

# IMPORTANT UPDATE

## TECHNICAL INSTRUCTIONS FOR SPECIAL SERVICE CAMPAIGN J0R INTELLIGENT CLEARANCE SONAR (ICS) SYSTEM REPROGRAM

**CERTAIN:  
2018 CAMRY & CAMRY HYBRID  
2016 – 2018 PRIUS  
2017 - 2018 PRIUS PRIME**

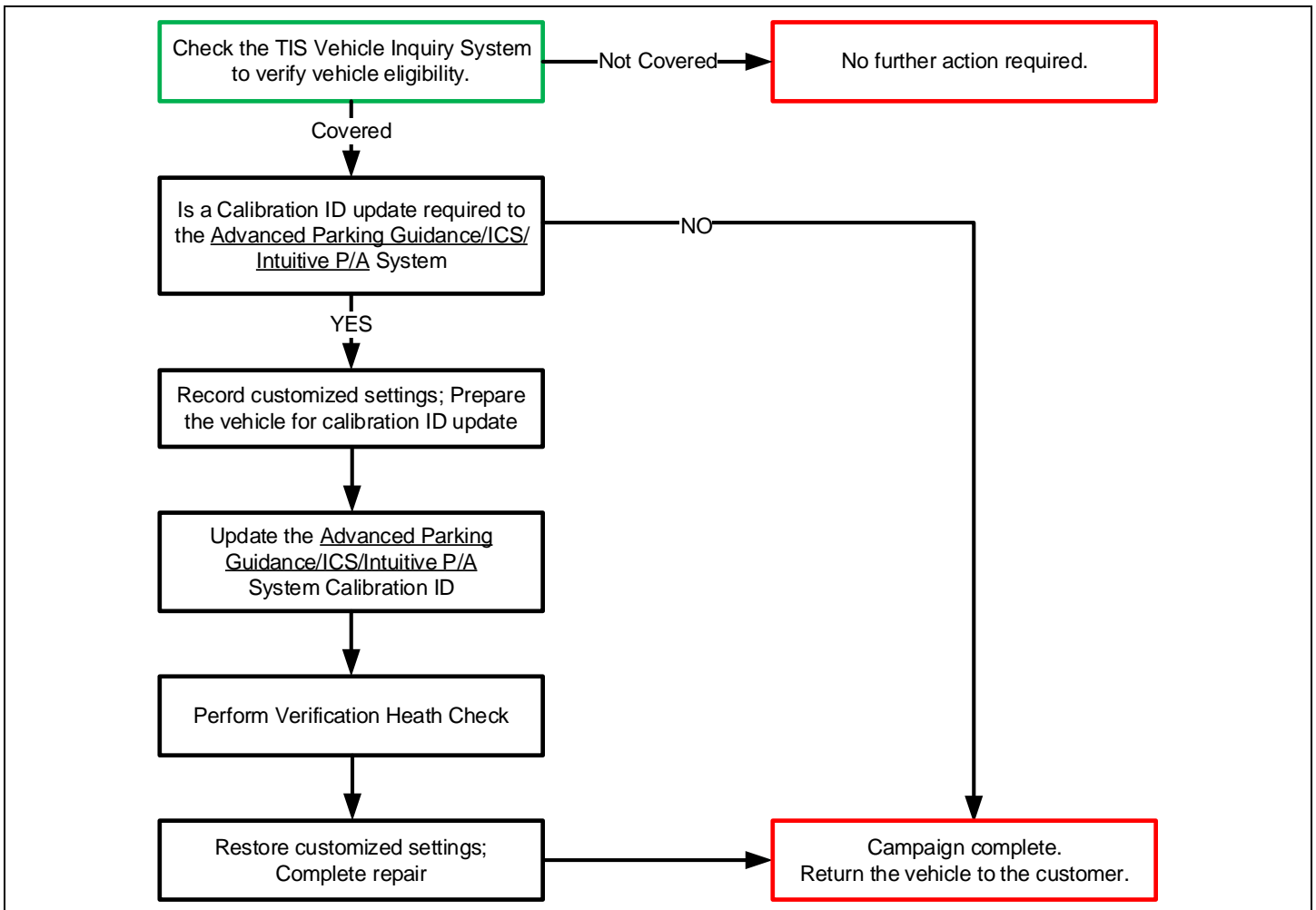
Update 4/9/2019: Note added on p. 5.

