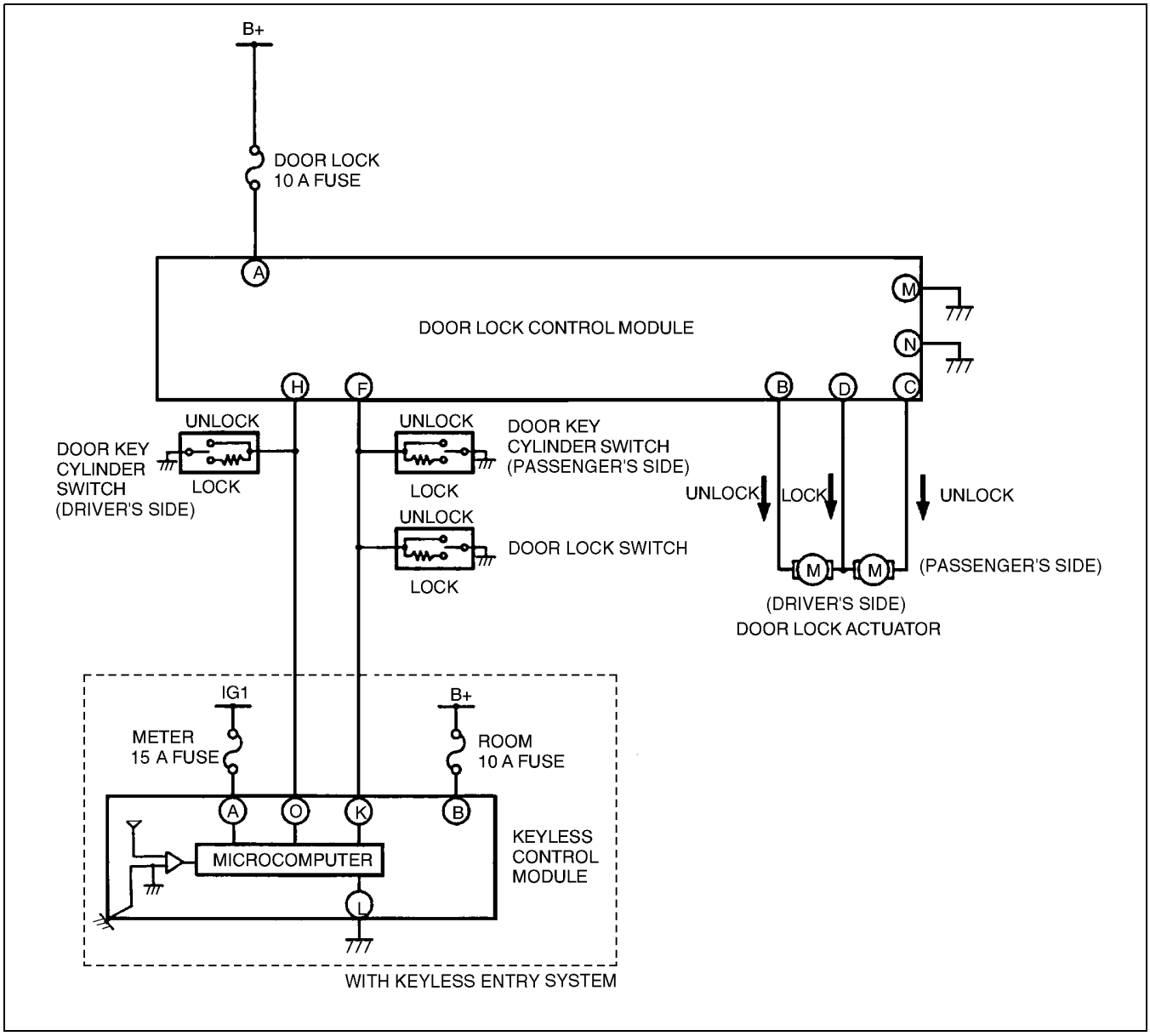


Z5U914WAN

1	Door lock actuator (See 09–14–5 DOOR LOCK ACTUATOR INSPECTION)
2	Door lock switch (See 09–14–6 DOOR LOCK SWITCH REMOVAL/INSTALLATION) (See 09–14–7 DOOR LOCK SWITCH INSPECTION)
3	Door lock control module (See 09–14–7 DOOR LOCK CONTROL MODULE INSPECTION) (See 09–14–7 DOOR LOCK CONTROL MODULE REMOVAL/INSTALLATION)
4	Keyless control module (See 09–14–9 KEYLESS CONTROL MODULE INSPECTION) (See 09–14–9 KEYLESS CONTROL MODULE REMOVAL/INSTALLATION) (See 09–14–11 KEYLESS CONTROL MODULE ID CODE CHANGE)
5	Transmitter (See 09–14–12 TRANSMITTER BATTERY REPLACEMENT) (See 09–14–13 TRANSMITTER BATTERY INSPECTION)
6	Trunk lid lock actuator (See 09–14–17 TRUNK LID LOCK ACTUATOR INSPECTION)
7	Trunk lid opener relay (See 09–14–17 TRUNK LID OPENER RELAY REMOVAL/INSTALLATION) (See 09–21–5 RELAY INSPECTION)

POWER DOOR LOCK SYSTEM WIRING DIAGRAM

A5U091466000W02

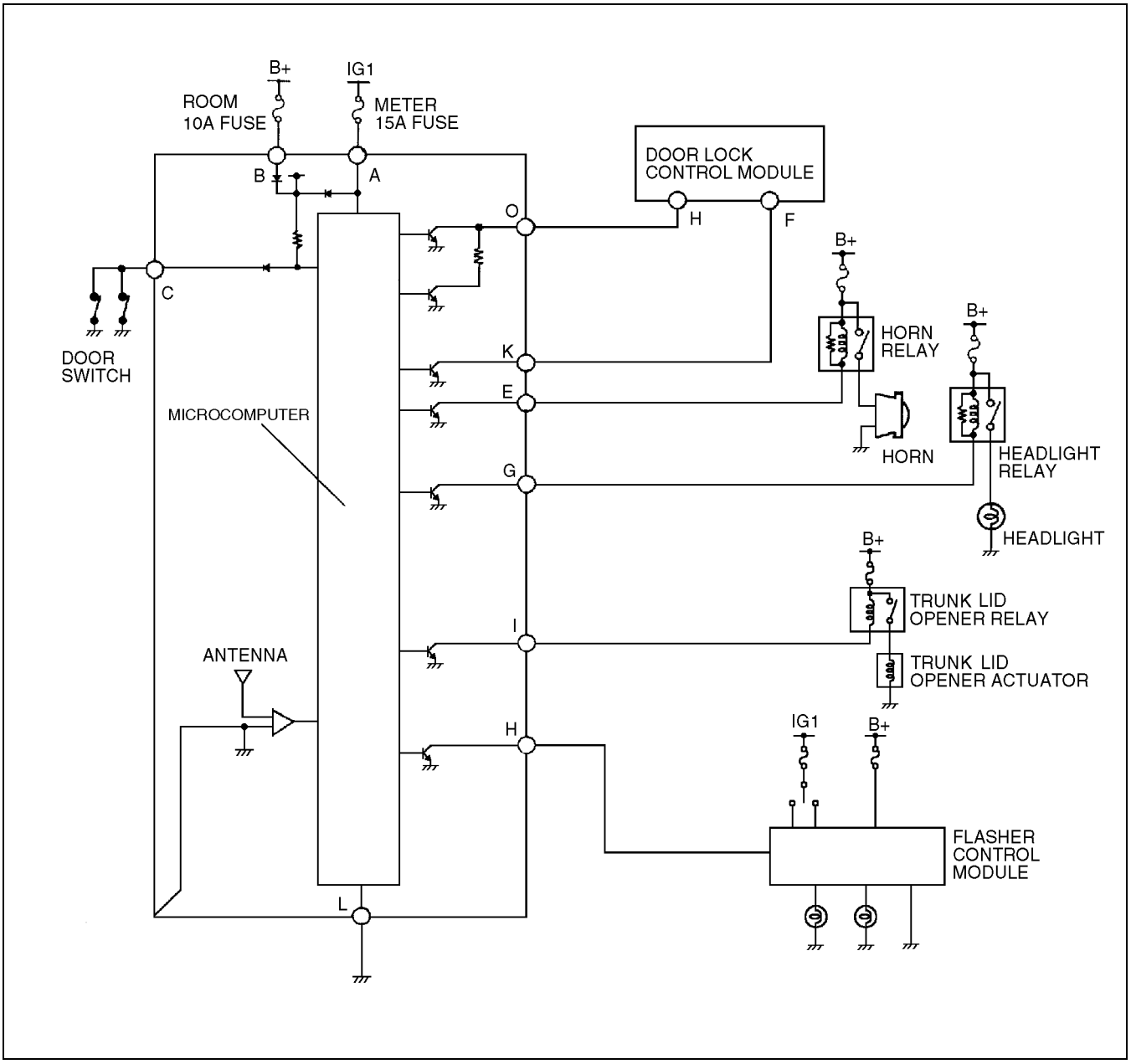


Z5U914WAO

09–14

KEYLESS ENTRY SYSTEM WIRING DIAGRAM

A5U091469000W01



Z5U0903WA0

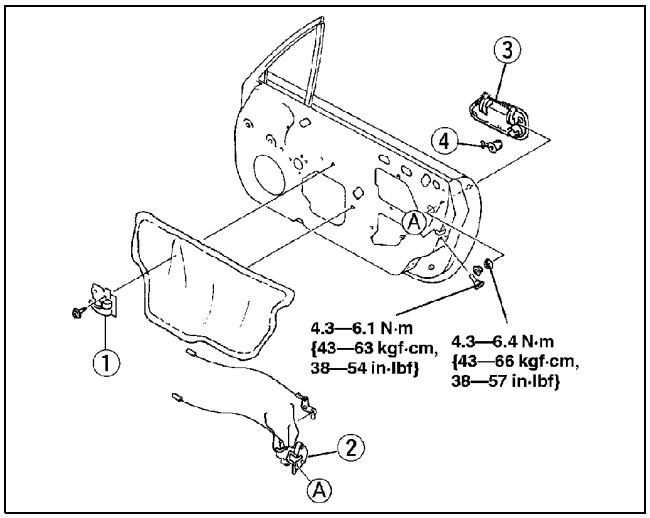
DOOR LOCK AND OPENER REMOVAL/INSTALLATION

A5U091458311W01

1. Close the door glass completely.
2. Disconnect the negative battery cable.
3. Remove the door trim. (See 09–17–6 DOOR TRIM REMOVAL/INSTALLATION.)
4. To remove the door lock, remove the rear glass guide. (See 09–11–2 DOOR DISASSEMBLY/ASSEMBLY.)
5. Remove in the order indicated in the table.

1	Inner handle
2	Door lock
3	Outer handle
4	Door key cylinder

6. Install in the reverse order of removal.



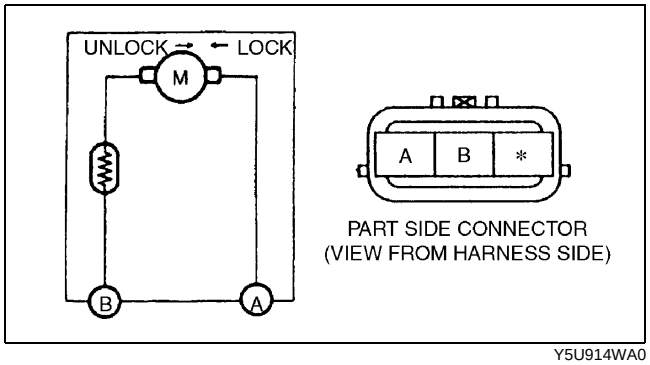
Z5U0914W100

DOOR LOCK ACTUATOR INSPECTION

A5U091458310W01

1. Remove the door trim. (See 09–17–6 DOOR TRIM REMOVAL/INSTALLATION.)
2. Remove the door screen.
3. Disconnect the door lock actuator connector.
4. Apply battery positive voltage to the door lock actuator terminals and inspect the operation of the door lock actuator.
   - If not as specified, replace the passenger's side door lock.

