

5-Speed Manual Transmission Clutch Difficult Engaging

Service Category Drivetrain

Section Clutch

Market USA

Toyota Supports
 ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2005 – 2013	Tacoma	Engine(s): 2TR Transmission(s): 5MT VDS(s): KX22N, NX22N, NX4CN, NX4GN, NX62N, PX42N, PX4EN, TX22N, TX4CN, TX4GN, TX62N, UX42N, UX4EN

REVISION NOTICE

June 25, 2013 Rev1:

- Applicability has been updated to include 2012 – 2013 model year vehicles.

Any previous printed versions of this bulletin should be discarded.

Introduction

Some 2005 – 2013 model year Tacoma vehicles equipped with a 5-speed manual transmission may exhibit a slipping feeling in all forward gears and reverse. Replacement of the clutch disk, clutch cover, flywheel, and clutch pedal turnover spring is required to repair the vehicle. Follow the repair procedure in this bulletin to address this condition.

Production Change Information

This bulletin applies to vehicles produced **BEFORE** the Production Change Effective VINs shown below.

MODEL	TRANSMISSION	DRIVETRAIN	CAB	PRODUCTION CHANGE EFFECTIVE VIN
Tacoma	5 Speed Manual	2WD	Regular	5TFNX4CN#DX021603
			Access	5TFTX4CN#DX026465
		4WD	Regular	5TFPX4EN#DX015170
			Access	5TFUX4EN#DX018637

5-Speed Manual Transmission Clutch Difficult Engaging

Warranty Information

OP CODE	DESCRIPTION	DRIVE-TRAIN	TIME	QTY	T1	T2
TC9018	R & R Clutch Disk, Clutch Cover, Flywheel, and Clutch Pedal Turnover Spring	2WD	4.1	31250-04090 31250-04091	22	12
TC9019		4WD	4.7	31250-26230 31250-26231		

APPLICABLE WARRANTY

- This repair is covered under the Toyota Comprehensive Warranty. This warranty is in effect for 36 months or 36,000 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
PREVIOUS	NEW		
31210-04080 31210-04081 31210-04082 31210-04083 31210-04084 31210-26170 31210-26171 31210-26172	31210-35291	Clutch Cover Assembly	1
31250-04090 31250-04091 31250-26230 31250-26231	31250-60500	Clutch Disk Assembly	1
90949-03136	90949-03132	Turnover Spring	1
13405-75060		Flywheel Assembly	1
90910-02116		Flywheel Set Bolt	10

5-Speed Manual Transmission Clutch Difficult Engaging

Required Tools & Equipment

SPECIAL SERVICE TOOLS (SST)	PART NUMBER	QTY
Crankshaft Pulley Holding Tool*	<u>09213-54015</u>	1
Companion Flange Holding Tool*	<u>09330-00021</u>	1
Clutch Diaphragm Spring Aligner**	<u>09333-00013</u>	1
Clutch Guide Tool	<u>09301-00210</u>	1
Pilot Bearing Puller	<u>09303-35011</u>	1
Pilot Bearing Installer	<u>09304-30012</u>	1

* Essential SST.

** Special Order.

NOTE

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

REQUIRED MATERIAL	QUANTITY
Toyota Genuine Adhesive 1324, Three Bond 1324, or Equivalent	As Needed

Repair Procedure

1. Confirm the condition described in the Introduction.

Place the vehicle in every gear position (forward and reverse) and attempt to move the vehicle.

Does the vehicle move?

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

2. Remove the manual transmission assembly to inspect the clutch disk and clutch cover.

Refer to the Technical Information System (TIS), applicable model and model year Repair Manual:

- 2005 Tacoma:
Drivetrain – Manual Transmission/Transaxle – “Manual Transmission Unit Assy (R155) / (R155F): Replacement”

5-Speed Manual Transmission Clutch Difficult Engaging

Repair Procedure (Continued)

