# Part Number: PT948-03210-02 (XSE) PT948-03210-12 (SE)

#### **Kit Contents**

Item #	Quantity Reqd.	Description
1	1	LH Bezel Assembly
2	1	RH Bezel Assembly
3	1	Wire Harness and Hardware Kit

#### **Hardware Bag Contents**

Item #	Quantity Reqd.	Description
1	1	Wire Harness
2	2	Metal Cassette Clips
3	2	Cassette Clip screws
4	8	Nylon Zip Ties 120mm
5	2	Nylon Zip Ties 200mm

#### Additional Items Required For Installation

Item #	Quantity Reqd.	Description
1	1	Global Techstream (GTS)
2	1	Digital Angle Gauge &
		Attachment
		SST: 09989-00020

#### Conflicts

None

### General Applicability

Camry SE and XSE

### **Recommended Tools**

Personal & Vehicle	Notes
Protection	
Safety Glasses/Gloves	Required
<b>Installation Tools</b>	Notes
Nylon Removal Tool	Light Removal
10mm socket wrench	Battery Terminal Removal /
	Installation
Small flat blade screwdriver	Push clip retainer removal
Phillips screwdriver	
Painter's Tape	Vehicle Protection
Masking Tape	Wrap Digital Angle Gauge
	Attachment
Heat Source	For temperatures under 70°F
Torque Wrench	5.4Nm (48in-lbs)
<b>Special Chemicals</b>	Notes
Cleaner	VDC Approved Cleaner

### **Recommended Sequence of Application**

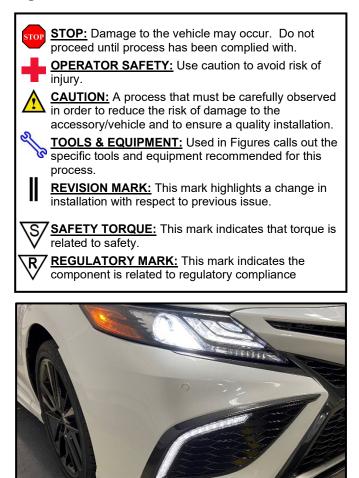
Item #	Accessory
1	Remove Bumper Assembly
2	Install LED Bezel Assemblies
3	Install Wire Harness
4	Reinstall Bumper Assembly
5	Calibration (if applicable)

\*Mandatory

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

Item #	Quantity Reqd.	Description
1		
2		
3		

#### Legend



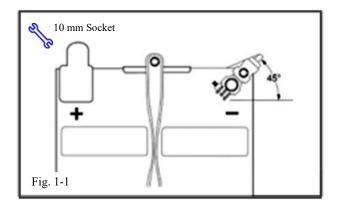
Care must be taken when installing this accessory to ensure damage does not occur to the vehicle. The installation of this accessory should follow approved guidelines to ensure a quality installation.

These guidelines can be found in the "Accessory Installation Practices" document.

This document covers such items as:-

- Vehicle Protection (use of covers and blankets, cleaning chemicals, etc.).
- Safety (eye protection, rechecking torque procedure, etc.).
- Vehicle Disassembly/Reassembly (panel removal, part storage, etc.).
- Electrical Component Disassembly/Reassembly (battery disconnection, connector removal, etc.).

Please see your Toyota dealer for a copy of this document.



### 1. Battery Disconnect.

(a) Remove the negative battery cable. (Fig. 1-1)

Do not come in contact with the positive terminal during the removal of the negative cable.

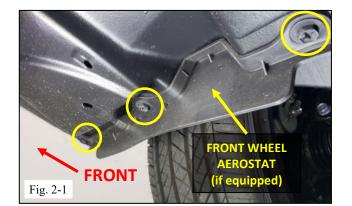
### 2. Bumper Assembly Removal

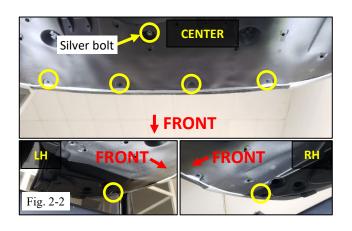
(a) Raise the vehicle in order to gain access to bumper splash shield retainers.

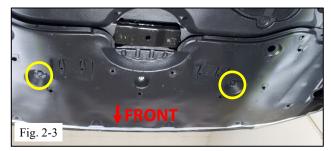


Use caution to protect your head

(b) Locate the (3) bolts in front of the RH wheel holding the bumper splash shield and front wheel aerostat (if equipped) in place.Remove the (3) 10mm bolts using a 10mm socket and set bolts and front wheel aerostat (if equipped) aside (Figure 2-1). Repeat for the LH side.









