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2016 Mazda CX-5 Service and Repair Manual

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Step	Inspection		Action
8	VERIFY IF OTHER DTCs DISPLAYED • Are any other DTCs displayed?	Yes	Repair or replace the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [FRONT BODY CONTROL MODULE (FBCM)].)
		No	DTC troubleshooting completed.

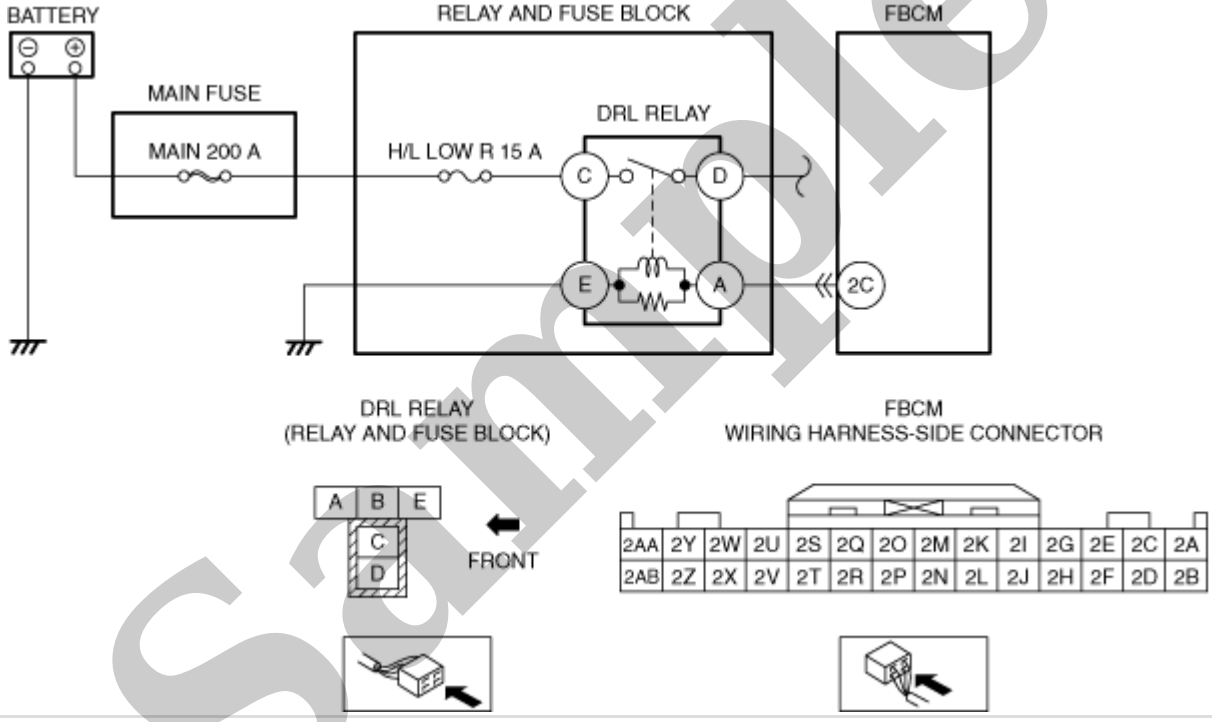
Step	Inspection		Action
1	**VERIFY FRONT BODY CONTROL MODULE (FBCM) DTCs AGAIN** • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Switch the ignition ON (engine off or on) and wait for 1 s or more. • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	LIN communication line can be considered the cause. • Refer to the wiring diagram and verify whether or not there is a common connector between auto light sensor/humidity sensor/rain sensor terminal C and front body control module (FBCM) terminal 2G. (With auto light sensor/humidity sensor/rain sensor) **If there is a common connector:** — Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for a malfunction. — Repair or replace the malfunctioning part. **If there is no common connector:** — Repair or replace the wiring harness. Go to the next step.
		No	Go to Step 3.
2	**VERIFY THAT REPAIRS HAVE BEEN COMPLETED** • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Switch the ignition ON (engine off or on) and wait for 1 s or more. • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Replace the front body control module (FBCM), then go to the next step. (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.)
		No	Go to the next step.
3	**VERIFY IF OTHER DTCs DISPLAYED** • Are any other DTCs displayed?	Yes	Repair or replace the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [FRONT BODY CONTROL MODULE (FBCM)].)
		No	DTC troubleshooting completed.

