

20966  
**2018-2019**  
 TOYOTA  
 TUNDRA



20966B  
**2018-2019**  
 TOYOTA  
 TUNDRA

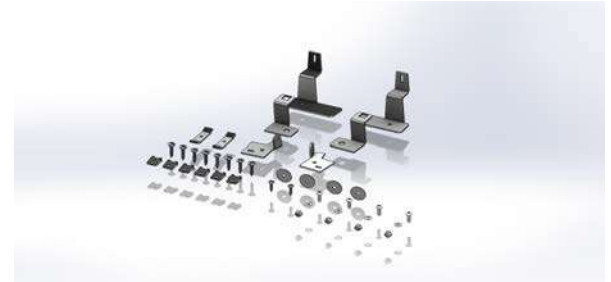
**2018-2019 TOYOTA TUNDRA**  
**Billet Grille with TSS**

**TOOLS REQUIRED:**

- Socket Set
- Flat/Phillips Screw Drivers
- Pliers
- 1/8" Hex key

**PARTS LIST:**

DESCRIPTION	QTY.
DRIVER BOTTOM EXTENSION BRACKET	1
PASSENGER BOTTOM EXTENSION BRACKET	1
DRIVER SUPPORT BRACKET	1
PASSENGER SUPPORT BRACKET	1
TOP PLATE PASSENGER OVERLAY BRACKET	1
TOP PLATE DRIVER OVERLAY BRACKET	1
2" FLANGE BRACKET	2
3/16"x1" FENDER WASHER SS BLACK	4
#8 X 3/4" SCREW SS	2
#10 x 1" SCREW SS	8
#8 U-NUT	6
10-32X0.625 BHAC SCREW	4
#10 FLAT WASHER SS	4
#10-32 NYLON NUT	4



**PLEASE READ AND UNDERSTAND ALL INSTRUCTIONS BEFORE INSTALLATION.** Auto makers offer varied models to each vehicle and occasionally manufacture more than one body style of the same model.

**Factory Grill Removal**

**Step 1**

From underneath the hood remove two plastic fasteners from the factory grille located near the headlamps with a flat screwdriver (Fig 1)



Fig 1

**Step 2**

Remove four 10mm bolts from the plastic radiator cover then remove the radiator cover (Fig 2).

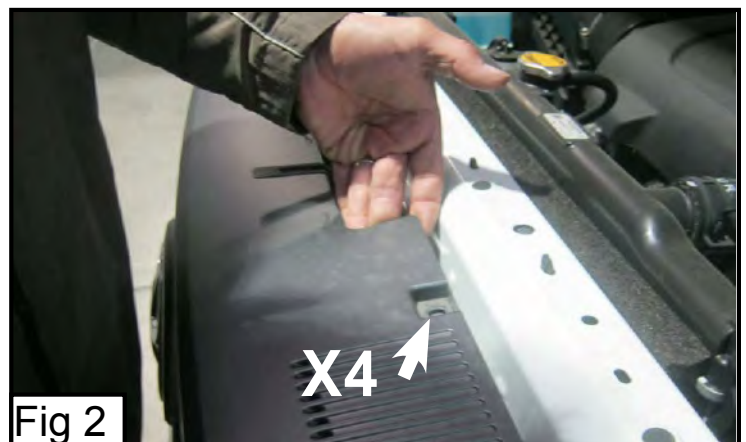


Fig 2

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### **Step 3**

Pull the top of the factory grille slightly forward a couple of inches, reach down behind the factory grill with a long flat screwdriver and press on two plastic latches located on the bottom and ends of the factory grill (Fig 3) while pulling the bottom of the factory grill forward, remove the factory grill from the vehicle (Fig 4).