- 2006 – 2013 Tacoma:
Drivetrain – Manual Transmission/Transaxle – “R155/R155F Manual Transmission: Manual Transmission Assembly: Removal”
 - 2006 Tacoma: R155 / R155F
 - 2007 Tacoma: R155 / R155F
 - 2008 Tacoma: R155 / R155F
 - 2009 Tacoma: R155 / R155F
 - 2010 Tacoma: R155 / R155F
 - 2011 Tacoma: R155 / R155F
 - 2012 Tacoma: R155 / R155F
 - 2013 Tacoma: R155 / R155F
- 3. Does the clutch cover appear damaged, such as broken or excessively scored diaphragm spring fingers?
 - **YES** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
 - **NO** — Go to step 4.
- 4. Remove the clutch cover and clutch disk assembly.
Refer to TIS, applicable model year Repair Manual:
 - 2005 Tacoma:
Drivetrain – Clutch – “Clutch Unit (R155/R155F): Overhaul”
 - 2006 – 2013 Tacoma:
Drivetrain – Clutch – “Clutch: Clutch Unit (for R155) / (for R155F): Removal”
 - 2006 Tacoma: R155 / R155F
 - 2007 Tacoma: R155 / R155F
 - 2008 Tacoma: R155 / R155F
 - 2009 Tacoma: R155 / R155F
 - 2010 Tacoma: R155 / R155F
 - 2011 Tacoma: R155 / R155F
 - 2012 Tacoma: R155 / R155F
 - 2013 Tacoma: R155 / R155F

5-Speed Manual Transmission Clutch Difficult Engaging

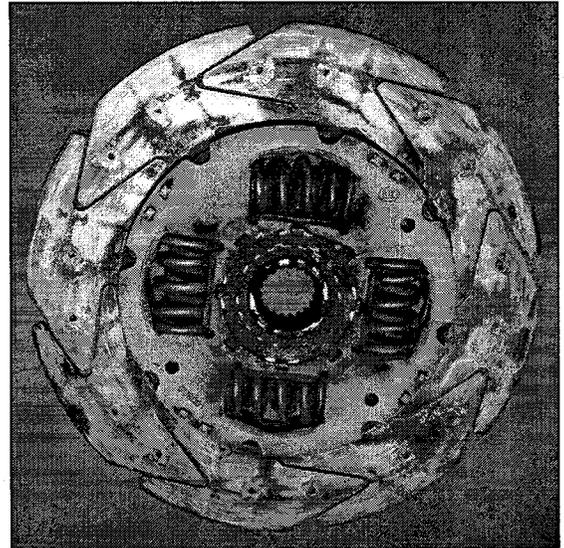
Repair Procedure (Continued)

5. Inspect the clutch disk friction surface.

Does the clutch disk friction material display damage such as missing or tearing of friction material on one or both sides of the clutch disk? See Figure 1.

- **YES** — Go to step 6.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

Figure 1. Clutch Disk Missing Friction Material



6. Replace the clutch disk, clutch cover, flywheel, and clutch pedal turnover spring.

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

- 2005 Tacoma:
 - *Drivetrain – Clutch – “Clutch Unit (R155/R155F): Overhaul”*
 - *Engine/Hybrid System – Engine Mechanical – “Engine Rear Oil Seal (2TR-FE): Replacement”*
- 2006 – 2013 Tacoma:
 - *Drivetrain – Clutch – “Clutch: Clutch Unit (for R155) / (for R155F): Installation”*
 - 2006 Tacoma: R155 / R155F
 - 2007 Tacoma: R155 / R155F
 - 2008 Tacoma: R155 / R155F
 - 2009 Tacoma: R155 / R155F
 - 2010 Tacoma: R155 / R155F
 - 2011 Tacoma: R155 / R155F
 - 2012 Tacoma: R155 / R155F
 - 2013 Tacoma: R155 / R155F

5-Speed Manual Transmission Clutch Difficult Engaging

Repair Procedure (Continued)

- 2006 – 2009 Tacoma:
Engine/Hybrid System – Engine Mechanical – “2TR-FE Engine Mechanical: Engine Rear Oil Seal: Removal / Installation”
 - 2006 Tacoma: Removal / Installation
 - 2007 Tacoma: Removal / Installation
 - 2008 Tacoma: Removal / Installation
 - 2009 Tacoma: Removal / Installation
- 2010 – 2013 Tacoma:
Engine/Hybrid System – Engine Mechanical – “2TR-FE Engine Mechanical: Rear Crankshaft Oil Seal: Removal / Installation”
 - 2010 Tacoma: Removal / Installation
 - 2011 Tacoma: Removal / Installation
 - 2012 Tacoma: Removal / Installation
 - 2013 Tacoma: Removal / Installation

7. Reinstall the manual transmission assembly.

Refer to TIS, applicable model year Repair Manual:

- 2005 Tacoma:
Drivetrain – Manual Transmission/Transaxle – “Manual Transmission Unit Assy (R155) / (R155F): Replacement”
- 2006 – 2013 Tacoma:
Drivetrain – Manual Transmission/Transaxle – “R155/R155F Manual Transmission: Manual Transmission Assembly: Installation”
 - 2006 Tacoma: R155 / R155F
 - 2007 Tacoma: R155 / R155F
 - 2008 Tacoma: R155 / R155F
 - 2009 Tacoma: R155 / R155F
 - 2010 Tacoma: R155 / R155F
 - 2011 Tacoma: R155 / R155F
 - 2012 Tacoma: R155 / R155F
 - 2013 Tacoma: R155 / R155F

