

Transaxle Assembly and ECM (PCM) Software Confirmation

Service Category Engine/Hybrid System

Section Engine Control

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2017 - 2018	Highlander, Sienna	

REVISION NOTICE

February 02, 2018 Rev1:

- **Applicability has been updated to include 2018 model year Sienna vehicles.**
- **The entire bulletin has been updated.**

Any previous printed versions of this bulletin should be discarded.

Introduction

When completing a transaxle assembly replacement, Engine Control Module (ECM) (SAE term: Powertrain Control Module [PCM]) replacement, or ECM (PCM) reprogram, ensure the correct ECM (PCM) software is matched with the transaxle assembly hardware. Some 2017 – 2018 model year Highlander and Sienna vehicles require different ECM (PCM) software based on the transaxle assembly hardware installed in the vehicle.

NOTICE

Mismatched transaxle assembly hardware and ECM (PCM) software combinations may result in a harsh shift or shift flare. If this occurs after the original repair, additional ECM (PCM) replacement and reprogramming will be required. This additional ECM (PCM) replacement and/or reprogramming is NOT covered under warranty.

Use the information in this Service Bulletin to confirm that the correct ECM (PCM) hardware and software are used based on the transaxle assembly part number and serial number.

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Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
369011#	Z Time Add-on to Transaxle Replacement OP Code	0.3	30500-####0	TBD*	TBD*

* Based on replacement phenomenon.

NOTE

- For transaxle replacement: Claim should be submitted as a normal replacement of the transaxle. If the ECM (PCM) software needs to be updated when replacing the transaxle, add 0.3 hours of "Z time" to the transaxle replacement OP code.
- For ECM (PCM) reprogramming or replacement: This Service Bulletin is used for ECM (PCM) and software selection; however, this does NOT incur additional warranty cost.

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
	00451-00001-LBL	Authorized Modifications Labels	1

NOTE

Authorized Modifications Labels may be ordered in packages of 25 from the Materials Distribution Center (MDC) through *Dealer Daily – Parts – Dealer Support Materials Orders*.

Required Tools & Equipment

REQUIRED EQUIPMENT	SUPPLIER	PART NUMBER	QTY
Techstream 2.0*	ADE	TS2UNIT	1
Techstream Lite		TSLITEPDLR01	
Techstream Lite (Green Cable)		TSLP2DLR01	

* Essential SST.

NOTE

- Only ONE of the Techstream units listed above is required.
- Software version 12.20.024 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.
- Use Techstream or an approved J2534 interface to perform flash reprogramming updates. Visit techinfo.toyota.com for more information regarding J2534 reprogramming.

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Required Tools & Equipment (continued)

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
GR8 Battery Diagnostic Station*	00002-MCGR8	1

* Essential SST.

NOTE

Additional SSTs may be ordered by calling 1-800-933-8335.

Production Change Confirmation Procedure

For transaxle assembly replacement, go to Option 1 and use the part number on the transaxle assembly AND Table 1 to confirm if the transaxle that was just installed is BEFORE or AFTER the production change. This information will allow you to confirm, using the Calibration Information table on pages 7 – 8, if the vehicle has the correct, matching software for that transaxle.

If NOT replacing the transaxle and you would like to confirm that the software matches the transaxle, go to Option 2 and use the serial number on the transaxle assembly to determine if the transaxle was built BEFORE or AFTER the production change. This information will allow you to confirm, using the Calibration Information table on pages 7 – 8, if the vehicle has the correct, matching software for that transaxle.

Option 1: Confirmation by Part Number

1. Determine if the vehicle has a transaxle assembly produced BEFORE or AFTER the production change using the table below.

Table 1.

JUDGEMENT	PART NUMBER	PART NAME
Before	30510-####0-84	Reman ATM
	30500-####0	Transaxle, Assy
After	30510-####1-84	Reman ATM
	30500-####1	Transaxle, Assy

2. Using the judgement from Table 1, refer to the Engine Control Computer (ECM/PCM) Replacement Information and Calibration Information sections.

NOTE

If unable to determine the part number, continue to Option 2: Confirmation by Production Change Effective Serial Number.