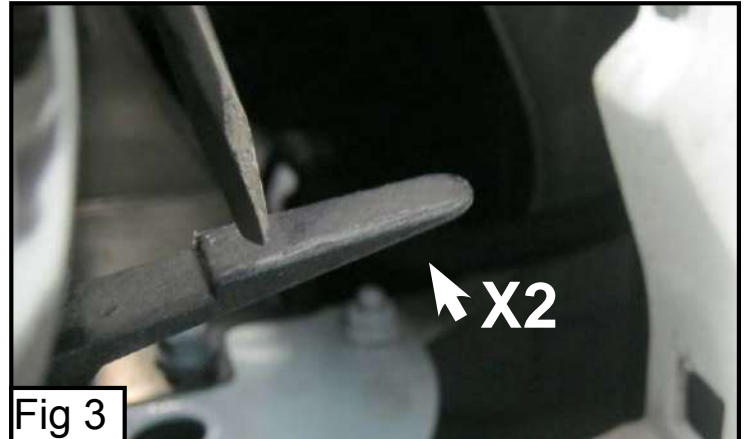


Fig 3

### **Step 4**

Place the factory grill face down on a clean soft surface (take special care to protect the chrome factory shell). On the back of the grille assembly use a phillips screwdriver to remove two phillips screws from each side of the factory grille (4 total)(Fig 5).



Fig 4



Fig 5



### **Step 5**

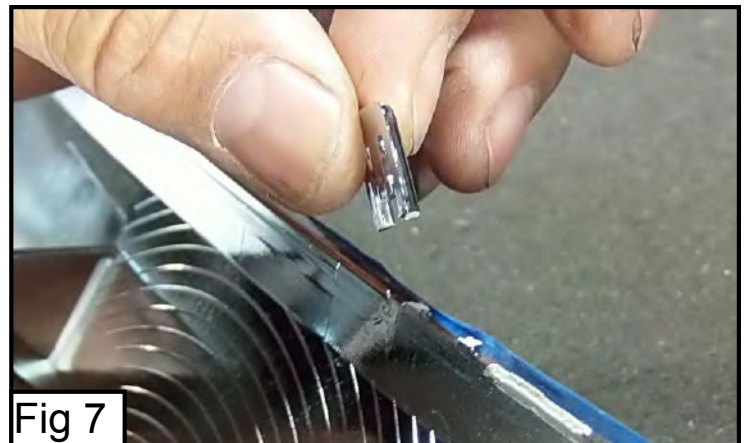
Now remove the black plastic grille insert from the factory grill shell by unlatching thirteen plastic latches around the grill with a flat screwdriver and remove the black plastic grill insert (Fig 6). With a pair of pliers break off all thirteen clips from chrome plastic frame, this will allow your billet grille to sit flush with the chrome frame during installation (Fig 7).



### **Step 6**

At this time, refer to the attached Toyota Safety Sense (TSS) badge installation document. Follow the recommended procedure of TSS Badge removal and installation onto the new T-REX Grille.

Once completed, return here to continue with STEP 7.



### **7.**

Use a nylon fastener tool to remove two plastic fasteners located just below the inside bottom corner of each headlamp (Fig 8). Save these fasteners as you will use them later in the installation.

### **8.**

Remove the factory Toyota logo from the factory grille by pressing the tabs on the back of the logo inward while pulling the logo forward.



## Billet Grille Installation

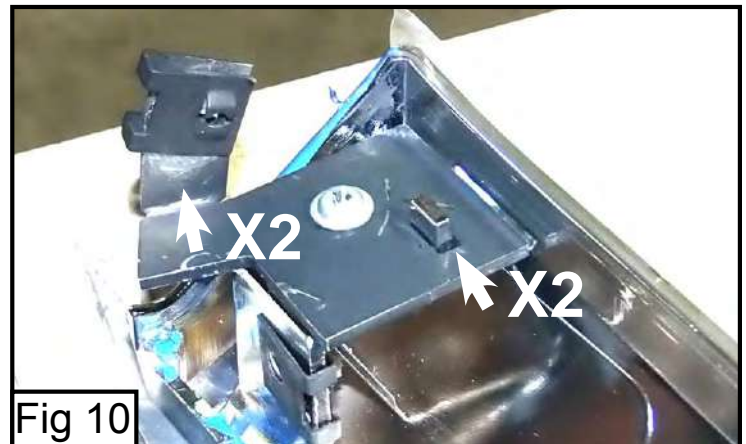
### 9.

