

**Kit Contents:** OEM Audio Plus System/Reference 450Q



Item 1	Item 2	Item 3 *	Item 4 *	Item 5	Item 6			
								
Item 7	Item 8	Item 9	Item 10 *	Item 11 *	Item 12 *	Item 13	Item 14	Item 15
								

\*Reference kit only

Hardware Content		
Item	Quantity	Description
1	2	1" Soft Dome Tweeter with Neodymium Magnet
2	1	8" Carbon Fiber Subwoofer in Custom Fit Sealed Enclosure
3 *	2	6x9 Carbon Fiber Woofer
4 *	2	Rear 6.5" Coaxial Carbon Fiber Woofer
5	1	DSP Amplifier
6	1	Quick-Sync Wiring Harness
7	1	Subwoofer Umbilical Cable
8	3	Tundra Subwoofer Brackets (3)
9	1	Factory Amplifier Bypass Connector
10 *	6	M6 Nylon Spacers
11 *	6	M6-1.0x20mm Bolts
12 *	8	M6-25mm Self Tapping Bolts
13	1	Fuse Holder Assembly
14	1	30A Fuse
15	1	Corrugated Loom
16	10	Cable Ties (not pictured)

Recommended Tools	
Personal & Vehicle Protection	Notes
Safety Goggles	
Protective Blanket	
Safety Gloves	
Special Tools	Notes
Panel Clip Removal	SST # 00002-06001-01
Socket Wrench	
Sockets	10mm, 14mm, 17mm
Socket Extension	6"
Screwdriver	#2 Phillips
Side Cutters	
Wire Strippers	Needed for 12g butt Sealed-Crimp-Solder Connectors
Heat Gun	Needed for 12g
Installation Tools	Notes
Masking Tape	
Foam Tape	
Cable Ties	10 piece bundle included
Special Chemicals	Notes
Lubricant	For Pulling Wire Through Grommet
Silicone Sealant	For Sealing Grommet

\*Reference kit only

Legend	
	STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.
	TOOLS & EQUIPMENT: Used in Figures to call out the specific tools and equipment recommended for the process.

## Table of Contents

I. Preparation.....	1-2
1. Table of Contents.....	2
II. Procedure	
1. Vehicle Preparation.....	3
2. Front Door Speaker Installation .....	3-5
3. Rear Door Speaker Installation.....	5-8
4. Radio Removal.....	8-10
5. Quick-Sync Wiring Harness (Preparation).....	10-12
6. Quick-Sync Wiring Harness (Installation).....	12-15
7. Amplifier Installation.....	15-17
8. Subumbilical Installation.....	17-19
9. Power Wire Installation.....	19-22
10. Tweeter Installation.....	22-25
11. Subwoofer System (Mounting Location Preparation).....	25-28
12. Subwoofer System (Installation).....	28-29
13. Fuse Installation.....	30

## Accessory Installation Practice (read before installation)

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 cover such items as:

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

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

## Revisions and other installation assets

OEM Audio Plus is committed to providing components and instructions designed for seamless integration. Please visit [oemaudioplus.com](http://oemaudioplus.com) for the most up to date installation related documents and media.

## Important Warranty Information

Failure to completely and properly Warranty Registration may result in possible reduction or complete denial of future warranty claims. Complete yours today at [oemaudioplus.com/registration](http://oemaudioplus.com/registration) or call: 855 OEM ODIO for more details and alternative methods of system registration.

## 1. Vehicle Preparation

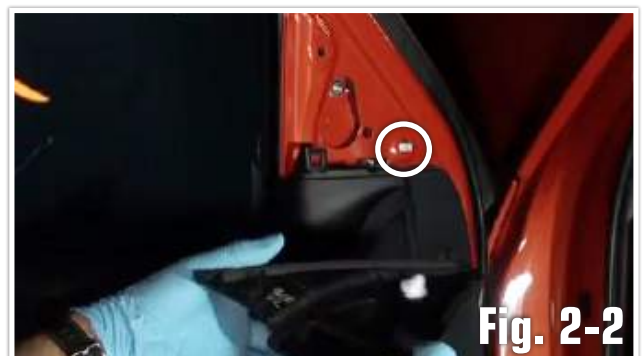


- a. Apply parking brake.
- b. Open the trunk and hood of the vehicle.
- c. Disconnect the negative (-) battery cable.
- d. Prepare a protective surface to place all vehicle components on.