Connection		Actuator operation
B+	GND	
A	B	Lock
B	A	Unlock

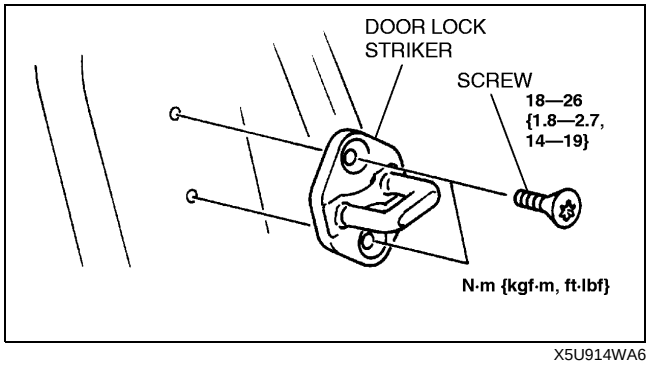


Y5U914WA0

DOOR LOCK STRIKER REMOVAL/INSTALLATION

A5U091458361W01

1. Remove the screws.
2. Remove the door lock striker.
3. Install in the reverse order of removal.
4. Adjust the door. (See 09–11–3 DOOR ADJUSTMENT.)

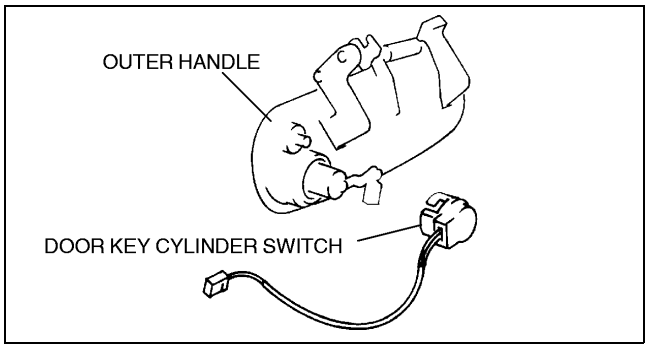


X5U914WA6

DOOR KEY CYLINDER SWITCH REMOVAL/INSTALLATION

A5U091475911W01

1. Close the door glass completely.
2. Disconnect the negative battery cable.
3. Remove the door trim.
4. Remove the door screen.
5. Release the outer handle and the door key cylinder installation rods.
6. Disconnect the door key cylinder switch connector.
7. Remove the door key cylinder switch.
8. Install in the reverse order of removal.

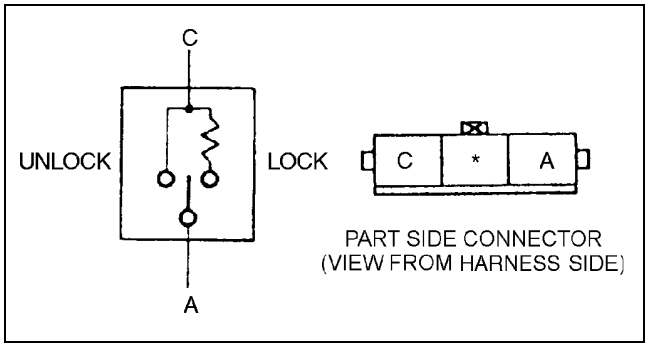


X3U914WA5

DOOR KEY CYLINDER SWITCH INSPECTION

A5U091475911W02

1. Raise the door glass completely.
2. Disconnect the negative battery cable.
3. Remove door trim.
4. Remove the door screen.
5. Disconnect the door key cylinder switch connector.
6. Inspect for continuity between the door key cylinder switch terminals using an ohmmeter.
   - If not as specified, replace the door key cylinder switch.



Z5U0914W003

○—○ : Continuity ○-W-○ : Resistance

Key cylinder position	Terminal	
	A	C
Neutral		
Lock	○-W-○	R
Unlock	○—○	

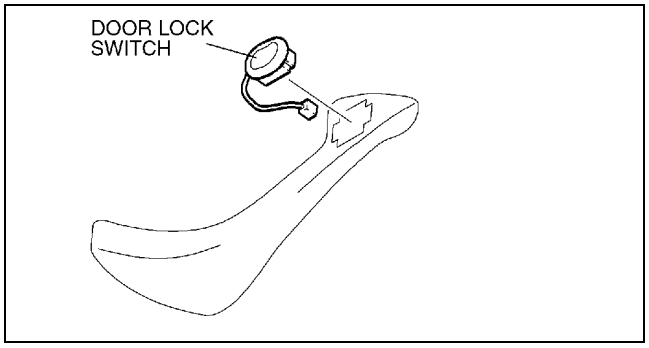
R: 950—1050 Ω

X3U914WC7

DOOR LOCK SWITCH REMOVAL/INSTALLATION

A5U091466210W01

1. Disconnect the negative battery cable.
2. Remove the door lock switch using a flathed screwdriver wrapped with protective tape.
3. Install in the reverse order of removal.



Z5U914WA1

DOOR LOCK SWITCH INSPECTION

A5U091466210W02

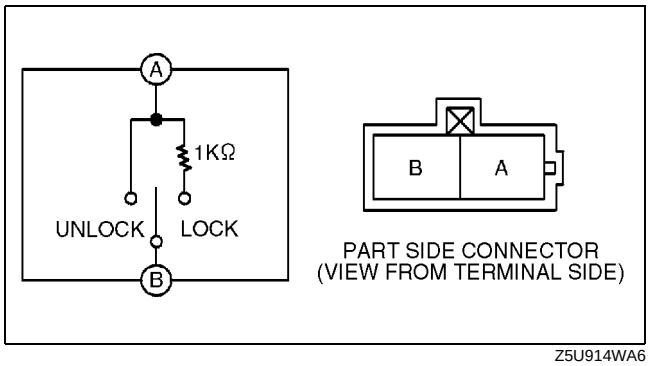
1. Remove the door lock switch. (See 09–14–6 DOOR LOCK SWITCH REMOVAL/INSTALLATION.)
2. Inspect for continuity between the door lock switch terminals using an ohmmeter.
   - If not as specified, replace the door lock switch.

○—○ : Continuity ○W○ : Resistance

Position	Terminal	
	A	B
Lock	○—W—○	R
Unlock	○	○

R: 950—1050Ω

Z5U914WA2



Z5U914WA6

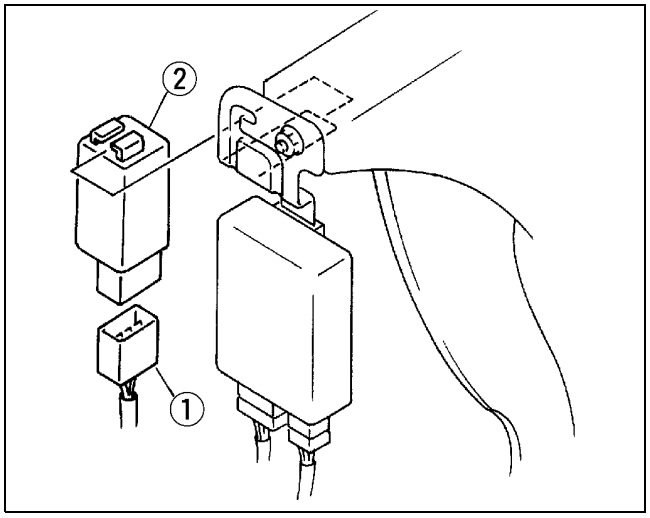
DOOR LOCK CONTROL MODULE REMOVAL/INSTALLATION

A5U091467830W01

1. Disconnect the negative battery cable.
2. Remove the lower panel.
3. Remove in the order indicated in the table.

1	Connector
2	Door lock control module

4. Install in the reverse order of removal.



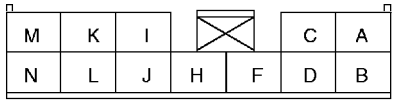
Z5U0914W001

DOOR LOCK CONTROL MODULE INSPECTION

A5U091467830W02

1. Remove the lower panel.
2. Measure the voltage at the door lock control module terminals as indicated below.
3. Disconnect the door lock control module connector before inspecting for continuity at terminals M and N.
   - If not as specified, inspect the parts listed under “Action”.
   - If the parts and wiring harnesses are okay but the system still does not work properly, replace the door lock control module.

Terminal Voltage List (Reference)



DOOR LOCK CONTROL MODULE CONNECTOR
(VIEW FROM HARNESS SIDE)

Z5U0914W002

Terminal	Signal	Connected to	Test condition	Voltage (V)/ continuity	Action
A	Power supply	DOOR LOCK 30 A fuse	Under any condition	B+	• Inspect DOOR LOCK 30 A fuse • Inspect related harness
B	Unlock output	Driver-side door lock actuator	Driver-side door (door lock actuator) is unlocked	0→B+→0	• Inspect driver-side door lock actuator • Inspect related harness
			Other	0	

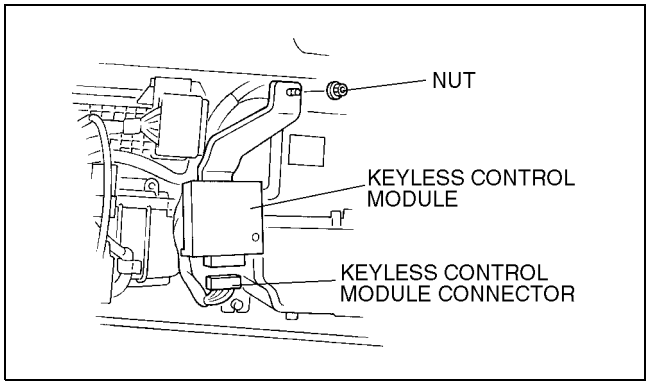
Terminal	Signal	Connected to	Test condition	Voltage (V)/ continuity	Action
C	Unlock output	Except driver-side door lock actuator	Except driver-side door (door lock actuator) is unlocked	0→B+→0	• Inspect except driver-side door lock actuator • Inspect related harness
			Other	0	
D	Lock output	Door lock actuator	Door (door lock actuator) is locked	0→B+→0	• Inspect door lock actuator • Inspect related harness
			Other	0	
F	Lock/unlock input	Passenger-side door key cylinder switch, door lock switch, and *keyless control module	Passenger-side door is locked with key	B+→5→B+	• Inspect passenger-side door key cylinder switch (See 09–14–6 DOOR KEY CYLINDER SWITCH INSPECTION.) • Inspect door lock switch (See 09–14–7 DOOR LOCK SWITCH INSPECTION.) • Inspect keyless control module* (See 09–14–9 KEYLESS CONTROL MODULE INSPECTION.) • Inspect related harness
				*5→2.5→5	
			Passenger-side door is unlocked with key	B+→0→B+	
				*5→0→5	
			Door lock switch is locked	B+→5→B+	
				*5→2.5→5	
			Door lock switch is unlocked	B+→0→B+	
				*5→0→5	
			*Transmitter unlock button is pressed twice within 4 seconds	5→0→5	
			Other	B+	
				*5	
H	Unlock input	Driver-side door key cylinder switch, and *keyless control module	Driver-side door is locked with key	B+→5→B+	• Inspect driver-side door key cylinder switch (See 09–14–6 DOOR KEY CYLINDER SWITCH INSPECTION.) • Inspect keyless control module* (See 09–14–9 KEYLESS CONTROL MODULE INSPECTION.) • Inspect related harness
				*5→2.5→5	
			Driver-side door is unlocked with key	B+→0→B+	
				*5→0→5	
			*Transmitter lock button is pressed	5→2.5→5	
			*Transmitter unlock button is pressed once	5→0→5	
			Other	B+	
				*5	
I	-	-	-	-	-
J	-	-	-	-	-
K	-	-	-	-	-
L	-	-	-	-	-
M	Signal ground	GND	Under any condition: inspect for continuity to ground	Yes	-
N	Power ground	GND	Under any condition: inspect for continuity to ground	Yes	-

* : Equipped with keyless entry system

KEYLESS CONTROL MODULE REMOVAL/INSTALLATION

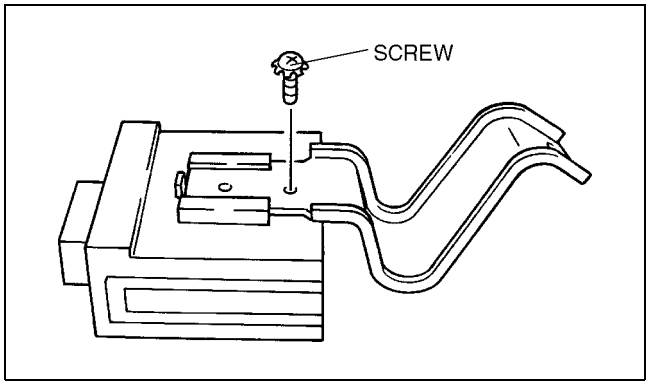
A5U091467540W01

1. Disconnect the negative battery cable.
2. Remove the glove compartment. (Refer to 09–17–5 GLOVE COMPARTMENT REMOVAL/INSTALLATION.)
3. Disconnect the keyless control module connector.
4. Remove the nut to remove the keyless control module and the bracket as a module.