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

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

It is the dealership’s responsibility to select technicians with the above certification level or greater to perform this recall 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

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

## III. PREPARATION

### 1. TOOLS, SUPPLIES & EQUIPMENT

- Standard Hand Tools
- Techstream 2.0 / TIS Techstream / Techstream Lite
- GR8 Battery Diagnostic Station
- T-SB-0134-16

## IV. BACKGROUND

The involved vehicles are equipped with Intelligent Clearance Sonar (ICS). Due to improper software programming in the ICS system, the ICS system may improperly activate when an involved vehicle enters certain types of carwash facilities and is placed into neutral. If the ICS system activates, ICS system will exhibit warnings and the system may apply the brakes.

## V. DETERMINE STATUS OF CURRENT ECU CALIBRATION



### 1. CHECK FOR DTC'S

- a. Using a Techstream, perform a Health Check to check for any Diagnostic Trouble Codes.

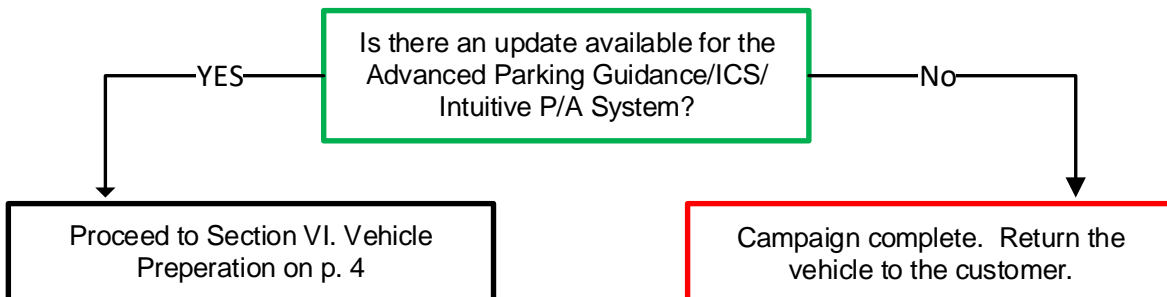
**Note:** This Campaign covers only the software update to the Advance Parking Guidance/ICS/Intuitive P/A System, as detailed in these instructions. It does not cover the diagnosis or replacement of any other systems on the vehicle.

### 2. CHECK CURRENT CALIBRATION

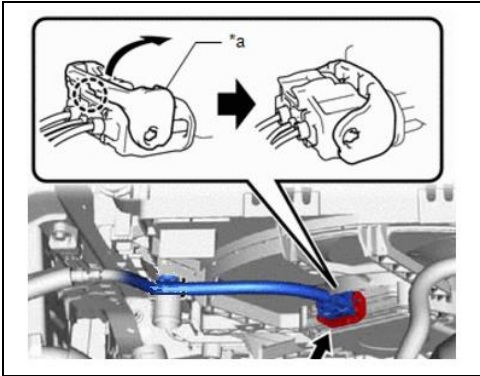
- a. Locate the Update column for the **ADVANCED PARKING GUIDANCE/ICS/INTUITIVE P/A** ECU in the Stored Data tab for this vehicle.
- b. Determine the status of an available update; indicated by a YES or NO.