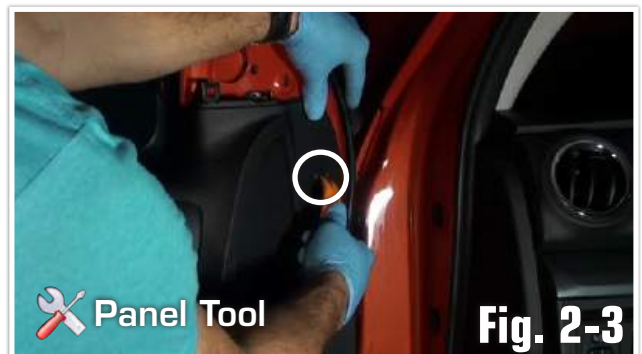


## 2. Front Door Speaker Installation

- a. Remove Door Panels
  1. Remove A Pillar by pulling straight and away from door **(Fig. 2-1)**. Disengage any clips that remain in the door and return to the A Pillar panel. **(Fig. 2-2)**



2. Disengage door locking tab. **(Fig. 2-3)**



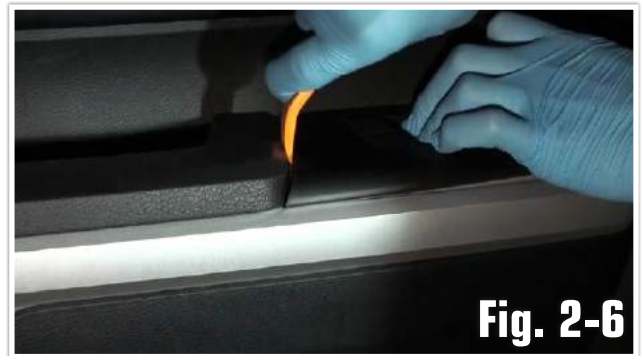
3. Use a panel tool to remove the cover behind the interior door latch and remove the #2 Phillips screw. **(Fig. 2-4)**



4. Use a pick tool to remove the carpet cover in the door grab handle and remove the #2 Phillips screw. **(Fig. 2-5)**



5. Use a panel tool to remove the window/door lock control panel. Note: Insert tool between the front edge of the panel of the trim to remove. **(Fig. 2-6)**



6. Disconnect window/door lock control connectors from the panel. Use of a pick tool or precision screwdriver is needed to release connector. **(Fig. 2-7)**



9. Use gentle force to remove door panel. Start at the bottom, then the sides, and finish at the top. **(Fig. 2-8)**



10. Remove door latch assembly from the door panel by unsnapping and lifting the door latch connectors. **Note:** Connectors need to be reassembled in the same orientation – white on top, green on bottom. **(Fig. 2-9)**



11. Set door panel aside.

b. Install 6x9 OEM Audio Plus Woofer

1. Disconnect the 6x9 factory speaker connector.

2. Remove the four (4) 10mm bolts holding the factory speaker in place and remove speaker.

**(Fig. 2-10)**



3. Mount the OEM Audio Plus 6x9 Woofers using the four (4) provided woofer bolts. **(Fig. 2-11)**

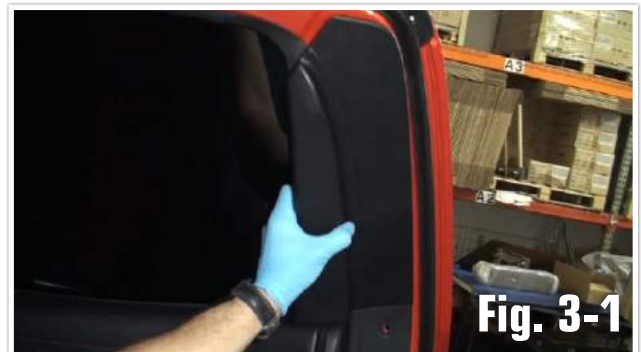


c. Repeat process for the other side of the vehicle.

