

Transaxle Whine Noise, Harsh Shift, MIL ON, or Reduced Power

Service Category Drivetrain

Section Automatic Transmission/Transaxle

Market USA

Toyota Supports
ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2017 - 2018	Highlander, Sienna	Transmission(s): 8AT

REVISION NOTICE

May 11, 2021 Rev1:

- The Introduction, Required Tools & Equipment, and Repair Procedure sections have been updated.

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2017 – 2018 model year Highlander and Sienna vehicles may exhibit a whine noise while driving, a harsh shift, MIL ON, or reduced power. The following Diagnostic Trouble Codes (DTCs) may be present: P07457F, P07757F, P07957F, P28077F, P28167F, P08BA7F, P27137F, P07407E, P27567F, P211904, or P071531.

For transaxles within the specified dates that meet the required symptoms, a remanufactured transaxle is available. Follow the Repair Procedure in this bulletin to address this condition.

NOTICE

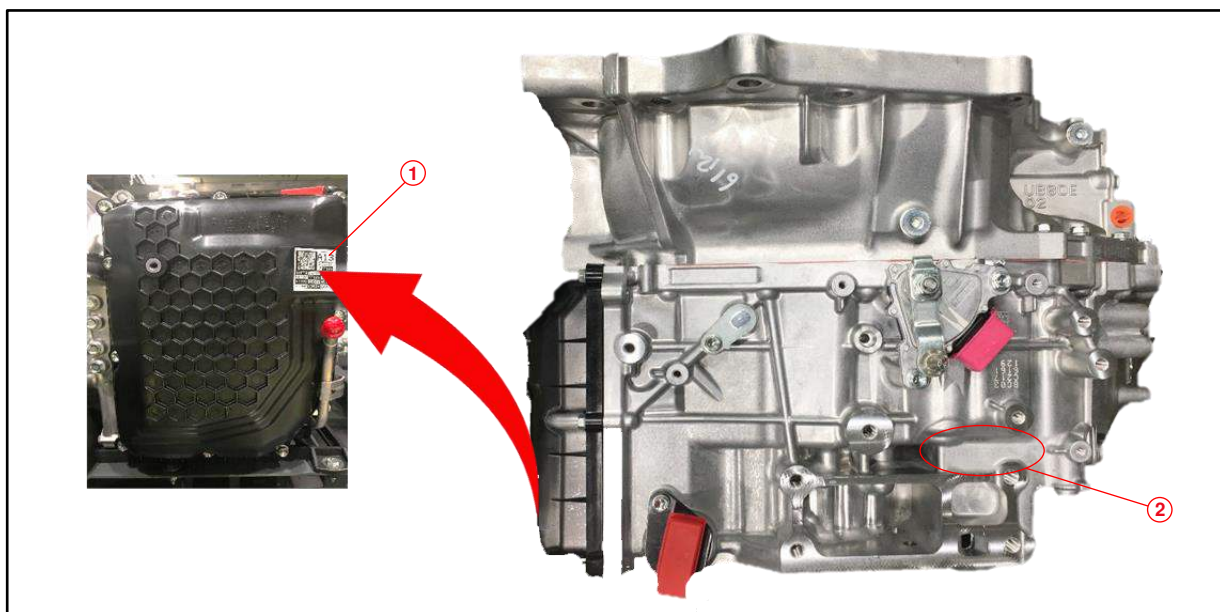
Mismatched transaxle assembly hardware and Engine Control Module (ECM) (SAE term: Powertrain Control Module/PCM) software combinations may result in a harsh shift or shift flare. If this occurs after the original repair, additional ECM (PCM) replacement and reprogramming will be required. The additional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

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Production Change Confirmation Procedure

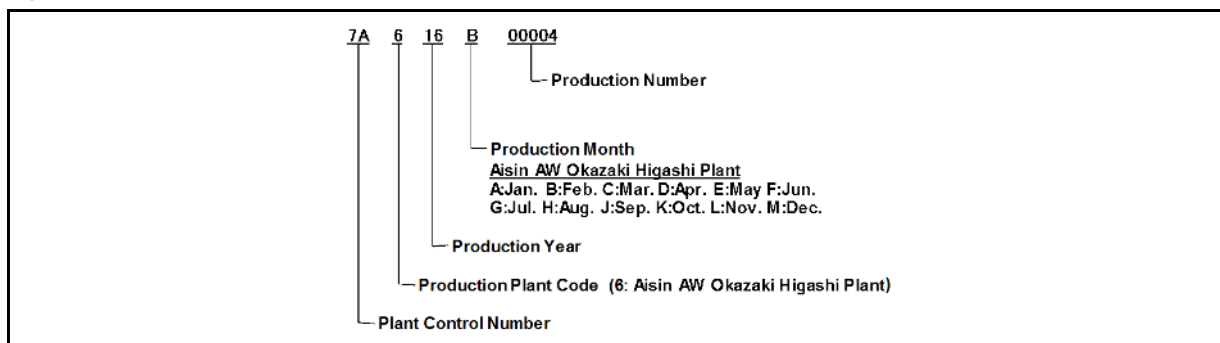
Locate the transaxle serial number, found on the sticker located on the transaxle assembly side cover or on the engraved location as shown. A serial number decoder is also provided below.

