

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

**Subject:**

**FRONT CAMERA SENSOR SYSTEM MALFUNCTION WARNING
MESSAGE IN INSTRUMENT CLUSTER AND DTC U0155:00 STORED**

Bulletin No.: 15-001/19

Last Issued: 01/30/2019

APPLICABLE MODEL(S)/VINS

2017-2018 CX-5 vehicles with VINs lower than JM3KF*****337821 (produced before Dec. 26, 2017)

DESCRIPTION

Some vehicles may experience a SBS/SCBS, LAS/LDWS and/or ADAPTIVE LED headlight /HBC warning light on with the DTC U0155:00 stored in memory. The warning lights may stay on while these functions are deactivated.

- DTC U0155:00 - Communication error to instrument cluster.

		
SMART BRAKE SUPPORT/SMART CITY BRAKE SUPPORT (SBS/SCBS) WARNING LIGHT	LANE DEPARTURE WARNING SYSTEM (LDWS) WARNING LIGHT (IF EQUIPPED)	ADAPTIVE LED HEADLIGHTS/HBC WARNING LIGHT (IF EQUIPPED)

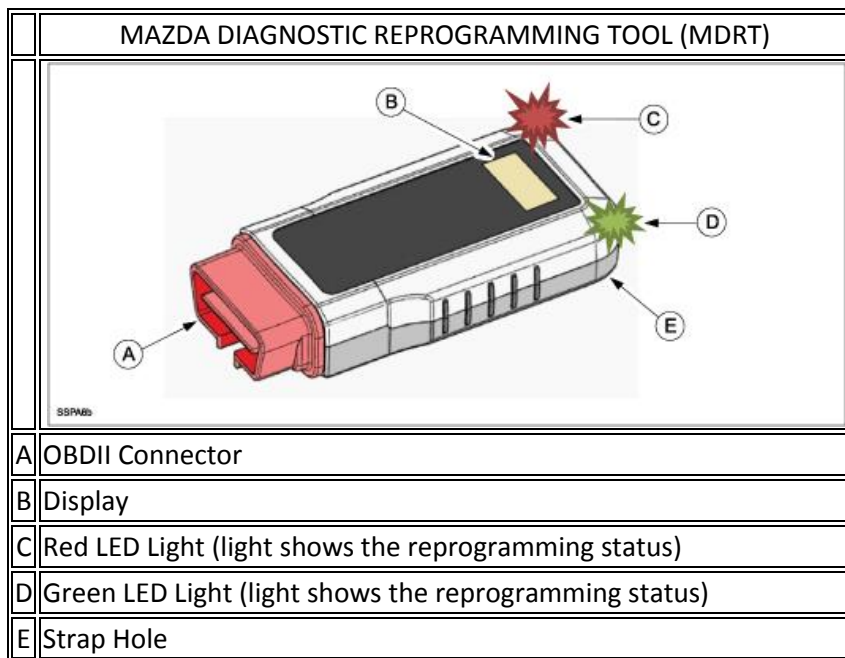
This concern may be caused by faulty Instrument Cluster software. To eliminate this concern, the software has been modified.

NOTE: The Mazda Diagnostic Reprogramming Tool (MDRT) loaner program begins effective Jan. 30, 2019.

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REPAIR PROCEDURE

1. Verify customer concern.
2. Order loaner MAZDA DIAGNOSTIC REPROGRAMMING TOOL (MDRT) via Mazda eStore.
3. Prepare MDRT to reprogram the Instrument Cluster (IC) software.



NOTE: Before performing IC unit reprogramming with MDRT:

- Turn off all electric loads (i.e. air-conditioning, audio system etc.), then connect a battery charger to the vehicle battery.
- **DO NOT** touch the reprogramming tool while the green light is blinking (with a frequent beeping sound).
- During the reprogramming, the center display and instrument cluster may blink. This is normal.
- Place the advanced key on the center console.

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CAUTION:

- MDRT equipment is sensitive. Handle it gently and avoid disassembly, impact, heat or liquids.

To avoid IC unit damage during reprogramming, otherwise, IC unit replacement may be necessary:

- Do not disconnect the MDRT from the OBDII connector.
- Do not start the engine during reprogramming.
- Do not turn the ignition off during reprogramming.

4. Follow Steps 1 - 8 in the table below to reprogram the IC unit:

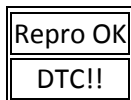
Step	Technician Operation	Vehicle Status	MDRT Status	LED Status		Beep Sound	Display	MDRT Removal
				Green	Red			
1	Prepare MDRT	IG-OFF	---	OFF	OFF	---	(None)	---
2	Connect MDRT to vehicle		Connected	ON	ON	One long beep	Ready	Allowed
3	Turn IG-ON (engine OFF)	IG-ON Batt. Voltage: 10.5V or higher	System checking	Blink	OFF	Beeping at intervals	Checking	Prohibited (for 1-2 min)
4	Monitoring MDRT		Start reprogramming	Flash	OFF	Beeping at intervals	Running	
5	Monitoring MDRT		Reprogramming	Blink	OFF	Beeping at intervals	Running	
6	Monitoring MDRT		Finish reprogramming	ON	Blink	Beeping at irregular intervals	Repro OK 084301	Not recommended
7	Turn IG-OFF	IG-OFF	Connected	ON	Blink	Beeping at irregular intervals	Repro OK 084301	Not recommended
8	Disconnect MDRT		Disconnected	OFF	OFF	No beeping	(None)	Allowed

NOTE: When the IC unit reprogramming has successfully completed, the MDRT display alternates the messages "Repro OK" 084301", "Repro OK", "Repro OK HEC.C".