### 3. Rear Door Speaker Installation

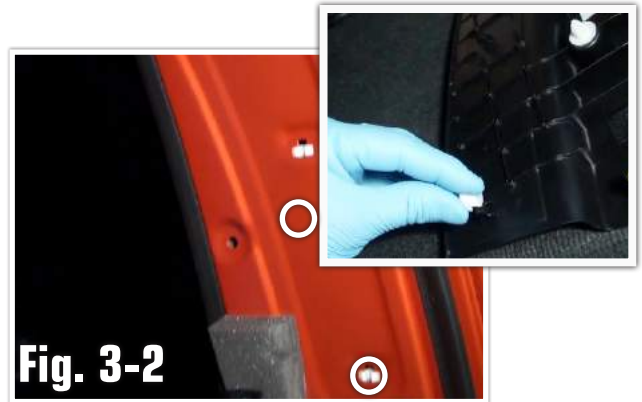
a. Remove door panels

1. Remove door pillar by prying away from door assembly. **(Fig. 3-1)**





2. Disengage any clips that remain in the door and return to panel. **(Fig. 3-2)**



3. Disengage door locking tab. **(Fig. 3-3)**



4. Use a panel tool to remove the cover behind the interior door latch. **(Fig. 3-4)**



5. Remove #2 Phillips screw behind the door latch. **(Fig. 3-5)**



6. Lift the carpet cover from the grab handle cavity and remove the #2 Phillips screw. **(Fig. 3-6)**



7. Use a panel tool to remove the window door lock control panel. **(Fig. 3-7)**



8. Disconnect window control connectors from the panel.

9. Use gentle force to remove door panel. Start at the bottom, then the sides and finish

10. Disconnect the tweeter connector.

11. Remove door latch assembly from the door panel by unsnapping and lifting the door latch connectors. **Note:** Connectors need to be reassembled in the same orientation – white on top, green on bottom. **(Fig. 3-8)**



b. Install 6.5" Coaxial OEM Audio Plus speaker

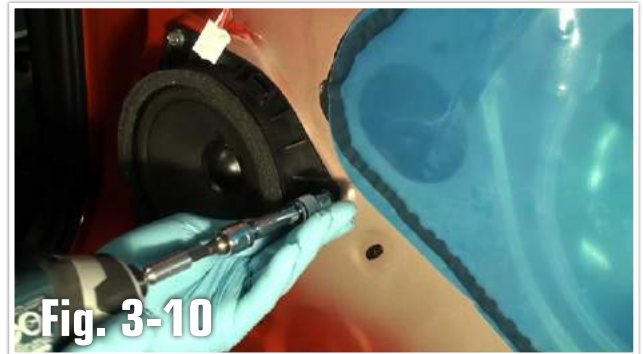
1. Disconnect the 6.5" factory speaker connector. **(Fig. 3-9)**



2. Remove the three (3) 10mm bolts holding the factory speaker in place and remove speaker.

**(Fig. 3-10)**

3. Mount the 6.5" OEM Audio Plus coaxial speaker by using the three (3) 10mm bolts and re-install speaker connector.



c. Reassemble door in reverse order - taking time to ensure all clips are engaged and all connectors are connected. Failure to securely reinstall door panel may result in rattles.

d. Repeat process for the other side of the vehicle.



#### 4. Radio Removal

a. Remove center console to gain access to radio trim.

b. Unscrew and remove the gear shift knob.

**(Fig. 4-1)**



c. Pry the center console panel **(Fig. 4-2)** and pull up in an upward motion. **(Fig. 4-3)**





- d. Using a panel tool disengage the lower instrument panel by pulling directly away from position. Disconnecting and removing this panel is optional.

**(Fig. 4-4)**



- e. Remove the climate control panel and disconnect connector. **(Fig. 4-5)**



- f. Lay down protective blanket over climate controls and transmission area.

- g. Using a 10mm socket wrench, remove the four (4) bolts holding the radio in place. **(Fig. 4-6)**



- h. Remove radio trim panel by gripping the lower edge and carefully pry away by hand. **(Fig. 4-7)**



i. Check for white or yellow locking clips that may not have come off with the panel. Re-insert the locking clips to the hood if necessary. **(Fig. 4-8)**

j. Disconnect connectors and antenna lead. Remove radio and store.

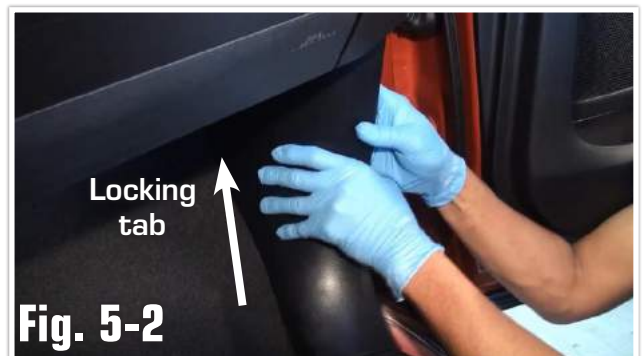


### 5. Quick-Sync Wiring Harness (Preparation)

a. Remove the passenger side rear threshold by pulling in an upward motion. **(Fig. 5-1)**



b. Remove the passenger side kick panel by unscrewing the black locking tab. **(Fig. 5-2)**



c. Disengage any clips that remain and return to the removed panel.