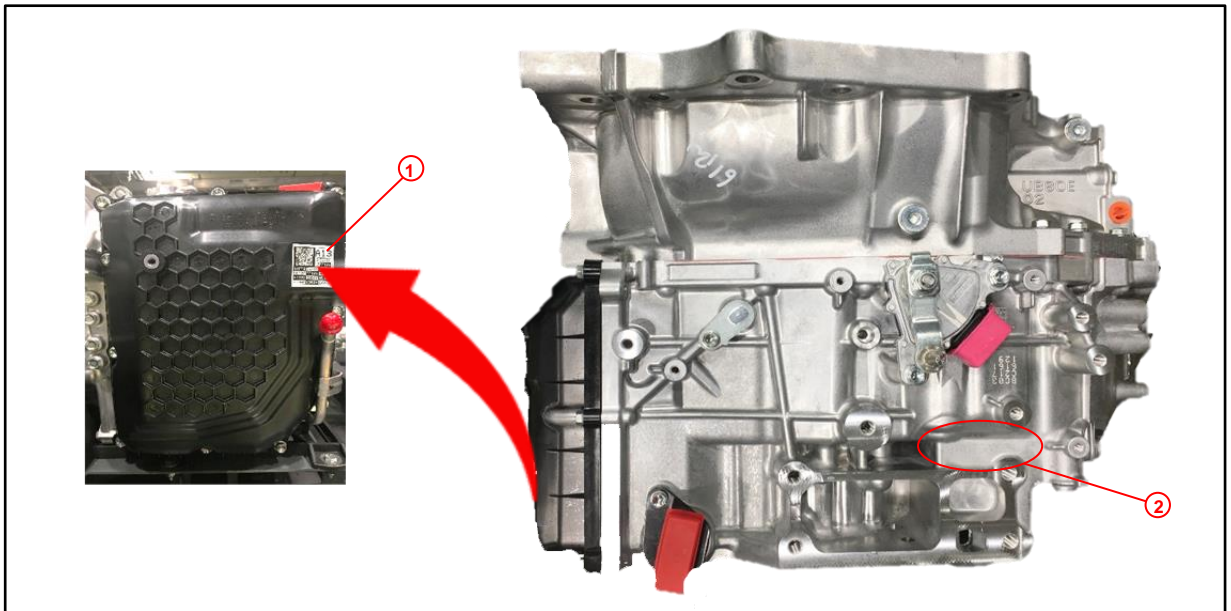
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Production Change Confirmation Procedure (continued)

Option 2: Confirmation by Production Change Effective Serial Number

1. Locate the transaxle serial number, found on the sticker located on the transaxle assembly side cover or on the engraved location as shown. Serial number decoders are also provided below.

Figure 1. Serial Number Sticker and Engraved Serial Number Location



1	Serial Number Sticker
2	Engraved Serial Number Location

Figure 2. AW Plant Serial Number Decoder

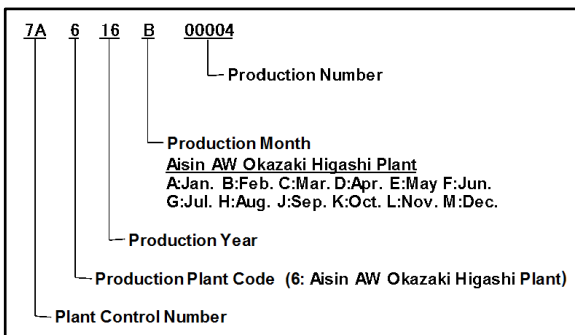
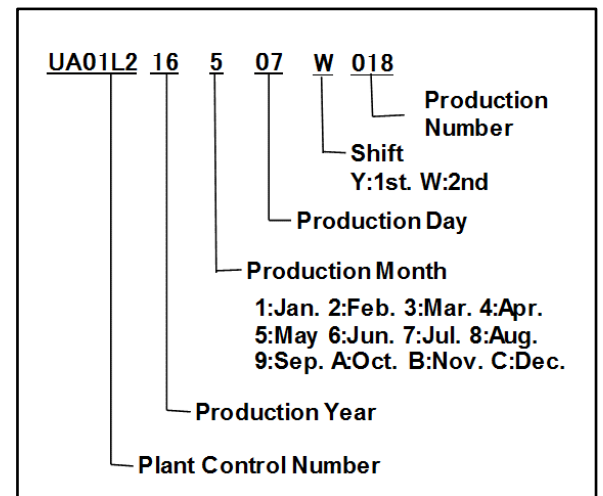


Figure 3. Kinuura Plant Serial Number Decoder



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Production Change Confirmation Procedure (continued)

Option 2: Confirmation by Production Change Effective Serial Number (continued)

- Use the table below to determine if the vehicle has a transaxle assembly produced BEFORE or AFTER the production change.