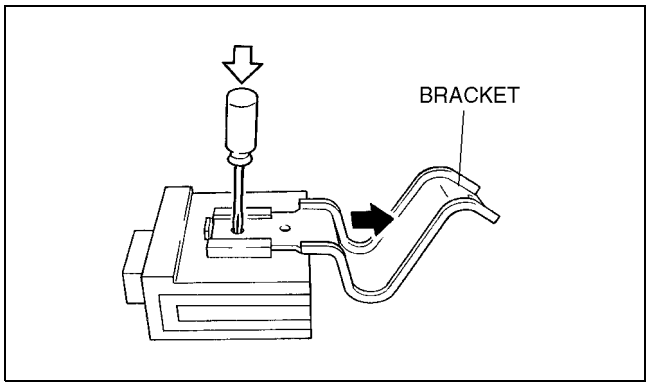
Z5U914WA8

5. Remove the screw.



Z5U914WA9

6. Remove the bracket.
7. Install in the reverse order of removal.



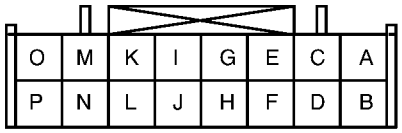
Z5U914WAA

KEYLESS CONTROL MODULE INSPECTION

A5U091467540W02

1. Pull out the keyless control module with the connector connected.
2. Measure the voltage at the keyless control module terminals (other than terminal L) as indicated below.
   - If not as specified, inspect the parts listed under “Action.”
3. Disconnect the negative battery cable.
4. Disconnect the keyless control module connector and inspect for continuity between terminal L and bracket.
5. Inspect for continuity at terminal L as indicated below.
6. If the parts and wiring harnesses are okay but the system still does not work properly, replace the keyless control module.

Terminal Voltage Table (Reference)



KEYLESS CONTROL MODULE CONNECTOR
(VIEW FROM HARNESS SIDE)

Z5U0914W010

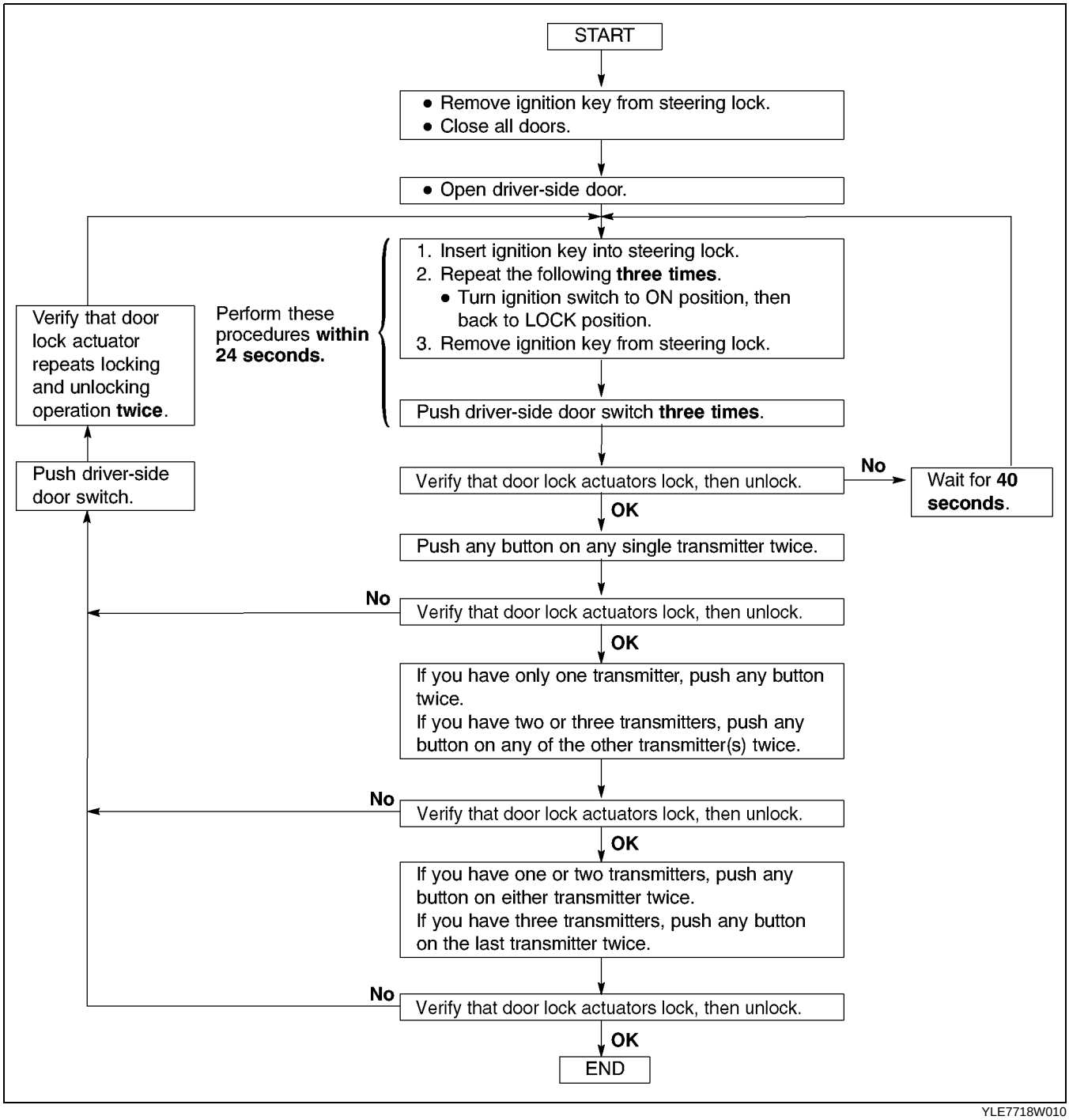
Terminal	Signal	Connected to	Test condition	Voltage (V)/ Continuity	Action
A	IG1	METER 10 A fuse	Ignition switch is at ON position	B+	• Inspect METER 10 A fuse • Inspect related harness
			Ignition switch is at LOCK or ACC position	Below 1.0	
B	Power supply	ROOM 10 A fuse	Under any condition	B+	• Inspect ROOM 10 A fuse • Inspect related harness
C	Door open/ closed	Door switch	Any door is open (any door switch is on)	Below 1.0	• Inspect door switches • Inspect related harness
			All door are closed (door switches are off)	B+	
D	-	-	-	-	-
E	Horn	Horn relay	Transmitter panic button is pressed within 5 seconds	Alternates between B+ and Below 1.0	• Inspect transmitter • Inspect horn relay • Inspect related harness
			Transmitter panic button is not pressed	B+	
F	-	-	-	-	-
G	Headligh	Headligh relay	Transmitter panic button is pressed within 5 seconds	Alternates between B+ and Below 1.0	• Inspect transmitter • Inspect headlight relay • Inspect related harness
			Transmitter panic button is not pressed	B+	
H	Hazard	Flasher unit	Transmitter panic button is pressed within 5 seconds	Alternates between B+ and Below 1.0	• Inspect flasher unit • Inspect related harness
			Transmitter LOCK button is pressed	B+→Below 1.0→B+	
			Transmitter UNLOCK button is pressed once	B+→Below 1.0→B+→Below 1.0→B+	
			No transmitter buttons are pressed	B+	
I	Trunk lid unlock	Trunk lid opener relay	Transmitter trunk lid button is pressed	B+→Below 1.0→B+	• Inspect trunk lid opener relay • Inspect related harness
			Transmitter trunk lid button is not pressed	B+	
J	-	-	-	-	-
K	Unlock output	Door lock control module	Transmitter UNLOCK button is pressed twice within 5 seconds. (second value)	5→Below 1.0→5	• Inspect door lock control module • Inspect related harness
			Other	B+	
L	Ground	GND	Under any condition: inspect for continuity to ground	Yes	-
M	-	-	-	-	-
N	-	-	-	-	-

Terminal	Signal	Connected to	Test condition	Voltage (V)/ Continuity	Action
O	Lock/unlock output	Door lock control module	Transmitter LOCK button is pressed	5→2.5→5	• Inspect door lock control module • Inspect related harness
			Transmitter UNLOCK button is pressed once	5→Below 1.0→5	
			No transmitter buttons are pressed	5	
P	-	-	-	-	-

KEYLESS CONTROL MODULE ID CODE CHANGE

A5U091467540W03

- When programming the ID code into a transmitter, verify that other transmitters are not being operated in the vicinity.
- Program the ID code as indicated in the procedure below.

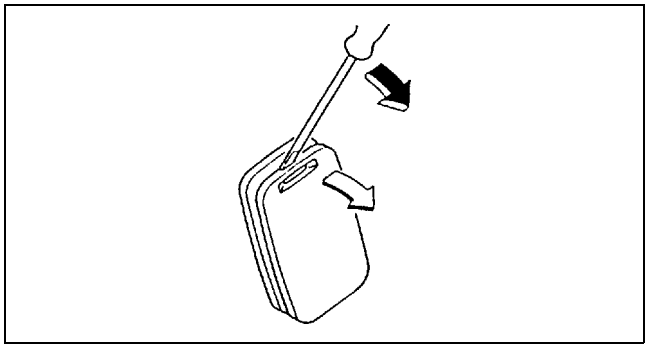


YLE7718W010

TRANSMITTER BATTERY REPLACEMENT

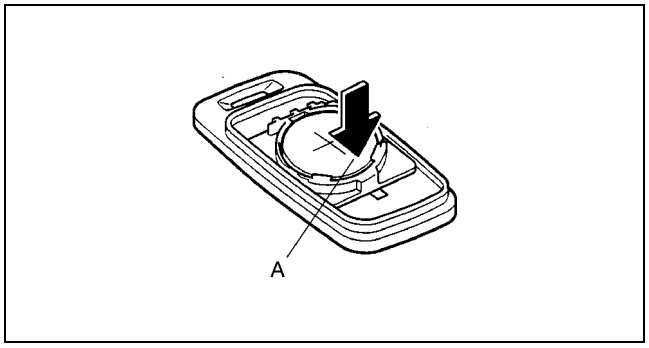
1. Insert a small flathead screwdriver into the slot and gently pry open the transmitter.

A5U091467543W01



YMU914WAS

2. Press the portion of the battery indicated by A and remove the battery.
3. Install a new battery (CR2025 or the equivalent) into the front portion of the holder with the positive pole (+) facing up. Press on the B portion of the battery to set the battery.

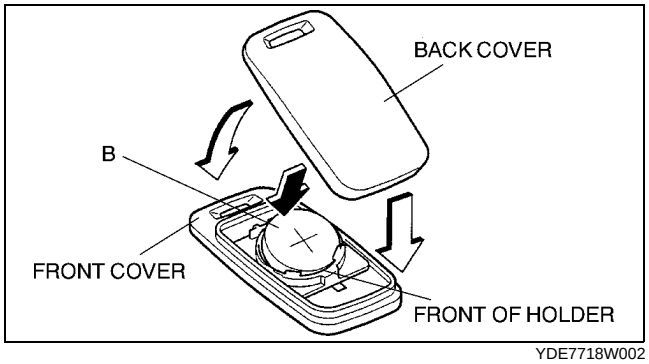


YDE7718W001

4. Align the front and back covers and snap the transmitter shut.

Battery specification
Lithium CR2025 × 1

Note
- The batteries will last about **2 years** when used **10 times** a day.



