

Your Ultimate Source for OEM Repair Manuals

FactoryManuals.net is a great resource for anyone who wants to save money on repairs by doing their own work. The manuals provide detailed instructions and diagrams that make it easy to understand how to fix a vehicle.

2024 Mazda CX-50 Service and Repair Manual

[Go to manual page](#)

| Step | Inspection | | Action |
|------|--|-----|----------------------|
| 7 | VERIFY 360°VIEW MONITOR CONTROL MODULE B+ POWER SUPPLY VOLTAGE <ul style="list-style-type: none">• Switch the ignition off.• Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)• Disconnect the 360°view monitor control module connector.• Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.)• Switch the ignition ON (engine off or on).• Measure the voltage at 360°view monitor control module terminal A (wiring harness-side).• Is the voltage B+? | Yes | Go to the next step. |

Sample

| Step | Inspection | | Action |
|------|--|-----|--|
| 11 | <p>VERIFY IF MALFUNCTION CAUSE IS SHORT CIRCUIT TO GROUND IN WIRING HARNESS BETWEEN PARKING ASSIST UNIT (OPTICAL) AND SIDE CAMERA</p> <ul style="list-style-type: none"> • Verify that the front camera and 360°view monitor control module connectors are disconnected. • Inspect for continuity between the following wiring harness terminals (vehicle wiring harness side) and body ground. <ul style="list-style-type: none"> — Front camera terminal A — Front camera terminal F — Front camera terminal D — Front camera terminal C • Is there continuity? | Yes | Go to the next step. |
| | | No | <ul style="list-style-type: none"> • Refer to the wiring diagram and verify if there is a common connector between the following terminals. <ul style="list-style-type: none"> — 360°view monitor control module terminal Q and front camera terminal A — 360°view monitor control module terminal R and front camera terminal F — 360°view monitor control module terminal S and front camera terminal D — 360°view monitor control module terminal T and front camera terminal C If there is a common connector: <ul style="list-style-type: none"> • Inspect the common connector and terminals for corrosion, damage, or disconnection and the common wiring harnesses for an short to ground to determine the malfunctioning location. • Repair or replace the malfunctioning location. If there is no common connector: <ul style="list-style-type: none"> • Repair or replace the wiring harness which has an short to ground. • Go to Step 13. |

TROUBLESHOOTING INDEX [HIGH BEAM CONTROL (HBC) SYSTEM]

SM2899979

id1503c100470

| Troubleshooting item | Page |
|---|--|
| • High beam control (HBC) system does not operate | (See HIGH BEAM CONTROL (HBC) SYSTEM DOES NOT OPERATE [HIGH BEAM CONTROL (HBC) SYSTEM] .) |

Sample

TROUBLESHOOTING INDEX [LANE DEPARTURE WARNING SYSTEM (LDWS)]

SM2899982

id1503c300500

| Troubleshooting item | Page |
|---|--|
| • Lane departure warning system (LDWS) cannot detect vehicle lane lines | (See LANE DEPARTURE WARNING SYSTEM (LDWS) CANNOT DETECT VEHICLE LANE LINES [LANE DEPARTURE WARNING SYSTEM (LDWS)] .) |