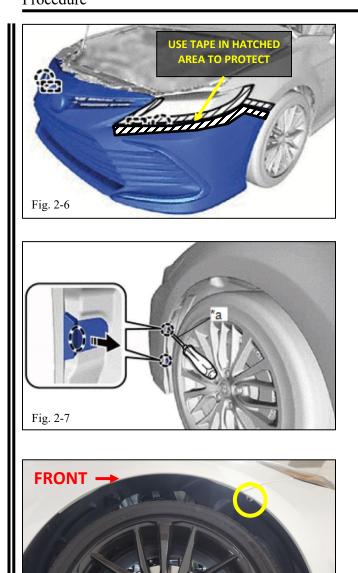


(c) Remove the (7) 10mm bolts retaining the bumper splash shield in place using a 10mm socket (Fig. 2-2).

**NOTE:** Remember location of silver bolt.

- (d) Remove the push pin retainers holding the bumper splash shield in place (Fig. 2-3).
- (e) Remove the bumper splash shield and set aside for later reattachment (Fig. 2-4).
- (f) Lower the vehicle to remove the remaining hardware retaining the bumper assembly.
- (g) Remove the radiator support cover (sight shield) by pressing the (5) push pin retainers and removing (Fig. 2-5).

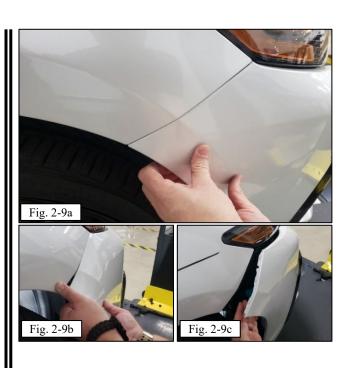
### **TOYOTA** Procedure

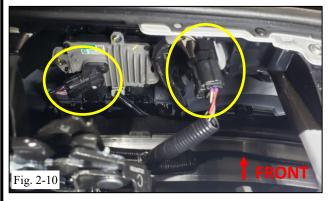


(h) Apply tape on body and bumper on driver and passenger side to protect the headlamp from scratches when removing and reinstalling bumper (Fig 2-6).

- (i) Using a screwdriver with its tip wrapped with protective tape, insert the screwdriver tip into the area indicated on the clip to disengage the claws as shown in the illustration (Fig 2-7).
- (j) In the RH front wheel well, remove the small push pin retaining the bumper using a small flat screwdriver (Fig. 2-8). Repeat for LH side.

Fig. 2-8







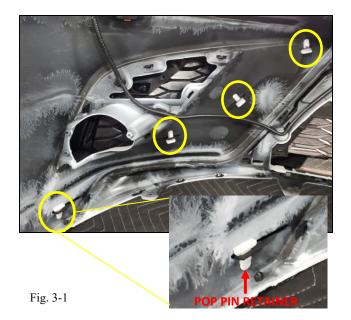


- (k) At the RH wheel well of the vehicle, locate the seam where the bumper assembly meets the fender panel and firmly take hold of the bumper assembly panel as shown (Fig. 2-9a). Carefully pull the bumper assembly away from the frame with an outward motion (Fig. 2-9b). This motion will result in four popping sounds which will indicate the bumper has been released from the attachment point (Fig. 2-9c).
- NOTE: Plastic Nylon Removal Tool can also be used to assist with disengagement of claws.
- (m)Disconnect the TSS sensor and front sensor connectors from the front bumper (Fig. 2-10).

(n) Remove the (2) push pin retainers using a flat screwdriver (Fig. 2-11).

(o) Remove the (4) 10mm bolts at the top of the bumper helping to retain the bumper assembly (Fig. 2-12).





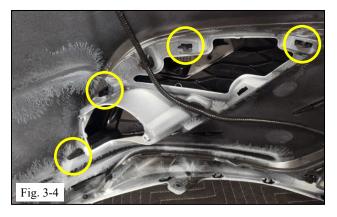


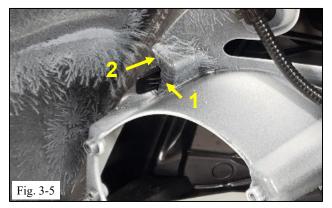
(p) Carefully lift the front bumper assembly away from the vehicle and place on a flat surface for further work (Fig 2-13).

## 3. Remove Bumper Bezels

- (a) From the rear of the front bumper assembly, make careful note of the orientation of the push clip retainers (white clips). These clips must be reinstalled in the same orientation later. Also find the pop pin retainer on the bottom of the assembly for removal (Fig 3-1).
- (b) Carefully lay the bumper assembly down to gain access to the bottom side of the assembly.
- (c) Find the pop pin retainer and remove using a flat screwdriver (Fig 3-2).
- (d) Carefully lay the bumper assembly back to gain access to the bezel clips.