Table 2.

PLANT	PRODUCTION CHANGE EFFECTIVE SERIAL NUMBER
AW	7A617M22012
Kinuura	UA03L217C21Y206

- Using the information from Table 2, refer to the Engine Control Computer (ECM/PCM) Replacement Information and Calibration Information sections.

Engine Control Computer (ECM/PCM) Replacement Information

Based on the judgement of the transaxle serial number, use the table below to ensure that the correct ECM (PCM) is ordered for ANY replacements being performed.

JUDGEMENT	YEAR	MODEL	DRIVETRAIN	START & STOP	PART NUMBER	
					PREVIOUS	NEW
Before	2017 – 2018	Highlander	2WD	Y	89661-0E851 89661-0E850-B	89661-0E852
				N	89661-0E861 89661-0E860-B	89661-0E862
			4WD	Y	89661-0E831 89661-0E830-B	89661-0E832
				N		89661-0E841 89661-0E840-B
	2WD		89661-08164 89661-08163 89661-08160-B		89661-08165	
		4WD			89661-08444 89661-08443 89661-08440-B	89661-08445
	2018		Sienna		2WD	
		4WD			89661-08460	

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Engine Control Computer (ECM/PCM) Replacement Information (continued)

JUDGEMENT	YEAR	MODEL	DRIVETRAIN	START & STOP	PART NUMBER	
					PREVIOUS	NEW
After	2017 – 2018	Highlander	2WD	Y	89661-0E852	89661-0ED80
					89661-0E851	
	89661-0E850-B	89661-0ED70				
	89661-0E842					
	2017	Sienna	4WD	N	89661-0E841	89661-08530
					89661-0E840-B	
			89661-08165		89661-08540	
			89661-08164			
89661-08163	89661-08580					
89661-08160-B						
2018		2WD		89661-08445	89661-08590	
		4WD		89661-08444		
		2WD		89661-08443		
		4WD		89661-08440-B		
				89661-08400		
				89661-08460		

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Calibration Information

Based on the judgement of the transaxle serial number, use the table below to ensure the correct calibration file is used for ANY ECM (PCM) reprogramming procedures being performed.

JUDGEMENT	YEAR	MODEL	DRIVETRAIN	START & STOP	ECU TYPE	CALIBRATION ID			
						PREVIOUS	NEW		
Before	2017 – 2018	Highlander	2WD	Y	Main	896630E45100 896630E45000	896630E45200		
					Sub	896650E11000	896650E11100		
				N	Main	896630E46100 896630E46000	896630E46200		
					Sub	896650E12000	896650E12100		
			4WD	Y	Main	896630E43100 896630E43000	896630E43200		
					Sub	896650E09000	896650E09100		
	2017	Sienna	2WD	N	Main	896630E44100 896630E44000	896630E44200		
						Sub	896650E10000	896650E10100	
					Main	896630828400 896630828300 896630828000	896630828500		
						Sub	896650807100 896650807000	896650807200	
			4WD		Main	896630836400 896630836300 896630836000	896630836500		
						Sub	896650808100 896650808000	896650808200	
			2018			2WD	Main	896630832000	-
							Sub	896650811000	
4WD	Main	896630838000							
	Sub	896650812000							

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Calibration Information (continued)

JUDGEMENT	YEAR	MODEL	DRIVETRAIN	START & STOP	ECU TYPE	CALIBRATION ID		
						PREVIOUS	NEW	
After	2017 – 2018	Highlander	2WD	Y	Main	896630E45200 896630E45100 896630E45000	896630E85000	
					Sub	896650E11100 896650E11000	896650E43000	
				N	Main	896630E46200 896630E46100 896630E46000	896630E86000	
					Sub	896650E12100 896650E12000	896650E44000	
			4WD	Y	Main	896630E43200 896630E43100 896630E43000	896630E83000	
					Sub	896650E09100 896650E09000	896650E41000	
				N	Main	896630E44200 896630E44100 896630E44000	896630E84000	
					Sub	896650E10100 896650E10000	896650E42000	
	2017	Sienna	2WD	N	Main	896630828500 896630828400 896630828300 896630828000	896630846000	
					Sub	896650807200 896650807100 896650807000	896650819000	
				4WD	Main	896630836500 896630836400 896630836300 896630836000	896630847000	
					Sub	896650808200 896650808100 896650808000	896650820000	
			2018	Sienna	2WD	Main	896630832000	896630851000
						Sub	896650811000	896650823000
					4WD	Main	896630838000	896630852000
						Sub	896650812000	896650824000