DTC B1092:11 [FRONT BODY CONTROL MODULE (FBCM)]

SM2898956

id0902p200690

Description	**DRL relay circuit malfunction**
Detection condition	• The front body control module (FBCM) detects a short to ground in the DRL relay circuit with the ignition switched ON (engine off or on).
Fail-safe	Not applicable
Possible cause	• DRL relay malfunction • Front body control module (FBCM) connector or terminal malfunction • Short to ground in wiring harness between DRL relay terminal A and front body control module (FBCM) terminal 2C • Front body control module (FBCM) malfunction



Diagnostic Procedure

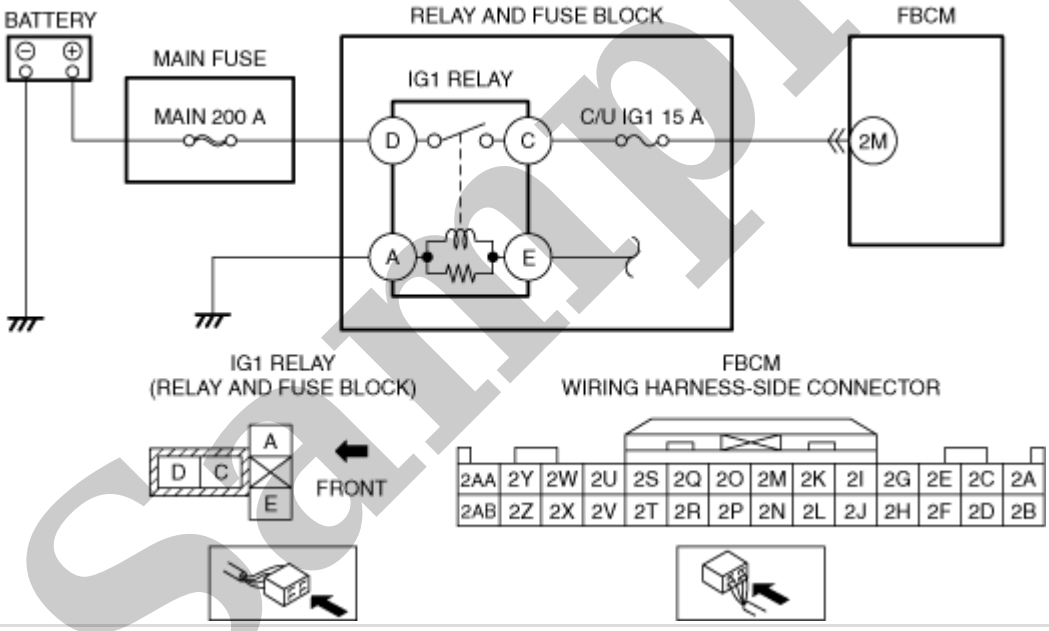
Step	Inspection		Action
1	**VERIFY FRONT BODY CONTROL MODULE (FBCM) DTCs AGAIN** • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Go to the next step.
		No	Go to Step 6.

DTC B1142:13 [FRONT BODY CONTROL MODULE (FBCM)]

SM2898959

id0902p200770

Description	IG1 circuit malfunction
Detection condition	• Front body control module (FBCM) detects an open circuit in the IG1 circuit for 2 s or more with the ignition switched ON (engine off or on).
Fail-safe	Not applicable
Possible cause	• IG1 relay malfunction • Front body control module (FBCM) connector or terminal malfunction • IG1 circuit malfunction — C/U IG1 15 A fuse malfunction — Open circuit in the wiring harness between IG1 relay terminal C and front body control module (FBCM) terminal 2M • Front body control module (FBCM) malfunction