YDE7718W002

TRANSMITTER BATTERY INSPECTION

A5U091467543W02

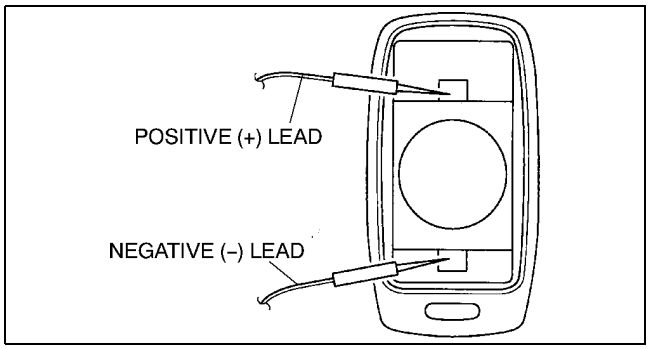
Caution

- **Since the battery voltage does not drop fully if the button is pushed for only 4 seconds or less, it can not be properly examined to see whether it is good or bad. Always push the button for 5 seconds.**

Note

- Since a correct measurement cannot be obtained if the battery temperature is low, make sure the battery has been at **18 °C {64 °F} or more** for **at least 30 minutes** before reinspecting when a measurement value is under the standard voltage.

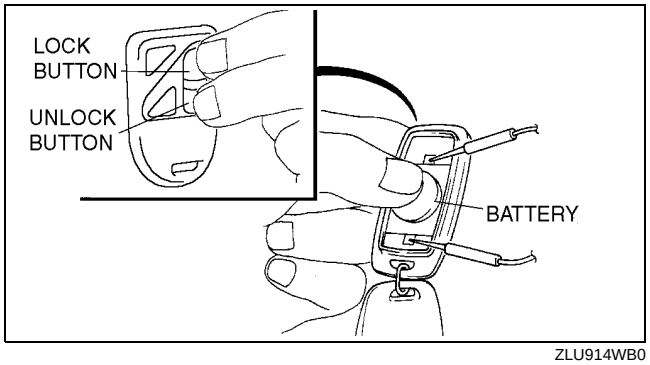
1. Remove the transmitter cover.
2. Apply the circuit tester leads to the positions as indicated in the figure.



YDE7718W003

3. While pressing the battery as shown in the figure, press the LOCK and UNLOCK buttons on the transmitter at the same time to start measurement of the voltage.
4. Release the buttons after **5 seconds**.
5. Verify that the minimum voltage is the standard voltage or more for **10 seconds** after starting measurement.
   - If the voltage is under the standard voltage, replace the battery.

Standard voltage
2.7 V

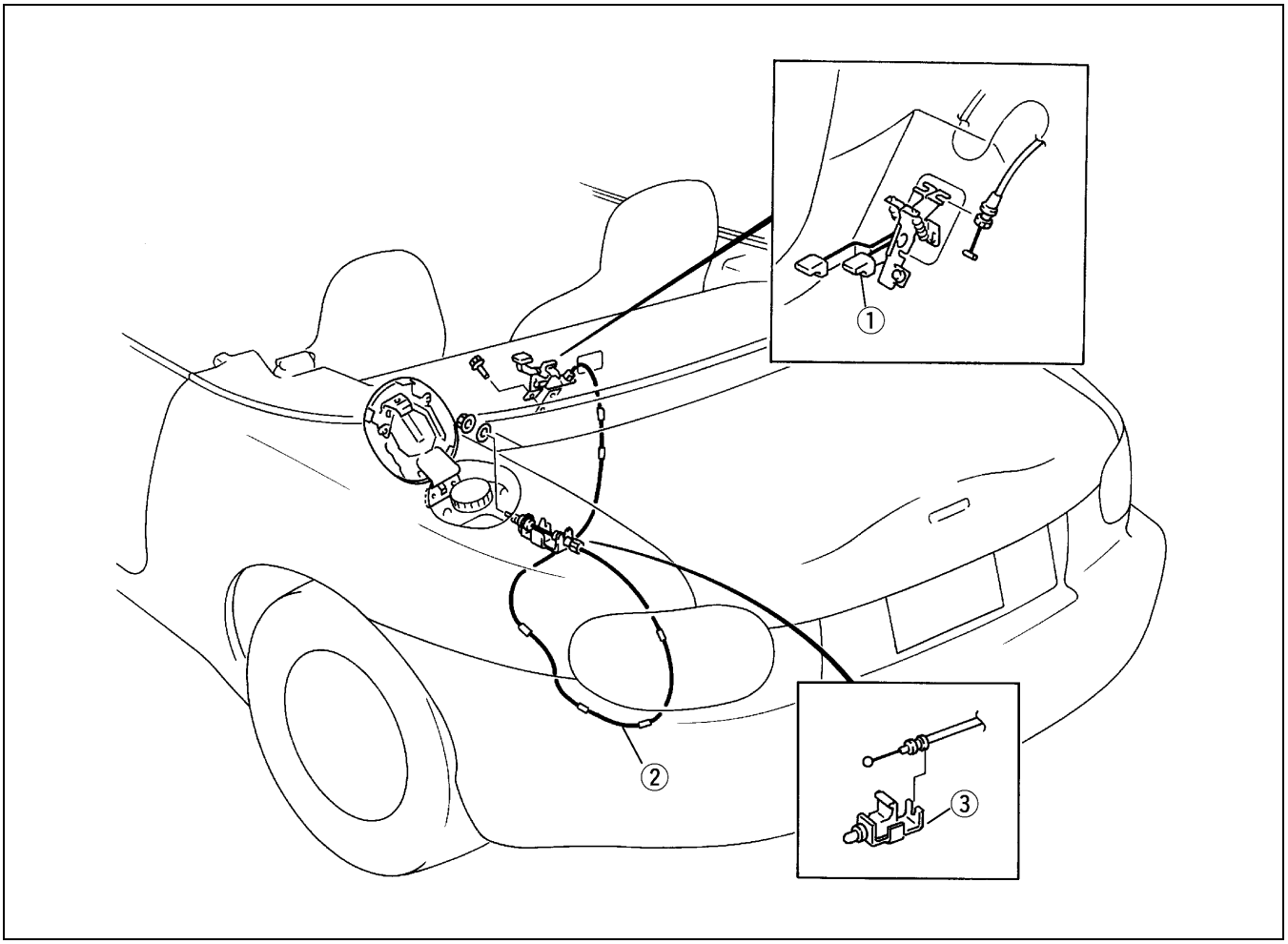


ZLU914WB0

FUEL-FILLER LID OPENER REMOVAL/INSTALLATION

A5U091456890W01

1. Remove the rear console. (See 09–17–4 CONSOLE REMOVAL/INSTALLATION.)
2. Remove the rear package trim. (See 09–17–7 REAR PACKAGE TRIM REMOVAL/INSTALLATION.)
3. Remove the rear end mat.
4. Remove the driver's side trunk side trim.
5. Remove in the order indicated in the table.
6. Install in the reverse order of removal.



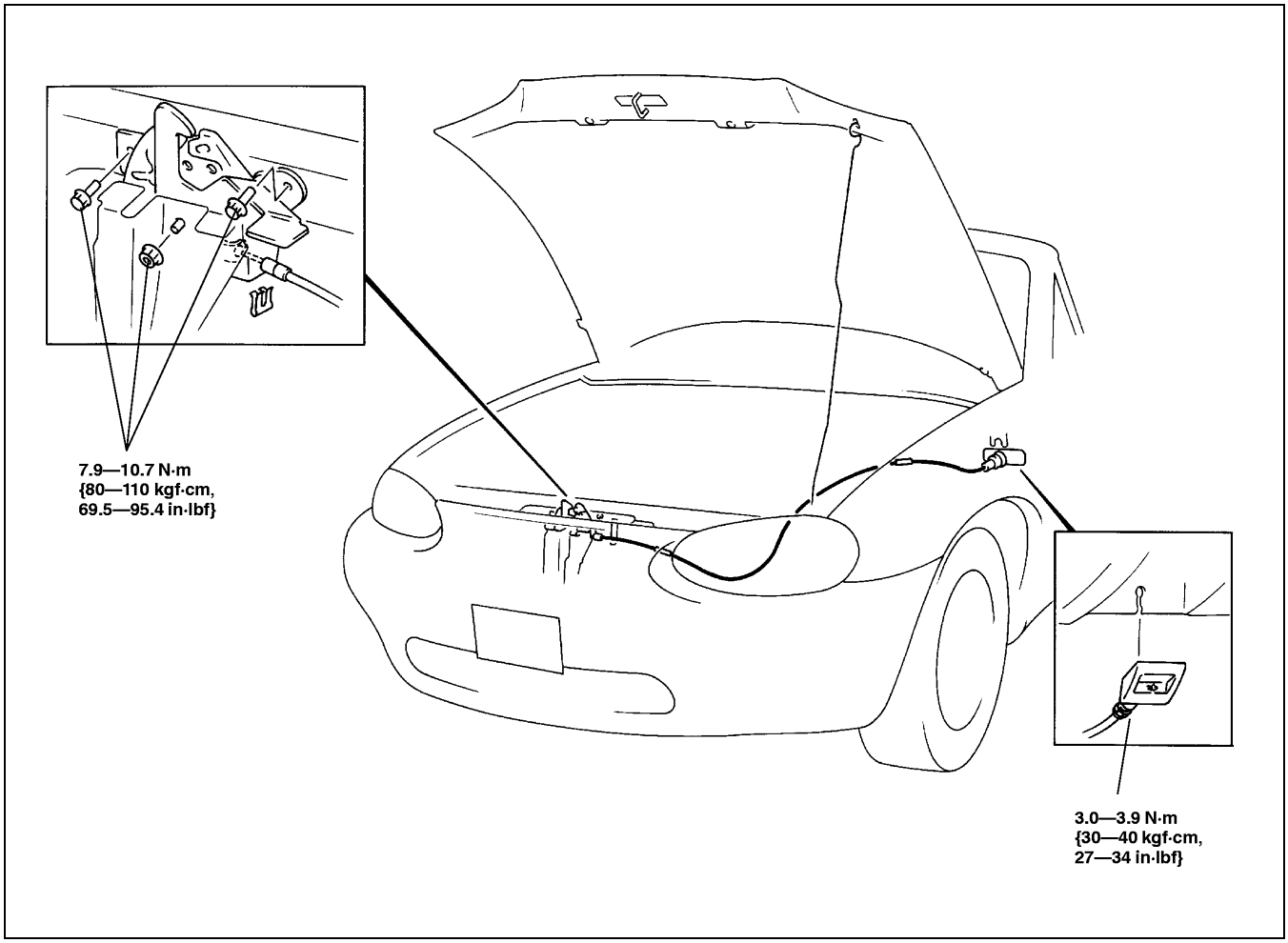
X5U914WA7

1	Fuel-filler lid opener lever
2	Fuel-filler lid opener cable
3	Fuel-filler lid opener

HOOD LOCK AND OPENER REMOVAL/INSTALLATION

A5U091456620W01

1. Remove the upper shroud panel.
2. Remove in the order indicated in the table.
3. Install in the reverse order of removal.
4. Adjust the hood. (See 09–10–2 HOOD ADJUSTMENT.)