(e) Press the tab on the push clip retainer and pull the slip retainer out to remove (Fig. 3-3). Repeat for the other three push clip retainers.

(f) Locate the four black retainer tabs holding the bezel to the bumper assembly (Fig. 3-4).

- (g) Squeeze each of the black retainer tabs by pressing in (1) and pressing the tab slightly through the bumper (2). When all four of the retainer tabs are pressed and disengaged, the bezel can be removed. (Fig 3-5).
- (h) Remove the front bumper bezel and discard (Fig 3-6).
- (i) Repeat for the other bezel



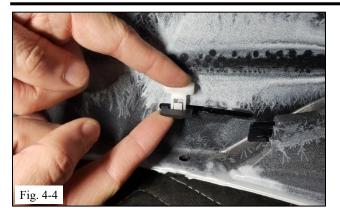




### 4. Install Accent Light Bezel Assembly

(a) Angle the accent light bezel slightly to align the bottom clip with the hole as shown (Fig 4-1).

- (b) Ensure the wire pig tail is not interfering and is inserted through the bumper assembly as shown (Fig. 4-2).
- (c) With the bottom clip aligned and inserted, rotate the bezel assembly to allow the push clip retainers to snap into place.
- (d) Firmly hold the bumper assembly and press the push clip retainers to ensure they are secured to the bumper assembly (Fig. 4-3).
- NOTE: Ensure that all tabs are aligned with bumper before pushing into place. If tabs are not aligned, bumper or accent lamp may be damaged.









- (e) While supporting the bottom clip, carefully press the push clip retainer through the bottom clip, securing it to the bumper assembly as shown (Fig. 4-4). Be certain to match original orientation of the retainers (refer to step 3a).
- (f) Press the remaining push clip retainers through bezel clips in the directions shown in Figure 4-5, securing the bezel to the bumper assembly as shown (Fig 4-5). Be certain to match original orientation of the retainers (refer to step 3a).
- (g) With a Philips head screwdriver, attach the cassette clip using the cassette clip screw to the bumper assembly and slide the connector from the bezel pig tail onto the cassette clip as shown (Fig 4-6).
- (h) Rotate the connector and cassette clip as shown and hand tighten the clip to ensure it is firmly attached to the bumper assembly and does not rotate or move freely as shown (Fig. 4-7).







- (i) Press the push pin retainer into the bottom of the bumper assembly, attaching the bezel assembly to the bumper assembly (Fig. 4-8).
- (j) Repeat for the other side.

## 5. Install Wire Harness

(a) Locate the connector for the LH headlight assembly and disconnect the headlight from the factory wire harness (Fig 5-1).

- (b) Locate the vehicle frame beneath the LH headlight assembly. Using approved cleaner, clean the frame in the area indicated in Figure 5-2.
- (c) Peel the liner protecting the adhesive on the back of the Lamp ECU box and insert the clip on the back of the Lamp ECU box into the frame at the hole shown (Fig 5-2).

**NOTE:** ECU and vehicle installation surface must be between 70°F and 104°F at time of installation.

**NOTE:** A heat source may be used to reach minimum temperature if necessary.

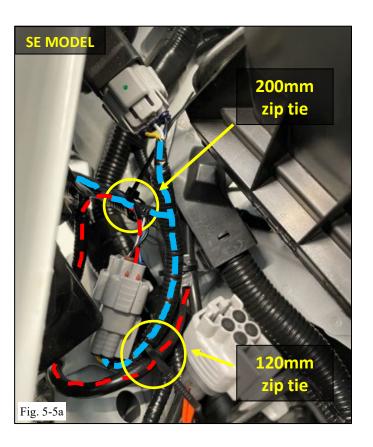
# TOYOTA CAMRY 2021 -Procedure



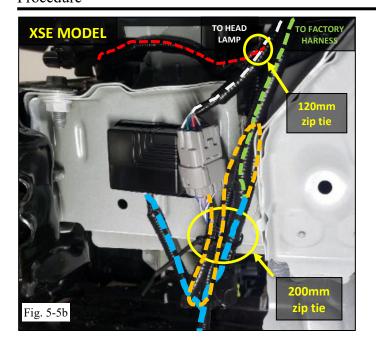


(d) Press the Lamp ECU box firmly to ensure adhesive makes contact and holds the box securely (Fig 5-3).

(e) Route the short "Y" cable upwards toward the LH side headlight and connect the "Y" cable to the pig tail from the headlight assembly and the headlight connector on the factory wire harness (Fig. 5-4).



