


S-SB-0014-13 Rev1 April 19, 2013

Rattle Noise from MT Shift Lever

Service Category Drivetrain

Section Manual Transmission/Transaxle Market USA

Scion Supports ASE Certification 

Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2013	FR-S	Transmission(s): 6MT

<p>REVISION NOTICE</p> <p>June 11, 2013 Rev1:</p> <ul style="list-style-type: none"> • Production Change Information has been updated. <p>Any previous printed versions of this bulletin should be discarded.</p>
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Introduction

Some 2013 model year FR-S vehicles equipped with a 6-speed manual transmission may exhibit a rattle type noise from the manual transmission shifter between 3,500 – 6,000 rpm. Follow the procedure in this bulletin to address this condition.

Production Change Information

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

MODEL	TRANSMISSION	PRODUCTION CHANGE EFFECTIVE VIN
FR-S	6 Speed MT	JF1ZNAA1#D1716932

Parts Information

PART NUMBER		PART NAME	QTY
PREVIOUS	NEW		
SU003-04526	SU003-04598	Shift Lever Assembly	1
SU003-00876			
SU003-04562			

Rattle Noise from MT Shift Lever

Warranty Information

OP CODE	DESCRIPTION	TIME	OFF	T1	T2
332011	R & R Shift Lever Assembly	1.7	SU003-04526 SU003-00876 SU003-04562	91	43

APPLICABLE WARRANTY

- This repair is covered under the Toyota Basic 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.

Repair Procedure

1. Confirm the condition.

Test drive the vehicle to confirm there is a rattle type noise from the floor shift lever assembly between 3,500 – 6,000 rpm.

Refer to the video link below for an example of the rattle noise.

[Rattle Noise Example](#)

HINT

This noise may occur in any gear position, but is most noticeable in 3rd gear.

Is the rattle noise coming from the shift lever assembly?

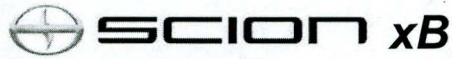
- **YES** — Continue to step 2.
- **NO** — This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.

2. Replace the shift lever assembly.

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

- 2013 FR-S:
Drivetrain – Manual Transmission/Transaxle – “TL70 Manual Transmission/Transaxle: Manual Transmission Assembly: Removal / Installation”

3. Confirm the repair.



2013 PRE-DELIVERY SERVICE CHECK SHEET

June 2013 Rev1

BEFORE INSPECTION	OK	Adjust/Repair
01 Install Short Pin (see page 2)	<input type="checkbox"/>	<input type="checkbox"/>

FUNCTIONAL OPERATION		
<i>Apply parking brake and cycle ignition "IG-ON"; place gear selector in reverse; turn on lights and rear defogger. Unlock doors; release fuel door.</i>		
01 Check dome, courtesy, map, and sun visor 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, dimmer switch, 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 cigarette lighter* and power outlets*	<input type="checkbox"/>	<input type="checkbox"/>
07 Check audio/navigation* systems, set SSP to xB, and set clock	<input type="checkbox"/>	<input type="checkbox"/>
08 Install shift-lock override button cover	<input type="checkbox"/>	<input type="checkbox"/>
09 Check rear entertainment system operation*	<input type="checkbox"/>	<input type="checkbox"/>
10 Check that the electroluminescent dash illuminates when door is opened**	<input type="checkbox"/>	<input type="checkbox"/>
11 Check that the shift knob illuminates**	<input type="checkbox"/>	<input type="checkbox"/>

WALKAROUND INSPECTION		
<i>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.</i>		
01 Check power window operation	<input type="checkbox"/>	<input type="checkbox"/>
02 Check door and door lock operation, including each wireless remote control/theft deterrent system*	<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/rear view mirror defogger*	<input type="checkbox"/>	<input type="checkbox"/>
07 Check side marker, tail, backup, and license plate lights.	<input type="checkbox"/>	<input type="checkbox"/>
08 Check luggage compartment light* & trim appearance	<input type="checkbox"/>	<input type="checkbox"/>
09 Adjust spare tire pressure and check jack and tool installation	<input type="checkbox"/>	<input type="checkbox"/>
10 Check headlight aim	<input type="checkbox"/>	<input type="checkbox"/>
11 Check that front and rear exterior Scion badges illuminate after unlocking vehicle**	<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 Scion Series 10 vehicles only.