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



MODEL	PLANT	DRIVETRAIN	PRODUCTION CHANGE EFFECTIVE AT SERIAL NUMBER
Highlander	AW	8AT	7A617E03416
Sienna			

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Warranty Information

OP CODE	DESCRIPTION	MODEL	TIME	OFF	T1	T2
369011	R & R Transaxle	Sienna (FWD)	7.4	30500-#####*	TBD**	TBD**
		Sienna (AWD)	8.5			
Combo K	Air Conditioning	Sienna (FWD)/(AWD)	0.9			
369011Q	R&R Transaxle (Eng Support Bridge A/C included)	Highlander (FWD)	7.3			
		Highlander (AWD)	8.2			

*Warranty claim MUST be submitted with the correct 10-digit OFF. Choose the correct OFF for the vehicle being repaired by searching for the parts in the Electronic Parts Catalog using the VIN filter.

**T1 and T2 values are based on the replacement phenomenon.

APPLICABLE WARRANTY

- This repair is covered under the Toyota Powertrain Warranty. This warranty is in effect for 60 months or 60,000 miles, whichever occurs first, from the vehicle's in-service date.
- Warranty application is limited to occurrence of the specified condition described in this bulletin.

Parts Information

PART NUMBER	PART NAME	QTY
30510-45071-84	Reman ATM	1*
30510-45081-84		
30510-48601-84		
90080-43036	Gasket, Exhaust Pipe	2 – 3*
17451-0D140		1
17173-0P040	Gasket, Exhaust Manifold to Head	1**
17176-31130	Gasket, Air Surge Tank to Intake Manifold	1**
90080-17238	Nut, Lock	2
90080-11555	Bolt, W/Washer	1
95381-03025	Pin, Cotter	2
90080-52017	Ring, Hole Snap	1
90901-19060	Bolt, W/Washer	1***
90521-73001	Ring, Hole Snap	1***
35150-45010	Plug Assy, Transmission Case	1

*Use the VIN to order the correct transaxle and quantity of gaskets.

**Highlander ONLY.

***AWD vehicle ONLY.

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Parts Information (continued)

90430-18008	Gasket	2
90116-12051	Bolt, Stud	3***
90116-12052		1***
12157-10010	Gasket, Drain Plug	2***
08885-02506	Gear Oil, LT 75W-85	As Needed***
00289-ATFWS	ATF WS	As Needed
00272-SLLC2	Super Long Life Coolant	As Needed

*Use the VIN to order the correct transaxle and quantity of gaskets.

**Highlander ONLY.

***AWD vehicle ONLY.

Required Tools & Equipment

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

*Essential SST.

NOTE

Only ONE of the Techstream units listed above is required.

Software version 16.00.021 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
Drive Shaft Nut Chisel*	09930-00010	1
Ball Joint Puller*	09960-20010-01	1
Drive Shaft Remover Attachment*	09520-01010-02	1
Differential Side Gear Shaft Tool	09520-24010	1
Transmission Oil Plug	09325-20010	1
Ratcheting Strap*	00002-2SUPP	1
Crankshaft Pulley Holding Tool*	09213-70011	1
Companion Flange Holding Tool*	09330-00021	1
Transmission Fill System*	00002-11100-02	1
Engine Support Bar*	00002-ESUPPT-01	1

*Essential SST.

NOTE

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

Repair Procedure

- Confirm the transaxle serial number.
Does the transaxle serial number begin with 7A6 AND come BEFORE 7A617E03416?
 - YES** — Continue to step 2.
 - NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

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Repair Procedure (continued)

2. Confirm the transmission revolution sensor (NT) sensor speed.
 - A. Connect Techstream to the vehicle and select Engine Data List.
 - B. Place the vehicle in Park and apply the parking brake.
 - C. Increase the engine speed to 1,000 rpm.

