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.

2020 Mazda CX-5 Service and Repair Manual

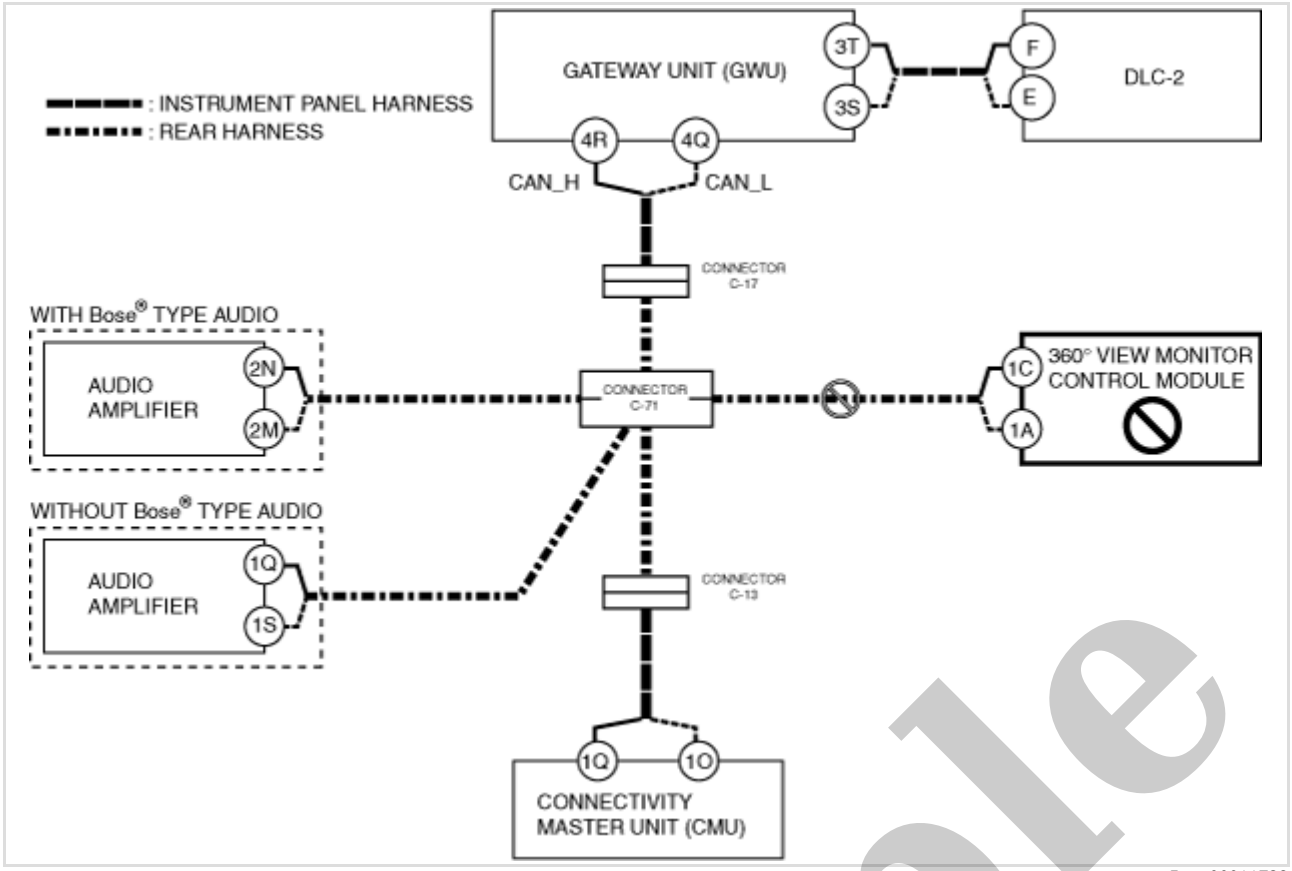
Go to manual page

Step	Inspection		Action
11	**INSPECT FOR SHORT TO POWER SUPPLY BETWEEN CONNECTORS C-82, C-83 AND REAR BODY CONTROL MODULE (RBCM)** • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect connectors C-82, C-83. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at DLC-2 terminals L and K. • Is the voltage between 1.5 – 3.5 V?	Yes	Go to the next step.
		No	Go to Step 15.
12	**INSPECT FOR SHORT TO POWER SUPPLY BETWEEN CONNECTORS C-82, C-83 AND WIRELESS CHARGER (Qi)** • Measure the voltage at wireless charger (Qi) terminals F and D. • Is the voltage between 1.5 – 3.5 V?	Yes	Repair or replace the wiring harness between connector C-63 and connectors C-82, C-83 because the wiring harness is shorted to the power supply.
		No	Go to the next step.
13	**INSPECT WIRELESS CHARGER (Qi) FOR SHORT TO POWER SUPPLY** • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect the wireless charger (Qi) connector. • Connect connectors C-82, C-83. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at DLC-2 terminals L and K. • Is the voltage between 1.5 – 3.5 V?	Yes	Replace the wireless charger (Qi) because there is a short to the power supply in the wireless charger (Qi). (See WIRELESS CHARGER (Qi) REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between the wireless charger (Qi) and connectors C-82, C-83 because the wiring harness is shorted to the power supply.
14	**INSPECT FOR SHORT TO POWER SUPPLY BETWEEN CONNECTORS C-82, C-83 AND CONNECTOR C-64** • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect connector C-64. • Connect connectors C-82, C-83. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at DLC-2 terminals L and K. • Is the voltage between 1.5 – 3.5 V?	Yes	Go to Step 16.
		No	Repair or replace the wiring harness between connectors C-82, C-83 and connector C-64 because the wiring harness is shorted to the power supply.

Step	Inspection		Action