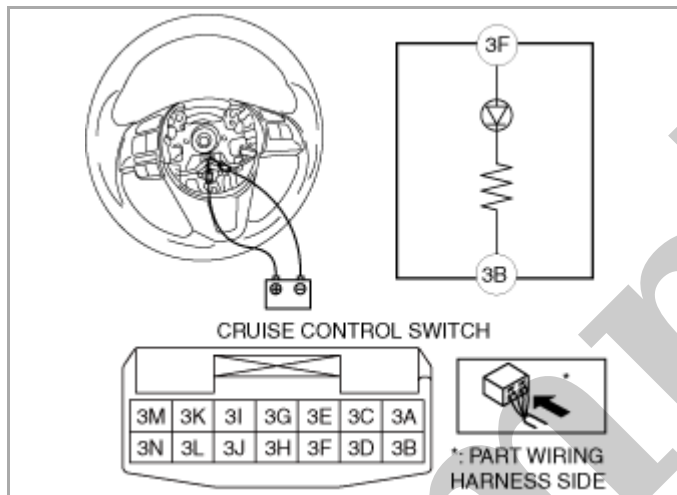
Sample

○—○ : Continuity ○—W—○ : Resistance

| Switch position | Terminal | | Resistance (ohm) |
|-----------------------------|----------|-----|------------------|
| | 3A | 3E | |
| OFF/CANCEL switch pressed | ○—○ | ○—○ | — |
| SET (-) switch pressed | ○—W—○ | ○—○ | 83.7—85.3 |
| SET (+) switch pressed | ○—W—○ | ○—○ | 187.7—191.3 |
| MODE switch pressed | ○—W—○ | ○—○ | 323.3—329.7 |
| RESUME switch pressed | ○—W—○ | ○—○ | 501.5—511.5 |
| DISTANCE (+) switch pressed | ○—W—○ | ○—○ | 753.9—769.1 |
| DISTANCE (-) switch pressed | ○—W—○ | ○—○ | 1,140.0—1,163.0 |
| All switches released | ○—W—○ | ○—○ | 3,268.5—3,344.5 |

ac5uuw00005621

6. Apply battery positive voltage to cruise control switch terminal 3F, and connect terminal 3B to ground.



am6xuw00008909

7. Verify that the LED illuminates.

- If the LED does not illuminate, replace the cruise control switch. (See [STEERING SWITCH REMOVAL/INSTALLATION.](#))

FORWARD SENSING CAMERA (FSC) SYSTEM OPERATION RECORD

SM2900013

id15200000700

1. Connect the M-MDS to DLC-2.

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

(1) "Operational Record"

3. Then, select the following from the screen menu.

(1) "FSC System (Stopped or Started function)"

4. Display the FSC system operation history according to the screen instructions.

Sample

LANE-KEEP ASSIST SYSTEM OFF SWITCH INSPECTION

SM2900017

id15200000890

Note

- The lane-keep assist system OFF switch is integrated with the cluster switch.
- To replace the lane-keep assist system OFF switch, replace the cluster switch. (See **CLUSTER SWITCH REMOVAL/INSTALLATION.**)

10 Pin Type

Resistance inspection

1. Disconnect the negative battery terminal. (See **NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.**)
2. Remove the cluster switch. (See **CLUSTER SWITCH REMOVAL/INSTALLATION.**):
3. Measure the resistance between cluster switch terminals B and C under the following conditions:
 - Resistance with lane-keep assist system OFF switch pressed and held
 - 187.61–191.39 ohms
 - Resistance with any switches not pressed
 - 1,139.99–1,163.01 ohms

FRONT CAMERA INSPECTION

SM2900018

id15200000920

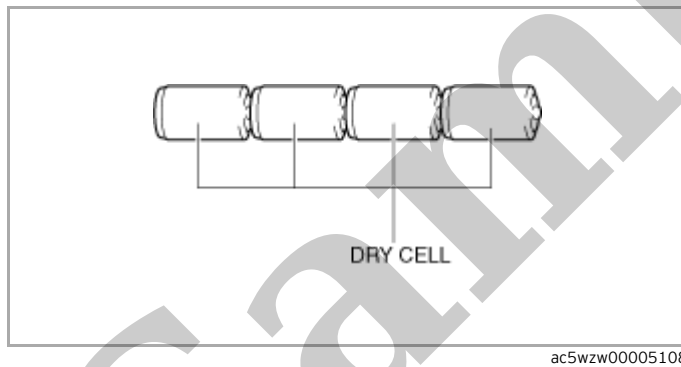
1. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))