Is the NT sensor speed less than or equal to the specification in Table 1 at the given parameter?

NOTE

Use parameter No. 1 or No. 2 in Table 1.

- **YES** — Continue to step 3.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Figure 3.

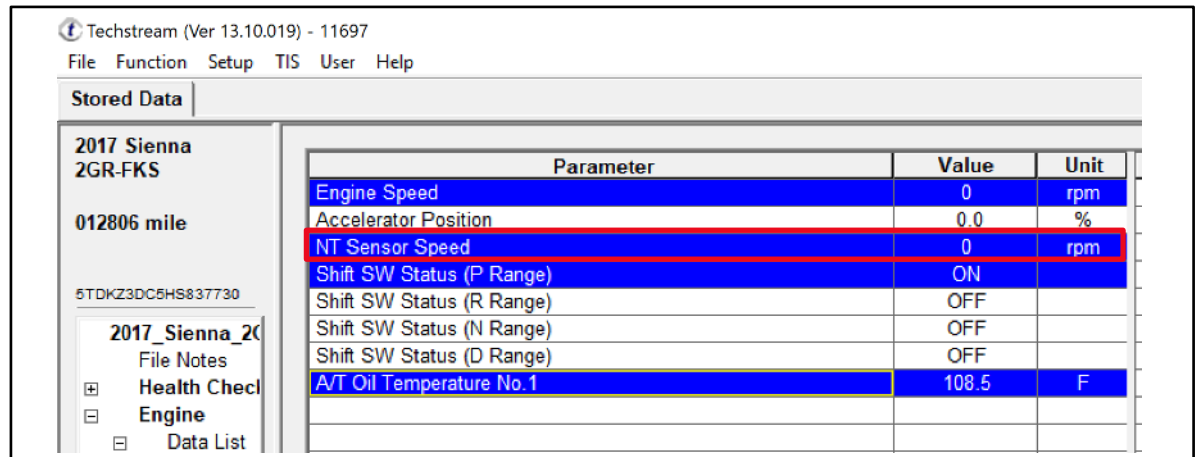


Table 1.

PARAMETER				NT SENSOR SPEED (rpm)	
NO.	SHIFT POSITION	ENGINE SPEED (rpm)	A/T OIL TEMPERATURE NO. 1	CONTINUE DIAGNOSIS USING THE APPLICABLE REPAIR MANUAL	GO TO STEP 3
1	P	1,000	81° – 104°F (27° – 40°C)	Greater Than 850	850 or Under
2			105° – 212°F (41° – 100°C)	Greater Than 900	900 or Under

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Repair Procedure (continued)

3. Confirm if ANY of the following conditions are present.
 - A. Diagnostic Trouble Code (DTC) P07457F, P07757F, P07957F, P28077F, P28167F, P08BA7F, P27137F, P07407E, P27567F, P211904, or P071531 is present.
 - B. Harsh shift.
 - C. A whine noise is present while driving in D range.

Refer to the video links below for examples of the whine noise condition.

[Whine Noise Example No. 1](#) / [Whine Noise Example No. 2](#)

Are ANY of the conditions listed above present?

- **YES** — Continue to step 4.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

4. Replace the transaxle.

Refer to TIS, applicable model and model year Repair Manual:

- 2017 – 2018 Highlander (2WD):
Drivetrain – Automatic Transmission/Transaxle – “UA80E Automatic Transmission / Transaxle: Automatic Transaxle Assembly: [Removal](#) / [Installation](#)”
- 2017 – 2018 Highlander (4WD):
Drivetrain – Automatic Transmission/Transaxle – “UA80F Automatic Transmission / Transaxle: Automatic Transaxle Assembly: [Removal](#) / [Installation](#)”
- 2017 – 2018 Sienna (2WD):
Drivetrain – Automatic Transmission/Transaxle – “UA80E Automatic Transmission / Transaxle: Automatic Transaxle Assembly: [Removal](#) / [Installation](#)”
- 2017 – 2018 Sienna (4WD):
Drivetrain – Automatic Transmission/Transaxle – “UA80F Automatic Transmission / Transaxle: Automatic Transaxle Assembly: [Removal](#) / [Installation](#)”

5. Confirm the ECM software matches the replacement transaxle.

Refer to [T-SB-0001-18](#), *Transaxle Assembly and ECM (PCM) Software Confirmation* for calibration information.

6. Test-drive the vehicle to confirm proper operation.