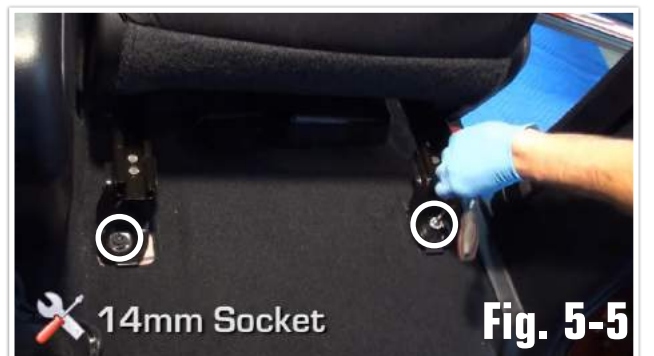
d. Remove front dash bezel by prying at the edge then pulling directly towards you. **(Fig. 5-3)**



e. Slide the seats forward and remove the trim panels covering the seat bolts on the rear side of the seats. **(Fig. 5-4)**

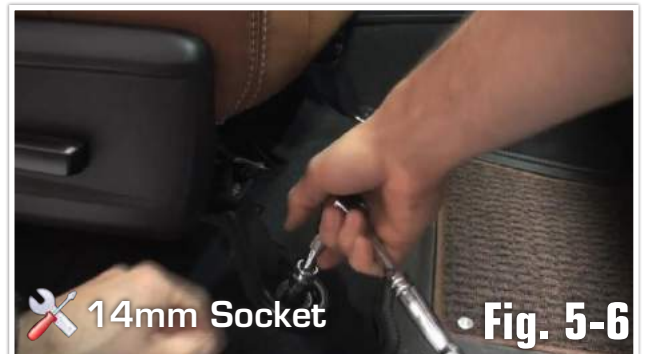


f. Using a 14mm socket, remove the two (2) rear 14mm seat bolts. **(Fig. 5-5)**



g. Slide seats to the rear and remove the two (2) front 14mm seat bolts. **(Fig. 5-6)**

h. Tilt the seats towards the rear of the vehicle.



i. Remove Factory Amplifier

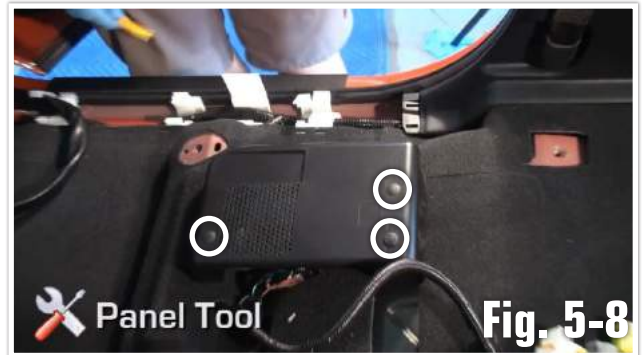
1. Disconnect the three (3) connectors underneath the seat. **(Fig. 5-7)**

2. You can work with the seat tilted back or remove from the vehicle completely.





3. Remove the factory amplifier cover by removing the three (3) plastic tabs on the top. **(Fig. 5-8)**



4. Unplug the two (2) factory connectors from the amplifier and the three (3) 10mm bolts that secure the amplifier in place. The factory amplifier is bypassed and not used. Your OEM Audio Plus Amplifier assembly will utilize the three 10mm bolts. **(Fig. 5-9)**



## 6. Quick-Sync Wiring Harness Installation

a. Run Passenger side of Quick-Sync Wiring Harness and connect ground.

1. Enter through the radio cavity and run harness through the space above the glove box in the direction of the passenger side kick panel. Run neatly and out of the way. Use cable ties as necessary. **(Fig. 6-1)**



2. You will be left with the radio connectors of the Quick-Sync Wiring Harness in the radio cavity. **(Fig. 6-2)**

3. Continue routing the Quick-Sync Wiring Harness toward the passenger side seat. Run neatly and out of the way. Use cable ties as necessary.





4. Unfasten white plastic carpet clips along the threshold area. **(Fig. 6-3)**



5. Run the cable under the carpet and exit under the seat through the center opening - pull about 3-4 inches of slack. **(Fig. 6-4)**



6. Locate the factory ground underneath the carpet and remove the 10mm ground bolt. **(Fig. 6-5, 6-6)**

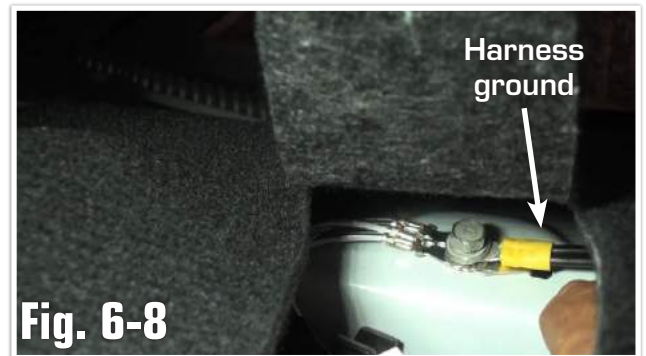




7. Install the harness ground together with the factory ground and re-install the 10mm bolt. **Note:** Make sure harness ground terminal rests on top of the factory ground terminal. **(Fig 6-7, 6-8)**



b. Re-install front dash bezel and passenger side kick panel.



