

Technical Service Bulletin

Mazda North American Operations
Irvine, CA 92618-2922

**Subject:**

**SCBS / SBS, LAS / LDWS, MASTER AND/OR HBC WARNING LIGHTS
ON WITH DTC U3000:98 STORED DURING HOT WEATHER**

Bulletin No.: 15-006/17

Last Issued: 10/06/2017

APPLICABLE MODEL(S)/VINS

2017-2018 Mazda3 equipped with Forward Sensing Camera (FSC)
2017-2018 Mazda3 Mexico built vehicles equipped with FSC and with VINs lower than 3MZ
BN*****172200 (produced before August 28, 2017)
2017 Mazda6 equipped with FSC
2018 CX-3 equipped with FSC
2017 CX-5 equipped with FSC

Mexico

2017-2018 Mazda6 equipped with FSC
2018 CX-5 equipped with FSC

DESCRIPTION

Some customers may complain about one or more warning lights ON when they start the vehicle during hot weather.

The following DTCs are stored in memory:

- U3000:98 - Forward sensing camera (FSC) stops functioning due to temporary high temperature
- U3000:04 - Forward sensing camera (FSC) internal malfunction

The combination of warning lights mentioned by the customer may include:

	SCBS/SBS
	LAS/LDWS
	HBC
	Master Warning Light

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Instrument Cluster Multi-Information Display (if equipped) warning messages may include:

- Forward Smart City Brake Support Malfunction
- Smart Brake System Malfunction
- Front Camera Sensor System Malfunction

MAZDA CONNECT center display warning messages may include:

- High Beam Control [HBC] / Lane-keep Assist System [LAS] Malfunction. Have the vehicle checked by a dealer if this indicator stays on.
- Smart City Brake Support [SCBS] Malfunction. Have the vehicle checked by a dealer immediately.

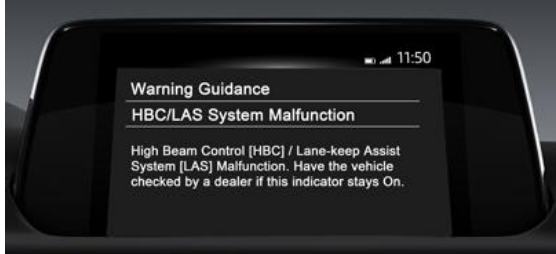
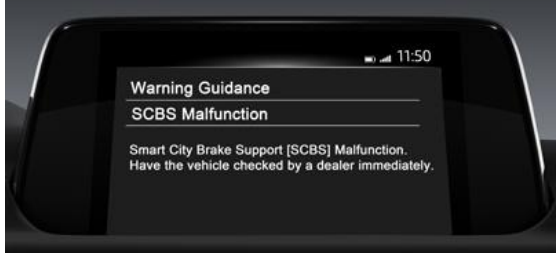
Note: The center display Warning Messages are only displayed when the customer selects Applications>Vehicle Status Monitor>Warning Guidance>Warnings.

This condition may be caused by FSC control logic that is too sensitive. When the FSC detects DTC U3000:98 during high temperature, it stops the internal communication and stores DTC U3000:04. DTC U3000:04 will not clear and SCBS/SBS, LAS/LDWS, and/or HBC functions will not resume until the ignition switch has been turned OFF even if the temperature of the FSC cools.

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Before FSC Reprogram or Replacement

The warning lights/messages will be displayed until the FSC cools and the ignition is turned OFF, then back ON.

Instrument Cluster Warning Lights (Without Multi-Information Display)	Instrument Cluster Warning Lights and Warning Messages (With Multi-Information Display)	MAZDA CONNECT Warning Messages
   	  	Note: These Warning Messages are displayed when the customer selects Applications>Vehicle Status Monitor>Warning Guidance>Warnings  

Customers having this concern should have their vehicle repaired using the following repair procedure.