5-Speed Manual Transmission Clutch Difficult Engaging

Repair Procedure (Continued)

- 2005 Tacoma:
 - *Drivetrain – Clutch – “Clutch Pedal Sub-Assy: Replacement”*
 - 2006 – 2013 Tacoma:
 - *Drivetrain – Clutch – “Clutch: Clutch Pedal: Removal / Installation”*
 - 2006 Tacoma: Removal / Installation
 - 2007 Tacoma: Removal / Installation
 - 2008 Tacoma: Removal / Installation
 - 2009 Tacoma: Removal / Installation
 - 2010 Tacoma: Removal / Installation
 - 2011 Tacoma: Removal / Installation
 - 2012 Tacoma: Removal / Installation
 - 2013 Tacoma: Removal / Installation
8. Test drive the vehicle and confirm normal operation.



2014 PRE-DELIVERY SERVICE CHECK SHEET

June 2013 Rev1

BEFORE INSPECTION

- | | | | |
|--|--------------------------|----|---------------|
| 01 Install DCC Fuse (see page 2) | <input type="checkbox"/> | OK | Adjust/Repair |
| 02 Install antenna* | <input type="checkbox"/> | | |

FUNCTIONAL OPERATION

Apply parking brake and cycle "IG-ON," place gear selector in reverse, turn on lights and rear defogger. Unlock doors; release fuel door.

- | | | |
|--|--------------------------|--------------------------|
| 01 Check dome, courtesy, and map lights* | <input type="checkbox"/> | <input type="checkbox"/> |
| 02 Check warning/indicator lights, gauges, and horn | <input type="checkbox"/> | <input type="checkbox"/> |
| 03 Check windshield wipers and washers | <input type="checkbox"/> | <input type="checkbox"/> |
| 04 Check headlights, instrument lights, turn signals, emergency flashers, and brake lights | <input type="checkbox"/> | <input type="checkbox"/> |
| 05 Check inside/outside rear view mirror operation/adjustment | <input type="checkbox"/> | <input type="checkbox"/> |
| 06 Check power outlets and cigarette lighter* | <input type="checkbox"/> | <input type="checkbox"/> |
| 07 Check audio system and set clock | <input type="checkbox"/> | <input type="checkbox"/> |
| 08 Install shift-lock override button cover | <input type="checkbox"/> | |

WALKAROUND INSPECTION

Start at left front door. Check window and door lock operation (from master power switch, if equipped). Continue around vehicle in a counterclockwise direction checking each door and window operation, child door locks, seat belts, interior condition, all lights, luggage compartment contents. Finish by checking headlight aim and continue into UNDER HOOD checks.

- | | | |
|---|--------------------------|--------------------------|
| 01 Check door and door lock operation, including each wireless remote control/theft deterrent system* | <input type="checkbox"/> | <input type="checkbox"/> |
| 02 Check window operation | <input type="checkbox"/> | <input type="checkbox"/> |
| 03 Check that engine starts with all keys | <input type="checkbox"/> | <input type="checkbox"/> |
| 04 Check that child safety door locks are in normal (unlocked) position* | <input type="checkbox"/> | <input type="checkbox"/> |
| 05 Check seats and seat belt operation | <input type="checkbox"/> | <input type="checkbox"/> |
| 06 Check rear defogger | <input type="checkbox"/> | <input type="checkbox"/> |
| 07 Check side marker, tail, backup, cargo* and license plate lights | <input type="checkbox"/> | <input type="checkbox"/> |
| 08 Check luggage compartment light* and trim appearance | <input type="checkbox"/> | <input type="checkbox"/> |
| 09 Adjust spare tire pressure, inspect for damage, and check jack and tool installation | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 Check headlight aim | <input type="checkbox"/> | <input type="checkbox"/> |

UNDER HOOD

- | | | |
|--|--------------------------|--------------------------|
| 01 Check engine oil and ATM* fluid levels | <input type="checkbox"/> | <input type="checkbox"/> |
| 02 Check brake and clutch* fluid levels | <input type="checkbox"/> | <input type="checkbox"/> |
| 03 Check engine coolant level | <input type="checkbox"/> | <input type="checkbox"/> |
| 04 Check windshield washer fluid level | <input type="checkbox"/> | <input type="checkbox"/> |
| 05 Check battery state-of-charge using Digital Battery System Analyzer (SOC Reading: _____%) | <input type="checkbox"/> | <input type="checkbox"/> |
| 06 Inspect for fuel, oil, coolant, and other fluid leaks | <input type="checkbox"/> | <input type="checkbox"/> |

* Inspect or install when equipped/required.
** For vehicles with VINs beginning with "VNK" only.

