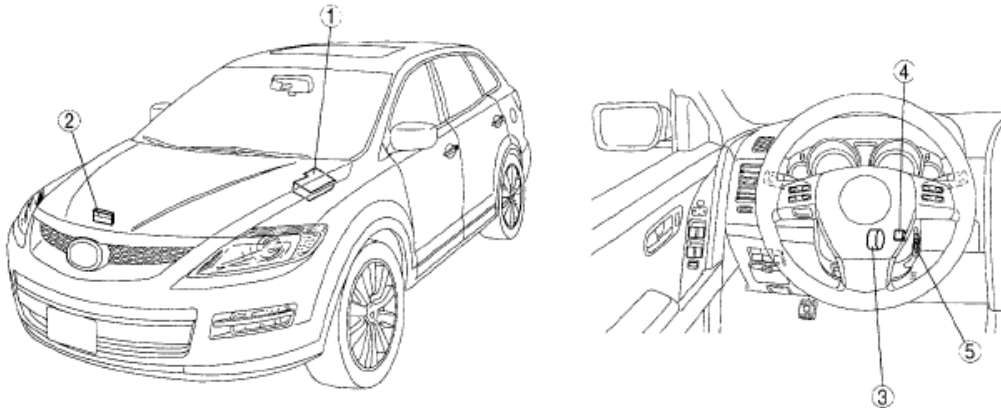


2008 ACCESSORIES & BODY, CAB

Power Systems - Mazda CX-9

POWER SYSTEM LOCATION INDEX



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1	Main fuse block (See 09-21-5 RELAY LOCATION.) (See 09-21-6 RELAY INSPECTION.)
2	Relay block (See 09-21-5 RELAY LOCATION.) (See 09-21-6 RELAY INSPECTION.)
3	Ignition switch (See 09-21-2 IGNITION SWITCH REMOVAL/ INSTALLATION) (See 09-21-2 IGNITION SWITCH INSPECTION.)

4	Key reminder switch (See 09-21-3 KEY REMINDER SWITCH REMOVAL/INSTALLATION) (See 09-21-3 KEY REMINDER SWITCH INSPECTION.)
5	Steering lock unit (See 09-21-4 STEERING LOCK UNIT INSPECTION.)

Fig. 1: Identifying Power System Components Location

Courtesy of MAZDA MOTORS CORP.

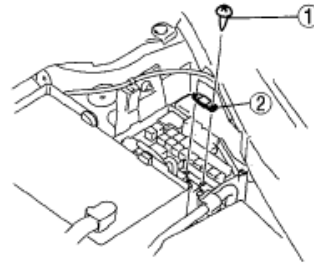
FUSE SERVICE CAUTIONS

- CAUTION:**
- Determine and correct the cause of the burnt fuse before replacing it with the specified type, if the fuse is replaced before doing this, it may burn again.

MAIN FUSE REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the main fuse block cover.
3. Remove in the order indicated in the table.
4. Install in the reverse order of removal.

1	Screw
2	Main fuse



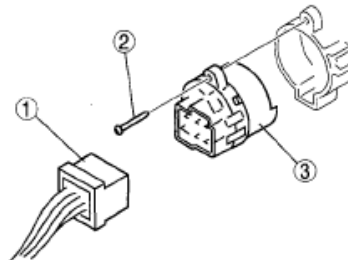
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Fig. 2: Identifying Main Fuse Screw
 Courtesy of MAZDA MOTORS CORP.

IGNITION SWITCH REMOVAL/INSTALLATION

1. Disconnect the negative battery cable.
2. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
3. Remove in the order indicated in the table.

1	Connector
2	Screw
3	Ignition switch



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Fig. 3: Identifying Ignition Switch Remove/Install Components
 Courtesy of MAZDA MOTORS CORP.

4. Install in the reverse order of removal.

IGNITION SWITCH INSPECTION

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

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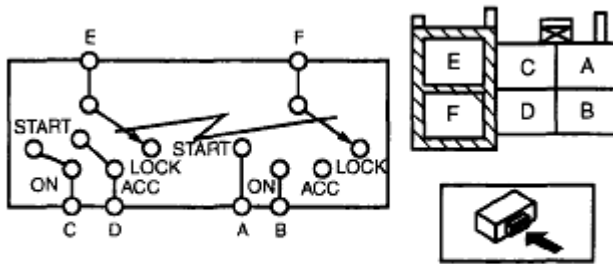
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○—○: Continuity

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

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Fig. 4: Ignition Switch Terminals Continuity Chart
Courtesy of MAZDA MOTORS CORP.

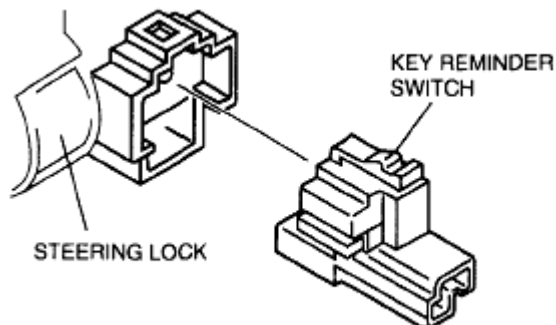


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Fig. 5: Identifying Ignition Switch Terminals
Courtesy of MAZDA MOTORS CORP.