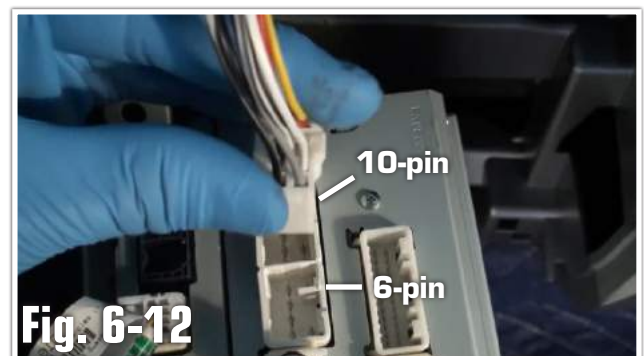
c. Run the Power Wire through the radio cavity and run the harness towards the accelerator pedal. Lay on the floor for the time being. **(Fig. 6-9, 6-10)**



b. Connect the Quick-Sync Wiring Harness into the radio and factory harness using the designated connectors. **(Fig. 6-11)**



c. Connect the Quick-Sync Wiring Harness 6-pin and 10-pin connectors to their designated locations **(Fig. 6-12)**. Re-install radio, trim panel and center console in reverse order.



## 7. Amplifier Installation

a. Connecting the DSP Amplifier

1. Plug the 20-pin connector from the Quick-Sync Wiring Harness into the SYSTEM CONNECTOR receptacle on the DSP Amplifier. **(Fig. 7-1)**



b. Connecting the Subwoofer:

### 2. (For SINGLE Subwoofer)

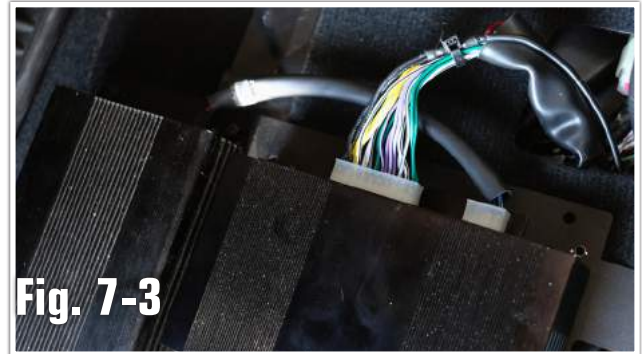
Connect the 8-pin connector of the Subwoofer Umbilical (C09) into the SUBWOOFER OUTPUT receptacle on the Amplifier. **(Fig 7-2)**





2. **(For DUAL Subwoofer)**

Connect the SPU-Input Connector (C12) from the SUBWOOFER OUTPUT receptical on the DSP Amplifier, to the INPUT receptical on the SUB Amplifier. **(Fig. 7-3)**



3. Connect the Subwoofer Umbilical (C09) with the SPU-Output Connector (C13), to the SPEAKER receptical on the SUB Amplifier. **(Fig. 7-4)**



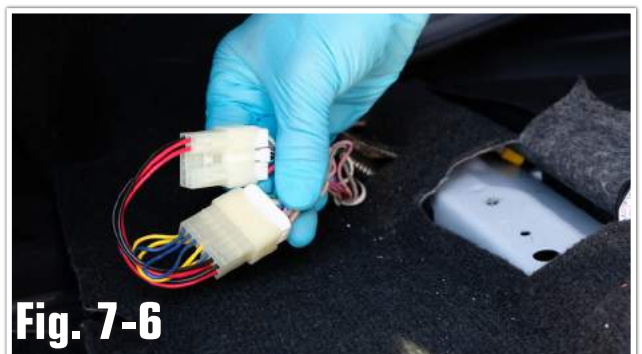
4. Connect Power & Ground (Green Connector) to the designated Green receptacle on the SUB Amplifier. **(Fig. 7-5)**



c. Plug in the provided **Factory Amplifier Bypass Connectors** to the factory 10-pin and 12-pin connectors. **(Fig. 7-6)**

d. Mounting the Amplifier Assembly

1. Line up each bracket arm to their corresponding mounting positions.





2. Tighten by hand initially. If binding occurs remove the bolt and repeat the steps.

**(Fig. 7-7)**

3. Use socket wrench to tighten.



## 8. Subumbilical Installation

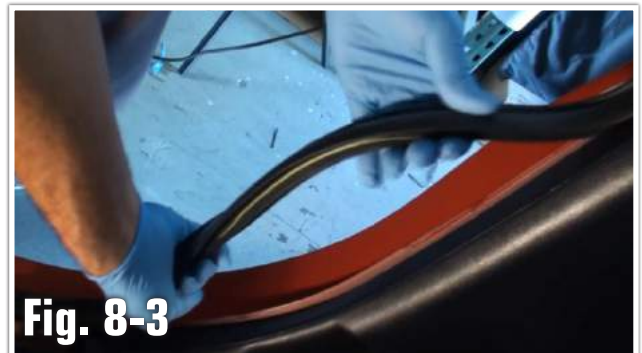
- a. Remove the passenger side lower seatbelt mounting bolt cover and bolt (14mm). **(Fig. 8-1)**