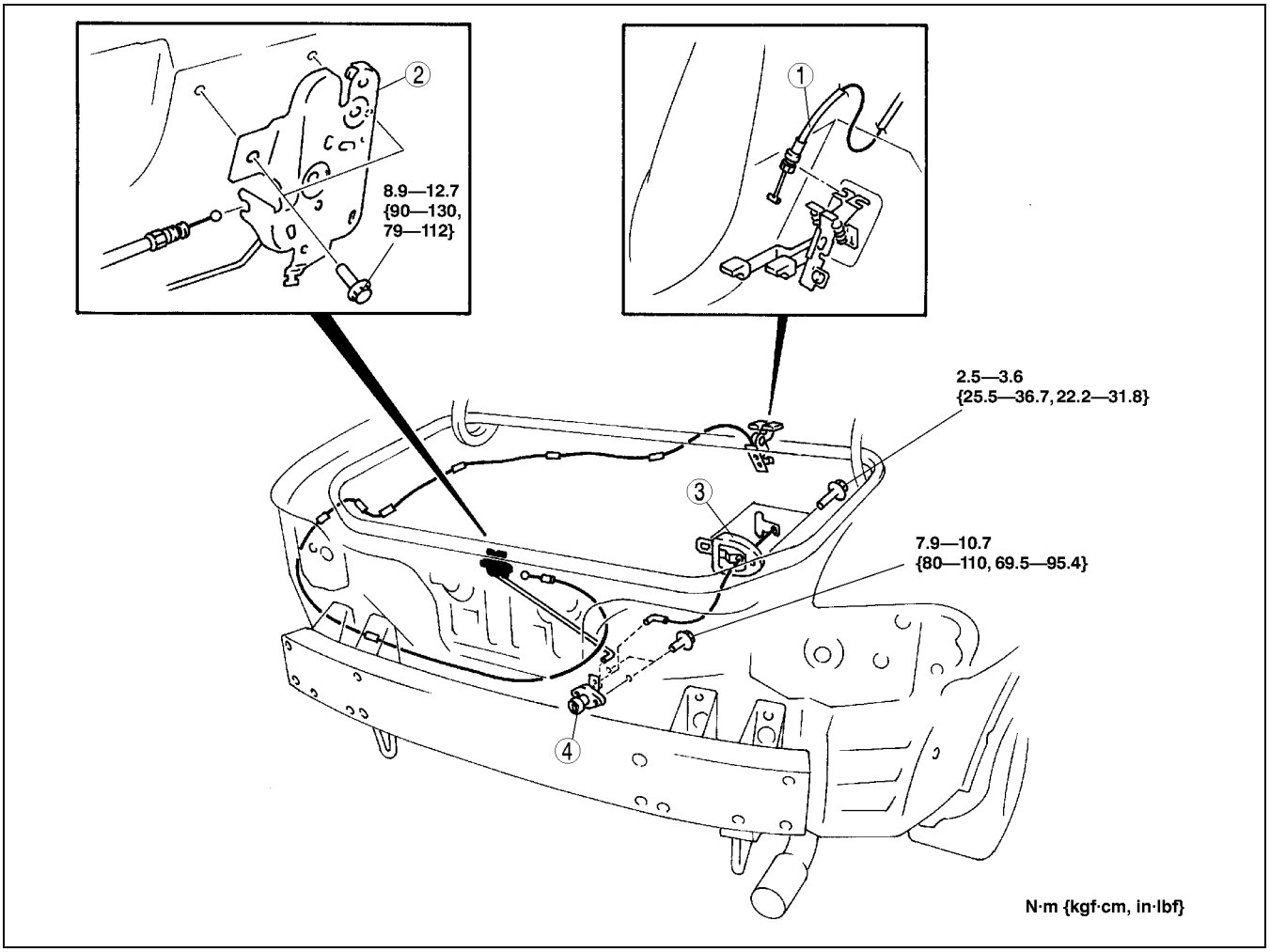
X5U914WA8

1	Hood lock	2	Hood release cable

TRUNK LID LOCK AND OPENER REMOVAL/INSTALLATION

A5U091456821W01

1. Disconnect the negative battery cable.
2. Remove the console. (See 09–17–4 CONSOLE REMOVAL/INSTALLATION.)
3. Remove the rear package trim. (See 09–17–7 REAR PACKAGE TRIM REMOVAL/INSTALLATION.)
4. Remove the rear end mat.
5. Remove the driver's side trunk side trim.
6. Remove the trunk end trim.
7. Remove the rear bumper. (See 09–10–5 REAR BUMPER REMOVAL/INSTALLATION.)
8. Remove in the order indicated in the table.
9. Install in the reverse order of removal.
10. Adjust the trunk lid. (See 09–10–4 TRUNK LID ADJUSTMENT.)



Z5U914WA4

1	Trunk lid opener cable
1	Trunk lid lock

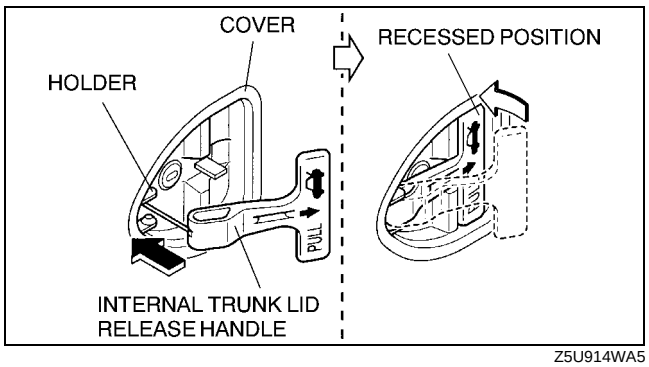
2	Internal trunk lid release handle (See 09–14–16 Internal Trunk Lid Release Handle Installation Note)
4	Trunk lid key cylinder

Internal Trunk Lid Release Handle Installation Note

Caution

- **Always keep the handle firmly attached to the holder and in the recessed position. Not securing the handle this way could allow it to snag luggage in the compartment and open the trunk lid.**

1. After installation of the internal trunk lid release handle, pull the handle forward to verify the handle and rod are securely installed.
2. Attach the handle to the holder on the cover and in the recessed position.



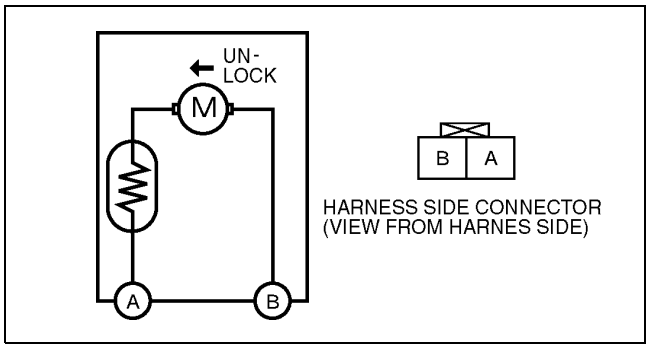
Z5U914WA5

TRUNK LID LOCK ACTUATOR INSPECTION

A5U091456820W01

1. Disconnect the negative battrey cable.
2. Disconnect trunk lid lock actuator.
3. Apply battery positive voltage to the trunk lid lock actuator terminals and inspect the operation of the trunk lid lock actuator.
   - If not as specified, replace the trunk lid lock.

Connection		Actuator operation
A	B	
GND	B+	Unlock

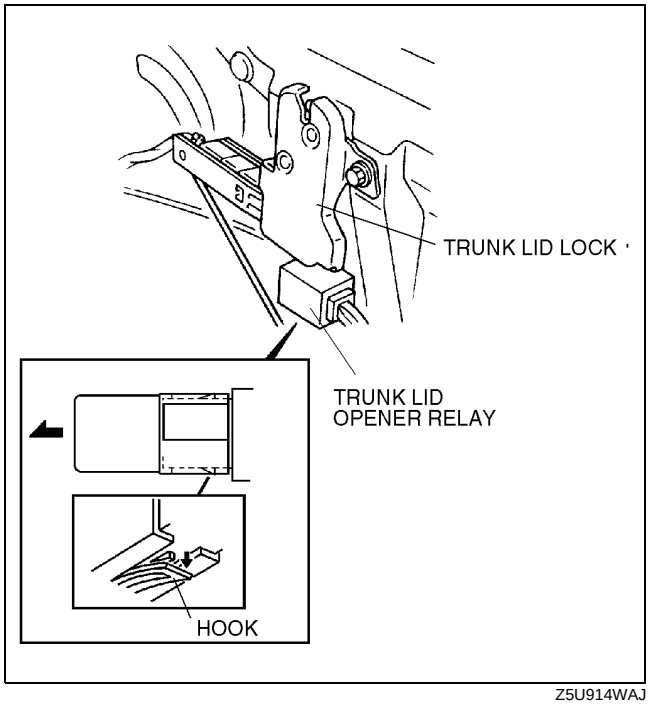


Z5U914WAI

TRUNK LID OPENER RELAY REMOVAL/INSTALLATION

A5U091467821W01

1. Disconnect the negative battery cable.
2. Remove the trunk end trim panel.
3. Remove the clip of the trunk lid opener relay using a flathead screwdriver to remove the trunk lid opener.
4. Install in the reverse order of removal.

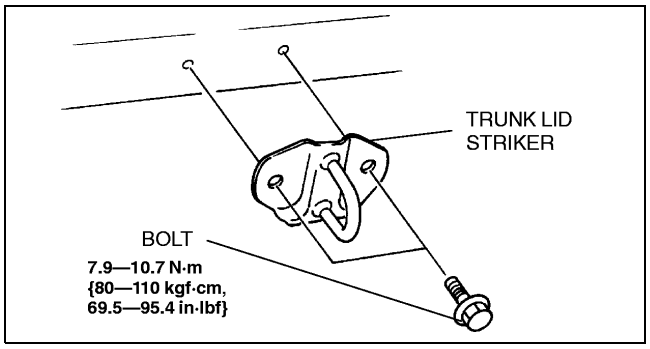


Z5U914WAJ

TRUNK LID STRIKER REMOVAL/INSTALLATION

A5U091456840W01

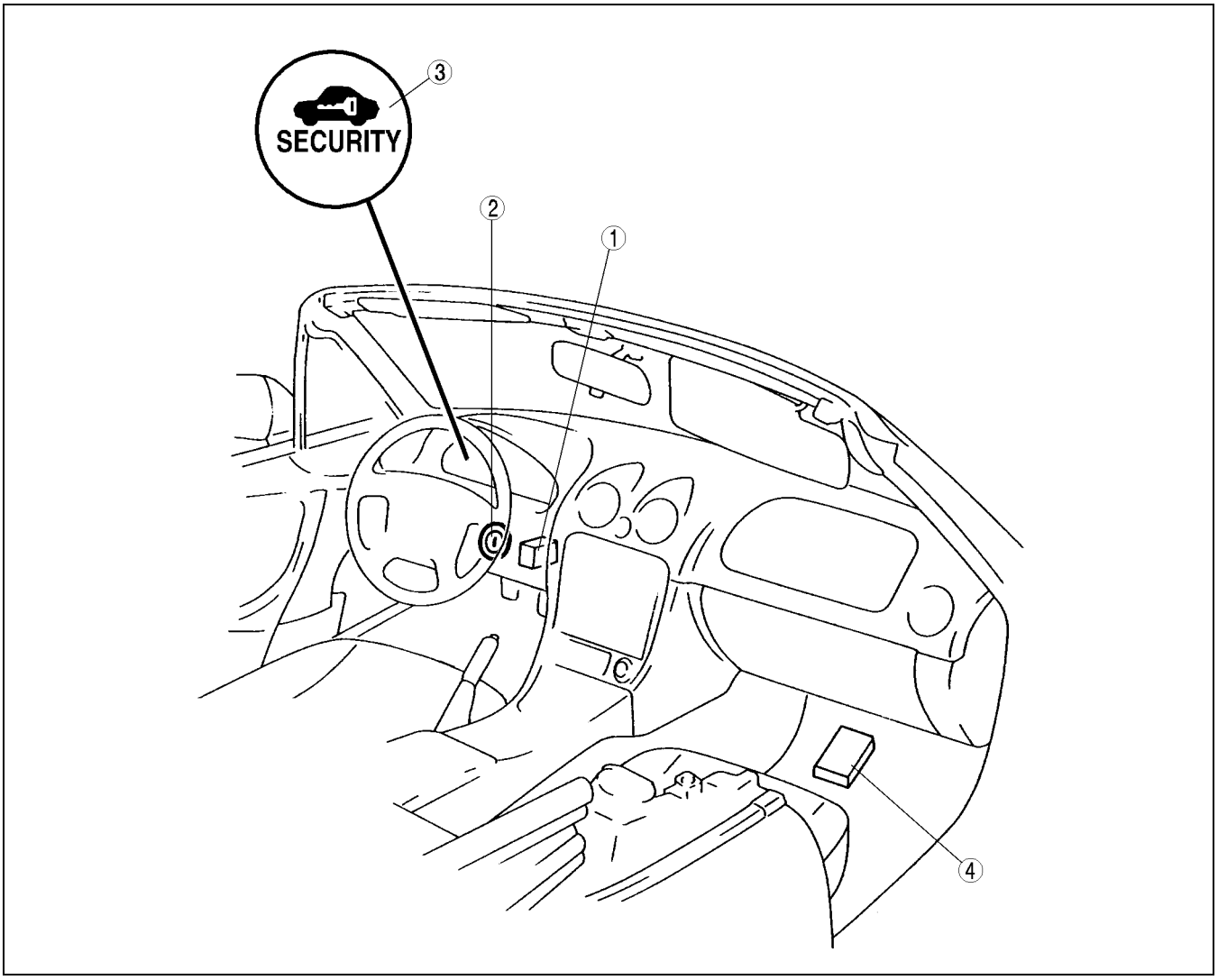
1. Remove the bolts.
2. Remove the trunk lid striker.
3. Install in the reverse order of removal.
4. Adjust the trunk lid. (See 09–10–4 TRUNK LID ADJUSTMENT.)