Take the two Z support brackets and install them on backside of the factory grille shell with the arm bending downward as shown (Fig 9). Use the factory screws removed in Step 4 along with one 1" black fender washer on each bracket to secure the bracket to the factory grille shell. Repeat this on the opposite side of the factory grille. Tighten the two screws.



### 10.

Take the two top plate extension brackets and install them on the upper corners of the factory grille shell using the factory screws to secure them to the grille shell (Fig 10) and install the u-nuts onto the arms of the brackets as shown in (Fig 10). Insure the u-nut is oriented with the side that accepts the screw facing outward as shown.



### 11.

Reinstall the factory chrome grille shell (with the brackets installed) on the vehicle, make sure the brackets slide under the black plastic arms on the core support (Fig 11) and that the holes in the u-nut and bracket line up with the hole in the plastic bracket on the core support.



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**12.**

Reach down behind the factory grille and locate the brackets that you installed on step 7 and insert the factory plastic fastener through the hole in the bracket and into the same hole in the vehicle it was removed from (Fig 12). Make sure the fastener is fully inserted and secure.



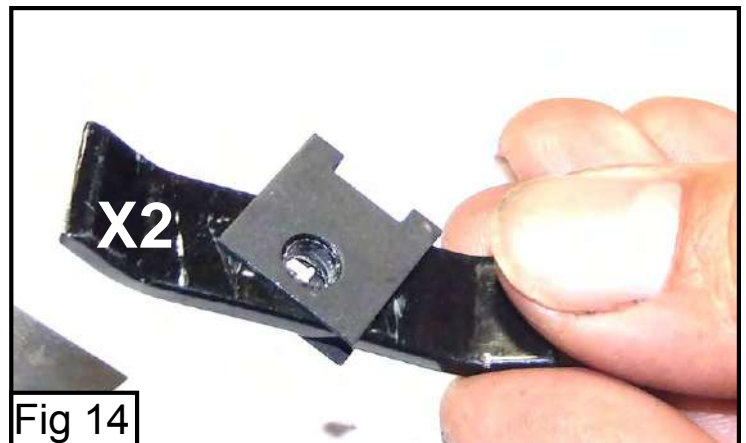
**13.**

Take the two bottom extension brackets and install u-nuts onto the small ends aligning with the holes in the brackets (Fig 13) and oriented as shown.



**14.**

Install two u-nuts onto the the two flange brackets aligning the holes in the u-nuts with the holes in the flange brackets (Fig 14) and oriented as shown





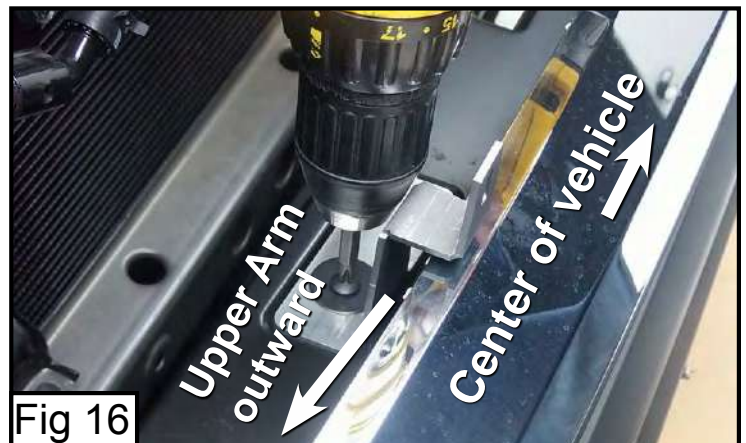
**15.**

Take the two flange brackets (with the u-nuts installed) and attach them onto the large ends of the bottom extension brackets with one #8X3/4" screw and one 1" black fender washer. You will only need to screw the threads in a couple of turns as you want the flange brackets to have some space between them and the bottom extension bracket (Fig 15). You will have two assembled bottom extension brackets.



