

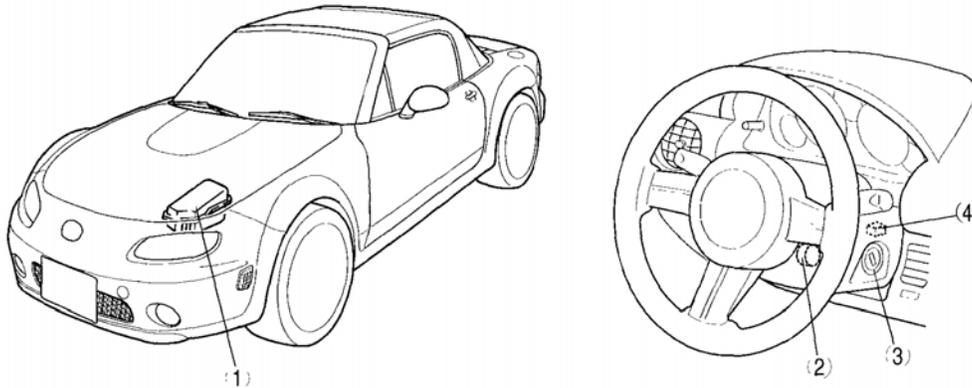
2007 Mazda MX-5 Miata Sport

2007 ACCESSORIES & BODY, CAB Power Systems - MX-5 Miata

2007 ACCESSORIES & BODY, CAB

Power Systems - MX-5 Miata

POWER SYSTEM LOCATION INDEX



E5U921ZW5000

1	Main fuse block
2	Ignition switch
3	Steering lock unit [advanced keyless system]
4	Key reminder switch [except advanced keyless system]

Fig. 1: Identifying Location Of Power System Components
Courtesy of MAZDA MOTORS CORP.

FUSE SERVICE WARNINGS

WARNING:

- For vehicles with DSC, if the room fuse is disconnected, the stored initial position of the steering angle sensor will be cleared and the DSC will not operate properly, making the vehicle unsafe to drive. Perform the steering angle sensor initialization procedure after connecting the room fuse. (See STEERING ANGLE SENSOR INITIALIZATION PROCEDURE .)

FUSE SERVICE CAUTION

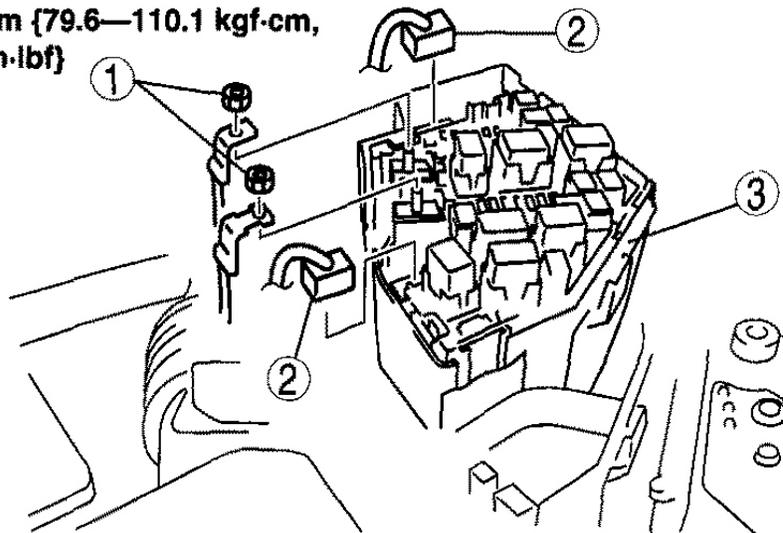
CAUTION:

- Determine and correct the cause of the burnt fuse before replacing it. If the fuse is replaced before doing this, it may burn again.

UPPER BLOCK REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the main fuse block cover.
4. Remove in the order indicated in **Fig. 2** .
5. Install in the reverse order of removal.

