

SCION	tC	2011 -
Section I – Ins	tallation Preparation	

# Part Number: PTR54-21100

## **Kit Contents**

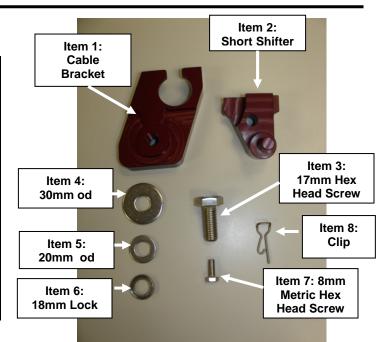
	in contents			
Item	Quantity	Description		
#	Reqd.			
1	1	Scion tC Cable Bracket, Extender		
2	1	Scion tC Short Shifter		
3	1	Metric S/S Hex Head Cap Screw		
		M10 x 20mm x 1.5 pitch		
4	1	Metric S/S Flat Washer M10		
		30mm OD x 2.5 mm Thick		
5	1	Metric S/S Flat Washer M10		
		20mm OD x 2.0 mm Thick		
6	1	Metric S/S Lock Washer M10,		
		18mm OD x 2.0 mm Thick		
7	1	Metric S/S Hex Head Cap Screw		
		M5 x 12mm x 0.8 pitch		
8	1	Clip, Toyota P/N 90468-14029		
9	1	Installation instructions		

#### **Additional Items Required For Installation**

Item #	Q	uantity Reqd.	Description
1			Waterproof Wheel Bearing Grease
Conflicts			
PPO Co	de	Description	

#### **Recommended Tools**

Safety Tools	
Safety Glasses	or Goggles
Special Tools	
Vehicle Protection	Front Seat Covers
Vehicle Protection	Blankets
Telescoping Mirror	
Installation Tools	
8mm Socket	<sup>1</sup> /4" Drive
10mm Socket	<sup>1</sup> /4" Drive
10 inch Extension	<sup>1</sup> /4" Drive
Ratchet	<sup>1</sup> /4" Drive
Torque Wrench	<sup>1</sup> /4" Drive
Flat Screwdriver	Large Flat Blade
Pliers, Needle-Nose	
Brass Hammer	
17mm Socket	3/8" Drive
Ratchet	3/8" Drive
Torque Wrench	3/8" Drive



## **General Applicability**

Scion tC: 2011 and up with 6 speed manual transmission

## Vehicle Service Parts (may be required for reassembly)

Item	Quantity	Description
#	Reqd.	
1	1	Clip Part No. 90468-14029

## Legend

STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.
OPERATOR SAFETY: Use caution to avoid risk of injury
CRITICAL PROCESS: Proceed with caution to ensure a quality installation. These points will be audited on a completed vehicle installation
GENERAL PROCESS: This highlights specific processes to ensure a quality installation. These

\*Mandatory

points will be audited during the accessory installation **TOOLS & EQUIPMENT:** This calls out the specific tools and equipment required for this process

Issue A: 10/11/10



## A. Check Kit Contents

1. Check kit for contents and damage.

## **B.** Vehicle Preparation

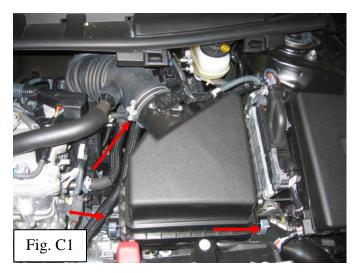
- 1. Open vehicle hood.
- 2. Use blankets to protect the front grille area and the front seat area.
  - 3. Set parking brake.
  - 4. Put transmission in Neutral.
  - 5. Disconnect the negative battery cable from the battery at the terminal.

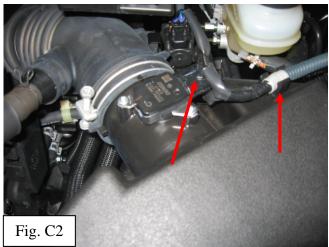
# C. Removal Procedure: OE Air Filter Enclosure

- 1. Remove upper air cleaner lid.
  - i. Unfasten the 2 hook clamps. (Fig. C1)
  - ii. Loosen the hose clamp that secures the intake hose to the air cleaner lid. (Fig. C1)



- iii. Unplug the Mass Air Flow Sensor connector. (Fig. C2)
- iv. Remove wire harness from the air cleaner lid. (Fig. C2)
- v. Remove OE air filter lid from engine bay.
- vi. Remove OE air filter.





Issue A:10/11/10

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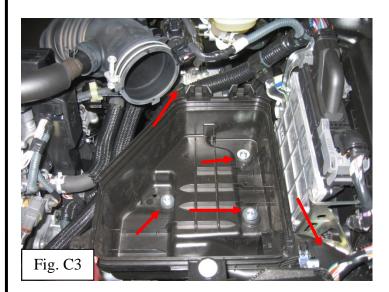
## Section IV – Functional Verifications

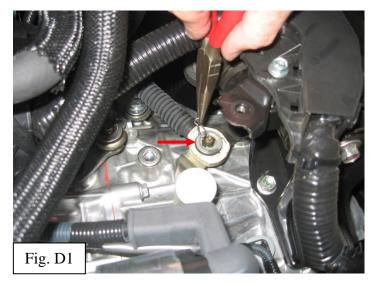
- 2. Remove lower air filter inlet base.
  - Use a 10mm socket, 10" extension and ¼" drive ratchet to remove 3 OE bolts that secure air filter inlet base. (Fig. C3)
  - ii. Lift up the tab for the wire harness tie.Remove the harness and tie from the inlet base. (Fig. C3).
  - iii. Remove air inlet pipe from lower base. (Fig. C3)
  - iv. Lift air filter inlet base out of engine bay.