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REPAIR PROCEDURE

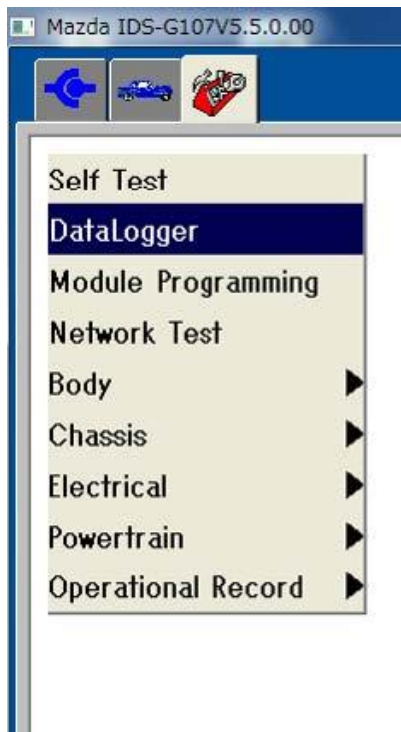
1. Verify Customer Concern.
2. Reboot the IDS to clear memory before reprogramming.
3. Using IDS 107.00 or later software, reprogram the FSC to the latest calibration.

NOTE: Verify the current FSC file name in the vehicle by the log view screen. Always update the IDS tool first, then follow the on-screen instructions to download the calibration file for FSC reprogramming. Refer to "Service Caution for reprogramming" on MGSS IDS Page. **NOTE:** Always update the IDS tool first, then follow on-screen instructions to download the needed calibration file for FSC reprogramming. It is not necessary to remove any fuses or relays during FSC reprogramming when the IDS screen prompts you to do so. You may accidentally stop power to one of the FSC terminals and cause the FSC to be blanked, or you may receive error messages during the IDS reprogramming procedure. IDS shows the calibration part numbers after programming the FSC. Please be aware that FSC calibration part numbers and file names listed in any Service Bulletin may change due to future releases of IDS software, and additional revisions made to those calibrations for service related concerns. When reprogramming a FSC, IDS will always display the "latest" calibration P/N available for that vehicle. If any calibration has been revised/updated to contain new information for a new service concern/issue, it will also contain all previously released calibrations. Start/Stop button vehicles only: DO NOT press the start/stop button during the reprogramming process. **When performing this procedure, we recommend using the "Power Supply" mode in the Battery Management System to keep the vehicle battery up to capacity. If a different charger is used, make sure it does not exceed 20 AMPS. If it exceeds 20 AMPS, it could damage the VCM.**

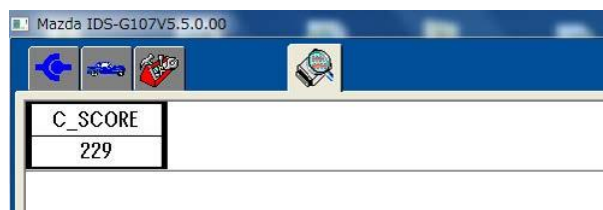
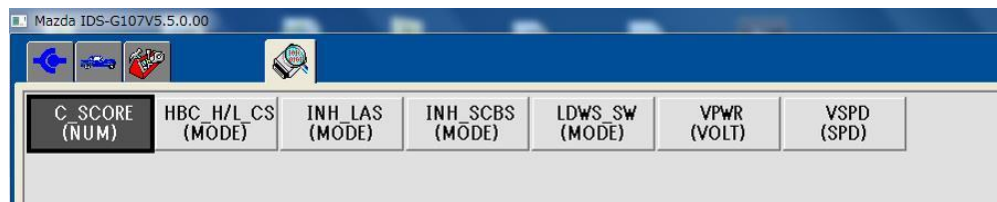
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4. If the FSC seems to be hot (approx. 60 °C [140 F] or higher), cool it down by parking in the shade with the ignition OFF.

NOTE: If the FSC is hot, the FSC reprogramming process may fail. The FSC temperature can be monitored by the data logger function of the M-MDS.



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“C_SCORE” has to be 174 or higher to perform the FSC reprogramming.

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5. Use M-MDS to check the (FSC) FILENAME. Is the (FSC) FILENAME B61L-67XK2-G, -I, -K, or -M?