Repro OK
084301

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If "Repro OK DTC!!" is displayed at Step 6, check DTCs with M-MDS and repair the DTC(s) according to the instructions on MGSS online.



OCCURANCE EXAMPLE:

The following warning lights may illuminate and DTC (B115E:54) may be stored.

DTC B115E:54: Forward sensing camera (FSC) aiming not completed.

		
SMART BRAKE SUPPORT/SMART CITY BRAKE SUPPORT (SBS/SCBS) WARNING LIGHT	LANE DEPARTURE WARNING SYSTEM (LDWS) WARNING LIGHT (IF EQUIPPED)	ADAPTIVE LED HEADLIGHTS/HBC WARNING LIGHT (IF EQUIPPED)

NOTE: If DTC B115E:54 is stored in memory, carry out FSC aiming according to the instructions on MGSS online.

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TROUBLESHOOTING

NOTE:

- The step numbers below are related to the step numbers in the IC unit Reprogramming Procedure table.
- The most possible causes are in **bold**.

Step	Technician Operation	Vehicle Status	MDRT Status	LED Status		Beep Sound	Display
3-1	IG-ON	IG-ON	MDRT malfunction	G	OFF	Continuously beeping	Data NG
				R	Illuminate		---
3-2	IG-ON with MDRT not securely connected	IG-ON	No power supplied	G	OFF	No Beep	---
				R	OFF		---
3-3	Start engine	Engine run	Check battery voltage. Stop reprogramming	G	OFF	Beeping for 1 sec.	Repro NG
				R	Illuminate		PPRO_NG
4-1	IG-ON	Not a subject vehicle	MDRT performs only deleted DTC	G	OFF	Continuously beeping	VIN_NG
				R	Blinking at 1 sec. intervals		No Target
4-2	IG-ON	IG-ON Battery Voltage: 11V or lower. SOC: 75% or lower	Check battery voltage. Stop reprogramming	G	OFF	Continuously beeping	Repro NG
				R	Blinking at 1 sec. intervals		BATCHK
5	Poor MDRT connection during reprogramming	IG-ON	No power supplied	G	OFF	No Beep	---
				R	OFF		---
6-2	Monitor	IG-ON	Reprogramming complete. DTC cannot be detected	G	OFF	Continuously beeping	Repro OK
				R	Blinking at 1 sec. intervals		DTC!!

NOTE:

- No. 4-1: Verify that the VIN and production date are within the ranges.
- No. 3-1 or No. 6-2: May be caused by the following:
 - The data in the IC unit is faulty
 - The MDRT has a malfunction

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PARTS INFORMATION

Special Service Tool (SST)

SST	Notes
Mazda Diagnostic Reprogramming Tool (MDRT)	Order loaner MDRT via Mazda eStore

NOTE: The Mazda Diagnostic Reprogramming Tool (MDRT) loaner program begins effective Jan. 30, 2019.

ORDERING Mazda Diagnostic Reprogramming Tool:

- Dealer **MUST HAVE** customer's vehicle in the shop before placing the order
- **Description:** Mazda Diagnostic Reprogramming Tool (MDRT)
- **Part Number:** 9999-95-MDRT-L
- Place loaner MDRT order via Mazda e-Store
- Bosch will contact the dealer to confirm the customer's vehicle is in the shop. Once confirmed, the MDRT order will ship UPS Next Day delivery
- Shipment will contain a UPS Next Day Air return shipping label

RETURNING Mazda Diagnostic Reprogramming Tool:

- Loaner MDRT must be shipped back the day after dealer receives it (two (2) days from initial ship date from Bosch)
- Dealer **MUST** use the UPS Next Day Air return label provided in the shipment
- **If MDRT loaner tool is not returned on time, dealer will be invoiced \$1,000.00**

NOTE: MDRT loaner tool will ship from / to Bosch Automotive Services.

WARRANTY INFORMATION

NOTE:

- This warranty information applies only to verified customer complaints on vehicles eligible for warranty repair.
- This repair will be covered under Mazda's New Vehicle Limited Warranty term.
- Additional diagnostic time cannot be claimed for this repair.

	IC Reprogramming
Warranty Type	A
Symptom Code	62
Damage Code	9W
Part Number Main Cause	KL2L-55-430B
Quantity	0
Operation Number / Labor Hours:	XXXP7ZXFX / 0.2 Hrs
Sublet Code:	Z9
Sublet Amount:	\$80.00

NOTE:

- A copy of the entire Bosch invoice must be attached using the D14 attachment ID. Failure to do so will result in claim rejection.
- Due to the unique nature of these claims, all accepted claims will pend for adjuster review.

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