7.8—10.8 N·m {79.6—110.1 kgf·cm,
69.1—95.5 in·lbf}



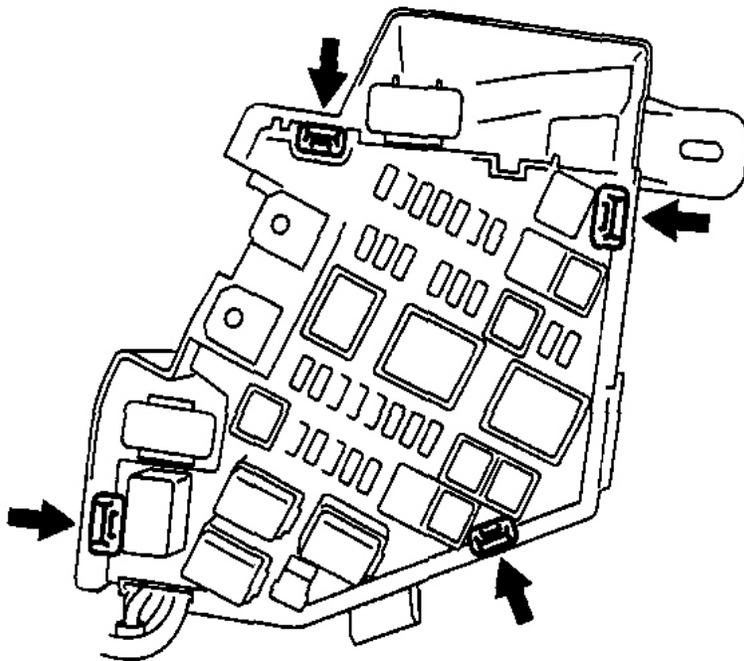
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1	Nut
2	Connector
3	Upper block

Fig. 2: Removing/Installing Upper Block (With Torque Specifications)
Courtesy of MAZDA MOTORS CORP.

UPPER BLOCK REMOVAL NOTE

1. Press and remove the tabs on upper block at the positions indicated by the arrows.
2. Raise the upper block and remove it.



E5U921ZW5003

Fig. 3: Removing Upper Block
Courtesy of MAZDA MOTORS CORP.

MAIN FUSE REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the upper block. (See **UPPER BLOCK REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in **Fig. 4** .

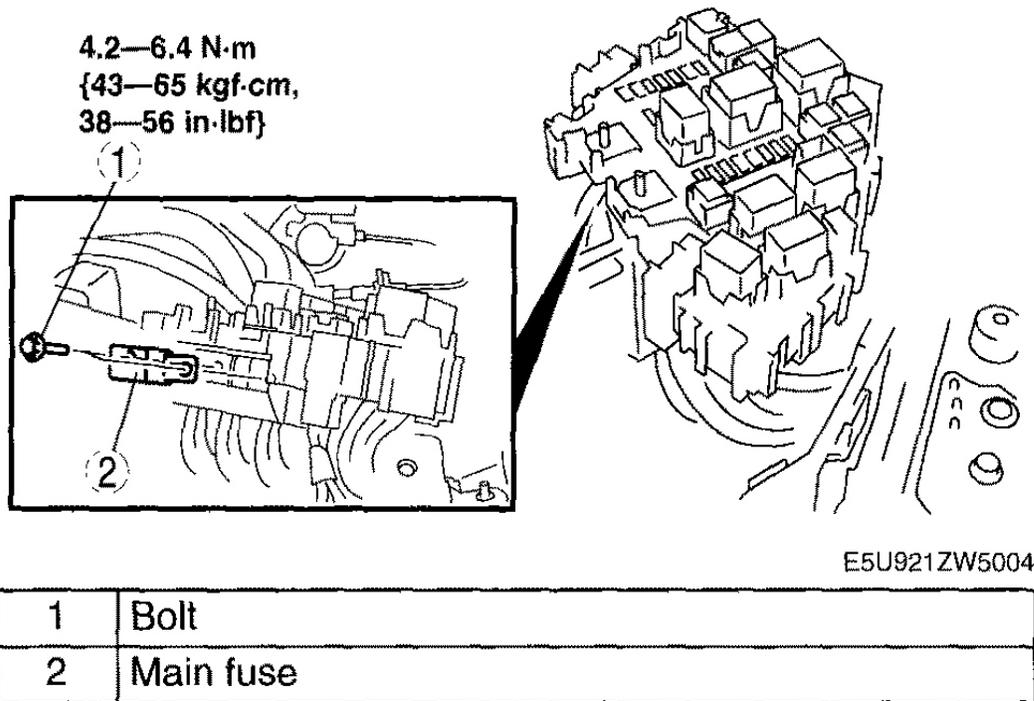
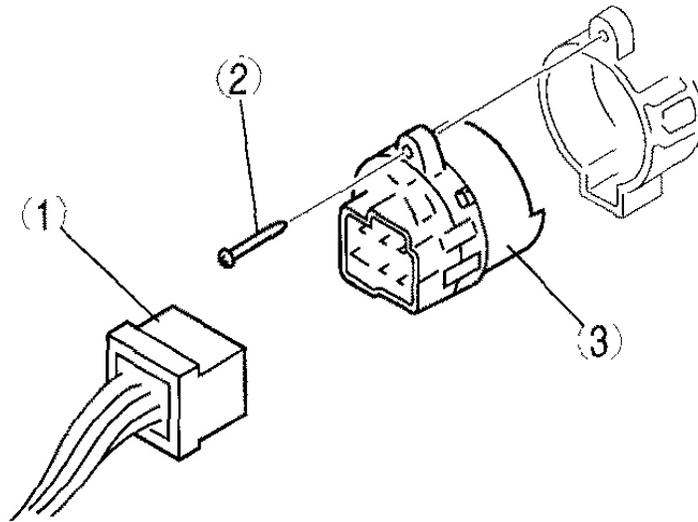