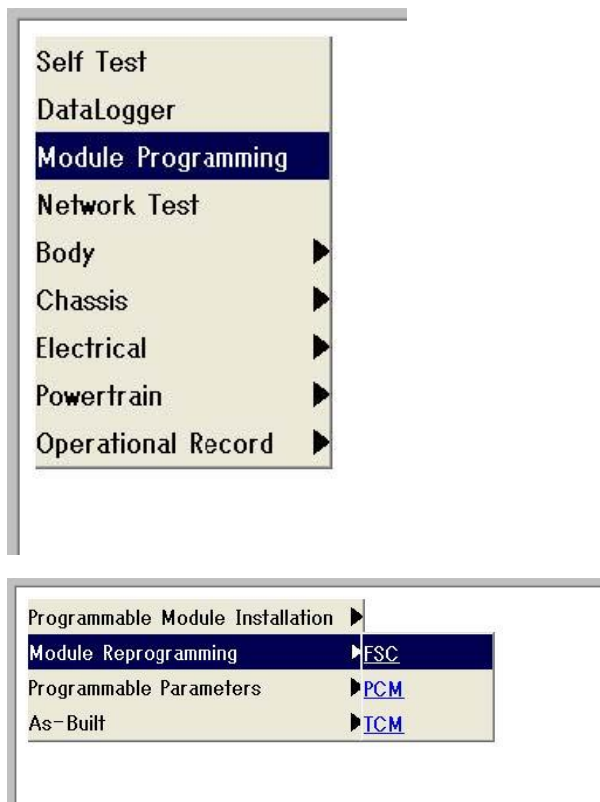
Log Viewer - Technician View (Full Diagnostic)

```
Optional equipment Modules - Pass - (EPB)
Standard Equipment Modules - Pass - (EPS)
(F_BCM) Part Number = TK52-675X0-A
Standard Equipment Modules - Pass - (F_BCM)
(FSC) Part Number = B61L-67XCX-E
(FSC) FILENAME = B61L-67XK2-K → G, I, K or M?
(FSC)_HARDWARE_NUM = B61L-67XK1-A
Optional equipment Modules - Pass - (FSC)
Optional equipment Modules - Pass - (HUD)
(IC) Part Number = G48P-55430-
(IC) FILENAME = GRV1-554K2-M
(IC)_HARDWARE_NUM = G48P-554K1-
Standard Equipment Modules - Pass - (IC)
(PCM) Part Number = SHBWD
(PCM) FILENAME = SHBW-188K2-D
Standard Equipment Modules - Pass - (PCM)
Optional equipment Modules - Pass - (PSM)
Standard Equipment Modules - Pass - (R_BCM)
Standard Equipment Modules - Pass - (RCM)
Optional equipment Modules - Pass - (SBS/MRCC)
Standard Equipment Modules - Pass - (SSU)
(TCM) Part Number = FZ21-21EM1-G
(TCM) FILENAME = SHBW-21PS1-A
(TCM)_HARDWARE_NUM = FZ21-18ZB7-D
Standard Equipment Modules - Pass - (TCM)
```

- Yes- Reprogram the FSC. Go to next step.
- No- Replace the FSC. Refer to MGSS online Workshop Manual
 - Mazda3 - FORWARD SENSING CAMERA (FSC) REMOVAL/INSTALLATION.
 - Mazda6 - FORWARD SENSING CAMERA (FSC) REMOVAL/INSTALLATION.
 - CX-3 - FORWARD SENSING CAMERA (FSC) REMOVAL/INSTALLATION.
 - CX-5 - FORWARD SENSING CAMERA (FSC) REMOVAL/INSTALLATION.

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6. Select "Module Reprogramming", then select "FSC".



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7. The following screen will be displayed:

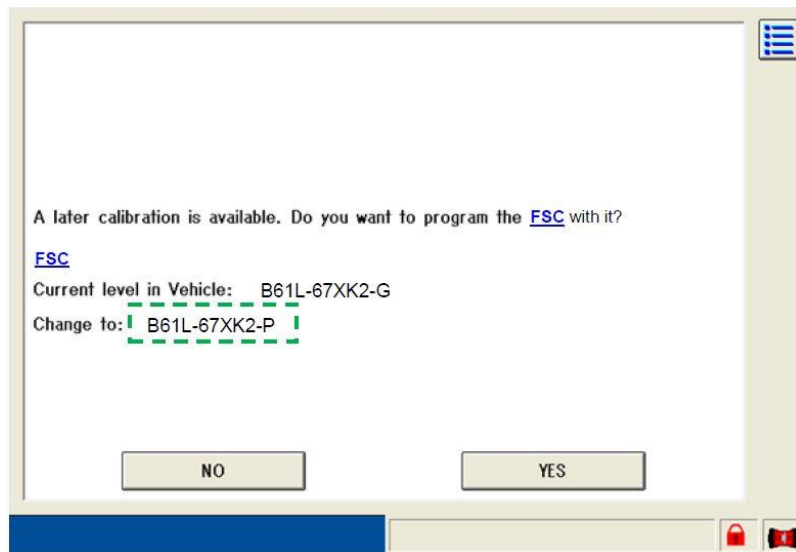
Click "YES" and follow the M-MDS instructions to reprogram the FSC.