1	**INSPECT BETWEEN CONNECTOR C-63 AND REAR BODY CONTROL MODULE (RBCM) FOR SHORT BETWEEN CIRCUITS** • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect connector C-63. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at rear body control module (RBCM) terminals 3E and 3G. • Is the voltage at rear body control module (RBCM) terminals 3E and 3G the same?	Yes	Go to Step 11.
		No	Go to the next step.
2	**INSPECT BETWEEN CONNECTOR C-63 AND CLIMATE CONTROL UNIT FOR SHORT BETWEEN CIRCUITS** • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Inspect for continuity between climate control unit terminals 1K and 1M. (with full-auto air conditioner) • Inspect for continuity between climate control unit terminals Q and S. (with manual air conditioner) • Is there continuity?	Yes	Go to the next step.
		No	Go to Step 4.
3	**INSPECT CLIMATE CONTROL UNIT FOR SHORT BETWEEN CIRCUITS** • Disconnect the climate control unit connector. • Inspect for continuity between climate control unit terminals 1K and 1M (wiring harness side). (with full-auto air conditioner) • Inspect for continuity between climate control unit terminals Q and S (wiring harness side). (with manual air conditioner) • Is there continuity?	Yes	Repair or replace the wiring harness between the climate control unit and connector C-63 because the wiring harness is shorted between circuits.
		No	Replace the climate control unit because there is a short between circuits inside the climate control unit. (See CLIMATE CONTROL UNIT REMOVAL/INSTALLATION [FULL-AUTO AIR CONDITIONER].) (See CLIMATE CONTROL UNIT REMOVAL/INSTALLATION [MANUAL AIR CONDITIONER].)
4	**INSPECT BETWEEN CONNECTOR C-63 AND PARKING ASSIST UNIT FOR SHORT BETWEEN CIRCUITS** • Inspect for continuity between parking assist unit terminals AA and AB. • Is there continuity?	Yes	Go to the next step.
		No	Go to Step 6.
5	**INSPECT PARKING ASSIST UNIT FOR SHORT BETWEEN CIRCUITS** • Disconnect the parking assist unit connector. • Inspect for continuity between parking assist unit terminals AA and AB (wiring harness side). • Is there continuity?	Yes	Repair or replace the wiring harness between the parking assist unit and connector C-63 because the wiring harness is shorted between circuits.
		No	Replace the parking assist unit because there is a short between circuits inside the parking assist unit. (See PARKING ASSIST UNIT (ULTRASONIC) REMOVAL/INSTALLATION.)