Fig. 4: Removing/Installing Main Fuse (With Torque Specifications)
Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

IGNITION SWITCH REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the column cover. (See **COLUMN COVER REMOVAL/INSTALLATION** .)
4. Remove in the order indicated in **Fig. 5** .



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1	Connector
2	Screw
3	Ignition switch

Fig. 5: Removing/Installing Ignition Switch
 Courtesy of MAZDA MOTORS CORP.

5. Install in the reverse order of removal.

IGNITION SWITCH INSPECTION

1. Verify that the continuity between the ignition switch terminals is as indicated in **Fig. 6** .
 - If not as indicated in **Fig. 6** , replace the ignition switch.

○—○: Continuity

Ignition key position	Terminal					
	E	F	D	C	B	A
LOCK						
ACC	○	—	○			
ON	○	○	○	○	○	
START	○	○	—	○		○

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Fig. 6: Ignition Switch Terminal Resistance Reference Table
 Courtesy of MAZDA MOTORS CORP.

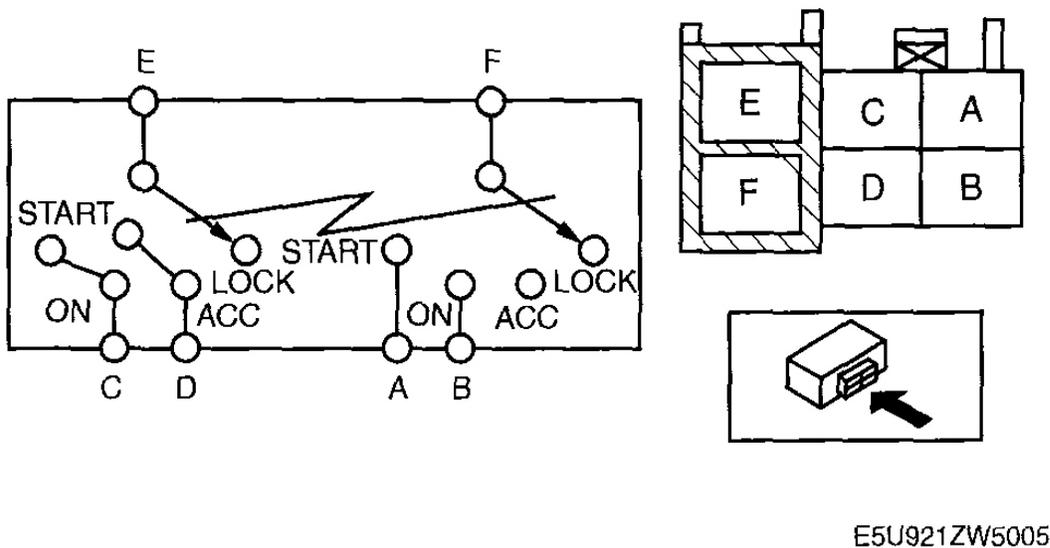
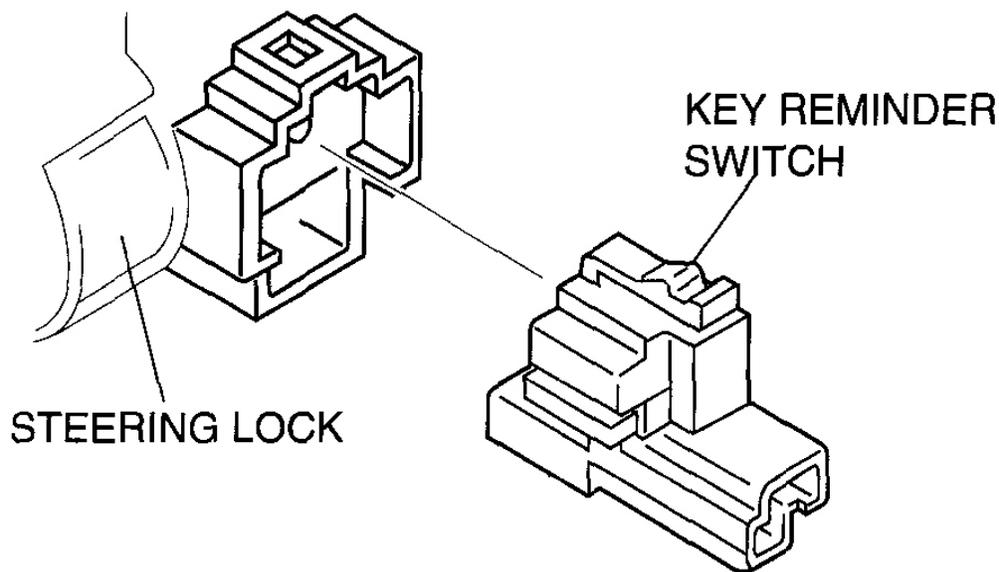


Fig. 7: Inspecting Ignition Switch
 Courtesy of MAZDA MOTORS CORP.

KEYLESS SYSTEM]

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the column cover. (See **COLUMN COVER REMOVAL/INSTALLATION** .)