- b. Remove the passenger side rear threshold. **(Fig. 8-2)**



- c. Loosen seatbelt trim weather-stripping by hand and remove carefully in an outward direction on both the front and rear passenger side thresholds. **(Fig. 8-3)**



d. Disengage passenger side seat belt trim panel by pulling directly towards you from the lower portion of the panel and working your way up to disengage the clips. **(Fig. 8-4)**



e. Check for white snaps that may not have come off with the panel. Re-insert to panel if applicable.

f. Using a 17mm socket, remove the four (4) passenger 17mm rear seat bolts. Reposition rear passenger side seat out of the way or remove from vehicle. Take care not to scratch interior if removing seat assembly. **(Fig. 8-5)**



g. Remove the lower seatbelt mounting bolt cover and bolt (14mm) of the passenger side/rear panel. **(Fig. 8-6)**



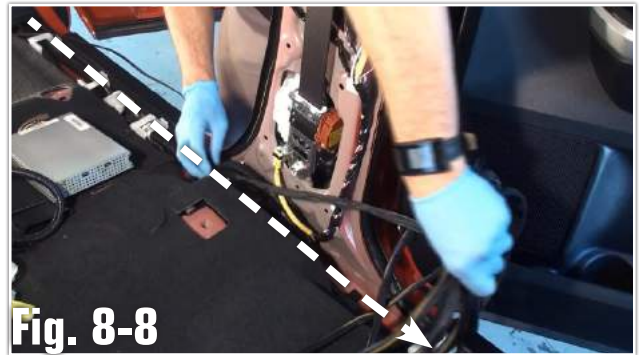
h. Remove the weather-stripping on the rear passenger side door and remove side/rear panel. **(Fig. 8-7)**



i. Disengage the white plastic clips in the front and rear passenger side threshold area.

## Procedure

j. Run subwoofer umbilical cables under the carpet alongside factory wiring in the passenger threshold area towards the rear of the vehicle. Use wire ties as necessary. **(Fig. 8-8, 8-9)**



k. Continue to route umbilicals along side the rear of vehicle behind the rear insulation padding towards the drivers side of the vehicle (where the subwoofer will mount). **(Fig. 8-10)**



l. Reassemble rear trim panel, seat belt trim panel, front and rear threshold and weather stripping.

## 9. Power Wire Installation

a. Remove drivers side threshold panel. **(Fig. 9-1)**



## Procedure

b. Remove driver's side kick panel by unscrewing the black locking tab. **(Fig. 9-2)**



c. Route power wire above the accelerator pedal and steering column into the driver side kick panel. Run neatly and out of the way. Use cable ties as necessary. **(Fig. 9-3)**



d. Under the hood locate the grommet for the main factory wiring harness on the driver side of the firewall directly under the two (2) heater hoses. **(Fig. 9-4)**



e. Identify unused nipple and slice the tip off to create an opening for the power wire. **(Fig. 9-5)**



f. Lubricate power wire with silicone spray or comparable substitute.



g. Once enough slack is visible, pull the full length of the power wire through under the hood **(Fig. 9-6)**. You want just enough length to reach your battery. Cut any additional slack. **Note:** Avoid interference with accelerator and brake pedals.



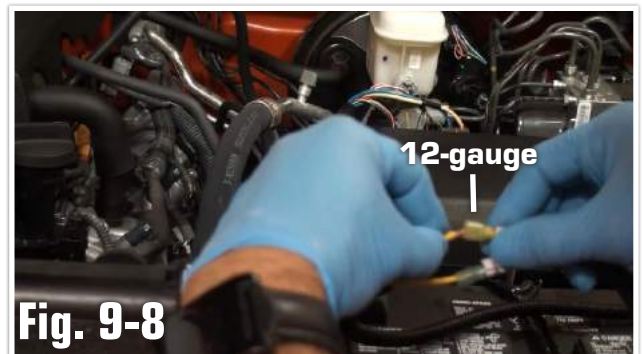
h. Secure any wire slack to existing factory wiring. Use cable ties as necessary.

i. Install supplied high-temp corrugated split loom to cover the power wires and insulate against extreme temperature under the hood. **(Fig. 9-7)**



j. Run power wires to the battery by following the direction of the factory wiring harness to the ECU.