UNDER VEHICLE (ON HOIST)	OK	Adjust/Repair
01 Remove disc brake anti-corrosion wheel film*	<input type="checkbox"/>	<input type="checkbox"/>
02 Inspect tires for defects/damage (including spare tire)	<input type="checkbox"/>	<input type="checkbox"/>
03 Activate Tire Pressure Warning System (TPWS) (see page 2)	<input type="checkbox"/>	<input type="checkbox"/>
04 Install wheel covers/caps/spare tire wheel covers*	<input type="checkbox"/>	<input type="checkbox"/>
05 Inspect for fuel, oil, coolant, and other fluid leaks	<input type="checkbox"/>	<input type="checkbox"/>
06 Visually check bolts and nuts on chassis and powertrain for looseness	<input type="checkbox"/>	<input type="checkbox"/>
07 Inspect under the vehicle for damage, rust, etc.	<input type="checkbox"/>	<input type="checkbox"/>
08 Install rubber body plugs (stored in glove box or center console)	<input type="checkbox"/>	<input type="checkbox"/>

ROAD TEST
<i>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.</i>

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 speedometer operation	<input type="checkbox"/>	<input type="checkbox"/>
11 Check cruise control operation*	<input type="checkbox"/>	<input type="checkbox"/>

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

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

TECHNICIAN'S SIGNATURE _____
 NAME (PLEASE PRINT) _____

SERVICE MANAGER'S SIGNATURE _____
 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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SHORT PIN INSTALLATION

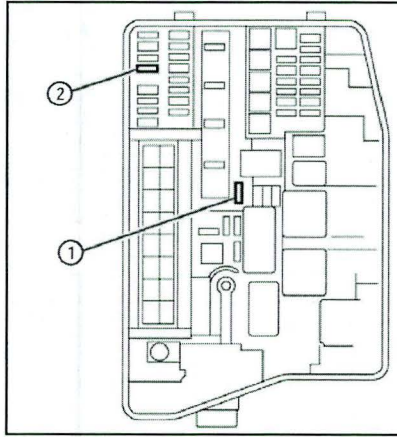
To minimize battery discharge the Short Pin has been removed and is stored in the engine compartment Relay Block. Install the Short Pin and confirm all related DTCs are cleared.

DTC Clearing Procedure

1. Connect Techstream.
2. Cycle the ignition switch to the "IG-ON" position.
3. Using Techstream, check any other codes being output.
4. Erase DTCs (B1650 and B1794) and Freeze Frame Data.

NOTE

If any DTCs besides B1650 and B1794 appear, repair the applicable system according to the Repair Manual.



1 Remove This Short Pin
2 Install Short Pin Here

TPWS ACTIVATION & INITIALIZATION

Activation Procedure

1. Connect Techstream.
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. Check that the Low Tire Pressure Warning Light goes OFF after all the TPWS sensors are activated.

NOTE

To adjust tire pressure correctly when outside temperature is significantly colder or warmer than shop temperature, follow the procedures outlined in Service Bulletin No. S-SB-0001-02, "Tire Inflation Pressure Compensation and Adjustment."

5. Using Techstream, check for DTCs (C2111-C2114). If no DTCs are stored, continue to Initialization procedure. If these DTCs are stored, repeat step 3.

Initialization Procedure

Refer to the Repair Manual for the Initialization procedure. Please note the spare tire does not have a TPWS sensor.

FRONT LICENSE PLATE & MOUNTING BRACKET INSTALLATION

For states that require a front license plate, please install per this procedure. The bracket and self-tapping screws are stored in the luggage compartment.

Installation Procedure

1. Insert the front license plate into the mounting bracket.
2. Attach the hooks of the mounting bracket to the upper lip of the air intake and rotate the bracket upwards and hold in place.

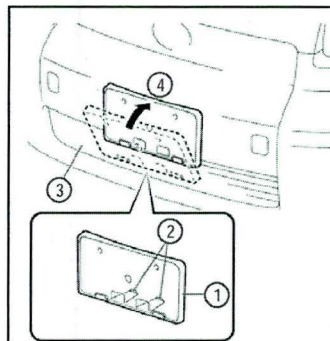
NOTE

The mounting bracket should snap securely onto the bumper cover.

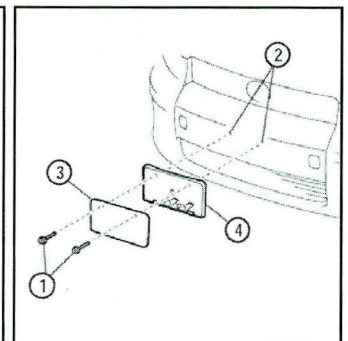
4. Align the installation holes on the mounting bracket and front license plate with the dimples on the front bumper.
5. Screw in the 2 self-tapping screws directly into the dimples to install the front license plate and mounting bracket.

NOTICE

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



1 Mounting Bracket
2 Hooks
3 Air Intake
4 Rotate Bracket



1 Self-tapping Screws
2 Dimples
3 License Plate
4 Mounting Bracket