2. Remove the following parts:

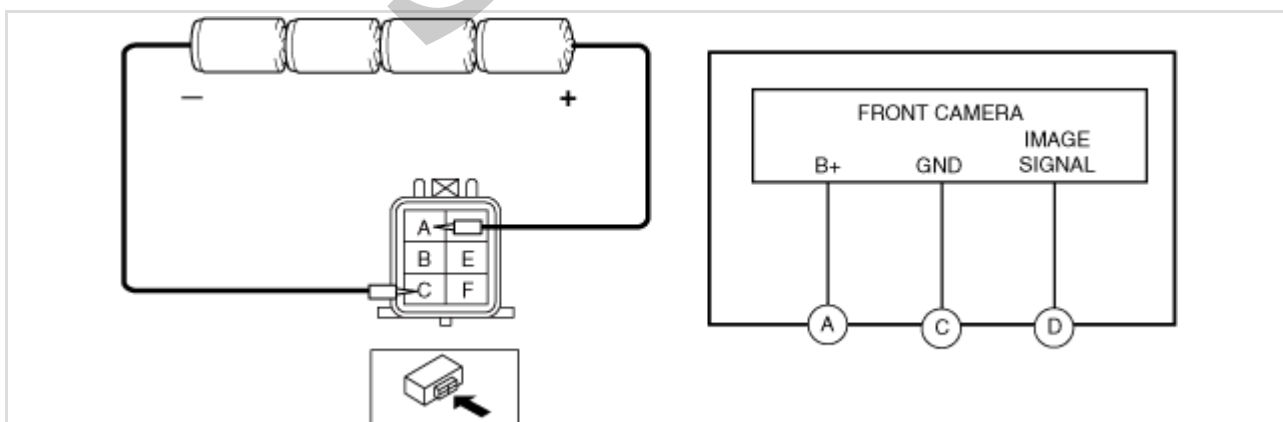
- (1) Set plate (See [SET PLATE REMOVAL/INSTALLATION.](#))
- (2) Front bumper (See [FRONT BUMPER REMOVAL/INSTALLATION.](#))
- (3) Front camera (See [FRONT CAMERA REMOVAL/INSTALLATION.](#))

3. Prepare four dry cell batteries (1.5 V)

4. Connect the four dry cell batteries in a series.



5. Connect the positive pole of the dry cell battery to front camera terminal A, and the negative pole to terminal C.



6. With the cell batteries being connected, measure the waveform between front camera terminal C and terminal D.

360°VIEW MONITOR CONTROL MODULE INSPECTION

SM2900020

id15200000950

1. Disconnect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))

2. Remove the following parts.

(1) Passenger-side front scuff plate (See [FRONT SCUFF PLATE REMOVAL/INSTALLATION.](#))

(2) Passenger-side front side trim (See [FRONT SIDE TRIM REMOVAL/INSTALLATION.](#))

(3) Side wall (See [SIDE WALL REMOVAL/INSTALLATION.](#))

3. Partially peel back the floor covering.

4. Remove the foot support. (See [FOOT SUPPORT REMOVAL/INSTALLATION.](#))

5. Remove the cover. (See [360°VIEW MONITOR CONTROL MODULE REMOVAL/INSTALLATION.](#))

6. Connect the negative battery terminal. (See [NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.](#))

7. Verify that the voltages of each of the terminals are as indicated in the terminal voltage table (reference).

• If the voltage is not as specified in the terminal voltage table (reference), inspect the parts under Inspection item(s) and related wiring harnesses.

— If the system does not operate normally even though the inspection items are normal, replace the 360°view monitor control module. (See [360°VIEW MONITOR CONTROL MODULE REMOVAL/INSTALLATION.](#))

360° VIEW MONITOR CONTROL MODULE
WIRING HARNESS SIDE CONNECTOR

| | | | | | | | | | | | | | | | |
|----|----|----|---|---|---|---|---|---|---|---|---|---|---|---|---|
| AE | AC | AA | Y | W | U | S | Q | O | M | K | I | G | E | C | A |
| AF | AD | AB | Z | X | V | T | R | P | N | L | J | H | F | D | B |



am6xuw00010959