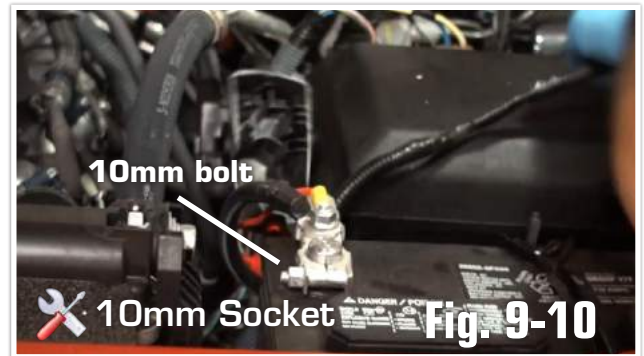
k. Connect the power wires to the fuse holder by inserting the 12-gauge stripped power wire into the butt connector and crimp. **(Fig. 9-8)**



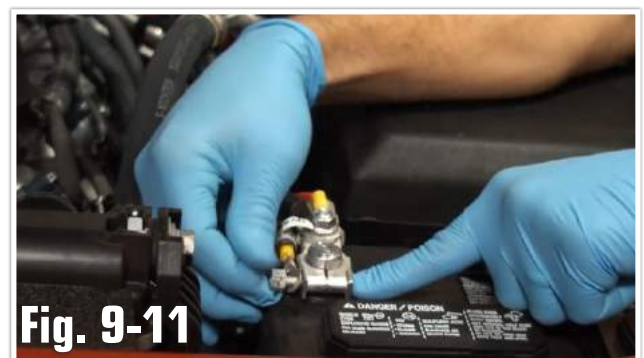
l. Apply heat to activate the solder and heat shrink insulator for the best connection possible. **(Fig. 9-9)**



n. Remove the 10mm bolt from the battery's positive terminal (**Fig. 9-10**) and install the ring terminal of the fuse holder lead. Re-install the 10mm bolt and tighten. (**Fig. 9-11**) **Note:** Do not install fuses at this time!



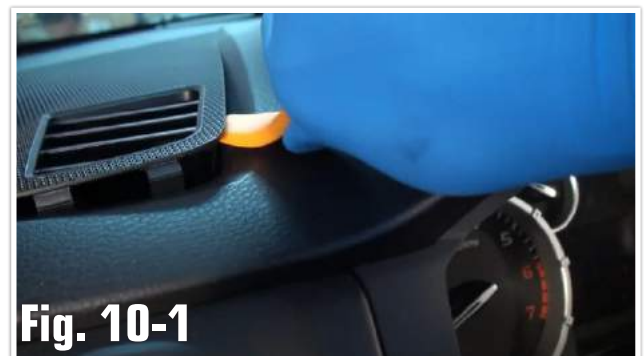
o. Reassemble drivers side kick panel and threshold.



## 10. Tweeter Installation

a. Removing factory dash speakers

1. Using a pick or panel tool carefully lift dash speaker grill up out of position. (**Fig. 10-1**)



2. Remove the two 10mm bolts holding the factory dash speaker in place and remove speaker. (**Fig. 10-2**)



3. Disconnect factory dash speaker. **(Fig. 10-3)**



b. Factory Connector Swap

1. With the factory speaker out of the vehicle, take note of the wire orientation. The red wires are positive and the black wires are negative.

**(Fig. 10-4)**



2. Carefully remove the connector exterior foam.

**(Fig. 10-5)**



3. With a precision screwdriver or pick tool, lift the locking tab of the factory connector **(Fig. 10-6)**. This tab only needs to be lifted slightly to release the pins in the connector. You will see the tab lifted, yet level, when properly disengaged.

**(Fig. 10-7)**







4. With the wire you intend on removing in your grasp, use a precision tool to disengage the locking tab within the connector housing securing the terminal. **(Fig. 10-8)**



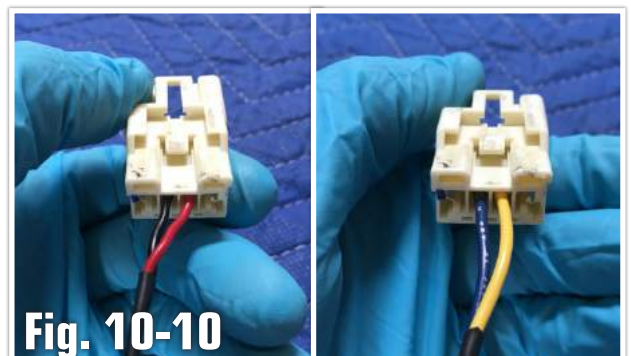
5. When locking tab is disengaged, terminal will pull out with ease. Repeat these steps for all four (4) wires.

