

# **Trailer Brake Controller - Braking Feel**

Service

Category Brake

Section	Brake Control/Dynamic Control System	Market USA	Toyota Supports
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#### Applicability

YEAR(S)	MODEL(S)	ADDITIONAL INFORMATION
2016 - 2017	Tundra	VDS(s): AW5F1, AY5F1, BW5F1, BY5F1, CW5F1, CY5F1, DW5F1, DY5F1, EW5F1, EY5F1, FW5F1, FY5F1, GW5F1, GY5F1, HW5F1, HY5F1, NW5F1, NY5F1, PW5F1, PY5F1, RW5F1, RY5F1, SW5F1, SY5F1, TW5F1, TY5F1, UW5F1, UY5F1

#### Introduction

Some 2016 – 2017 model year Tundra vehicle customers have expressed dissatisfaction with the braking feel of the integrated trailer brake controller. Revised software for the Trailer Brake Control ECU has been developed to provide an alternative trailer braking feel for these customers. Follow the Repair Procedure in this bulletin to address this condition.

#### Warranty Information

OP CODE	DESCRIPTION	TIME	OFP	T1	T2
BR1612 Reprogram	Depression FOLL (Trailer Drake Control FOLL)	0.0	89547-0C010	00	
	Reprogram ECU (Trailer Brake Control ECU)	0.3	89547-0C011	99	99

#### 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.

### **Trailer Brake Controller - Braking Feel**

#### **Parts Information**

PARTN	UMBER			
PREVIOUS NEW				
89547-0C010		Proka Control Polov w/Procket		
89547-0C011	89547-00012	Brake Control Relay w/Bracket	_	

#### NOTE

The Brake Control Relay with Bracket should NOT be replaced as part of the Repair Procedure.

#### **Required Tools & Equipment**

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

#### NOTE

• Only ONE of the Techstream units listed above is required.

- Software version 12.10.018 or later is required.
- Additional Techstream units may be ordered by calling Approved Dealer Equipment (ADE) at 1-800-368-6787.

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

#### NOTE

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

\* Essential SST.

### **Trailer Brake Controller - Braking Feel**

#### Calibration Information

MODEL	ENCINE	CALIBRATION ID				
		PREVIOUS	NEW			
Tundra	3UR	8954F0C011 8954F0C012	8954F0C013			

#### **Repair Procedure**

1. Confirm the condition.

Does the customer express dissatisfaction with the feeling of the trailer brake operation while using the integrated trailer brake controller on the vehicle?

- YES Continue to step 2.
- **NO** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
- 2. Verify the vehicle's applicability for recalibration.
  - A. Connect Techstream and establish a vehicle connection.
  - B. Click the Health Check button on the System Select tab.

#### Figure 1.

Techstream (Ver 12.00.)	125) - 11583				terror therein the	_			_ 0 X
File Function Setup	TIS User Help								
System Select Store	ed Data								
2016 Tundra 3UR-FE 032539 mile stFCY5F11Gx019225 Health Check	System Selection Select desired system an System Yellow = Et System White = EC "System White w/As "System Light Blue to All ECUs Powertrain	Menu     dthen press the arrow button I     CU status unknown.     Ju communication OK.     sterisk = ECU not supported or w/Asterisk = ECU communical     Chassis   Body Electric	to access the ECU. r not responding. tion OK in past times but not al	responding now.					
Customize	Engine and ECT	Cruise Control	Four Wheel Drive	ABS/VSC/TRAC	Tire Pressure Monitor	Trailer Brake Controller	Air Conditioner	Immobiliser	*
Setting	SRS Airbag	Main Body	Gateway	Accessory Gateway	D-Door Motor	P-Door Motor	Driver Seat	Sliding Roof	
ECU	Tilt&Telescopic	Combination Meter	Mirror	Occupant Detection	Navigation System	Blind Spot Monitor Master	Blind Spot Monitor Slave		
Reprogramming									
CAN									
Bus Check								-	
TIS Function									
Read Data Function									E
									*
									-
TIS Search	1								
Print Main Menu									$\blacksquare >$
\$303-01								Default User	DLC 3 🔶