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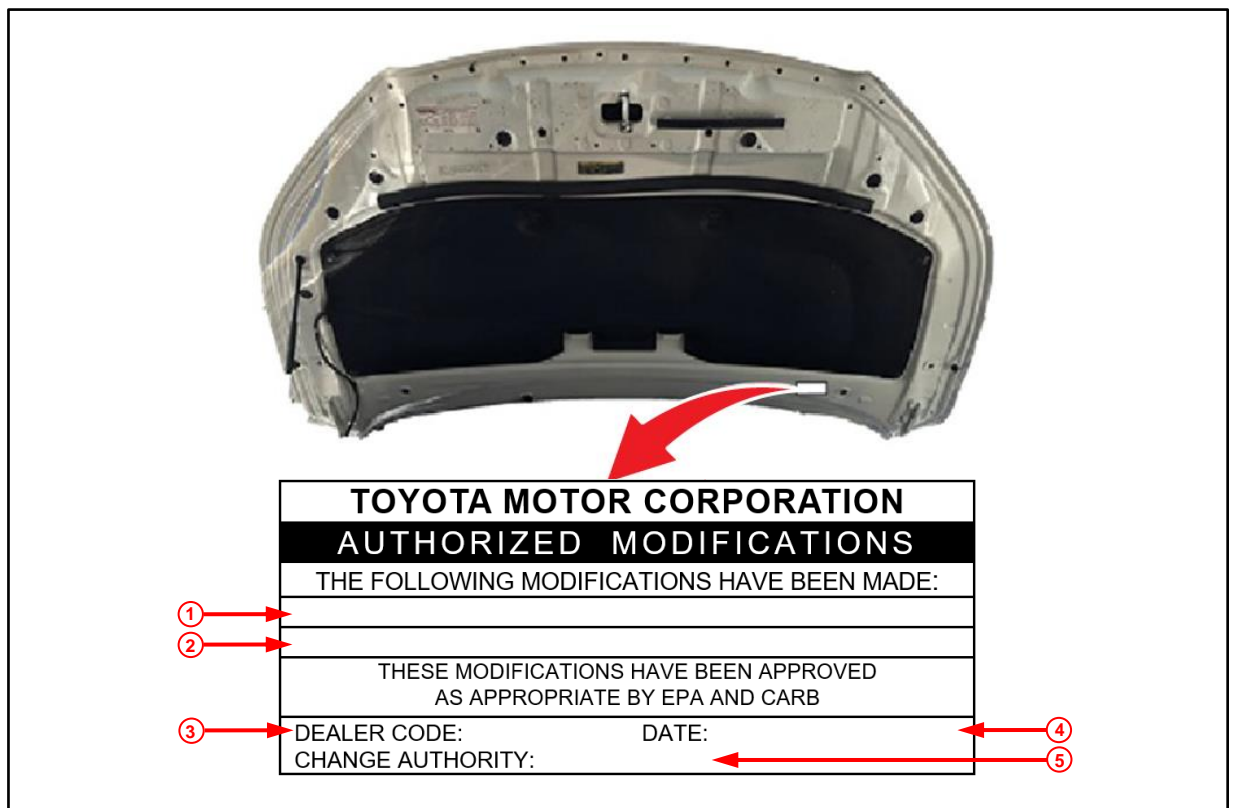
Repair Procedure

1. Does the ECM (PCM) need to be reprogrammed?
 - **YES** — Continue to step 2.
 - **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
2. Check for the Authorized Modifications Label affixed to the vehicle in the applicable locations shown below.

Is the calibration ID listed the latest ECM (PCM) calibration?

 - **YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
 - **NO** — Continue to step 2.

