TECHNICAL INSTRUCTIONS
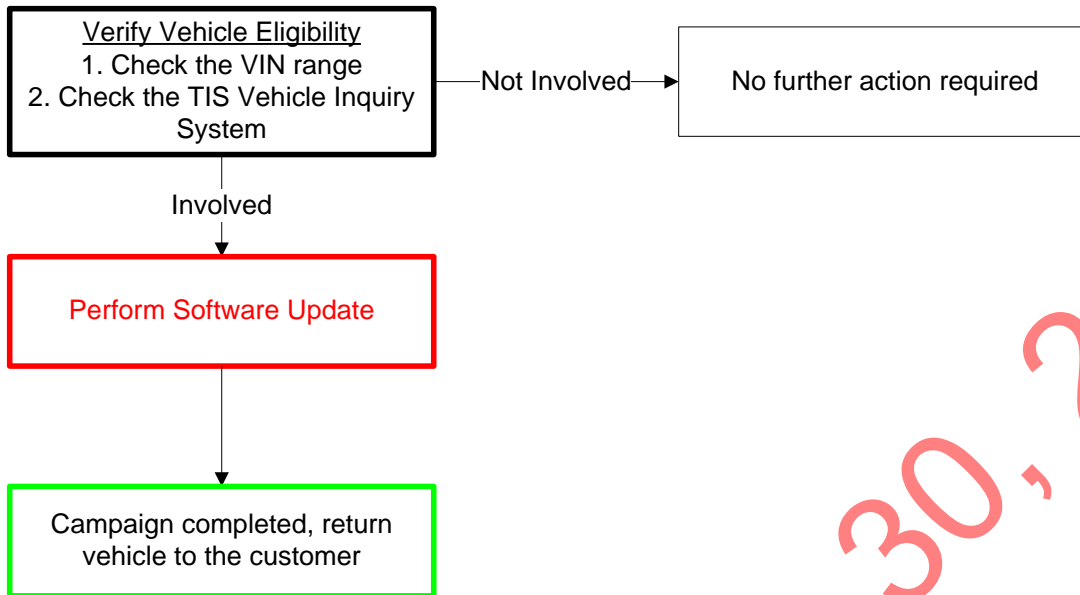
FOR

LIMITED SERVICE CAMPAIGN F0N

ENGINE SOFTWARE UPDATE FOR VARIABLE LIFT CONTROL

CERTAIN 2014 COROLLA ECO VEHICLES

THIS LSC EXPIRES ON JUNE 30, 2018

The repair quality of covered vehicles is extremely important to Toyota. All dealership technicians performing this LSC 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 LSC repair are required to currently hold <u>at least one</u> of the following certification levels:

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

I. OPERATION FLOW CHART

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┌─────────────────────────────────┐
│ Verify Vehicle Eligibility      │   Not Involved    ┌──────────────────────────┐
│ 1. Check the VIN range          │ ────────────────→ │ No further action required │
│ 2. Check the TIS Vehicle Inquiry│                   └──────────────────────────┘
│    System                       │
└─────────────────────────────────┘
              │
           Involved
              │
              ↓
┌─────────────────────────────────┐
│ Perform Software Update         │
└─────────────────────────────────┘
              │
              ↓
┌─────────────────────────────────┐
│ Campaign completed, return      │
│ vehicle to the customer         │
└─────────────────────────────────┘
```

II. IDENTIFICATION OF AFFECTED VEHICLES

A. COVERED VIN RANGE

- Check the TIS Vehicle Inquiry System to confirm the VIN is involved in this Safety Recall, and that the campaign has not already been completed prior to dealer shipment or by another dealer.
- TMS warranty will not reimburse dealers for repairs conducted on vehicles that are not affected or were 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 Dealer Daily website

B. TOOLS & EQUIPMENT

- Techstream 2.0 / TIS Techstream /Techstream Lite (Software 9.30.029 or Higher)
- GR8 Battery Diagnostic Station

IV. BACKGROUND

The subject vehicles may illuminate a Check Engine warning lamp due to software programming for continuous variable valve lift control. If this condition occurs, the vehicle may experience a reduction in power.

Toyota has developed new engine control software logic to help prevent this condition from occurring.

V. ECM CALIBRATION ID VERIFICATION

1. CONFIRM THE ECM CALIBRATION ID

a) Perform a health check and confirm no DTCs are present.

b) Confirm the current calibration ID in the ECM.

c) Referencing the table below, verify if the ECM has the Updated Calibration

MODEL	YEAR	ENGINE	DRIVE	CURRENT CID	NEW CID
Corolla ECO	2014	2ZR-FAE	FWD	302Y6000 302Y6100	**302Y6200**

STOP
- **If the ECM has already been calibrated with the new calibration the campaign is complete.**

◄ CRITICAL MESSAGE ►

It is *critical* that **T-SB-0012-13** in addition to the Technical Instructions for this LSC 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 ECU 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.

NOTE: There will be a limited inventory of ECUs available in the rare case that a reprogramming failure occurs.

VI. ECM REFLASH PROCEDURE

STOP
- **For general reprogramming procedures, refer to T-SB-0012-13.**
- **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 the ECM.**

1. **CONNECT THE GR8**

   a) Set the GR8 to Power Supply Mode to help maintain 13.5 volts during ECM reprogramming.
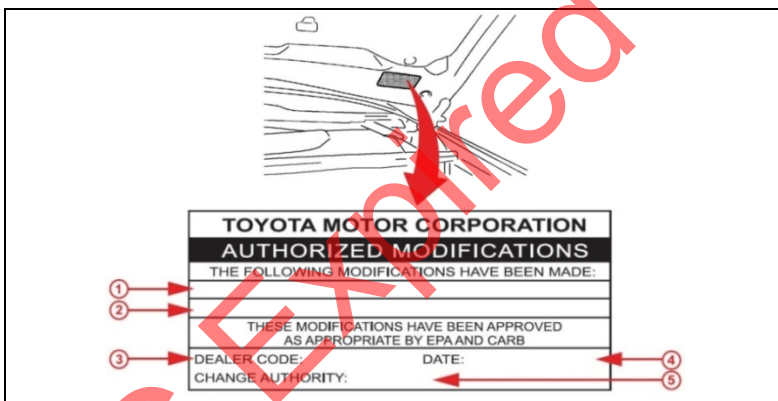
STOP
- **A battery charger set to power supply mode *MUST* be used during reprogramming.**
- **ECM damage may occur if the correct battery charger setting is not used.**

2. **REFLASH THE ECM**

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

3. **ATTACH THE AUTHORIZED VEHICLE MODIFICATION LABEL**

   a) Fill out the label.

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

1	Replacement ECM P/N
2	New Calibration ID
3	Dealer Code
4	Date Completed
5	Campaign Code (F0A)

4. **CHECK FOR DTCs**
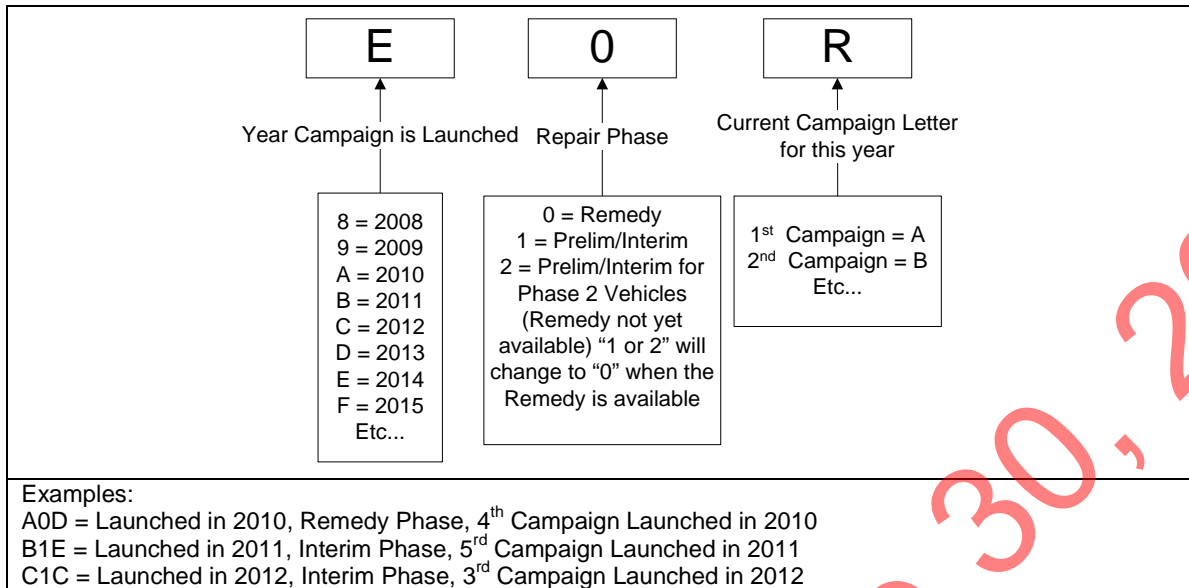
◄ VERIFY REPAIR QUALITY ►

− **Confirm the GR8 is set up properly prior to beginning the reprogramming**
− **Confirm the reflash completes successfully**
− **Confirm the Authorized Vehicle Modification Label is filled out and affixed to the vehicle**
− **Confirm there are no DTCs in the ECM**

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

VII. APPENDIX

A. CAMPAIGN DESIGNATION DECODER

E	0	R

Year Campaign is Launched   Repair Phase   Current Campaign Letter for this year

Year Campaign is Launched:
8 = 2008
9 = 2009
A = 2010
B = 2011
C = 2012
D = 2013
E = 2014
F = 2015
Etc...

Repair Phase:
0 = Remedy
1 = Prelim/Interim
2 = Prelim/Interim for Phase 2 Vehicles (Remedy not yet available) "1 or 2" will change to "0" when the Remedy is available

Current Campaign Letter for this year:
1st Campaign = A
2nd Campaign = B
Etc...

Examples:
A0D = Launched in 2010, Remedy Phase, 4th Campaign Launched in 2010
B1E = Launched in 2011, Interim Phase, 5rd Campaign Launched in 2011
C1C = Launched in 2012, Interim Phase, 3rd Campaign Launched in 2012