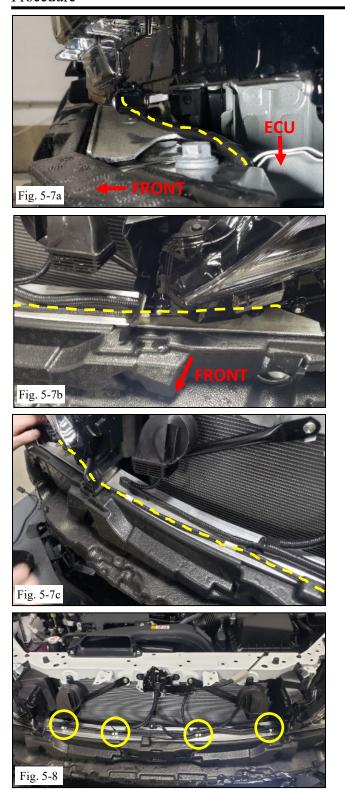
(f) SE ONLY: Bundle the connectors from the "Y" cable (blue path) together with the factory wire harness and headlight pig tail (red paths) and secure with one (1) 120mm zip tie and one (1) 200mm zip tie as shown (Fig 5-5a).



- (g) **XSE ONLY**: Route the connected cable back down towards the Lamp ECU box and secure the slack to the existing harness as shown using one (1) 120mm zip tie to secure the pig tail to the head lamp to the existing wire harness and (1) 200mm zip tie to bundle the "Y" cable (blue path) together with the slack to the headlamp pig tail (orange path) as shown (Fig 5-5b).
- **NOTE:** Carefully trim used zip ties.



(h) Starting from the Lamp ECU box, secure the wire harness for the RH side to the frame immediately beside the Lamp ECU box as shown (Fig 5-6).



 (i) Route the RH side of the wire harness along the front of the vehicle alongside the factory harness as shown (Fig 5-7a, Fig. 5-7b, Fig. 5-7c).

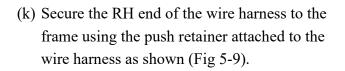
- (j) Secure the wire harness to the factory harness using (4) 120mm zip ties at the points indicated on the wire harness with white tape as shown (Fig 5-8).
- **NOTE:** White tape marks on harness should roughly align with factory harness clamp locations.

**NOTE:** Carefully trim used zip ties.



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## 6. Reinstall the Bumper Assembly

(a) Carefully place the bumper assembly back into position and engage the (2) guides and (2) claws as shown in the illustration (Fig. 6-1).





- (b) Secure the bumper assembly to the frame using the (4) 10mm bolts previously removed (Fig 6-2).
- **NOTE:** Tighten bolts to the following torque: **7.5N·m (66 in·lbf)** 
  - (c) Press the push pin retainers back into the connection points on the top of the bumper assembly as shown (Fig. 6-3).

Issue: B 02/21/2022

### TOYOTA Procedure



(d) Models with Parking Support Brake System: Reconnect the connector (orange) (Fig 6-4)

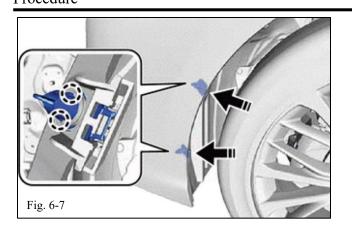
**STOP** NOTE: Push, pull, push to confirm connection.

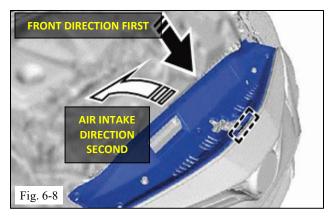
- (e) Using Posca marker, draw continuous line across both male and female connector to visually indicate connection has been made.
- (f) Models with Pre-Collision System: Reconnect the connector (blue) (Fig. 6-4)
   NOTE: Push, pull, push to confirm connection.
- (g) Using Posca marker, draw continuous line across both male and female connector to visually indicate connection has been made.
  - (h) Secure the bumper assembly to the sides of the vehicle by engaging the 3 claws as shown (Fig 6-5).

(i) Press the small push pin retainers into place in each of the wheel well areas as shown (Fig. 6-6).













(j) Engage the (4) claws to install the 2 pin hold clips as shown in the illustration (Fig 6-7).

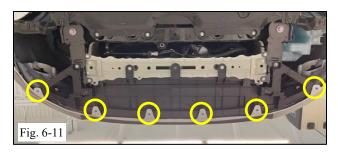
(k) Reinstall the radiator cover as shown by engaging the front first and then engaging the air intake (Fig 6-8).

