

TECHNICAL INSTRUCTIONS

FOR

SPECIAL SERVICE CAMPAIGN H0E

FUEL CELL SYSTEM UPDATES

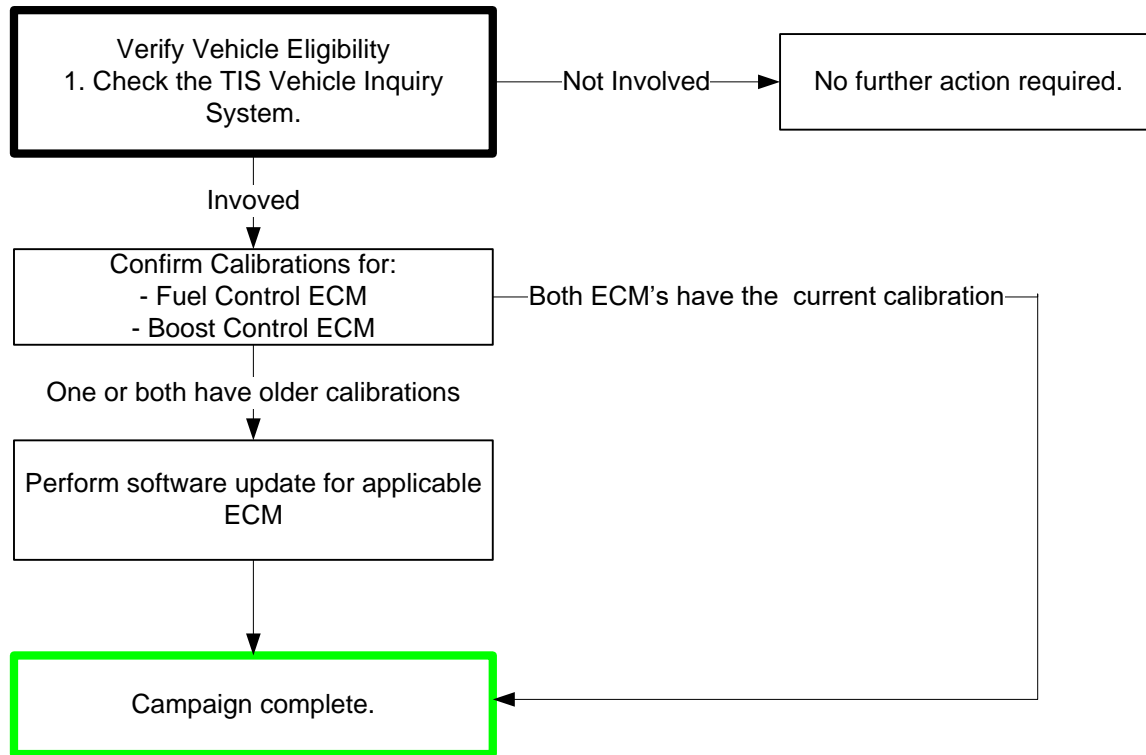
CERTAIN 2016 to 2017 MODEL YEAR MIRAI

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this repair are required to successfully complete the most current version of the E-Learning course “Safety Recall and Service Campaign Essentials”. To ensure that all vehicles have the repair performed correctly; technicians performing this SSC repair are required to currently hold at least one of the following certification levels:

- Certified any specialty
- Expert any specialty
- Master
- Master Diagnostic Technician

It is the dealership’s responsibility to select technicians with the above certification level or greater to perform this Special Service Campaign repair. Carefully review your resources, the technician skill level, and ability before assigning technicians to this repair. It is important to consider technician days off and vacation schedules to ensure there are properly trained technicians available to perform this repair at all times.

I. OPERATION FLOW CHART



II. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this campaign and that it has not already been completed by another dealer.
- TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or was completed by another dealer.

III. PREPARATION

A. PARTS

Part Number	Part Description	Quantity
00451-00001-LBL*	Authorized Modification Label	1

*Labels can be ordered in packs of 25 from the MDC through the Dealer Daily Website

B. TOOLS, SUPPLIES & EQUIPMENT

- Techstream 2.0 / TIS Techstream / Techstream Lite
- GR8 Battery Diagnostic Station

IV. BACKGROUND

Under unique driving conditions, such as if the accelerator pedal is depressed to the wide open throttle position after driving on a long descent while using cruise control, there is a possibility that a warning light will illuminate, a message will be displayed on the instrument panel, and the fuel cell system will stop running. If the fuel cell system stops running, electric power steering and the brakes will function normally. The fuel cell system can be restarted after the vehicle is stopped.

Also, if the fuel cell system is turned on immediately after refueling, the fuel cell control module may improperly determine that the vehicle is still being refueled and turn off the fuel cell system, also disabling the electric power assisted steering. The vehicle can then be restarted after this occurs.

V. ECM CALIBRATION ID AND VEHICLE CONDITION VERIFICATION

A. CONFIRM THE CALIBRATION ID AND THE VEHICLE ORIGINAL CONDITION

- 1) Perform a health check and confirm if any DTC's are present.