The screenshot shows the Techstream interface for a 2017 Prius. The 'Stored Data' tab is selected. The 'Advanced Parking Guidance/ICS/Intuitive P/A' system is highlighted in green. The 'Update' column for this system shows 'Yes', also highlighted in green. The 'Campaign Status' is 'PERMANENT: NO'.

| System   | Test Failed | RoB | Calibration  | Update     |
|--|-------------|-----|--------------|------------|
| RL-Door Motor                                      | -           | -   | -            | -          |
| Master Switch                                      | -           | -   | -            | -          |
| <b>Advanced Parking Guidance/ICS/Intuitive P/A</b> | -           | -   | 8934F470502  | <b>Yes</b> |
| SRS Airbag   | -           | -   | 8917F47162   | No         |
| Rain and/or Humidity Sensor                        | -           | -   | -            | -          |
| Navigation System                                  | -           | -   | -            | -          |
| Pre-Collision 2                                    | -           | -   | 881514703100 | No         |
| Front Radar Sensor                                 | -           | -   | 8821F4702100 | No         |
| Power Source Control                               | -           | -   | -            | -          |
| Blind Spot Monitor Master                          | -           | -   | -            | -          |
| Blind Spot Monitor Slave                           | -           | -   | -            | -          |



## VI. VEHICLE PREPERATION



### 1. UNPLUG COOLING FAN

- a. Disengage the claw and raise the lock lever to disconnect the cooling fan motor connector. This will prevent the fans from running during the re-flash procedure and reducing the battery voltage.

Note: Prius shown. Other models are similar.

### 2. VEHICLE PREPARATION

- a. Confirm the following conditions:
  - Vehicle in the IG position (engine off).
  - Transaxle in Park.
  - Parking brake engaged.
  - Turn off all electrical accessories (i.e. climate control, audio system, etc.)
  - Headlight switch in the DRL OFF position.
  - Windshield wiper switch in the OFF position.

### 3. CONNECT THE 12v BATTERY TO A POWER SUPPLY (GR8)

- a. Connect the GR8 or other type of a power supply (not a battery charger) to the 12v battery.
- b. Select the Power Supply Mode from the Charge Menu of the GR8.



**A power supply *MUST* be used during reprogramming. ECU damage will occur if the battery voltage is not properly maintained during this re-flash procedure.**

**Note:** A power supply must be connected directly to the 12v battery terminals and NOT the remote jump posts under the hood (if equipped).

### 4. VERIFY TECHSTREAM SETUP

- a. Verify that the Techstream meets the following conditions:
  - The latest version of software is loaded.
  - The Techstream battery is fully charged. If not, connect the Techstream to a 120v source.
  - The DLCIII cable is in good condition.



**The Techstream's battery voltage must also be maintained during the re-flash procedure. If necessary, plug the Techstream into a 120v outlet during this procedure.**

**Note:** If the Techstream communication with the vehicle fails during the re-flash procedure, the Clearance Warning ECU will be damaged.

### 5. RECORD CUSTOMIZED SETTINGS

The customized setting for this ECU will be lost during the Calibration update. It will be necessary to record the customers settings, prior to the update, to return the vehicle to its original condition.

- a. Use a Techstream to access the following data:
  - Advance Parking Guidance/ICS/Intuitive P/A → Customize → Warning, Sensor, Display, and Others.
- b. Record the Customized Settings on the sheets provided in Section: X APPENDIX on p. 9.

## 6. PRESSURIZE HYDRO-BOOSTER (Only for Hybrid vehicles)

- Depress the brake pedal fully 2 times within 2 seconds.
- Release the brake pedal.
- Wait 10 seconds.

**Note:** You may hear the hydro-boost pump run for a few seconds when completing these steps. The procedure will prevent the pump from running during the re-flash procedure.

## VII. UPDATE CALIBRATION

### 1. UPDATE THE ADVANCED PARKING GUIDANCE/ICS/INTUITIVE P/A ECU

- Identify the vehicles Original CID for the Advanced Parking Guidance/ICS/Intuitive P/A ECU on the Stored Data tab.