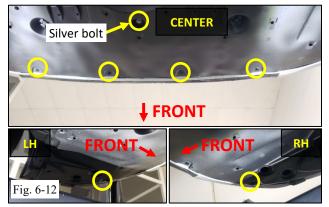
- Reinstall the radiator cover using the (5) push pin retainers (Fig 6-9).
- (m)Raise the vehicle to gain access to bumper splash shield retainers.

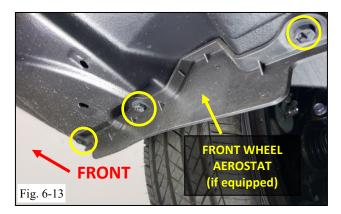


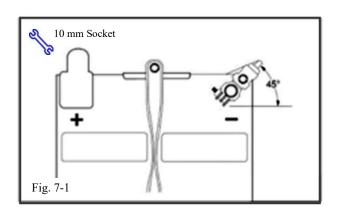
- Use caution to protect your head
- (n) Connect the RH bezel assembly pig tails to the wire harness connections as shown in Figure 6-10. Repeat for LH bezel assembly pig tails.

Issue: B 02/21/2022









- (o) Reattach the bumper splash shield being careful to properly align front edge behind bumper assembly. Ensure the (6) bumper tabs are visible prior installation of bumper splash shield (Fig 6-11).
- (p) Attach the bumper splash shield with the (2) push pin retainers and (7) 10mm bolts (Fig. 6-12).

- (q) Reattach the RH front wheel aerostat (if equipped) using (3) 10mm bolts (Fig. 6-13).Repeat for LH bumper cover insulator.
- (r) Lower the vehicle.
- (s) Remove the protective tape covering the headlamps.

# 7. Battery Reconnection and Function Checks

- (a) Reconnect the vehicle's negative battery cable (Fig. 7-1).
  - (1) Position the negative battery cable at the original factory position.



# 5.4 Nm (48 in lbs.) of torque

# Note: Do not come in contact with the positive terminal during the replacement of the negative cable.

(b) Perform Function Checks on last page.

**NOTE:** If vehicle is XSE grade and equipped with Parking Support Brake System and/or Panoramic View Monitor System (described below), perform Calibration procedure below after completed Function Checks.

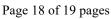
## 8. Calibration for Parking Support Brake System and Panoramic View Monitor System (if equipped)

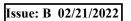
**NOTE:** Reference Dealer Repair Manual on Front Bumper Installation for calibration process setup.

- (a) Adjust Panoramic View Monitor System
   (if equipped identified by the yellow square in Fig 8-1)
  - Reference the "Calibration" section of Panoramic View Monitor System in Vehicle Repair Manual
  - (2) Complete steps 2, 3, 8
- (b) Adjust the Parking Support Brake System
   (if equipped identified by the yellow circles in Fig 8-1)
  - Reference the "Calibration" section of Parking Support Brake System in Vehicle Repair Manual.
  - (2) Complete steps 2, 3, 4

# 9. HYBRID MODELS ONLY – clear "RCD Not Detected Error" if present

- (a) Turn vehicle on (if not already on).
- (b) Turn steering wheel all the way to the left (to wheel lock).
- (c) Turn the steering wheel all the way to the right (to wheel lock).
- (d) Message should clear.







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Procedure				
Accessory Function Checks				
Turn headlights to "ON" position	Accent lights illuminate			
XSE ONLY: Use the following procedure:	Accent lights illuminate (XSE only)			
<ol> <li>Place bright LED directly on top of dash light sensor (located in middle top of dash)</li> <li>Make sure light control stalk is in "AUTO" position</li> <li>Turn vehicle on</li> <li>Place gear selector in "D" and then place back in "P". (This will cycle DRLs on)</li> <li>Check to make sure accent lights are in day mode (brighter)</li> <li>Rotate light control stalk to headlight "ON" position</li> <li>Check to make sure accent lights are in night mode (dimmer)</li> <li>Headlight stalk can be rotated between "AUTO" and "ON" modes to verify accent light day mode and night mode functionality</li> <li>Turn vehicle off and remove dash LED once verification complete</li> </ol>				
Vehicle Function Checks				
Turn headlights to "ON" position	Headlights illuminate as expected			
XSE ONLY: Follow Above Procedure for testing accent light illumination	Daytime running lamps illuminate (XSE only)			
Vehicle Appearance Check         After accessory installation and removal of protective cover(s), perform a visual inspection.	Ensure no damage (including scuffs and scratches) was caused during the installation process. (For PPO installations, refer to TMNA Accessory Quality Shipping Standard.)			