4. Disconnect the key reminder switch connector.
5. Remove the key reminder switch.
6. Install in the reverse order of removal.



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Fig. 8: Removing/Installing Key Reminder Switch
Courtesy of MAZDA MOTORS CORP.

KEY REMINDER SWITCH INSPECTION [EXCEPT ADVANCED KEYLESS SYSTEM]

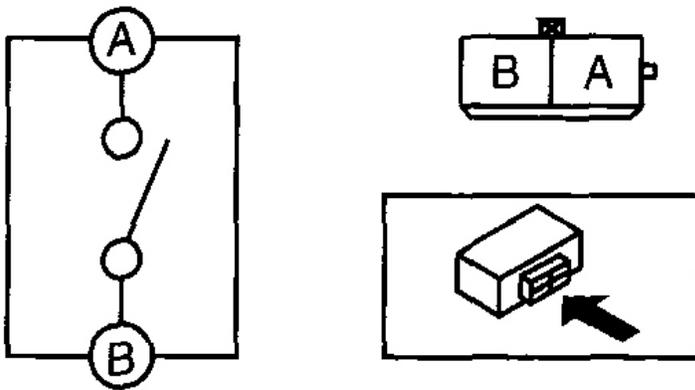
1. Verify that the continuity between the key reminder switch terminals is as indicated in **Fig. 9** .
 - If not as indicated in **Fig. 9** , replace the key reminder switch.

○—○ : Continuity

Key position	Terminal	
	A	B
Key inserted	○—	—○
Key removed		

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Fig. 9: Key Reminder Switch Terminal Resistance Reference Table
 Courtesy of MAZDA MOTORS CORP.



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Fig. 10: Inspecting Key Reminder Switch
 Courtesy of MAZDA MOTORS CORP.

STEERING LOCK UNIT INSPECTION [ADVANCED KEYLESS SYSTEM]

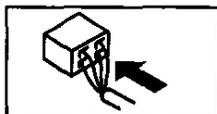
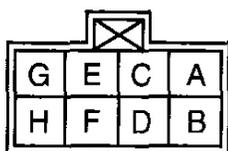
1. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
2. Measure the voltage at each terminal (other than terminals G and H).