The screenshot shows the 'Stored Data' tab for a 2017 Prius (2ZR-FXE, ZVW51) with 006524 miles. The 'Tire Pressure / Threshold Value [psi(gauge)]' section shows sensor readings. The 'Health Check Results' section indicates that the health check does not display live data and changes in vehicle condition will not update automatically. The 'Enhanced' section shows a table of systems with their respective Original CIDs and update status.

| System   | Original CID       | Update |
|--|--------------------|--------|
| RL-Door Motor                                      | -                  | -      |
| Master Switch                                      | -                  | -      |
| <b>Advanced Parking Guidance/ICS/Intuitive P/A</b> | <b>8934F470502</b> | Yes    |
| SRS Airbag   | 8917147162         | No     |
| Rain and/or Humidity Sensor                        | -                  | -      |
| Navigation System                                  | -                  | -      |
| Pre-Collision 2                                    | 4703100            | No     |
| Front Radar Sensor                                 | 4702100            | No     |
| Power Source Control                               | -                  | -      |
| Blind Spot Monitor Master                          | -                  | -      |
| Blind Spot Monitor Slave                           | -                  | -      |

- Locate the vehicles Original CID in the chart on the following page.
- Select the corresponding NEW CID link to load the update.
- Follow the on-screen instructions to complete the ECU re-flash procedure.

**The CID Update Procedure is detailed in [T-SB-0134-16](#).** Please reference this Bulletin for more detailed procedures and information.

**Note:** To insure the update process is completed before turning the ignition off, it is recommended to add a 10 second delay between step H and step I of [T-SB-0134-16](#). For example, after the Flash Calibration process has completed (Step H), wait 10 seconds before turning off the ignition (Step I).



**Be extremely careful to select the correct NEW CID that corresponds to the Original CID.**

| Vehicle Specification |         | Clearance Warning ECU Calibrations |                                   |
|-----------------------|---------|------------------------------------|-----------------------------------|
| Model                 | MY      | Original CID                       | New CID                           |
| CAMRY & CAMRY HYBRID  | 18      | 8934F332 <b>001</b>                | <a href="#">8934F060610</a> (001) |
| PRIUS                 | 15 - 16 | 8934F470 <b>104</b>                | <a href="#">8934F47010C</a> (104) |
|                       |         | 8934F470 <b>106</b>                | <a href="#">8934F47010C</a> (106) |
|                       |         | 8934F470 <b>107</b>                | <a href="#">8934F47010C</a> (107) |
|                       |         | 8934F470 <b>10A</b>                | <a href="#">8934F47010C</a> (10A) |
|                       | 16 - 18 | 8934F470 <b>500</b>                | <a href="#">8934F470507</a> (500) |
|                       |         | 8934F470 <b>501</b>                | <a href="#">8934F470507</a> (501) |
|                       |         | 8934F470 <b>502</b>                | <a href="#">8934F470507</a> (502) |
|                       |         | 8934F470 <b>504</b>                | <a href="#">8934F470507</a> (504) |
| PRIUS PRIME           | 16 - 18 | 8934F470 <b>303</b>                | <a href="#">8934F470307</a> (303) |
|                       |         | 8934F470 <b>304</b>                | <a href="#">8934F470307</a> (304) |

Note: If the Advance Parking Guidance/ICS/Intuitive P/A system has already been calibrated with the new CID, the campaign is complete.