**16.**

Take the two bottom extension brackets and install them down behind the factory grille shell onto the black metal bumper plate with rectangular holes. The longer side of the brackets base will install toward the center of the vehicle and the upper arms will be toward the outside of the vehicle (Fig 16). The flange brackets will drop through the rectangular holes and grab the lip on the bottom of the rectangular hole when secured. Tighten the screws on the flange brackets to secure the brackets to the metal bumper plate. Test fit the Billet in the chrome shell opening to make sure the holes in the bracket arms and the holes in the mounting plates on the bottom back of the Billet align correctly.



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**17.**

Take the billet grille and place it into the chrome factory grille shell. Take six #10 screws and secure the top plate to the vehicle by inserting the screws through the six holes in the top plate and tighten (Fig 17).



**18.**

Insert two #10 screws through the billet bars at the bottom of the billet grille, through the mounting plates with holes in them on the back of the Billet and into the bottom extension brackets and tighten (Fig 18).

**Installation complete.**



# 2018 TOYOTA TUNDRA, TACOMA TSS LOGO INSTALLATION



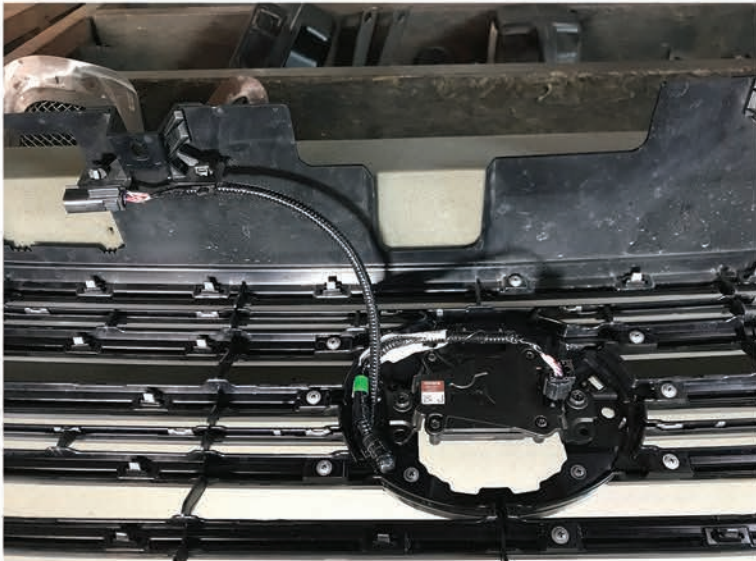
**PART #:** 20966, 20966B, 51966, 6319661, 6319661-BR, 6719661, 6719661-BR, Z319661



1. Disconnect negative battery terminal.



2. Remove access panel (Tundra only) and disconnect TSS harness .



3. Remove TSS sensor module and harness from factory grille.  
Note the TOP side orientation of the sensor.



4. Remove harness and connector from factory grille tabs.



5. Install factory TSS sensor to mounting plate. Use supplied (4) #10 screws, washers and lock nuts. Torque to 30 in-lbs.