Step	Inspection		Action
20	**INSPECT BLIND SPOT MONITORING (BSM) CONTROL MODULE (LH) FOR SHORT BETWEEN CIRCUITS** • Disconnect the blind spot monitoring (BSM) control module (LH) connector. • Inspect for continuity between blind spot monitoring (BSM) control module (LH) terminals C and D (wiring harness side). • Is there continuity?	Yes	Repair or replace the wiring harness between the blind spot monitoring (BSM) control module (LH) and connector C-39 because the wiring harness is shorted between circuits.
		No	Replace the blind spot monitoring (BSM) control module (LH) because there is a short between circuits in the blind spot monitoring (BSM) control module (LH). (See BLIND SPOT MONITORING (BSM) CONTROL MODULE REMOVAL/INSTALLATION.)

M-MDS display DTC output module	DTC	DTC output pattern and malfunctioning location			
Start stop unit	U0100:00				
	U0101:00				
	U0121:00				
	U0121:87				
	U0131:00				
	U0140:00				
	U0146:00				
	U0151:00				
	U0155:00				
SAS control module	U0100:00				
	U0101:00				
	U0155:00				
Connectivity master unit (CMU)	U0101:00				
	U0131:00				
	U0146:00				×
	U0151:00				
	U0155:00				
	U0198:02				
	U213C:00				
	U213E:00				
Instrument cluster	U0100:00				
	U0101:00				
	U0104:00				
	U0114:00				
	U0121:00				
	U0128:00				
	U0131:00				
	U0140:00				
	U0151:00				
	U0156:00	×			×
	U0158:00				
	U0182:00				
	U0214:00				
	U0235:00				
	U023A:00				



ac5uuw00011728

Inspection item

- 360° view monitor control module power supply voltage-related wiring harness and fuse
- 360° view monitor control module body ground related wiring harness
- 360° view monitor control module connector
- Connector C-71
- Wiring harness between 360° view monitor control module terminal 1C and connector C-71
- Wiring harness between 360° view monitor control module terminal 1A and connector C-71
- 360° view monitor control module

D

Possible cause

- Connector terminal disconnection, poor contact, damage, deformation, corrosion
- Gateway unit (GWU) power supply voltage or body ground malfunction
- Open circuit in wiring harness between gateway unit (GWU) and connector C-17
- Open circuit in wiring harness between connector C-17 and connector C-71
- Connector C-17 malfunction
- Connector C-71 malfunction
- Gateway unit (GWU) malfunction

System wiring diagram

Step	Inspection		Action
5	**INSPECT FOR SHORT TO GROUND BETWEEN AUDIO AMPLIFIER AND CONNECTOR C-71** • Inspect for continuity at the following terminals: — Between audio amplifier terminal 2N and body ground (with Bose® type audio) — Between audio amplifier terminal 2M and body ground (with Bose® type audio) — Between audio amplifier terminal 1Q and body ground (without Bose® type audio) — Between audio amplifier terminal 1S and body ground (without Bose® type audio) • Is there continuity?	Yes	Go to the next step.
		No	Go to Step 7.
6	**INSPECT CAN LINE IN AUDIO AMPLIFIER FOR SHORT TO GROUND** • Disconnect the audio amplifier connector. • Inspect for continuity at the following terminals: — Between audio amplifier terminal 2N (wiring harness side) and body ground (with Bose® type audio) — Between audio amplifier terminal 2M (wiring harness side) and body ground (with Bose® type audio) — Between audio amplifier terminal 1Q (wiring harness side) and body ground (without Bose® type audio) — Between audio amplifier terminal 1S (wiring harness side) and body ground (without Bose® type audio) • Is there continuity?	Yes	Repair or replace the wiring harness between the audio amplifier and connector C-71 because the wiring harness is shorted to ground.
		No	Replace the audio amplifier because there is a short to ground in the audio amplifier. (See AUDIO AMPLIFIER REMOVAL/INSTALLATION.)
7	**INSPECT FOR SHORT TO GROUND BETWEEN 360° VIEW MONITOR CONTROL MODULE AND CONNECTOR C-71** • Inspect for continuity at the following terminals: — Between 360° view monitor control module terminal 1C and body ground — Between 360° view monitor control module terminal 1A and body ground • Is there continuity?	Yes	Go to the next step.
		No	Go to Step 9.