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- If the voltage is not as specified in the **Terminal Voltage Table (Reference)**, inspect the parts under "Inspection item(s)".
3. Disconnect the steering lock unit connector
 4. Verify that continuity at terminals G and H is as indicated in the **Terminal Voltage Table (Reference)**.
 - If there is any malfunction, inspect the parts under "Inspection item(s)".
 - If the system does not work properly even though the parts or related wiring harnesses do not have any malfunction, replace the panel light control switch.

TERMINAL VOLTAGE TABLE (REFERENCE)



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Fig. 11: Inspecting Steering Lock Unit Connector
 Courtesy of MAZDA MOTORS CORP.

TERMINAL VOLTAGE TABLE

Terminal	Signal name	Connected to	Measured condition	Voltage (V)/Continuity	Inspection item(s)
A	Push switch signal	Keyless control module	Start knob pressed	B+	<ul style="list-style-type: none"> • Keyless control module • Related wiring harnesses
			Start knob released	1.0 or less	
B	Power supply	Fuse	Under any condition	B+	<ul style="list-style-type: none"> • Fuse • Related wiring harnesses
C	Key reminder switch signal	Keyless control module	Key inserted	B+	<ul style="list-style-type: none"> • Keyless control module • Related wiring harnesses
			Key removed	1.0 or less	
					<ul style="list-style-type: none"> • Fuse

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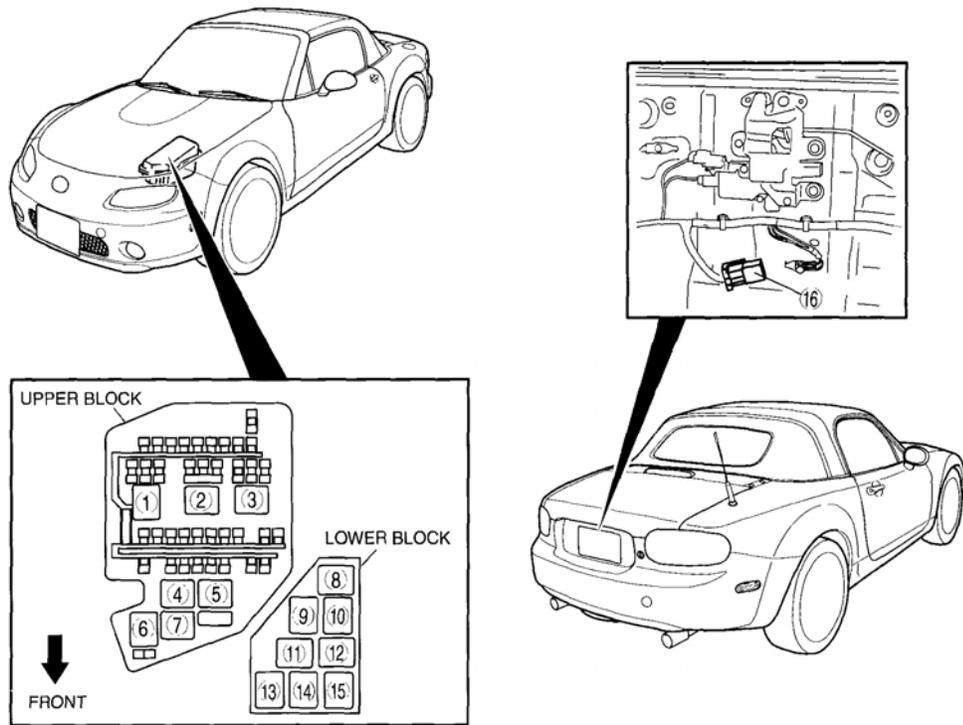
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D	Power supply	Fuse	Under any condition	B+	<ul style="list-style-type: none"> • Related wiring harnesses
E	Power supply	Fuse	Under any condition	B+	<ul style="list-style-type: none"> • Fuse • Related wiring harnesses
F	Ignition key illumination signal	Ignition key illumination bulb	Ignition switch off and driver-side door opened.	1.0 or less	<ul style="list-style-type: none"> • Ignition key illumination bulb • Related wiring harnesses
			30s or more after driver-side door closed.	B+	
G	Serial communication	Keyless control module	Under any condition: Inspect for continuity to keyless control module.	Continuity detected	Related wiring harnesses
H	GND	Body ground	Under any condition: Inspect for continuity to GND.	Continuity detected	Related wiring harnesses