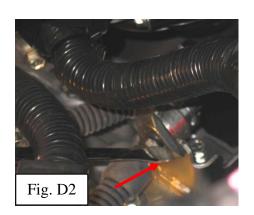
# D. Removal Procedure: Transmission Cable Ends

- Disconnect the transmission cable end from the gear shift linkage on the transmission. (Fig. D1)
  - i. Remove factory transmission cable clip and save for re-use. (Fig. D1)
  - ii. Remove transmission cable end from transmission linkage and set cable end aside. (Fig. D1)
- Remove U-clip from shift cable bracket (Fig. D2) with a large flat blade screwdriver.

Move the shift cable out of OE bracket and set aside.





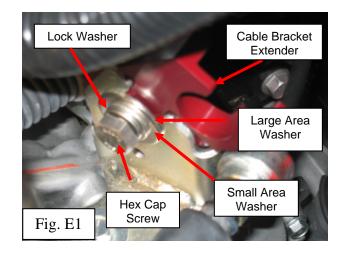




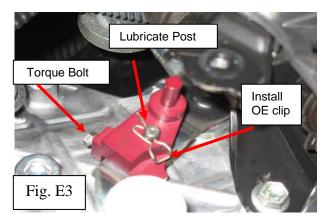
Section IV – Functional Verifications

### E. Installation Procedure: TRD Quick Shifter

- 1. Install Cable Bracket Extender (Item #1) as shown with hardware pre-installed. (Fig. E1)
  - i. The large area flat washer sits against the OE steel bracket, then small flat washer, then lock washer, and then bolt. (Fig. E1)
  - ii. Use a 17mm socket to tighten bolt.(Fig. E1) Torque: 17 ft•lbf
- Install TRD Quick Shifter Short Shifter (Item #2) (Fig. E2)
  - i. Pre-Install the 8mm hex cap screw into the Short Shifter (Fig. E2)
  - ii. Lubricate the post on the transmission arm with grease and slide the TRD Short Shifter over the lubricated post as shown in (Fig. E3).
  - iii. Reinstall the OE factory transmission cable clip to secure the TRD Short Shifter to the transmission linkage arm. (Fig. E3)
- iv. Lightly tighten down the 8mm bolt to secure the short shifter to the transmission linkage arm. Check for <u>no</u> rotational movement. Use an 8mm socket and ¼-inch drive torque wrench to tighten the bolt. Torque bolt: 20 in·lbf (Fig. E3).





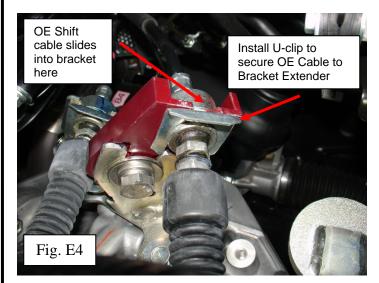


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## Section IV – Functional Verifications

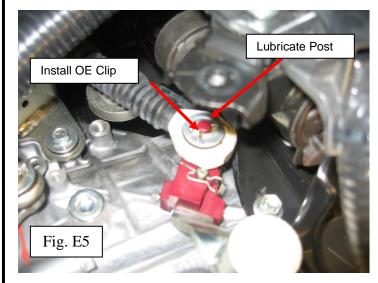
- 3. Reinstall OE shift cable into new TRD cable bracket extender.
  - i. Slide OE shift cable into TRD cable bracket extender through the open slot. (Fig. E4)
  - ii. Secure cable to bracket re-using the U-clip making sure the U-clip rides in the groove of the shift cable housing. (Fig. E4)



- 4. Reinstall OE shift cable end over TRD Short Shifter Post.
  - i. Lubricate the Short Shifter post with grease and reinstall the OE transmission cable end over the post. (Fig. E5)
  - ii. Secure the transmission cable to the post using the OE cable clip. (Fig. E5)



iii. Sit in the drivers seat and check gear engagement for all 6 forward gears and reverse gear. There should be no restriction of movement or interference of any kind. (Fig. E6)





Section IV – Functional Verifications

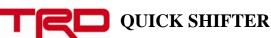


Check gear engagement in all forward gears and reverse.

## F. Reinstall OE Air Filter Enclosure

- 1. Reinstall air filter inlet base.
  - i. Reinstall the 3 OE bolts/washers that secure the air filter inlet base. (Fig. C3)
  - ii. Torque bolts: 62 in-lbf
  - iii. Reconnect the wire harness and clip to the inlet base. (Fig. C3).
- 2. Reinstall OE air filter.
- 3. Reinstall OE air filter lid.
  - i. Reconnect the Mass Air Flow Sensor connector. (Fig. C2)
  - ii. Re-attach wire harness to the air cleaner lid.
  - iii. Reconnect intake hose to the air cleaner lid.(Fig. C1)
  - iv. Fasten the 2 hook clamps. (Fig. C1)
  - v. Tighten hose clamp that secures intake hose to air cleaner lid.

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## G. Post Installation

1. Reconnect negative battery cable to

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battery.

Torque to: 36 in-lbf

- 2. Start vehicle and check for smooth idle.
  - i. If engine idle is smooth and no Dash Lights are illuminated, shut off engine.
    - ii. If engine idle is not smooth or engine will not start, review above instructions and perform functional checks.
- 2. Remove vehicle protection from grille and front seat area.
- 3. Close vehicle hood.

# H. Functional Checks

- Shifter will engage all 6 forward gears and reverse.
- Smooth engine idle and no MIL.
- Full engagement of MAF sensor connector.
- Tightness of all clamps.