Diagnostic Procedure

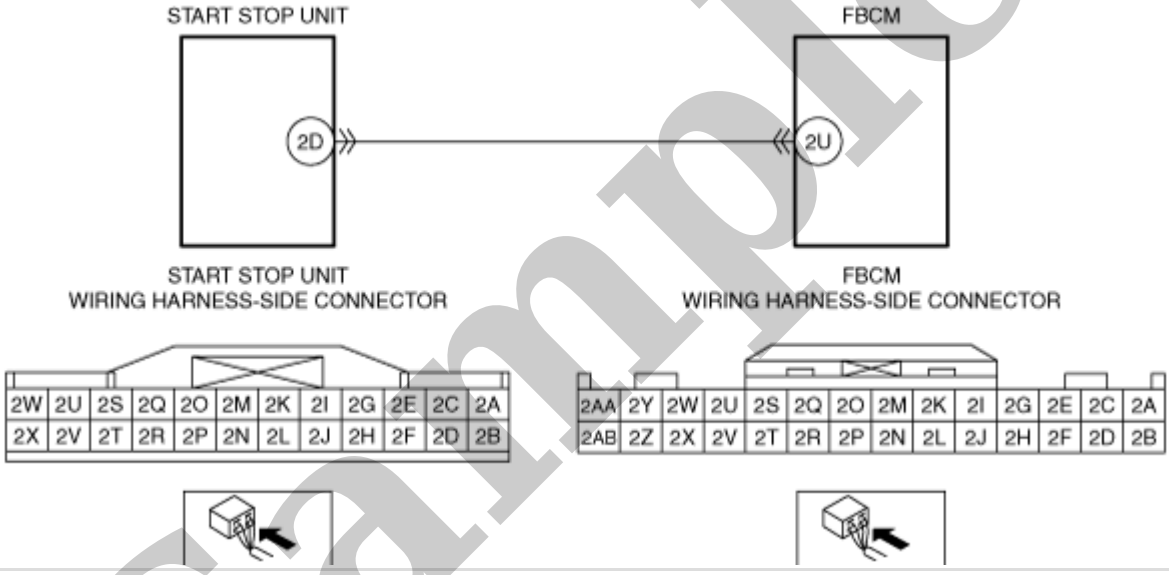
Step	Inspection		Action
1	VERIFY FRONT BODY CONTROL MODULE (FBCM) DTCs AGAIN • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Switch the ignition ON (engine off or on) and wait for 2 s or more. • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Go to the next step.
		No	Go to Step 6.

DTC B1143:13 [FRONT BODY CONTROL MODULE (FBCM)]

SM2898960

id0902p200780

Description	IG2 control circuit malfunction
Detection condition	• Front body control module (FBCM) detects an open circuit in the IG2 control circuit for 2 s or more with the ignition switched ON (engine off or on).
Fail-safe	Not applicable
Possible cause	• Start stop unit connector or terminal malfunction • Front body control module (FBCM) connector or terminal malfunction • Open circuit in the wiring harness between start stop unit terminal 2D and front body control module (FBCM) terminal 2U • Start stop unit malfunction • Front body control module (FBCM) malfunction



Diagnostic Procedure

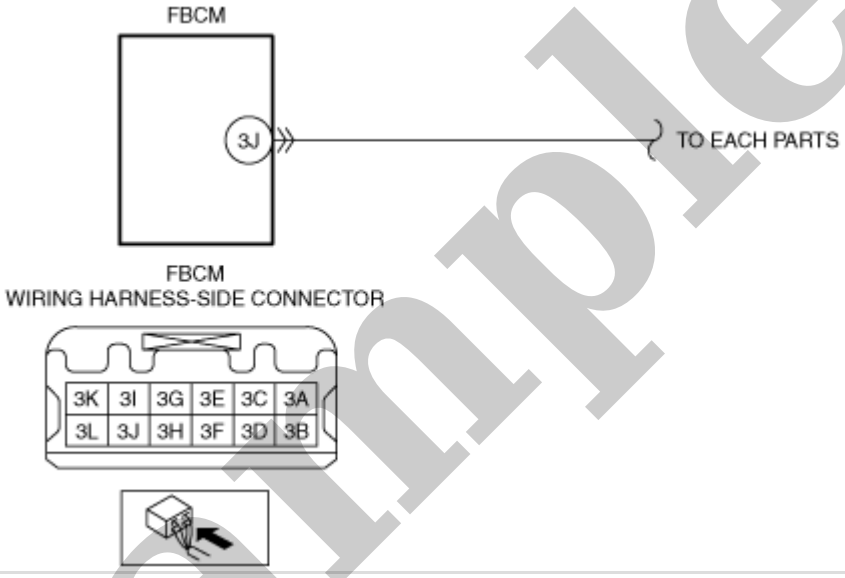
Step	Inspection		Action
1	**VERIFY FRONT BODY CONTROL MODULE (FBCM) DTCs AGAIN** • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Switch the ignition ON (engine off or on) and wait for 2 s or more. • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Go to the next step.
		No	Go to Step 7.