KEY REMINDER SWITCH REMOVAL/INSTALLATION

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



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Fig. 6: Identifying Key Reminder Switch And Steering Lock
 Courtesy of MAZDA MOTORS CORP.

KEY REMINDER SWITCH INSPECTION

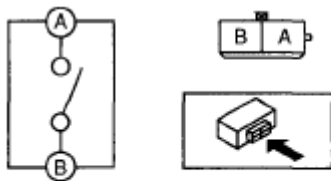
1. Disconnect the negative battery cable.
2. Remove the column cover. (See COLUMN COVER REMOVAL/INSTALLATION .)
3. Disconnect the key reminder switch connector.
4. Inspect for continuity between the key reminder switch terminals using a tester.
 - If there is any malfunction, replace the key reminder switch.

○—○ : Continuity

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

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Fig. 7: Key Reminder Switch Terminals Continuity Chart
 Courtesy of MAZDA MOTORS CORP.



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Fig. 8: Identifying Key Reminder Switch Terminals
 Courtesy of MAZDA MOTORS CORP.

STEERING LOCK UNIT INSPECTION

1. Measure the voltage at each terminal as indicated in the Terminal Voltage Tables.
 - If the voltage is not as specified in the Terminal Voltage Table (Reference), inspect the parts under "Inspection item(s)" and related wiring harnesses.
2. If the system does not work properly even though the inspection items or related wiring harnesses do not have any malfunction, replace the steering lock unit.

TERMINAL VOLTAGE TABLE (REFERENCE)

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Fig. 9: Identifying Steering Lock Unit Terminals
 Courtesy of MAZDA MOTORS CORP.

VOLTAGE SPECIFICATION

Terminal	Signal name	Connected to	Measured condition	Voltage (V)	Inspection item(s)
C	Interior light power supply	<ul style="list-style-type: none"> • BCM • Ignition key illumination 	Under any condition	B+	<ul style="list-style-type: none"> • Ignition key illumination bulb • BCM (See <u>BODY CONTROL MODULE (BCM) INSPECTION</u>) • Related wiring harnesses
D	Ignition key illumination control	<ul style="list-style-type: none"> • BCM • Ignition key illumination 	Ignition switch off and driver side door opened.	1.0 or less	<ul style="list-style-type: none"> • Ignition key illumination bulb • BCM (See <u>BODY CONTROL MODULE (BCM) INSPECTION</u>) • Related wiring harnesses
			15 s or more after all doors closed.	B+	
E	Push switch signal	Keyless control module	Start knob pressed	B+	<ul style="list-style-type: none"> • Keyless control module (See <u>KEYLESS CONTROL MODULE INSPECTION [ADVANCED KEYLESS SYSTEM]</u>) • Related wiring harnesses
			Start knob released	1.0 or less	
F	Power supply	BCM	Under any condition	B+	<ul style="list-style-type: none"> • BCM (See <u>BODY CONTROL MODULE (BCM) INSPECTION</u>) • Related wiring harnesses
G	Key reminder switch signal	Keyless control module	Key inserted	B+	<ul style="list-style-type: none"> • Keyless control module (See <u>KEYLESS CONTROL MODULE INSPECTION</u>)
				1.0 or less	