UNDER VEHICLE (ON HOIST)

- | | | |
|---|--------------------------|--------------------------|
| 01 Remove disc brake anti-rust covers/anti-corrosion wheel film* | <input type="checkbox"/> | |
| 02 Inspect tires for defects/damage | <input type="checkbox"/> | <input type="checkbox"/> |
| 03 Activate** and Initialize Tire Pressure Warning System (TPWS) (see page 2) | <input type="checkbox"/> | |
| 04 Install wheel covers/caps* | <input type="checkbox"/> | <input type="checkbox"/> |
| 05 Inspect for fuel, oil, coolant, and other fluid leaks | <input type="checkbox"/> | <input type="checkbox"/> |
| 06 Inspect under the vehicle for damage, rust, etc. | <input type="checkbox"/> | <input type="checkbox"/> |
| 07 Visually check bolts and nuts on chassis and powertrain for looseness | <input type="checkbox"/> | <input type="checkbox"/> |
| 08 Install rubber body plugs* | <input type="checkbox"/> | |
| 09 Install front wheel opening extension pads (see page 2) | <input type="checkbox"/> | <input type="checkbox"/> |

ROAD TEST

A complete road test helps assure customer satisfaction. Drive vehicle over a variety of road surfaces and driving conditions. Check for unusual noise and driving performance.

Enter Odometer Reading
Reading Before Test: _____ Reading After Test: _____

- | | | |
|---|--------------------------|--------------------------|
| 01 Check cold engine operation | <input type="checkbox"/> | <input type="checkbox"/> |
| 02 Check engine operation during warm up | <input type="checkbox"/> | <input type="checkbox"/> |
| 03 Check engine at normal operating temperature | <input type="checkbox"/> | <input type="checkbox"/> |
| 04 Check clutch or automatic transmission operation | <input type="checkbox"/> | <input type="checkbox"/> |
| 05 Check brake and parking brake operation | <input type="checkbox"/> | <input type="checkbox"/> |
| 06 Check steering operation and off-center/vehicle pull/flutter | <input type="checkbox"/> | <input type="checkbox"/> |
| 07 Inspect for abnormal noise and vibration | <input type="checkbox"/> | <input type="checkbox"/> |
| 08 Inspect for squeaks and rattles | <input type="checkbox"/> | <input type="checkbox"/> |
| 09 Check front and rear* heater and A/C operation | <input type="checkbox"/> | <input type="checkbox"/> |
| 10 Check cruise control operation* | <input type="checkbox"/> | <input type="checkbox"/> |

FINAL INSPECTION AND CLEANING

- | | |
|--|--------------------------|
| 01 Remove interior protective covers, unnecessary labels, tags, etc. (Remove protective covers just before delivery to customer) | <input type="checkbox"/> |
| 02 Visually inspect all interior parts for installation, damage, fit, dirt, etc. | <input type="checkbox"/> |
| 03 Verify floor mat application and install using retaining clips* | <input type="checkbox"/> |
| 04 Remove Rappard™ and clear protective bumper film* | <input type="checkbox"/> |
| 05 Wash and clean vehicle | <input type="checkbox"/> |
| 06 Inspect paint finish for scratches, chips, rust, dents, damage, etc. | <input type="checkbox"/> |
| 07 Inspect exterior body parts for proper installation, damage, rust, etc. | <input type="checkbox"/> |
| 08 Place oil change sticker on inside of windshield, top left corner | <input type="checkbox"/> |
| 09 Install front* license plate (see page 2) | <input type="checkbox"/> |
| 10 Install front bumper extension bracket** (see page 2) | <input type="checkbox"/> |
| 11 Place Owner's Guide and first aid kit portfolio* in glove box | <input type="checkbox"/> |
| 12 Perform Techstream Health Check | <input type="checkbox"/> |

Completion and retention of this form is required to comply with Toyota's Warranty Policy.