### **Trailer Brake Controller - Braking Feel**

#### **Repair Procedure (Continued)**

C. Choose the desired ECU group(s) in the *Health Check* dialog box.

Figure 2.								
Techstream (Ver 12.00.1)	25) - 11583			and the second sec				_ 0 %
File Function Setup 1	TS User Help							
System Select Stored	Data							
2016 Tundra 3UR-FE	System Selection	Menu		Health Check (S309-02)	)			
032539 mile	Select desired system and t System Yellow = ECU System White = ECU	hen press the arrow button to J status unknown. communication OK.	access the EC	Please select system areas to include in the Health Check. Fewer ECUs reduce delay and allows Health Check to run faster.				
STFCYSF11GX019225 Health Check	*System White w/Aste *System Light Blue w// All ECUs Powertrain	risk = ECU not supported or Asterisk = ECU communicati   Chassis   Body Electrica	not responding. on OK in past t	Perform Health Check on All ECUs (This will recheck all ECUs, even those found to not be present. NOTE - This will increase Health Check time.)				
Customize Setting	Engine and ECT SRS Airbag	Cruise Control Main Body	Four Whe Gateway	FCU Selection:	Trailer Brake Controller P-Door Motor	Air Conditioner Driver Seat	Immobiliser Sliding Roof	<u> </u>
ECU Reprogramming CAN Bus Check TIS Function Read Data Function	TităTelescopic	Combination Meter	Marror	(Number of present ECUs) / (Number of all ECUs) ♥ Powertrain(3 ECUs) / (3 ECUs) ♥ Chassis(3 ECUs) / (3 ECUs) ♥ Body Electrical(17 ECUs) / (17 ECUs) ♥ Compensation Tire Pressure ♥ Store All Data Note: The Store All Data function will store all System DTC, FPD, Inflo Code, Operation History, mit Mumic Data to the Stored Data take DTC, Branc Data any add several minutes to the Health Check. Would you like to include Time Stamp Data?	Blind Spot Montor Master	Blind Spat Montor Stave		E
TIS Search				C Yss     C No       This function may take a few minutes to complete.       Press Next to continue.       Help       Next>   Cancel				×
Main Menu S303-01							Default User	DLC 3

D. Click Next.

### **Trailer Brake Controller - Braking Feel**

#### **Repair Procedure (Continued)**

E. Click "Continue" to view Health Check results.

#### Figure 3.

A T	No. 1993							- 6 2
Ele Eustream (Ver 12.00.	(2) - 11955							
System Select Store	Data							
oyatem outer Store								
2016 Tundra 3UR-FE	Tire Pressure / Threshold Value [psi(gauge)]							
032539 mile	Sensor 1:         37.91         /         30.56         Sensor 2:         35.33         /         29.37           Sensor 3:         33.94         /         27.78         Sensor 4:         34.53         /         29.37							
STFCY5F110X019225							Campai	an Status: ?
2016_Tundra_3L File Notes ⊟ Health Checl Data 1-5/1 Data 2-5/1	Health Check Results - Health Check does not display live data. - Compare in which condition will not update automatically. - To update Health Check, click the Refresh button on the bottom of the Health Check screen.						PERMAN	ENT: NO
	Enhanced Genetic							
	System	Monitor Status	DTC	Curr Conf	Pend	Hist Test Failed	Calibration	Update
	Engine and ECT	Com	P1604			X	30CL1301 50C81101	2
	Four Wheel Drive	-	U0100 U0416			X	8953F0C01000	2
	Trailer Brake Controller		C14A6 U0129			X X	8954F0C011	
	Navigation System	-	B158P B15F6			X		
	Cruise Control		00140			^	· ·	
	Tire Pressure Monitor			_				
	ABS/VSC/TRAC	-		-			F15260C092	1
	SRS Althou			-				
	Air Conditioner			-				
	Combination Meter						838000CQ8000	2
	Main Body	-						
	Immobiliser	1.1					100 B	
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Sort							1	
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309-06							Default User	DLC 3 🔶

Is the calibration ID listed the latest ECU (Trailer Brake Control ECU) calibration?

- NO Continue to step 3.
- **YES** This bulletin does NOT apply. Continue diagnosis using the applicable Repair Manual.
- 3. Flash reprogram the ECU (Trailer Brake Control ECU).

#### 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 "<u>GR8 Instruction Manual</u>" located on the Technical Information System (TIS), *Diagnostics –* Tools & Equipment – Battery Diagnostics.

### **Trailer Brake Controller - Braking Feel**

#### **Repair Procedure (Continued)**

4. Follow the procedures outlined in Service Bulletin <u>T-SB-0134-16</u>, "*Techstream ECU Flash Reprogramming Procedure,*" and flash the ECU (Trailer Brake Control ECU) with the NEW calibration file update.

#### NOTICE

In the event that the reprogramming fails, the technician MUST "disconnect and connect the ECU (Trailer Brake Control ECU) BEFORE retry" OR "disconnect and connect the cable from the negative (–) battery terminal" BEFORE selecting "Retry." Failure to follow this step in the event of a failed reprogramming process may result in permanent damage to the vehicle's ECU.

5. Perform a Health Check to verify the updated calibration ID. Start the vehicle to verify there are no warning messages on the instrument cluster and no MIL "ON" condition.