DTC B1314:11 [FRONT BODY CONTROL MODULE (FBCM)]

SM2898961

id0902p200800

Description	**Illumination output circuit malfunction**
Detection condition	• Front body control module (FBCM) detects a short to ground in the illumination output circuit with the ignition switched ON (engine off or on).
Fail-safe	Not applicable
Possible cause	• Front body control module (FBCM) connector or terminal malfunction • Short to ground in front body control module (FBCM) illumination output circuit • Illuminations malfunction • Front body control module (FBCM) malfunction



Diagnostic Procedure

Step	Inspection		Action
1	**VERIFY FRONT BODY CONTROL MODULE (FBCM) DTCs AGAIN** • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Go to the next step.
		No	Go to Step 6.

Step	Inspection		Action
		No	Repair or replace the malfunctioning part, then go to the next step. (See CRUISE CONTROL SWITCH REMOVAL/INSTALLATION [SKYACTIV-D 2.2].) (See CRUISE CONTROL SWITCH REMOVAL/INSTALLATION [SKYACTIV-G 2.5T].) (See CRUISE CONTROL SWITCH REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)].) (See CRUISE CONTROL SWITCH REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)].) (See ELECTRIC PARKING BRAKE SWITCH REMOVAL/INSTALLATION.) (See DRIVE SELECTION SWITCH REMOVAL/INSTALLATION [SKYACTIV-G 2.5T].) (See DRIVE SELECTION SWITCH REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITHOUT CYLINDER DEACTIVATION)].) (See DRIVE SELECTION SWITCH REMOVAL/INSTALLATION [SKYACTIV-G 2.5 (WITH CYLINDER DEACTIVATION)].) (See HAZARD WARNING SWITCH REMOVAL/INSTALLATION.) (See GLOVE COMPARTMENT LIGHT BULB REMOVAL/INSTALLATION.) (See FRONT MAP LIGHT REMOVAL/INSTALLATION.) (See REAR MAP LIGHT REMOVAL/INSTALLATION.) (See COMMANDER SWITCH REMOVAL/INSTALLATION.) (See STEERING SWITCH REMOVAL/INSTALLATION.) (See CLUSTER SWITCH REMOVAL/INSTALLATION.)
5	VERIFY THAT REPAIRS HAVE BEEN COMPLETED • Always reconnect all disconnected connectors. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the front body control module (FBCM). (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.) Go to the next step.
		No	Go to the next step.
6	VERIFY IF OTHER DTCs DISPLAYED • Are any other DTCs displayed?	Yes	Repair or replace the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [FRONT BODY CONTROL MODULE (FBCM)].)
		No	DTC troubleshooting completed.

DTC B10A6:64 [FRONT BODY CONTROL MODULE (FBCM)]

SM2898963

id0902p200830

Description	Light switch error signal received
Detection condition	• Front body control module (FBCM) receives the error signals from the start stop unit for 5 s or more with the ignition switched ON (engine off or on).
Fail-safe	• If DTC B10A6:64 is detected when the ignition is switched ON (engine off or on), the headlight LO and the TNS (parking lights) are illuminated. • If DTC B10A6:64 is cleared, the headlight LO and the TNS (parking lights) are turned off, and the operation returns to normal.
Possible cause	• Start stop unit malfunction • Light switch malfunction • Front body control module (FBCM) malfunction
System wiring diagram	Not applicable