TECHNICIAN'S SIGNATURE _____ SERVICE MANAGER'S SIGNATURE _____

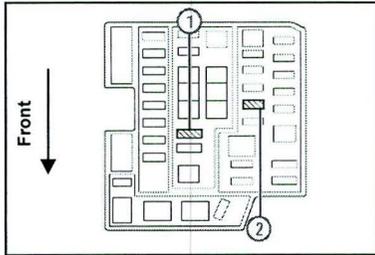
NAME (PLEASE PRINT) _____ NAME (PLEASE PRINT) _____

We hereby certify that all items on this form have been checked and corrected for proper operation as required.

Date	Dealer Name	Dealer Code	Vehicle Identification Number (Sticker)
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DCC FUSE INSTALLATION

To minimize battery discharge the DCC fuse (30A) has been removed and is stored in the engine compartment relay block. Install the DCC fuse into the location shown.

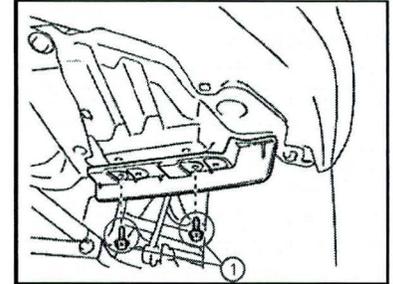


1 Storage Location 2 Installation Location

FRONT WHEEL OPENING EXTENSION PAD

The front wheel opening extension pad set (right and left) are loaded in the luggage compartment at the assembly plant to avoid damage in transit. Use this procedure for both right and left sides.

1. Hook the retainers of the front wheel opening extension pad through the installation holes on the fender liner.
2. Install the 2 self-tapping screws.



1 Self-tapping Screws

TPWS ACTIVATION AND INITIALIZATION

Activation Procedure**

1. Connect Techstream to DLC3.
2. Cycle the IG switch to the "IG-ON" position and check that the Low Tire Pressure Warning Light blinks for 1 minute and then remains illuminated.
3. Press or remove the valve core to reduce the tire inflation pressure rapidly by 6 psi (0.4 kgf/cm², 40 kPa), or more, within 30 seconds.
4. Using Techstream, check for DTCs (C2111-C2114). If no DTCs are stored, continue to step 5, if these DTCs are stored, repeat step 3.
5. Adjust all tires to the standard tire inflation pressure, as indicated on the Tire and Loading Information label inside the driver's door jamb.
6. Check the tire pressure values of all the tires using Techstream. **TPWS ECU / DATA LIST / TIREPRESS 1-4**

Initialization Procedure

Refer to the Repair Manual for the Initialization procedure.

NOTE

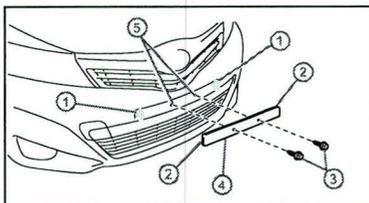
- If DTCs C2111-C2114 are present after repeating step 3, lift the vehicle and rotate each tire so that the tire pressure warning valve/sensor is at the top of the wheel well. Then repeat step 3.
- To adjust the tire pressure correctly when the outside temperature is significantly colder than shop temperature, perform a Health Check using Techstream and select the "Compensation Tire Pressure" checkbox. Compensation pressures will be displayed on the Health Check results screen. Adjust the tire pressure when the tires are cold.

FRONT BUMPER EXTENSION BRACKET**

For states that don't require a front license plate, the front bumper extension mounting bracket and 2 self-tapping screws are loaded in the luggage compartment.

Front Bumper Extension Mounting Bracket Installation Procedure

1. Clean the front bumper surface.
2. Align both holes of the front bumper extension bracket with the dimples on the front bumper cover.
3. Install 2 self-tapping screws.
4. Remove the tape film on both sides.



1 Cleaning Area
2 Tape Film
3 Self-tapping Screws
4 Front Bumper Extension Mounting Bracket
5 Dimples

FRONT LICENSE PLATE INSTALLATION

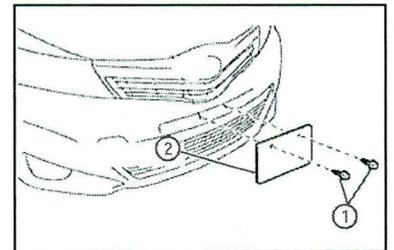
For states that require a front license plate, please install per this procedure.

Front License Plate Installation Procedure

1. Align the installation holes of the front license plate with the dimples on the bumper.
2. Install 2 self-tapping screws through the license plate and into the front bumper at the dimples.

NOTICE

- Do NOT pre-drill holes into the bumper.
- Do NOT overtighten the self-tapping screws.



1 License Plate 2 Self-tapping Screws

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