6. Install supplied 4 spacers as shown

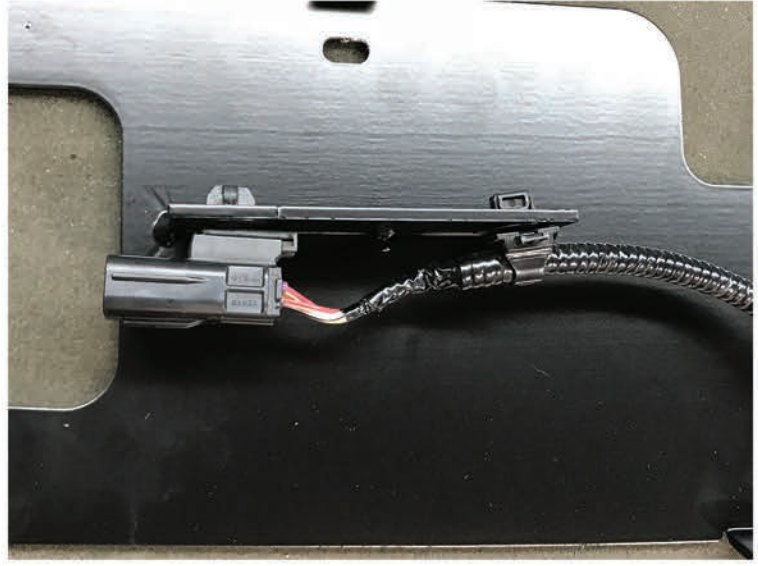


# 2018 TOYOTA TUNDRA, TACOMA TSS LOGO INSTALLATION

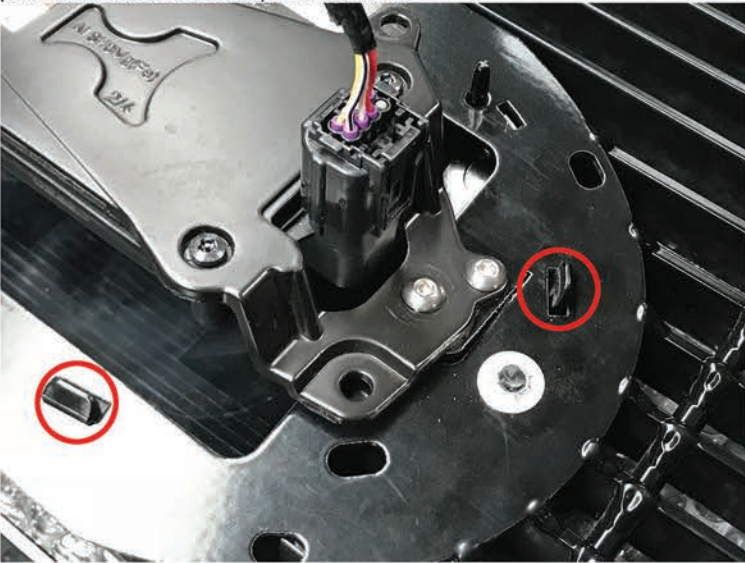
**PART #:** 20966, 20966B, 51966, 6319661, 6319661-BR, 6719661, 6719661-BR, Z319661



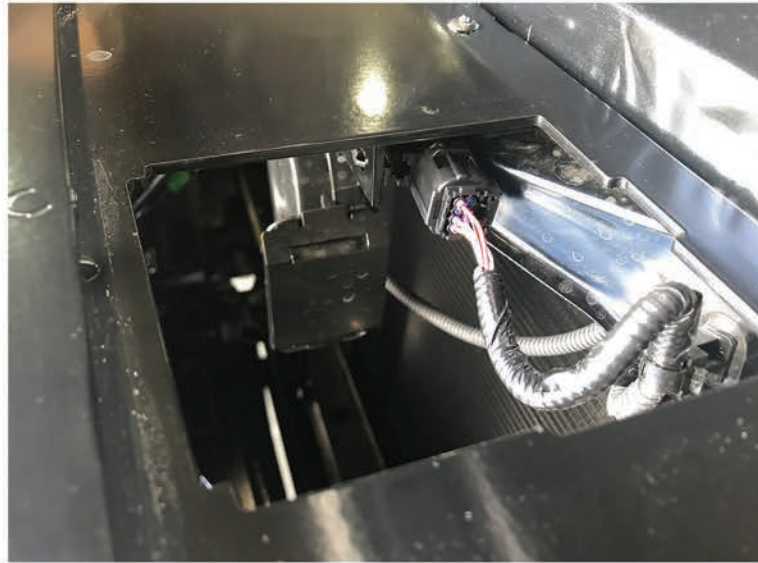
7. Install complete assembly to mounting studs with spacers in place. Use (4) #10 lock nuts and Torque to 30 in- lbs. Note orientation of TOP side of module. Connect harness to module, press harness cable mounts into position as shown.



8. Press harness cable mounts into bracket as shown.



9. Install OEM. front logo as shown. Do not force logo into the logo mounting plate. Insert the lower tabs First, then the upper tabs. .



10. Install grille to vehicle. Connect TSS harness.



11. Replace access cover (Trunda Only)



12. Reconnect negative battery terminal.

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