X5U914WAA

IMMOBILIZER SYSTEM LOCATION INDEX

A5U091467000W01



Z5U0914W201

1	Immobilizer unit (See 09–14–19 IMMOBILIZER UNIT REMOVAL/ INSTALLATION) (See 09–14–19 IMMOBILIZER UNIT INSPECTION)
2	Coil (See 09–14–20 COIL REMOVAL/INSTALLATION)
3	Security light
4	PCM

IMMOBILIZER SYSTEM SERVICE CAUTION

A5U091467000W02

Caution

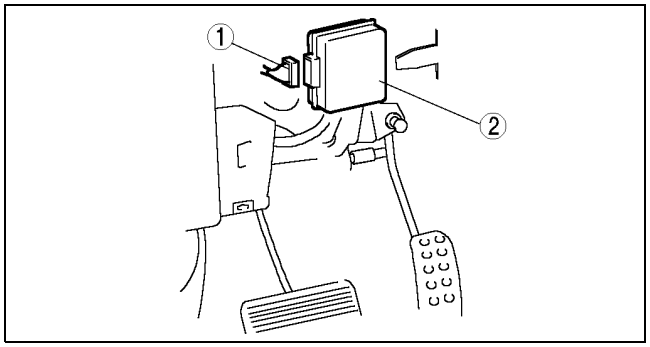
- **When an immobilizer system component (such as the PCM, immobilizer unit, coil or the key) has failed, it must be accurately determined according to the troubleshooting procedures or by the display of the DTCs prior to carrying out the service procedures.**
- **If a normal component is mistakenly replaced and the ID number and/or code word are input into the new component, then neither component can be reused on other vehicles.**
- **When a new key registration or immobilizer unit and/or PCM replacement is performed on vehicles equipped with an immobilizer system, the new ID number should be registered using the procedure that includes engine cranking through idling. When the engine starts to reprogram the immobilizer system, if the input voltage to the immobilizer unit becomes lower than the operation voltage of the immobilizer system, the ID number cannot be input momentarily. This is not a unit failure, so do not misunderstand during the problem diagnosis (when the terminal voltage goes back to the operation voltage, then the unit also begins to operate normally). Charge or replace the battery.**

IMMOBILIZER UNIT REMOVAL/INSTALLATION

A5U091467003W01

1. Disconnect the negative battery cable.
2. Remove in the order indicated in the table.

1	Connector
2	Immobilizer unit



Z5U914WA0

3. Install in the reverse order of removal.

Caution

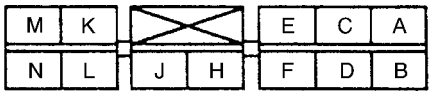
- **After replacing the immobilizer unit with a new one, the engine cannot be started without reprogramming the ID number of the keys and the code word of the new immobilizer unit. Input the ID number and code word. (See 09–14–20 IMMOBILIZER SYSTEM REPROGRAM PROCEDURE.)**

IMMOBILIZER UNIT INSPECTION

A5U091467003W02

1. Measure the voltage at the immobilizer unit terminals as indicated below.
2. Disconnect the immobilizer unit connector before inspecting for continuity at terminal C.
   - If not as specified, inspect the parts listed under “Action”.
   - If the parts and wiring harnesses are okay but the system still does not work properly, replace the immobilizer unit.

Terminal Voltage Table (Reference)



HARNESS SIDE CONNECTOR
(VIEW FROM HARNESS SIDE)

Z5U0914W202

Terminal	Signal	Connected to	Test condition	Voltage (V)/ continuity	Action
A	Communication with PCM	PCM	IG SW LOCK position	Below 0.1	• Inspect PCM (See 01–40–6 PCM INSPECTION) • Inspect related harness
			IG SW ON position	B+	
B	—	—	—	—	—
C	GND	GND	Under any condition: inspect for continuity to ground	Yes	• Inspect GND
D	Power supply to coil	Coil	IG SW LOCK position	Below 0.1	• Inspect coil • Inspect related harness
			IG SW ON position	Can not be measured	
E	—	—	—	—	—
F	Key ID number input	Coil	IG SW LOCK position	Below 0.1	• Inspect coil • Inspect related harness
			IG SW ON position	Can not be measured	
H	—	—	—	—	—
J	Back-up power supply	Battery	Under any condition	B+	• Inspect ROOM 15 A fuse • Inspect related harness
K	—	—	—	—	—
L	Power supply	Ignition switch	IG SW LOCK position	0	• Inspect ENGINE 10 A fuse • Inspect related harness
			IG SW ON position	B+	
M	Security light output	Security light	Security light does neither illuminate nor blink	B+	• Inspect security light • Inspect related harness
N	—	—	—	—	—

COIL REMOVAL/INSTALLATION

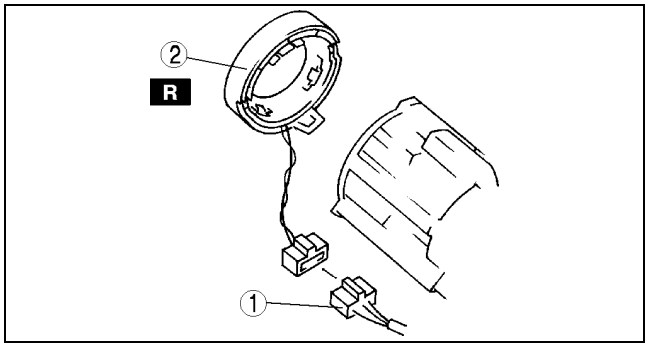
A5U091467004W01

Note
- Do not remove the coil unless you are replacing it.
- When only the coil is replaced, the immobilizer system reprogram procedure is not necessary.

1. Disconnect the negative battery cable.
2. Remove the column cover.
3. Remove in the order indicated in table.

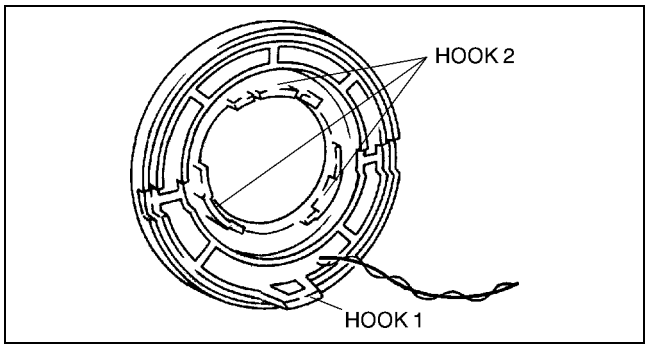
1	Connector
2	Coil (See 09–14–20 Coil Installation Note)

4. Install in the reverse order of removal.



W6U914WAX

Coil Installation Note
1. Install the hook 1 to the steering lock.
2. Install the hook 2 to the steering lock.



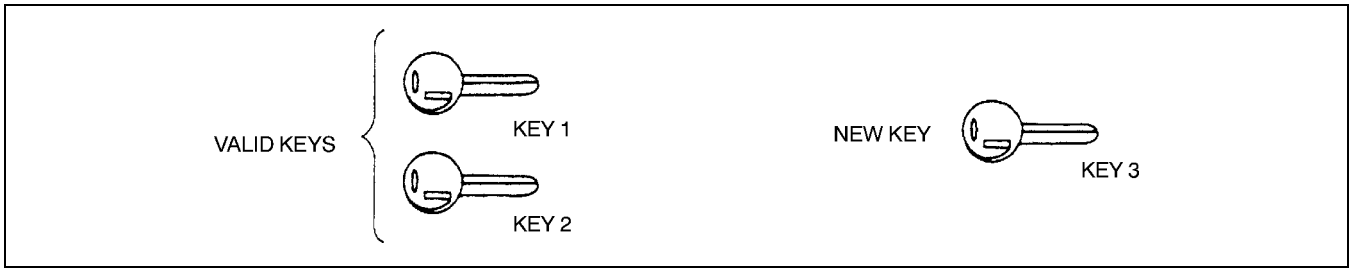
W6U914WBL

IMMOBILIZER SYSTEM REPROGRAM PROCEDURE

A5U091467000W03

Note
- When an error occurs during the reprogram procedures, except when both the immobilizer unit and PCM are replaced, repeat the procedure from Step 1. If you still cannot reprogram, confirm how many keys can start the engine. Then, perform the key replacement or addition reprogram procedure according to the valid key number.
- To make a copy of the key or replace the immobilizer system component parts (the key(s), steering lock, immobilizer unit and/or PCM), the customer should bring all keys to the dealer. This is because the previously programmed key IDs are erased when reprogramming the key IDs into the immobilizer unit and PCM.
- If the customer has only one valid key when replacing the immobilizer system component parts, the dealer should contact a distributor to obtain the code word.
- To replace the immobilizer unit or PCM, there should be at least one valid key. Otherwise, both the immobilizer unit and PCM should be replaced.
- The immobilizer unit and PCM cannot be changed from one car to another. If an immobilizer unit or PCM is replaced with one from another car, the engine will not start. Reprogramming of the IDs and code word of an immobilizer unit that has already been programmed as set is not possible.
- The immobilizer unit and PCM should not be newly replaced as a trial during troubleshooting. If this is done, the ID and code word will be programmed into the new unit and it cannot be used for other cars even if you find that the old unit was normal.
- The immobilizer system cannot be deactivated.
- Confirm that all keys registered can start the engine after the reprogram procedure. When confirming, wait for **more than 5 seconds** before inserting the next key.
- When the customer does not need to register more than two keys, the following procedures can be stopped after registering two keys.

Key Replacement or Addition
When customer has brought two or more valid keys

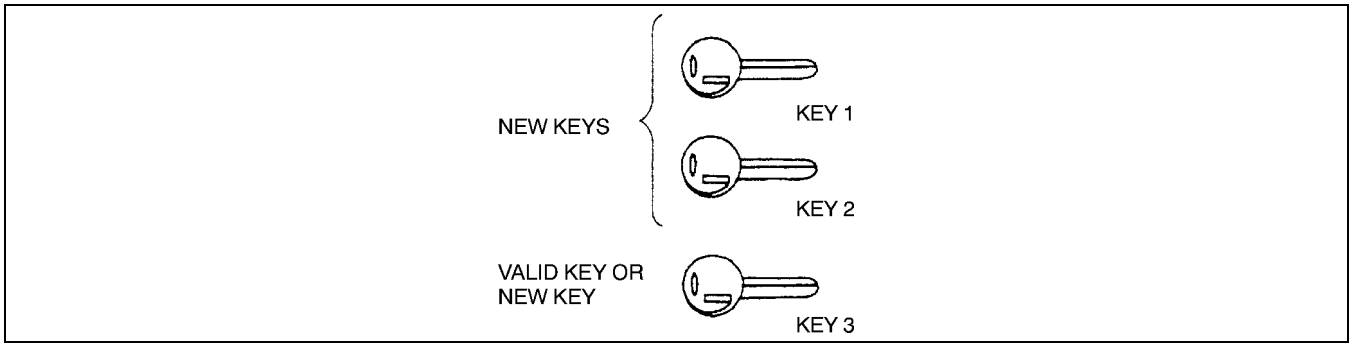


YMU914WB6

Note
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Cut new transponder equipped key(s).
2. Using key 1, turn ignition switch to ON position then back to LOCK position **five times**. The key should not remain at ON position or LOCK position for **more than 1 second**.
   (1) Turn key 1 back to ON position. Observe illumination of security light in instrument cluster.
   (2) Turn key 1 to LOCK position and remove key 1 from steering lock. Observe security light goes out.
3. Using key 2, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 2 to LOCK position and remove from steering lock.
4. Repeat Step 3 with key 1.
5. Repeat Step 3 with key 3.
6. If there are 4—8 keys (valid and/or new keys), repeat Step 3.
7. Wait for **30 seconds** to quit reprogram mode.