Diagnostic Procedure

Step	Inspection		Action
1	VERIFY FRONT BODY CONTROL MODULE (FBCM) DTCs AGAIN • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Switch the ignition ON (engine off or on) and wait for 5 s or more. • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Go to the next step.
		No	Go to Step 4.
2	INSPECT LIGHT SWITCH • Inspect the light switch. (See LIGHT SWITCH INSPECTION.) • Is the light switch normal?	Yes	Replace the start stop unit, then go to the next step. (See START STOP UNIT REMOVAL/INSTALLATION.)
		No	Replace the light switch, then go to the next step. (See LIGHT SWITCH REMOVAL/INSTALLATION.)
3	VERIFY THAT REPAIRS HAVE BEEN COMPLETED • Clear the DTC for the front body control module (FBCM) using the M-MDS. (See CLEARING DTC [FRONT BODY CONTROL MODULE (FBCM)].) • Switch the ignition ON (engine off or on) and wait for 5 s or more. • Retrieve the front body control module (FBCM) DTCs using the M-MDS. (See DTC INSPECTION [FRONT BODY CONTROL MODULE (FBCM)].) • Is the same DTC displayed?	Yes	Repeat the inspection from Step 1. • If the malfunction recurs, replace the front body control module (FBCM). (See FRONT BODY CONTROL MODULE (FBCM) REMOVAL/INSTALLATION.) Go to the next step.
		No	Go to the next step.

Step	Inspection		Action
2	**VERIFY REAR BODY CONTROL MODULE (RBCM) DTCs AGAIN** • Clear the DTC for the rear body control module (RBCM) using the M-MDS. (See CLEARING DTC [REAR BODY CONTROL MODULE (RBCM)].) • Retrieve the rear body control module (RBCM) DTCs using the M-MDS with the front door lock-link switch (LH) unlocked. (See DTC INSPECTION [REAR BODY CONTROL MODULE (RBCM)].) • Is DTC B126A:11 or B126A:13 displayed?	Yes	Repair or replace the malfunctioning part according to the applicable DTC troubleshooting. (See DTC TABLE [REAR BODY CONTROL MODULE (RBCM)].)
		No	Go to the next step.
3	**INSPECT FRONT DOOR LATCH AND LOCK ACTUATOR (LH) CONNECTOR CONDITION** • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect the front door latch and lock actuator (LH) connector. • Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection. • Is the connector normal?	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 8.
4	**INSPECT FRONT DOOR LOCK-LINK SWITCH (LH) GROUND CIRCUIT FOR OPEN CIRCUIT** • Verify that the front door latch and lock actuator (LH) connector is disconnected. • Inspect for continuity between front door latch and lock actuator (LH) terminal J (wiring harness-side) and body ground. • Is there continuity?	Yes	Go to the next step.
		No	Refer to the wiring diagram and verify whether or not there is a common connector between front door latch and lock actuator (LH) termina J and body ground. **If there is a common connector:** • Determine the malfunctioning part by inspecting the common connector and the terminal for corrosion, damage, or pin disconnection, and the common wiring harness for an open circuit. • Repair or replace the malfunctioning part. **If there is no common connector:** • Repair or replace the wiring harness which has an open circuit. Go to Step 8.
5	**INSPECT FRONT DOOR LOCK-LINK SWITCH (LH)** • Inspect the front door lock-link switch (LH). (See FRONT DOOR LOCK-LINK SWITCH INSPECTION.) • Is the front door lock-link switch (LH) normal?	Yes	Go to the next step.
		No	Replace the front door latch and lock actuator (LH), then go to Step 8. (See FRONT DOOR LATCH AND LOCK ACTUATOR REMOVAL/INSTALLATION.)
6	**INSPECT REAR BODY CONTROL MODULE (RBCM) CONNECTOR CONDITION** • Disconnect the rear body control module (RBCM) connector. • Inspect the connector engagement and connection condition and inspect the terminals for damage, deformation, corrosion, or disconnection. • Is the connector normal?	Yes	Go to the next step.
		No	Repair or replace the connector, then go to Step 8.