RELAY LOCATION

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E5U921ZW5006

1	Main relay
2	Headlight relay
3	Ignition relay
4	Starter relay
5	Drive-by-wire relay
6	Blower relay
7	Fuel pump relay
8	Front fog light relay

9	A/C relay
10	TNS relay
11	Rear window defroster relay
12	Horn relay
13	Cooling fan relay No.3
14	Cooling fan relay No.2
15	Cooling fan relay No.1
16	Trunk lid opener relay

Fig. 12: Identifying Relay Locations
Courtesy of MAZDA MOTORS CORP.

TRUNK LID OPENER RELAY REMOVAL/INSTALLATION

1. Remove the battery cover.
2. Disconnect the negative battery cable. (See **BATTERY REMOVAL/INSTALLATION [LF]** .)
3. Remove the trunk end trim. (See **TRUNK END TRIM REMOVAL/INSTALLATION** .)
4. Remove the trunk lid opener relay.
5. Install in the reverse order of removal.

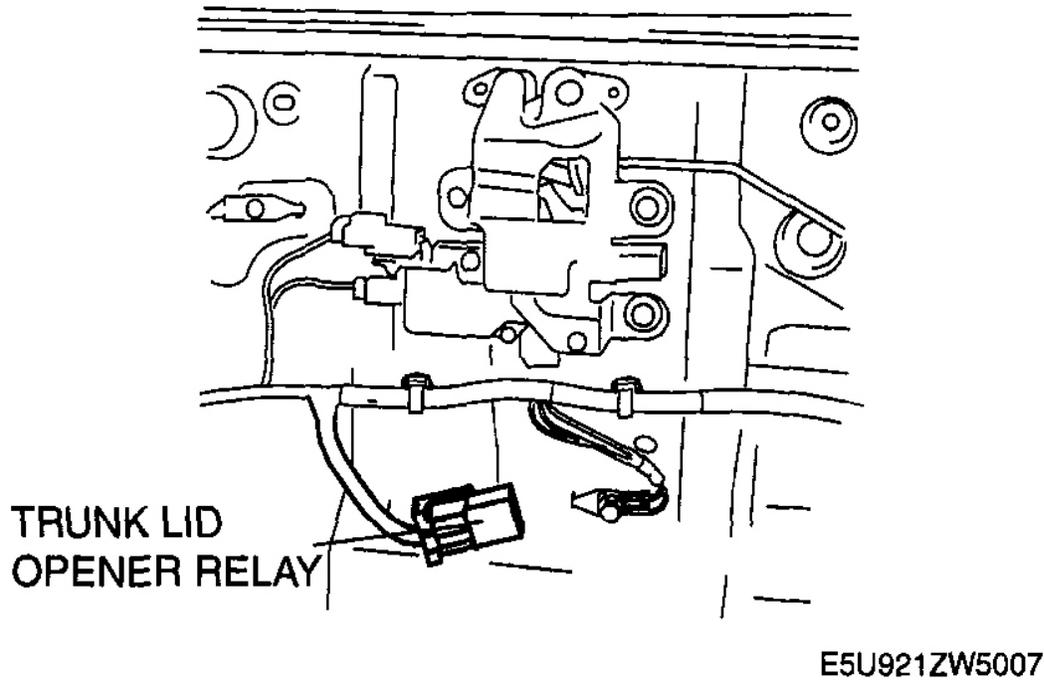


Fig. 13: Removing/Installing Trunk Lid Opener Relay
 Courtesy of MAZDA MOTORS CORP.