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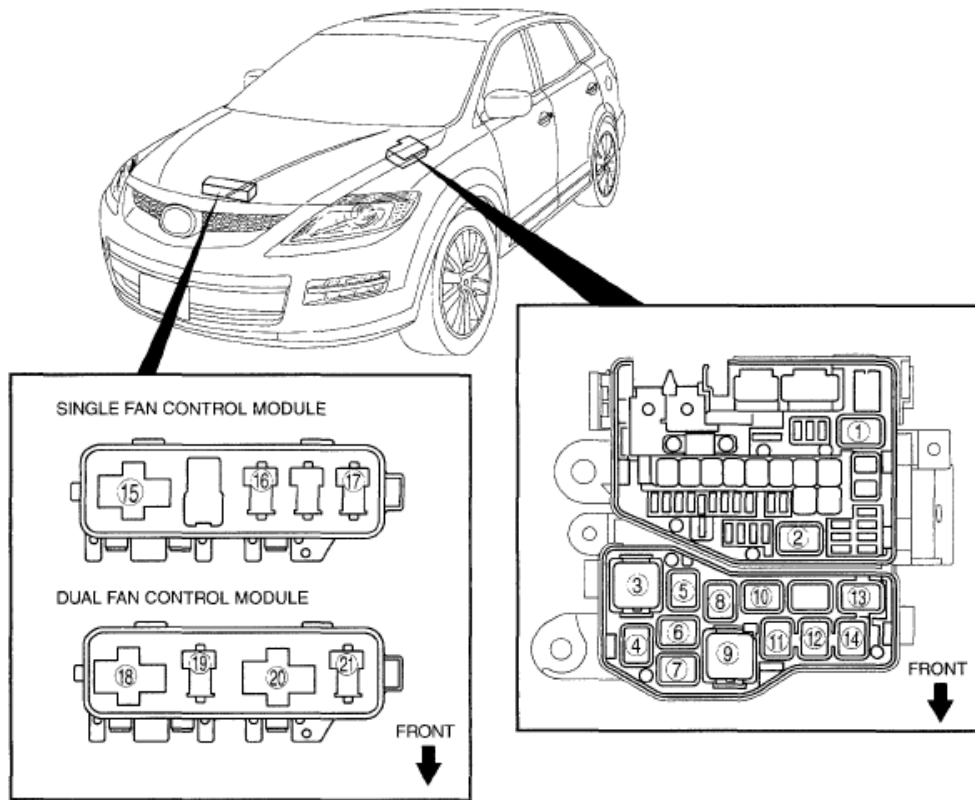
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			Key removed	less	<p><u>[ADVANCED KEYLESS SYSTEM]</u>)</p> <ul style="list-style-type: none"> • Related wiring harnesses
I	Power supply	BCM	Under any condition	B+	<ul style="list-style-type: none"> • BCM (See <u>BODY CONTROL MODULE (BCM) INSPECTION</u>) • Related wiring harnesses
K	Serial communication	Keyless control module	Because this terminal is for communication, good/no good judgment by terminal voltage is not possible.		<ul style="list-style-type: none"> • Keyless control module (See <u>KEYLESS CONTROL MODULE INSPECTION [ADVANCED KEYLESS SYSTEM]</u>) • Related wiring harnesses
L	GND	Body ground	Under any condition	1.0 or less	Related wiring harnesses

RELAY LOCATION

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1	Main relay No.1
2	Fuel pump relay
3	Front blower relay
4	Rear window defroster relay
5	Starter relay
6	Back-up light relay
7	A/C relay
8	TNS relay
9	Rear blower relay
10	Horn relay
11	Seat warmer relay RH

12	H/L HI relay
13	Main relay No.2
14	H/L LOW relay
15	Fan relay
16	Seat warmer relay LH
17	Front fog light relay
18	Cooling fan relay No.1
19	Seat warmer relay LH
20	Cooling fan relay No.2
21	Front fog light relay

Fig. 10: Identifying Relay Location
 Courtesy of MAZDA MOTORS CORP.

RELAY INSPECTION

RELAY TYPE

RELAY TYPE REFERENCE

Terminal type	Part name
	<ul style="list-style-type: none"> • Main relay No. 1 • Fuel pump relay • Rear window defroster relay

4 terminals	Type A	<ul style="list-style-type: none"> • Starter relay • Back-up light relay • A/C relay • TNS relay • Horn relay • Seat warmer relay RH • H/L HI relay • Main relay No.2 • H/L LOW relay • Seat warmer relay LH • Front fog light relay
	Type B	<ul style="list-style-type: none"> • Front blower relay • Rear blower relay • Fan relay • Cooling fan relay No.1 • Cooling fan relay No.2

TYPE A

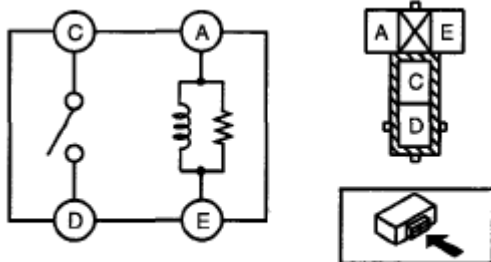
1. Verify the continuity between the relay terminals.
 - If not as indicated in the table, replace the relay.

○—○ : Continuity

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

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Fig. 11: Relay Terminals Continuity Chart (Type A)
 Courtesy of MAZDA MOTORS CORP.



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Fig. 12: Identifying Relay Terminals (Type A)
 Courtesy of MAZDA MOTORS CORP.

TYPE B

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

○—○ : Continuity

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

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Fig. 13: Relay Terminals Continuity Chart (Type B)
 Courtesy of MAZDA MOTORS CORP.

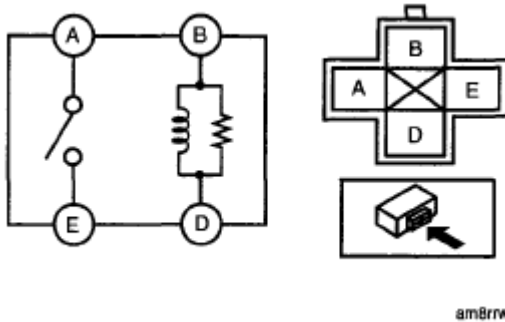


Fig. 14: Identifying Relay Terminals (Type B)
 Courtesy of MAZDA MOTORS CORP.