## VIII. COMPLETE REPAIR



### 1. PERFORM VERIFICATION HEALTH CHECK

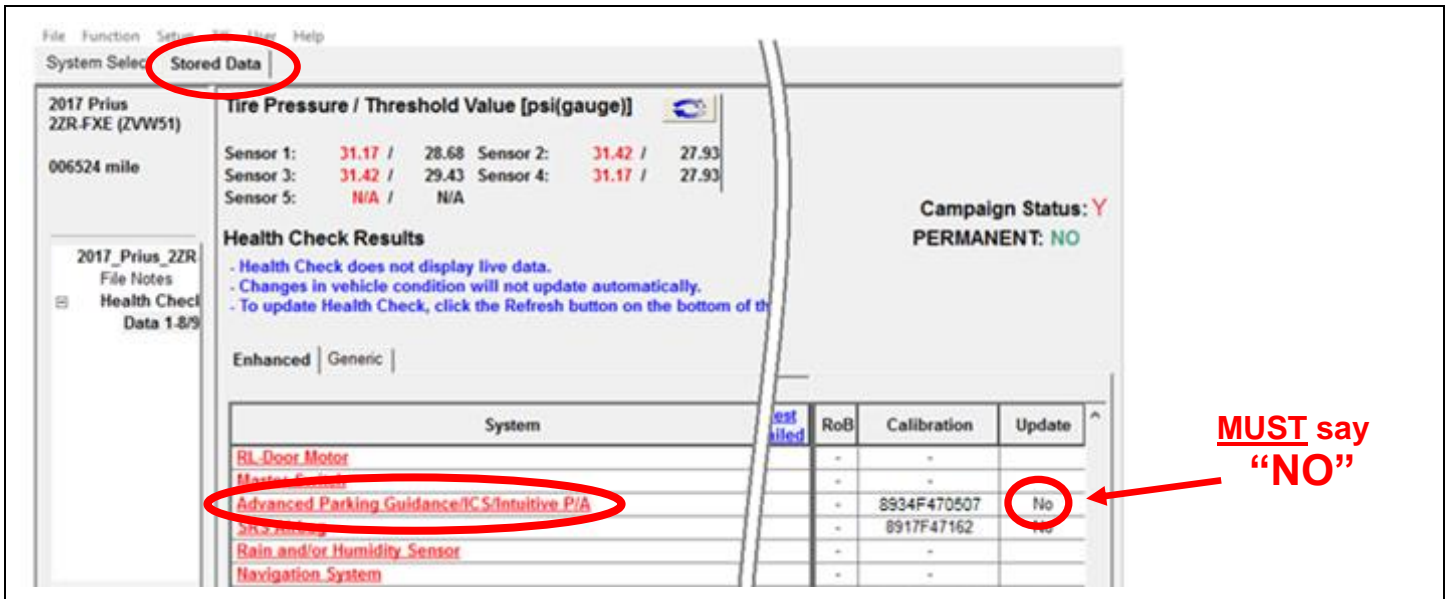
- Using a Techstream, perform a Health Check.
- Clear DTC's that may have set during the re-flash procedure.
- Re-run the Health Check to confirm that no DTC's reappear.**



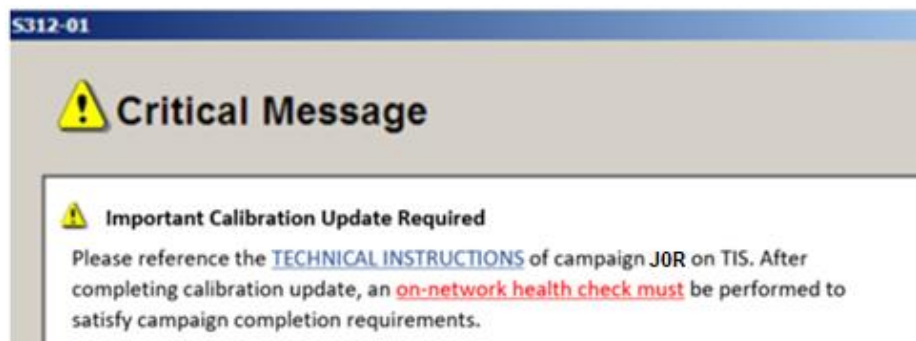
**THIS VERIFICATION HEALTH CHECK IS NECESSARY to update the results and CID's to the National database.**

### 2. CONFIRM CID UPDATE

- On the Stored Data tab, confirm the following for the Advanced Parking Guidance/ICS/Intuitive P/A ECU:
  - The Update column lists "No"**