Note: If DTC P1D1D is present in the FCDC ECM than the vehicle has experienced the condition. Clear this DTC and continue with reprogramming.

- 2) Confirm the current calibration ID in the Fuel and Boost Control ECM's
- 3) Referencing the table below, verify if the Fuel and Boost Control ECM's have the updated Calibration.



This campaign REQUIRES TWO CALIBRATIONS to be updated. Ensure that you confirm that both ECM's calibrations have been updated.

MODEL	ECU	CALIBRATION	
		CURRENT	NEW
Mirai	Fuel Control ECM	898A36202200/ 898A36202300	898A36202400
	Boost Control ECM	898BF6201400	898BF6201500

◀ CRITICAL MESSAGE ▶

It is *critical* that [T-SB-0134-16](#) in addition to the Technical Instructions for this SSC are followed. This TSB outlines all steps necessary to prevent reprogramming failure. Toyota will not provide reimbursement coverage for reprogramming failures if this TSB is not followed. If you have a reprogramming failure that requires the powertrain ECM replacement and the Technical Instructions *and* TSB were followed correctly, please create a case with the Technical Assistance Hotline documenting all information related to the failure. If sufficient reporting is received related to re-flash failure, there will be consideration for reimbursement.

VI. FUEL & BOOST CONTROL ECM REFLASH PROCEDURE



- For general reprogramming procedures, refer to [T-SB-0134-16](#).
- Confirm the latest version of Techstream software is being used.
- If the Techstream does not have sufficient battery power the reflash will fail.
- Confirm the DLC3 cable is in good condition before attempting reflash.
- If vehicle exhibits any trouble codes or drivability symptoms, diagnose and repair using TIS before attempting to reprogram either ECM.

A. VEHICLE PREPARATION

- Prior to vehicle shut down perform the following steps:
 - Place the transaxle into P range
 - Engage the parking brake
 - Turn OFF all accessories (i.e. climate control, audio systems and lights)
- Depress the brake pedal fully 2 times within 2 seconds.
- Release brake pedal.
- Wait 10 seconds.
- Turn off the vehicle

Note: This procedure will pressurize the brake actuator and prevent the ABS pump from running during the reflash procedure.

B. CONNECT THE GR8

- Set the GR8 to Power Supply Mode to help maintain 13.5 volts during reprogramming.



- A battery charger set to power supply mode **MUST** be used during reprogramming.
- ECM damage may occur if the correct battery charger setting is not used.
- It is critical that the Fuel Control ECM be updated first.

C. REFLASH THE FUEL CONTROL ECM (THIS ECM NEEDS TO BE UPDATED FIRST)

- Click yes on the health check results screen, or follow the links on the table above to begin the reflash process.

D. REFLASH THE BOOST CONTROL ECM

- Click yes on the health check results screen, or follow the links on the table above to begin the reflash process

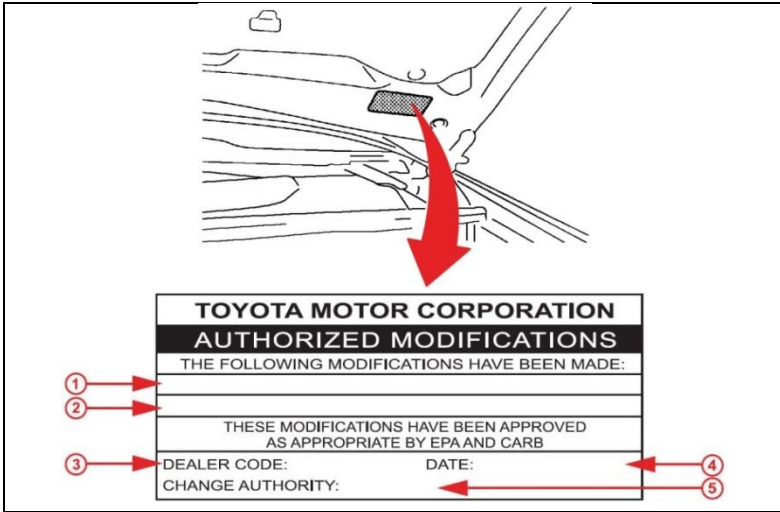


Confirm that both the ECMs have been reflashed and contain the updated calibrations.

E. PERFORM HEALTH CHECK AND CLEAR DTC'S SET DURING REPROGRAMMING

F. ATTACH THE AUTHORIZED VEHICLE MODIFICATION LABEL

- a) Fill out the label.
- b) Affix the label to the under-side of the hood.



1	ECM's P/N
2	New Calibration ID
3	Dealer Code
4	Date Completed
5	Campaign Code (H0E)

◀ VERIFY REPAIR QUALITY ▶

- Confirm the GR8 is set up properly prior to beginning the reprogramming
- Confirm the reflash completes successfully for both ECM's
- Confirm the Authorized Vehicle Modification Label is filled out and affixed to the vehicle
- Confirm there are no DTCs in either ECM

If you have any questions regarding this update, please contact your regional representative

VII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