RELAY INSPECTION

RELAY TYPE

RELAY TYPE TABLE

Terminal type	Part name
Type A	<ul style="list-style-type: none"> • Main relay • Starter relay • Drive-by-wire relay • Blower relay • Fuel pump relay • Front fog light relay • A/C relay • TNS relay • Rear window defroster relay • Horn relay

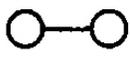
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	<ul style="list-style-type: none"> • Cooling fan relay No.1 • Cooling fan relay No.2 • Cooling fan relay No.3 • Trunk lid opener relay
Type B	<ul style="list-style-type: none"> • Headlight relay • Ignition relay

TYPE A

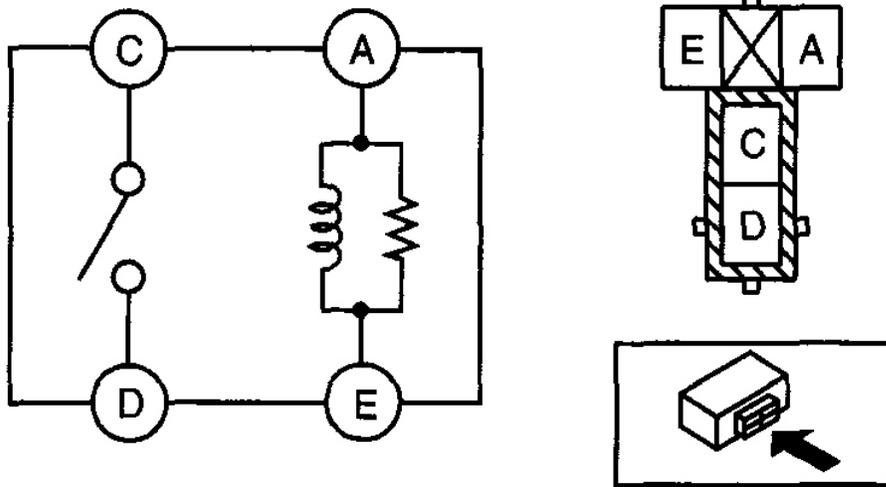
1. Verify the continuity between the relay terminals.
 - If not as indicated in **Fig. 14**, replace the relay.

 : Continuity

Step	Terminal			
	A	E	C	D
1				
2	B+	GND		

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Fig. 14: Type A Continuity Table
 Courtesy of MAZDA MOTORS CORP.



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Fig. 15: Type A Circuit & Connector
 Courtesy of MAZDA MOTORS CORP.

TYPE B

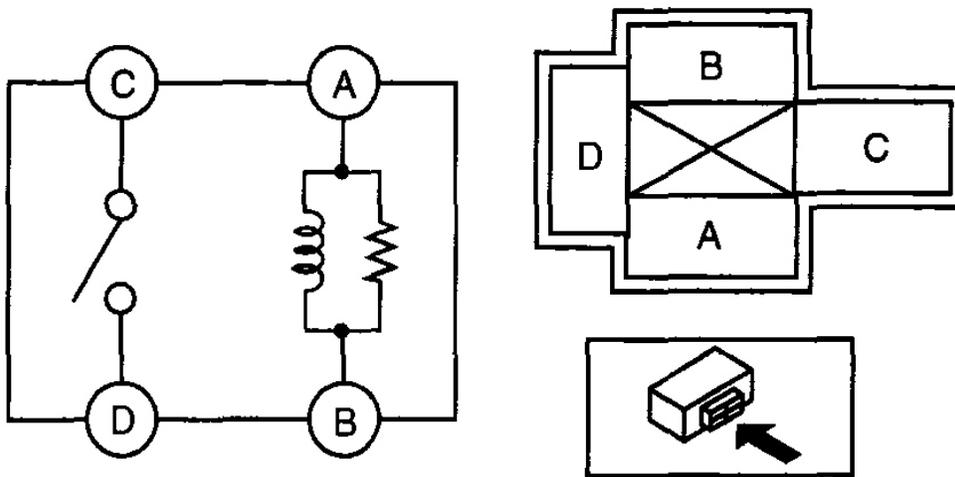
1. Verify the continuity between the relay terminals.
 - If not as indicated in **Fig. 16** , replace the relay.

○—○ : Continuity

Step	Terminal			
	A	B	C	D
1	○—○	○—○		
2	B+	GND	○—○	○—○

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Fig. 16: Type B Continuity Table
 Courtesy of MAZDA MOTORS CORP.



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Fig. 17: Type B Circuit & Connector
Courtesy of MAZDA MOTORS CORP.