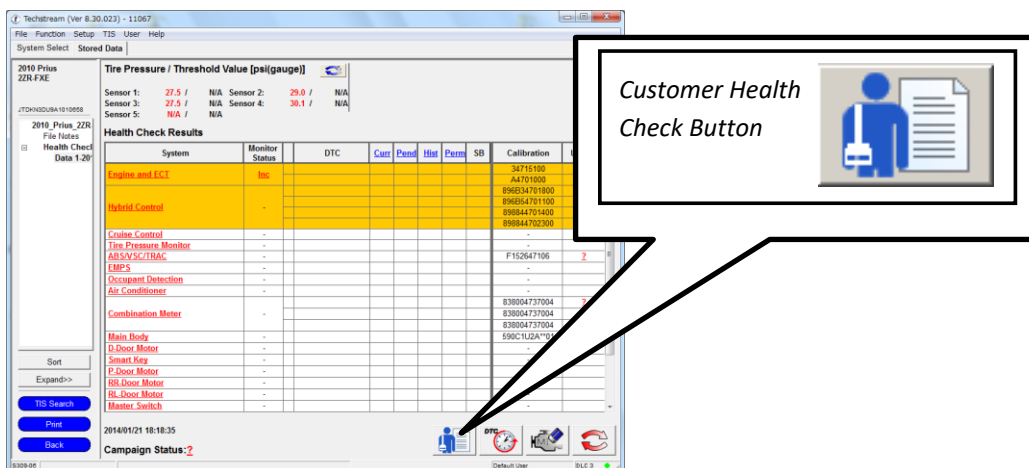


Note: If you receive the following message after the Verification Health Check, you have not properly completed the Required Calibration Updates!!



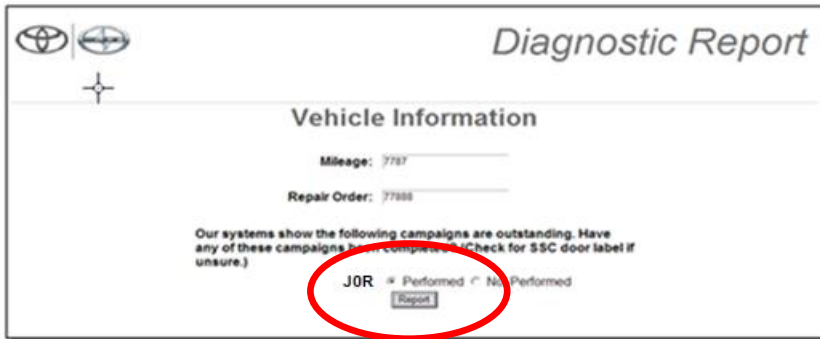
### 3. PRINT CUSTOMER HEALTH CHECK REPORT

- From the Stored Data tab, select the Customer Health Check Report button (TIS will launch when button is pressed).



- Log in to TIS.
- Input Vehicle Mileage and Repair Order number.
- Check the "Performed" campaign button for campaign J0R.
- Select the Report button.





- f. Confirm Customer Health Check Report information is correct.
- g. Print Customer Health Check Report from TIS.
- h. Sign and provide to the customer.

**IX. REASSEMBLY**

**1. RESTORE CUSTOMIZED SETTINGS**

- a. Use a Techstream to access the following data:
  - Advance Parking Guidance/ICS/Intuitive P/A → Customize → Warning, Sensor, Display, and Others.
- b. Restore the customized settings to their prior selections using the Customized Settings Sheets that you previously recorded.

**2. CONNECT COOLING FAN**

- a. Lower the lock lever and engage the claw to connect the cooling fan motor connector.