If the message "No later calibration is available on the system for this FSC" is displayed, the FSC is already at the latest calibration. "Current level in Vehicle" will show the new file name.

This TSB does not apply.

If "Current level in Vehicle" does not show B61L-67XK2-G, -I, -K or -M, this reprogramming process does not apply. Confirm if the part number is B61L-67XCX-B.

NOTE: The calibration level does not match to the part number level.



8. After reprogramming, remove the session. Then, open a new session again and go to the “Log Viewer” screen on which the programmed file name is displayed as shown in the figure. If the new file name matches to “B61L-67XK2-P”, the reprogramming has been successfully completed.

Log Viewer – Technician View (Full Diagnostic)

```
Optional equipment Modules - Pass - (EPB)
Standard Equipment Modules - Pass - (EPS)
(F_BCM) Part Number = TK52-675X0-A
Standard Equipment Modules - Pass - (F_BCM)
(FSC) Part Number = B61L-67XCX-E
(FSC) FILENAME = B61L-67XK2-P      => B61L-67XK2-P
(FSC) HARDWARE_NUM = B61L-67XK1-A
Optional equipment Modules - Pass - (FSC)
Optional equipment Modules - Pass - (HUD)
(IC) Part Number = G48P-55430-
(IC) FILENAME = GRV1-554K2-M
(IC) HARDWARE_NUM = G48P-554K1-
Standard Equipment Modules - Pass - (IC)
(PCM) Part Number = SHBW-D
(PCM) FILENAME = SHBW-188K2-D
Standard Equipment Modules - Pass - (PCM)
Optional equipment Modules - Pass - (PSM)
Standard Equipment Modules - Pass - (R_BCM)
Standard Equipment Modules - Pass - (RCM)
Optional equipment Modules - Pass - (SBS/MRCC)
Standard Equipment Modules - Pass - (SSU)
(TCM) Part Number = FZ21-21EM1-G
(TCM) FILENAME = SHBW-21PS1-A
(TCM) HARDWARE_NUM = FZ21-18ZB7-D
Standard Equipment Modules - Pass - (TCM)
```

9. After performing the FSC reprogramming procedure, clear DTCs.

10. After clearing DTCs, start the engine and confirm that no warning lights stay on.

NOTE:

- If any DTCs should remain after performing DTC erase, diagnose the DTCs using MGSS online instructions.
- After FSC reprogramming, it is no longer necessary to road test the vehicle to “relearn” KAM (Keep Alive Memory).

11. Print a copy of the "Customer Information" PDF for the customer.

12. Verify repair.

After FSC Reprogram or Replacement

The warning lights/messages will be displayed until the FSC cools (No need to turn the ignition OFF).

Instrument Cluster Warning Lights (Without Multi-Information Display)	Instrument Cluster Warning Lights and Warning Message (With Multi-Information Display)	MAZDA CONNECT Warning Messages
		Note: These Warning Messages are displayed when the customer selects Applications>Vehicle Status Monitor>Warning Guidance>Warnings 

Customer Information PDF

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PARTS INFORMATION

New Part Number	Old Part Number	Description	Qty.	Notes
B61L-67-XCXN	B61L-67-XCXB	CAMERA ,FORWARD SENSING	1	Replace only when current part number has a suffix B.

NOTE: B61L-67-XCXN has the factory installed calibration B61L-67XK2-P.

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.

	Reprogram FSC	Replace FSC
Warranty Type	A	A
Symptom Code	62	62
Damage Code	9W	9W
Part Number Main Cause	B61L-67-XCXN	B61L-67-XCXN
Quantity	0	1
Operation Number / Labor Hours:	XXN8HXFX / 0.3 Hrs.	XXN8GXRX / 0.4 Hrs.

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