When customer has brought only one or no valid key (code word is required)

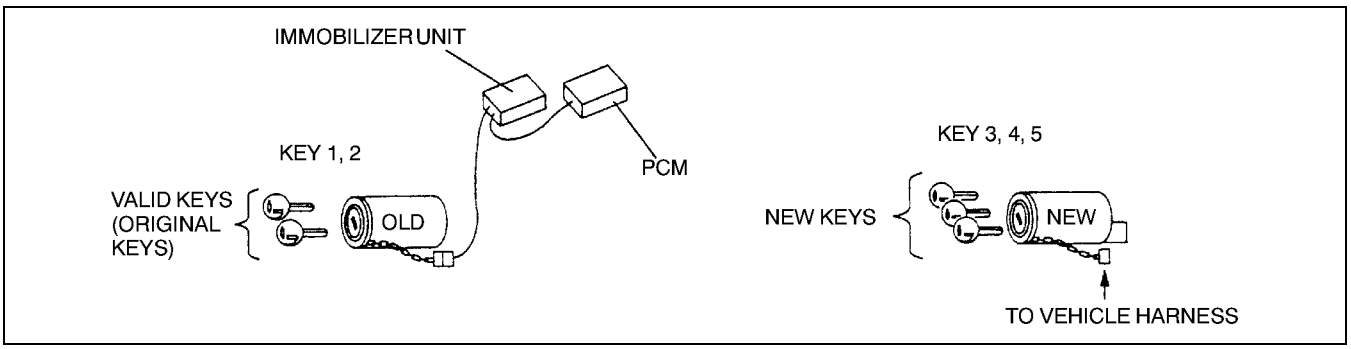


YMU914WB7

Note
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Cut new transponder equipped key(s).
2. Using key 1, turn ignition switch to ON position then back to LOCK position **five times**. The key should not remain at ON position or LOCK position for **more than 1 second**.
   (1) Turn key 1 back to ON position. Observe flashing of security light (**300 ms** ON—**300 ms** OFF) in instrument cluster.
   (2) Turn key 1 to LOCK position and wait for **5 minutes** until security light decreases in flashing frequency to **1.2 seconds**.
   (3) Input code word. (See 09–14–26 CODE WORD INPUT PROCEDURE.)
   (4) Observe security light stops flashing and illuminates.
   (5) Start engine with key 1. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (6) Turn key 1 to LOCK position and remove from steering lock.
3. Using key 2, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 2 to LOCK position and remove from steering lock.
4. Repeat Step 3 with key 3.
5. If there are 4—8 keys (valid and/or new keys), repeat Step 3.
6. Wait for **30 seconds** to quit reprogram mode.

Steering Lock Replacement
When customer has brought two or more valid keys for old steering lock



YMU914WB8

Note
- When replacing the steering lock, the coil and keys should be replaced as a set.
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Remove old steering lock.
2. Connect new steering lock to ignition switch connector.
3. Connect old steering lock to coil connector as shown in figure.
4. Insert key 1 into old steering lock.
5. Insert key 3 into new steering lock and turn to ON position then back to LOCK position **five times**. The key should not remain at ON position or LOCK position for **more than 1 second**.
   (1) Turn key 3 back to ON position. Observe illumination of security light in instrument cluster.
   (2) Turn key 3 to LOCK position. Observe security light goes out.

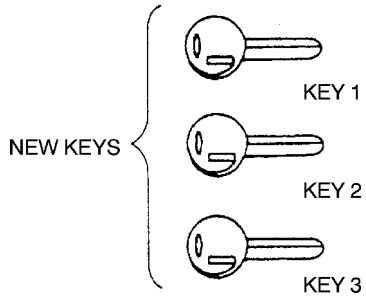
Note
- Operate next two steps **within 30 seconds** of Step 5-(2).

6. Remove key 1 from old steering lock and insert key 2 into old steering lock.
7. Using key 3 of new steering lock, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 3 to LOCK position.

Note
- Operate next two steps within 30 seconds of Step 7-(1).

8. Disconnect coil connector from old steering lock, and reconnect coil connector to new steering lock.
9. Using key 3 of new steering lock, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 3 to LOCK position and remove from steering lock.
10. Repeat Step 9 with key 4.
11. Repeat Step 9 with key 5.
12. Wait for **30 seconds** to quit reprogram mode.
13. Install new steering lock.

When customer has brought only one or no valid key (code word is required)



YMU914WB9

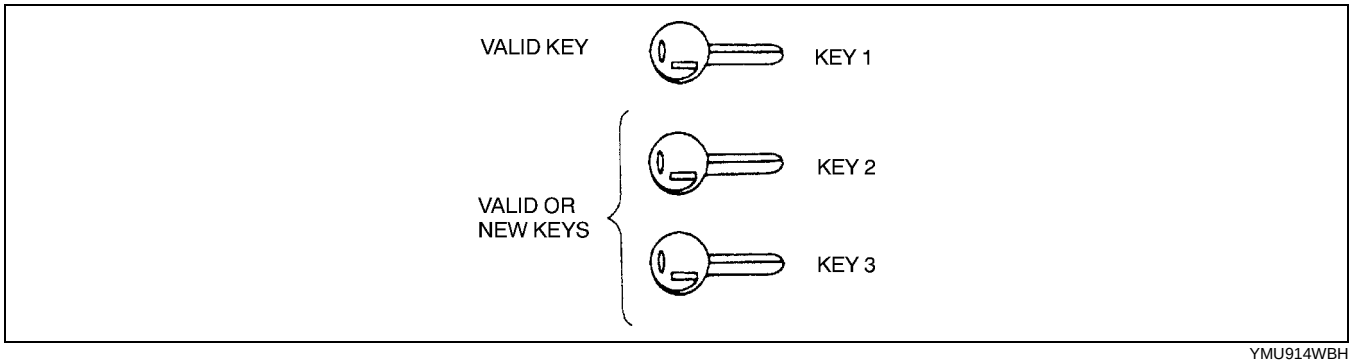
Note
- When replacing the steering lock, the coil and keys should be replaced as a set.
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Replace steering lock.
2. Using key 1, turn ignition switch to ON position then back to LOCK position **five times**. Key should not remain at ON position or LOCK position for **more than 1 second**.
   (1) Turn key 1 back to ON position. Observe flashing of security light (**300 ms** ON—**300 ms** OFF) in instrument cluster.
   (2) Turn key 1 to LOCK position and wait for **5 minutes** until security light decreases in flashing frequency to **1.2 seconds**.
   (3) Input code word. (See 09–14–26 CODE WORD INPUT PROCEDURE.)
   (4) Observe the security light stops flashing and illuminates.
   (5) Start engine with key 1. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (6) Turn key 1 to LOCK position and remove from steering lock.
3. Using key 2, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 2 to LOCK position and remove from steering lock.
4. Repeat Step 3 with key 3.
5. Wait for **30 seconds** to quit reprogram mode.

Immobilizer Unit Replacement

When customer does not have valid key
- PCM needs to be replaced with immobilizer unit. Perform “Both Immobilizer unit and PCM Replacement” of the IMMOBILIZER SYSTEM REPROGRAM PROCEDURE. (See 09–14–25 Both Immobilizer Unit and PCM Replacement.)

When customer has brought at least one valid key (code word is required)



YMU914WBH

Note
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

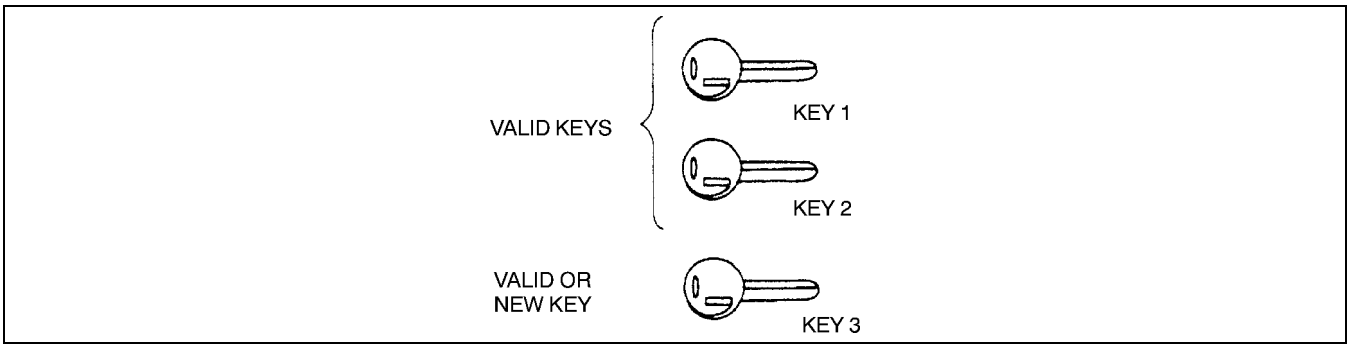
1. Cut new transponder equipped key(s) if necessary.
2. Replace immobilizer unit. (See 09–14–19 IMMOBILIZER UNIT REMOVAL/INSTALLATION.)
3. Using key 1, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 1 to LOCK position and remove from steering lock.
4. Using key 2, turn ignition switch to ON position then back to LOCK position **five times**. The key should not remain at ON position or LOCK position for **more than 1 second**.
   (1) Turn key 2 back to ON position. Observe flashing of security light (**300 ms** ON—**300 ms** OFF) in instrument cluster.
   (2) Turn key 2 to LOCK position and wait for **5 minutes** until security light decreases in flashing frequency to **1.2 seconds**.
   (3) Input code word. (See 09–14–26 CODE WORD INPUT PROCEDURE.)
   (4) Observe the security light stops flashing and illuminates.
   (5) Start engine with key 2. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (6) Turn key 2 to LOCK position and remove from steering lock.
5. Using key 1, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 1 to LOCK position and remove from steering lock.
6. Repeat Step 5 with key 3.
7. If there are 4—8 keys (valid and/or new keys), repeat Step 5.
8. Wait for **30 seconds** to quit reprogram mode.

PCM Replacement

When customer does not have valid key

- Immobilizer unit needs to be replaced with PCM. Perform “Both Immobilizer unit and PCM Replacement” of the IMMOBILIZER SYSTEM REPROGRAM PROCEDURE. (See 09–14–25 Both Immobilizer Unit and PCM Replacement.)

When customer has brought two or more valid keys



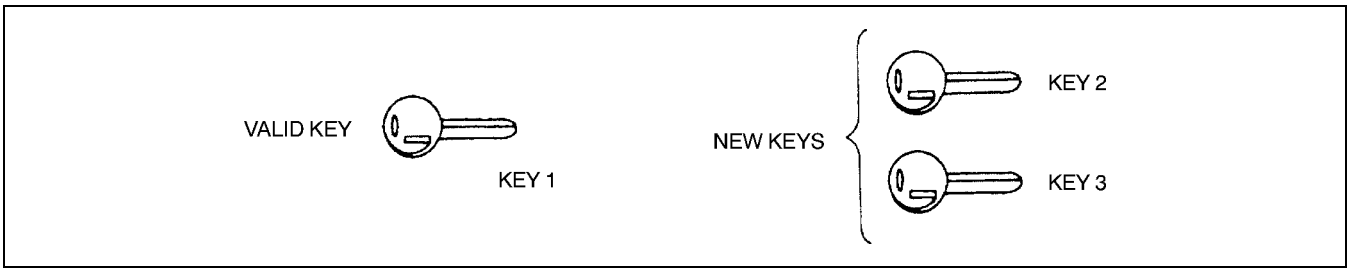
YMU914WBA

Note

- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Cut new transponder equipped key(s) if necessary.
2. Replace PCM. (See 01–40–6 PCM REMOVAL/INSTALLATION.)
3. Using key 1, turn ignition switch to ON position, and observe that security light illuminates (for **1—2 seconds**) in instrument cluster.
   (1) Turn key 1 to LOCK position.
   (2) Turn key 1 to ON position then back to LOCK position **six times**. The key should not remain at ON position or LOCK position for **more than 1 second**. It is particularly important to ensure that the 6th turn is done **within 1 second**.
   (3) Remove key 1.
4. Using key 2, turn ignition switch to ON position. Observe that security light illuminates (for **1—2 seconds**).
   (1) Turn key 2 to LOCK position and remove from steering lock.
5. Using key 1, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 1 to LOCK position and remove from steering lock.
6. Repeat Step 5 with key 3.
7. If there are 4—8 keys (valid and/or new keys), repeat Step 5.
8. Wait for **30 seconds** to quit reprogram mode.
9. After reprogramming, clear DTCs of PCM with WDS or equivalent.