**3. CHECK INTELEGENT CLEARANCE SONAR**

- a. If the ICS indicator light blinks after the re-flash, perform the steering sensor zero-point calibration:

|              |                      |                      |                      |
|--------------|----------------------|----------------------|----------------------|
| CAMRY        |                      |                      | <a href="#">2018</a> |
| CAMRY HYBRID |                      |                      | <a href="#">2018</a> |
| PRIUS        | <a href="#">2016</a> | <a href="#">2017</a> | <a href="#">2018</a> |
| PRIUS PRIME  |                      | <a href="#">2017</a> | <a href="#">2018</a> |

**4. REMOVE THE POWER SUPPLY FROM THE BATTERY**

**◀ VERIFY REPAIR QUALITY ▶**

- Verify the operation of the cooling fans
- Confirm the ECU Calibration has been updated successfully.
- Confirm there are no DTC's after the re-flash.



## X. APPENDIX

### A. CUSTOMIZED SETTING SHEET (for CAMRY & CAMRY HYBRID)

#### a) Techstream: Warning

| Function                          | Settings (Put a check into applicable setting.) |                                 |                                 |                                 |                            |
|-----------------------------------|---|---------------------------------|---------------------------------|---------------------------------|----------------------------|
| Fr Corner Sensor Onset Range      | <input type="checkbox"/> Short                  | <input type="checkbox"/> Long   |                                 |                                 |                            |
| Rr Corner Sensor Onset Range      | <input type="checkbox"/> Short                  | <input type="checkbox"/> Long   |                                 |                                 |                            |
| Fr Sensor Onset Range             | <input type="checkbox"/> Narrow                 | <input type="checkbox"/> Wide   |                                 |                                 |                            |
| Rr Sensor Onset Range             | <input type="checkbox"/> Narrow                 | <input type="checkbox"/> Wide   |                                 |                                 |                            |
| Keep Sense Buzzer                 | <input type="checkbox"/> Not Avail              | <input type="checkbox"/> Avail  |                                 |                                 |                            |
| Fr & Rr Buzzer Volume             | <input type="checkbox"/> L                      | <input type="checkbox"/> M1     | <input type="checkbox"/> M2     | <input type="checkbox"/> M3     | <input type="checkbox"/> H |
| Object Not Moving 3s Buzz Vol     | <input type="checkbox"/> Keep Vol               | <input type="checkbox"/> L      | <input type="checkbox"/> M1     | <input type="checkbox"/> M2     |                            |
| Leave Buzzer Volume               | <input type="checkbox"/> Keep Vol               | <input type="checkbox"/> L      | <input type="checkbox"/> M1     | <input type="checkbox"/> M2     |                            |
| Temporary Mute Reset Speed Adjust | <input type="checkbox"/> System Link            | <input type="checkbox"/> 15km/h | <input type="checkbox"/> 20km/h | <input type="checkbox"/> 30km/h |                            |
| Temporary Mute Function           | <input type="checkbox"/> OFF                    | <input type="checkbox"/> ON     |                                 |                                 |                            |

#### b) Techstream: Sensor

| Function           | Settings (Put a check into applicable setting.) |                                |  |  |  |
|--------------------|---|--------------------------------|--|--|--|
| Sensor Condition N | <input type="checkbox"/> Not Avail              | <input type="checkbox"/> Avail |  |  |  |

#### c) Techstream: Display

| Function             | Settings (Put a check into applicable setting.) |                                 |  |  |  |
|----------------------|---|---------------------------------|--|--|--|
| Approach Display OFF | <input type="checkbox"/> Not Avail              | <input type="checkbox"/> Avail  |  |  |  |
| Display Mode         | <input type="checkbox"/> All                    | <input type="checkbox"/> Undisp |  |  |  |

#### d) Techstream: Others

| Function                       | Settings (Put a check into applicable setting.) |                                   |  |  |  |
|--------------------------------|---|-----------------------------------|--|--|--|
| ICS Function                   | <input type="checkbox"/> ON                     | <input type="checkbox"/> OFF      |  |  |  |
| ICS SW Status Memory           | <input type="checkbox"/> Yes                    | <input type="checkbox"/> No       |  |  |  |
| ICS Stop Distance              | <input type="checkbox"/> Short                  | <input type="checkbox"/> Long     |  |  |  |
| RCTAB Function                 | <input type="checkbox"/> ON                     | <input type="checkbox"/> OFF      |  |  |  |
| RCTAB Operation Timing Setting | <input type="checkbox"/> Late                   | <input type="checkbox"/> Standard |  |  |  |
| RCTAB Sensitivity              | <input type="checkbox"/> Standard               | <input type="checkbox"/> Low      |  |  |  |