M-MDS display DTC output module	DTC	DTC output pattern and malfunctioning location	
Adaptive front lighting system (AFS) control module / auto leveling control module / turn light unit	U0100:00 *2		
	U0131:00 *1		
	U0140:00		
	U0155:00		
Power liftgate (PLG) control module	U0100:00		
	U0101:00		
	U0155:00		
	U0156:00		
	U0214:00		
Dosing control unit	U0100:00		
	U0101:00		
Electric parking brake control module	U0100:00		
	U0101:00		
	U0121:00		
	U0151:00		
	U0155:00		
AWD control module	U0100:00		
	U0101:00		
	U0121:00		
Position memory control module	U0100:00		
	U0101:00		
	U0151:00		
	U0155:00		
	U0214:00		
Forward sensing camera (FSC)	U0100:00		
	U0104:00		
	U0121:00		
	U0131:00		
	U0140:00		
	U0151:00		
	U0155:00		
	U0156:00		
	U0214:00		
EPS control module	U0100:00		
	U0121:00		
	U0126:00		
	U0155:00		
	U0214:00		
	U023A:00		

Inspection item

- Gateway unit (GWU) power supply voltage-related wiring harness and fuse
- Gateway unit (GWU) body ground related wiring harness
- Gateway unit (GWU)

Step	Inspection		Action
8	INSPECT 360° VIEW MONITOR CONTROL MODULE FOR SHORT TO POWER SUPPLY • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect the 360° view monitor control module connector. • Connect connector C-71. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at DLC-2 terminals F and E. • Is the voltage between 1.5 – 3.5 V?	Yes	Replace the 360° view monitor control module because there is a short to the power supply in the 360° view monitor control module. (See 360°VIEW MONITOR CONTROL MODULE REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between the 360° view monitor control module and connector C-71 because the wiring harness is shorted to the power supply.
9	INSPECT CAN LINE BETWEEN CONNECTIVITY MASTER UNIT (CMU) AND CONNECTOR C-13 FOR SHORT TO POWER SUPPLY • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect the connector C-13. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at connectivity master unit (CMU) terminals 1Q and 1O. • Is the voltage between 1.5 – 3.5 V?	Yes	Repair or replace the wiring harness between connector C-71 and connector C-13 because the wiring harness is shorted to the power supply.
		No	Go to the next step.
10	INSPECT CONNECTIVITY MASTER UNIT (CMU) FOR SHORT TO POWER SUPPLY • Switch the ignition off. • Disconnect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Disconnect the connectivity master unit (CMU) connector. • Connect connector C-13. • Connect the connector C-71. • Connect the negative battery terminal. (See NEGATIVE BATTERY TERMINAL DISCONNECTION/CONNECTION.) • Switch the ignition ON (engine off). • Measure the voltage at DLC-2 terminals F and E. • Is the voltage between 1.5 – 3.5 V?	Yes	Replace the connectivity master unit (CMU) because there is a short to the power supply in the connectivity master unit (CMU). (See CONNECTIVITY MASTER UNIT (CMU) REMOVAL/INSTALLATION.)
		No	Repair or replace the wiring harness between the connectivity master unit (CMU) and connector C-13 because the wiring harness is shorted to the power supply.