When customer has brought only one valid key (code word is required)



YMU914WBB

Note

- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Cut new transponder equipped key(s) if necessary.
2. Replace PCM. (See 01–40–6 PCM REMOVAL/INSTALLATION.)
3. Using key 1, turn ignition switch to ON position. Observe that security light illuminates (for **1—2 seconds**) in instrument cluster.
   (1) Turn key 1 to LOCK position and remove from steering lock.

4. Using key 2, turn ignition switch to ON position then back to LOCK position **six times**. The key should not remain at ON position or LOCK position for **more than 1 second**. It is particularly important to ensure that the 6th turn is done **within 1 second**.
   (1) Observe flashing of security light (**300 ms** ON—**300 ms** OFF) in instrument cluster.
   (2) Wait for **5 minutes** until security light decreases in flashing frequency to **1.2 seconds**.
   (3) Input code word. (See 09–14–26 CODE WORD INPUT PROCEDURE.)
   (4) Observe the security light stops flashing and illuminates.
   (5) Turn key 2 to ON position. Observe that security light illuminates (for **1—2 seconds**).
   (6) Turn key 2 to LOCK position and remove from steering lock.
5. Using key 3, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
   (1) Turn key 3 to LOCK position and remove from steering lock.
6. Repeat Step 5 with key 1.
7. If there are 4—8 keys (valid and/or new keys), repeat Step 5.
8. Wait for **30 seconds** to quit reprogram mode.
9. After reprogramming, clear DTC of PCM with WDS or equivalent.

Both Immobilizer Unit and PCM Replacement
When customer has brought two or more valid keys

Note
- Keys may be valid or new keys.
- When an error occurs in Steps 1 to 4, repeat the procedure from Step 1.
- When an error occurs in Step 5, perform the “Reprogram error recovery procedure for both immobilizer unit and PCM replacement”.
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

1. Cut new transponder equipped key(s) if necessary.
2. Replace immobilizer unit and PCM. (See 09–14–19 IMMOBILIZER UNIT REMOVAL/INSTALLATION.) (See 01–40–6 PCM REMOVAL/INSTALLATION.)
3. Using key 1, turn ignition switch to ON position. Observe security light illuminates and then goes out in instrument cluster.
   (1) Turn key 1 to LOCK position. Observe security light blinks once repeatedly.
4. Using key 2, turn ignition switch to ON position. Observe security light illuminates and then goes out.
   (1) Turn key 2 to LOCK position. Observe security light blinks twice repeatedly.
5. Using key 3, turn ignition switch to ON position. Observe security light illuminates and then goes out.
   (1) Turn key 3 to LOCK position. Observe security light blinks three times repeatedly.
6. If there are 4—8 keys (valid and/or new keys), repeat Step 4.
7. Wait for **30 seconds** to quit reprogram mode.
8. After reprogramming, clear DTCs of PCM with WDS or equivalent.

Reprogram error recovery procedure for both immobilizer unit and PCM replacement

Note
- If no specific time interval is given, each step should be performed **within 30 seconds** of the previous step.

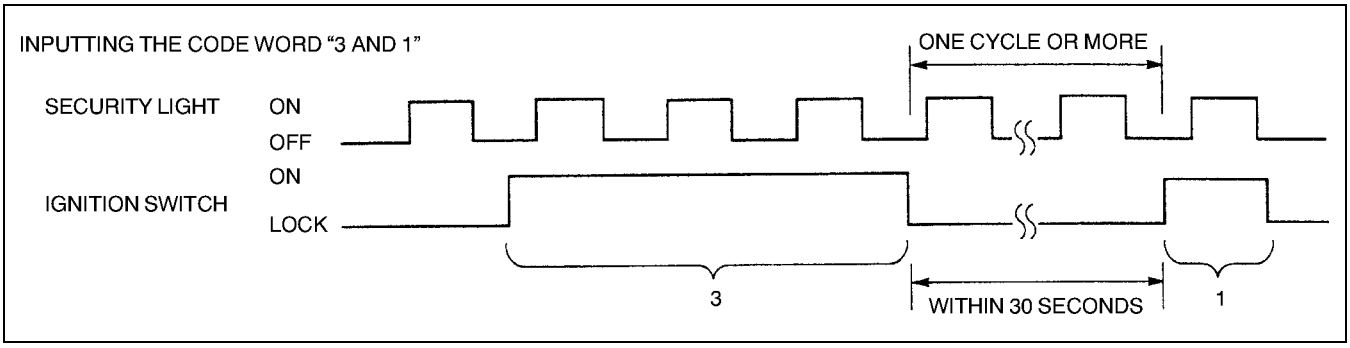
1. Using key 1, start engine. After security light illuminates for **1—2 seconds**, turn key 1 to LOCK position.
2. Using key 1, turn ignition switch to ON position then back to LOCK position **five times**. Key should not remain at ON position or LOCK position for **more than 1 second**.
3. Using key 1, turn ignition switch to ON position (security light illuminates).
4. Turn key 1 to LOCK position and remove from steering lock (security light goes out).
5. Using key 2, start engine. Observe that security light illuminates (for **1—2 seconds**) and engine continues to run.
6. Turn key 2 to LOCK position and remove from steering lock.
7. Repeat Steps 5 and 6 with key 1.
8. Repeat Steps 5 and 6 with key 3.
9. If there are 4—8 keys (valid and/or new keys), repeat Steps 5 and 6.
10. Wait for **30 seconds** to quit reprogram mode.
11. After reprogramming, clear DTCs of PCM with WDS or equivalent.

CODE WORD INPUT PROCEDURE

A5U091467000W04

Note
- A code word is composed of eight digits from 1—9 and is part of the immobilizer unit from the manufacturer. Each unit has its own code word. To obtain the code word, you need to have the immobilizer serial number, then ask the distributor.
- To input the code word into the PCM, turn the ignition key and count the number of flashes of the security light. The calculation of the number of flashes of the security light comes with the timing of the turning of the key.

1. Wait for **5 minutes** until security light flashes slowly. (**300 ms** ON—**300 ms** OFF → **1.2 s** ON—**1.2 s** OFF)
2. Input the code word as shown in the example below.



YMU914WBC

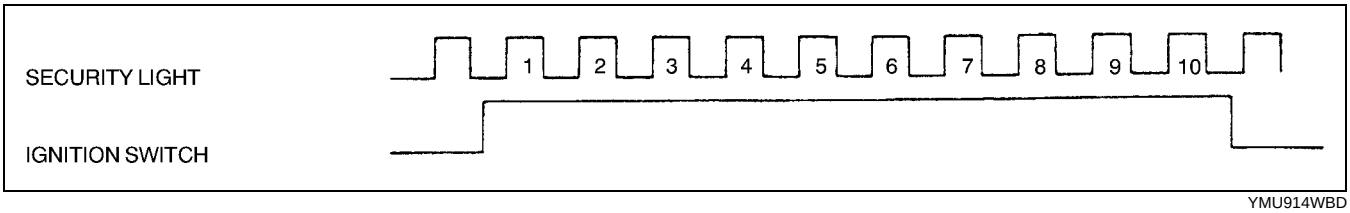
   (1) Turn ignition switch to ON position while security light is off and count three illumination cycles. As the light goes out after the third illumination, turn key to LOCK position.
   (2) Wait at least one illumination cycle and **within 30 seconds** of going to LOCK position, turn ignition switch to ON position while security light is off and count one illumination cycle. As the light goes out after the first illumination, turn key to LOCK position.
   (3) Repeat Step (2) for rest of six digits.
3. When code word is registered correctly in the PCM, the security light stops flashing and illuminates.
4. As soon as the security light stops flashing and illuminates, the following immobilizer system reprogram procedure should be started.

Note
- If the code word is not input correctly, the security light goes out after all eight digits are input. In this case, perform the "Code Word Input Error Recovery Procedure".

Examples of Incorrect Input of Code Word

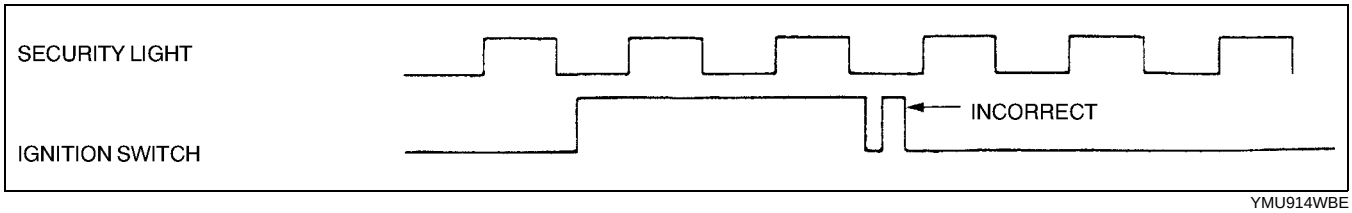
Note
- The security light must flash one or more times between the digits of the code word.
- If the code word is input incorrectly, the security light goes out. Turn the ignition switch to ON position then back to LOCK position **five times** (except PCM replacement) or **six times** (PCM replacement) and repeat the procedure to input all eight figures for the code word.
- When an error occurs during the reprogram procedures except when both the immobilizer unit and PCM are replaced, repeat the procedure from Step 1. If you still cannot reprogram, confirm how many keys can start the engine. Then, perform the key replacement or addition reprogram procedure according to the valid key number.

- The security light flashes ten or more times while the ignition switch is at ON position.



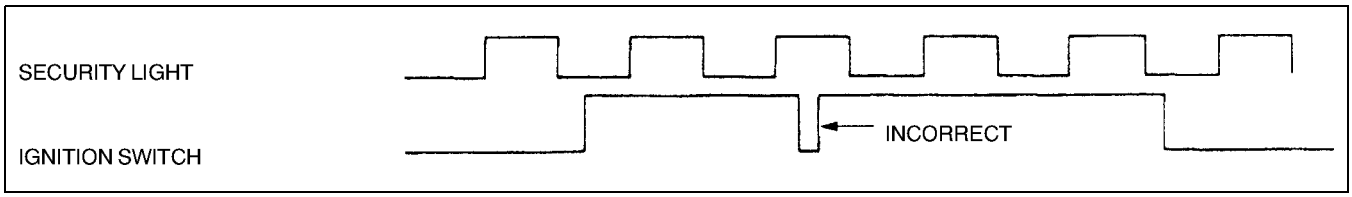
YMU914WBD

- The ignition switch is turned to ON position and LOCK position while the security light is off.



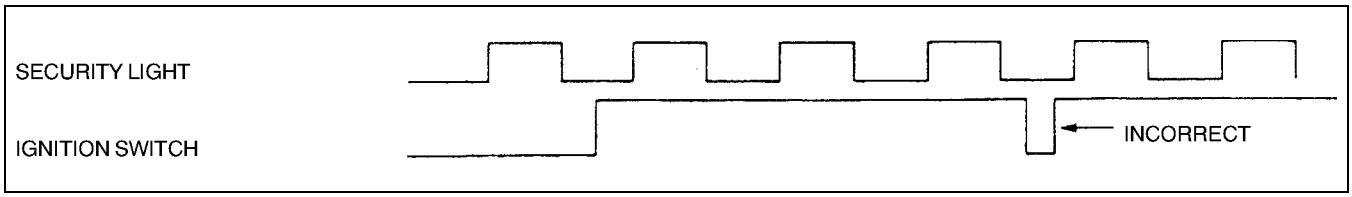
YMU914WBE

- The ignition switch is turned to LOCK position and ON position while the security light is on.



YMU914WBF

- The ignition switch is turned to LOCK position and ON position while the security light is off.



YMU914WBG

- The unmatching code word is input to the immobilizer unit.

Code Word Input Error Recovery Procedure

1. Turn ignition switch to ON position then back to LOCK position **five times** (except PCM replacement) or **six times** (PCM replacement). The key should not remain at ON position or LOCK position for **more than 1 second**.
2. Repeat the “CODE WORD INPUT PROCEDURE”.