**B. CUSTOMIZED SETTING SHEET (for PRIUS & PRIUS PRIME)**

**a) Techstream: Warning**

| Function                          | Settings (Put a check into applicable setting.) |                                 |                                 |                                 |                            |
|-----------------------------------|---|---------------------------------|---------------------------------|---------------------------------|----------------------------|
| Fr Corner Sensor Onset Range      | <input type="checkbox"/> Short                  | <input type="checkbox"/> Long   |                                 |                                 |                            |
| Rr Corner Sensor Onset Range      | <input type="checkbox"/> Short                  | <input type="checkbox"/> Long   |                                 |                                 |                            |
| Fr Sensor Onset Range             | <input type="checkbox"/> Narrow                 | <input type="checkbox"/> Wide   |                                 |                                 |                            |
| Rr Sensor Onset Range             | <input type="checkbox"/> Narrow                 | <input type="checkbox"/> Wide   |                                 |                                 |                            |
| Keep Sense Buzzer                 | <input type="checkbox"/> Not Avail              | <input type="checkbox"/> Avail  |                                 |                                 |                            |
| Fr & Rr Buzzer Volume             | <input type="checkbox"/> L                      | <input type="checkbox"/> M1     | <input type="checkbox"/> M2     | <input type="checkbox"/> M3     | <input type="checkbox"/> H |
| Object Not Moving 3s Buzz Vol     | <input type="checkbox"/> Keep Vol               | <input type="checkbox"/> L      | <input type="checkbox"/> M1     | <input type="checkbox"/> M2     |                            |
| Leave Buzzer Volume               | <input type="checkbox"/> Keep Vol               | <input type="checkbox"/> L      | <input type="checkbox"/> M1     | <input type="checkbox"/> M2     |                            |
| Temporary Mute Reset Speed Adjust | <input type="checkbox"/> System Link            | <input type="checkbox"/> 15km/h | <input type="checkbox"/> 20km/h | <input type="checkbox"/> 30km/h |                            |
| Temporary Mute Function           | <input type="checkbox"/> OFF                    | <input type="checkbox"/> ON     |                                 |                                 |                            |

**b) Techstream: Sensor**

| Function           | Settings (Put a check into applicable setting.) |                                |  |  |  |
|--------------------|---|--------------------------------|--|--|--|
| Sensor Condition N | <input type="checkbox"/> Not Avail              | <input type="checkbox"/> Avail |  |  |  |

**c) Techstream: Display**

| Function             | Settings (Put a check into applicable setting.) |                                |  |  |  |
|----------------------|---|--------------------------------|--|--|--|
| Approach Display OFF | <input type="checkbox"/> Not Avail              | <input type="checkbox"/> Avail |  |  |  |

**d) Techstream: Others**

| Function             | Settings (Put a check into applicable setting.) |                               |  |  |  |
|----------------------|---|-------------------------------|--|--|--|
| ICS Function         | <input type="checkbox"/> ON                     | <input type="checkbox"/> OFF  |  |  |  |
| ICS SW Status Memory | <input type="checkbox"/> Yes                    | <input type="checkbox"/> No   |  |  |  |
| ICS Stop Distance    | <input type="checkbox"/> Short                  | <input type="checkbox"/> Long |  |  |  |

## A. PARTS DISPOSAL

As required by Federal Regulations, please make sure all recalled parts (original parts) removed from the vehicle are disposed of in a manner in which they will not be reused, ***unless requested for parts recovery return.***

## B. CAMPAIGN DESIGNATION DECORDER