Figure 4. Location of Authorized Modifications Label for 2017 – 2018 Highlander



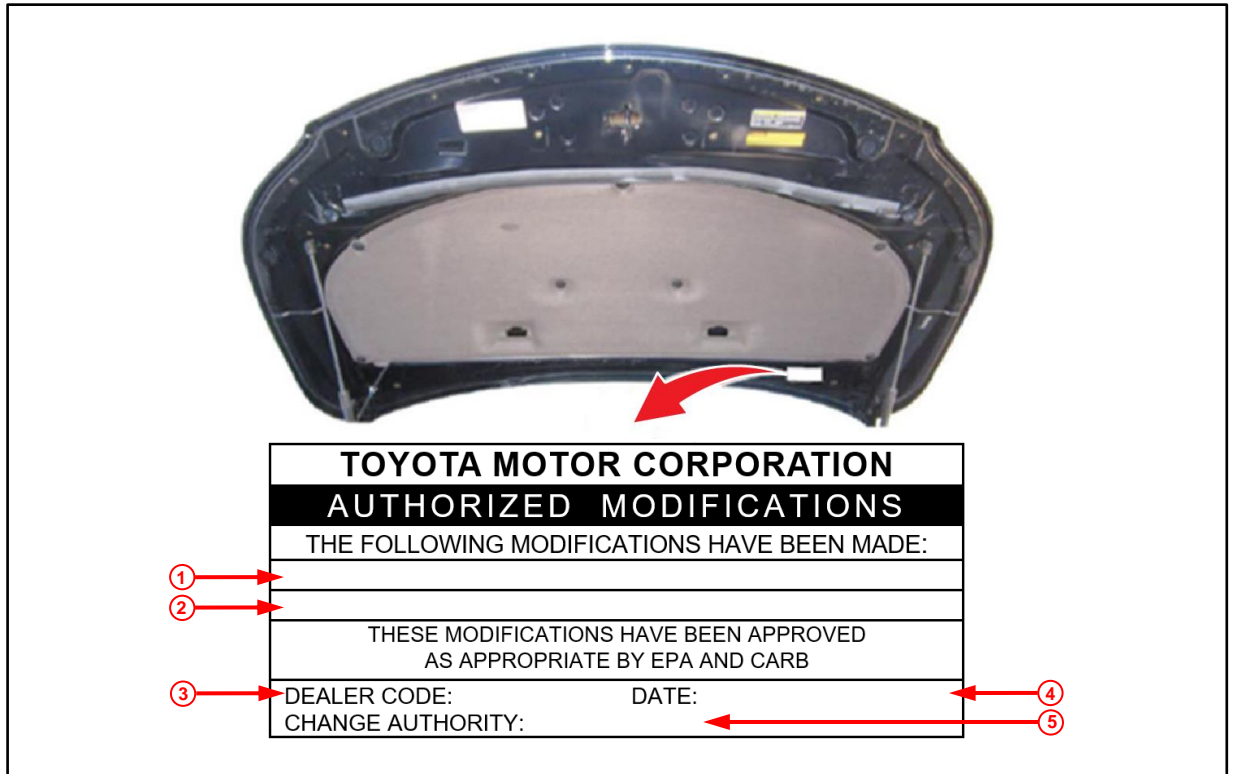
1	Replacement ECM (PCM) Part Number (e.g., 89661-0E832)
2	New Calibration ID (e.g., 896630E43200)
3	Dealer Code

4	Date Completed
5	This SB Number

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Repair Procedure (continued)

Figure 5. Location of Authorized Modifications Label for 2017 – 2018 Sienna



1	Replacement ECM (PCM) Part Number (e.g., 89661-08165)
2	New Calibration ID (e.g., 896630836500)
3	Dealer Code

4	Date Completed
5	This SB Number

3. Flash reprogram the ECM (PCM).

NOTE

- The GR8 Battery Diagnostic Station **MUST** be used in Power Supply Mode to maintain battery voltage at 13.5V while flash reprogramming the vehicle.
- For details on how to use the GR8 Battery Diagnostic Station, refer to the "[GR8 Instruction Manual](#)" located at *TIS – Diagnostics – Tools & Equipment – Battery Diagnostics*.

Follow the procedures outlined in Service Bulletin No. [T-SB-0134-16](#) "Techstream ECU Flash Reprogramming Procedure," and flash the ECM (PCM) with the NEW calibration file update.

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Repair Procedure (continued)

4. Prepare and install the Authorized Modifications Label.
 - A. Using a permanent marker, enter the following information on the label:
 - ECM (PCM) part number [Refer to the **Parts Information** section for *the **NEW PART NUMBER***]
 - Calibration ID [Refer to the **Calibration Information** section for the **NEW CALIBRATION ID**]
 - Dealer Code
 - Repair Date
 - Change Authority [***This bulletin number***]
 - B. Affix the Authorized Modifications Label to the vehicle at the location shown in Figures 4 and 5. The Authorized Modifications Label is available through the MDC, P/N 00451-00001-LBL.
5. Test drive the vehicle to confirm proper vehicle operation.