6. Insert the OEM Audio Plus Tweeter terminals into the factory connector housing in the same orientation as the factory wiring. Terminals will slide into the housing and will click when engaged. **(Fig. 10-9)**



7. Once all terminals are inserted, engage the locking tab on the connector housing and reapply exterior foam.

**Note:** For the right tweeter, OEM Audio Plus uses the yellow and blue wire colors. Yellow is positive, blue is negative. **(Fig. 10-10)**





c. Position the OEM Audio Plus 1" Tweeter in position and re-install dash speaker connector.

d. Mount the OEM Audio Plus dash speaker by using the two 10mm bolts. **(Fig. 10-11)**



e. Re-install dash speaker grill and repeat process for other side.

## 11. Subwoofer System (Installation Preparation)

a. Using a 17mm socket, remove the four driver side 17mm rear seat bolts. Reposition rear passenger side seat out of the way or remove from vehicle. Take care not to scratch interior if removing seat assembly. **(Fig. 11-1)**



b. In the rear seat area, locate the three (3) sub mounting locations. Lift the rear insulation padding to identify the two rear mounting spots. **(Fig. 11-2, 11-3)**

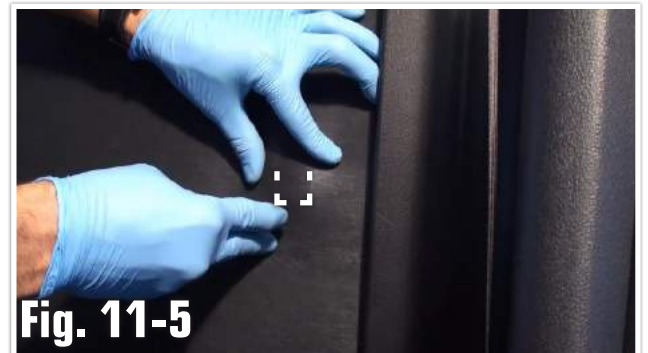


c. On the drivers side lift the padding - identify the drivers side rear mounting location and return the padding to it's original position.

d. Once in the rested position use your fingers to outline the mounting location. **(Fig. 11-4)**



e. With a utility knife cut a "U" shaped flap allowing access to the hardware location. **(Fig. 11-5)**



f. Cut any remaining material out of the way so your path is clear. **(Fig. 11-6)**



g. Repeat these steps on the passenger side hardware location. **(Fig. 11-7)**



h. Remove the rear driver threshold, seatbelt bolt, weather stripping and rear/side panel.

i. Lift the carpet by unlocking the white snaps and identify the drivers side rear floor mounting location. **(Fig. 11-8, 11-9)**



j. Use a pick tool to thread the location. **(Fig. 11-10)**



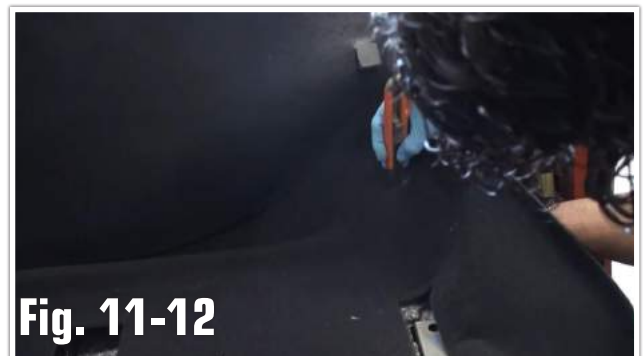
k. Mark with a permanent marker or pencil.

**(Fig. 11-11)**

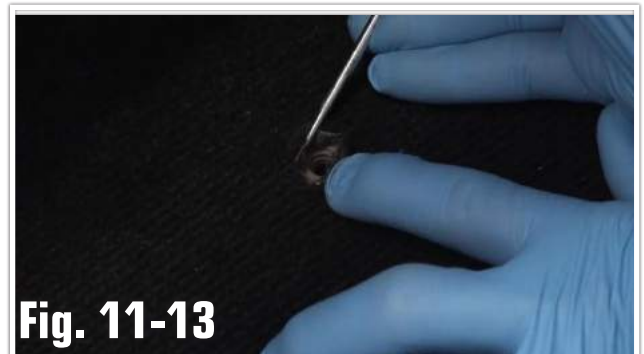


l. Cut enough of an opening to allow hardware to 10mm bolt to thread without binding.

**(Fig. 11-12, 11-13)**



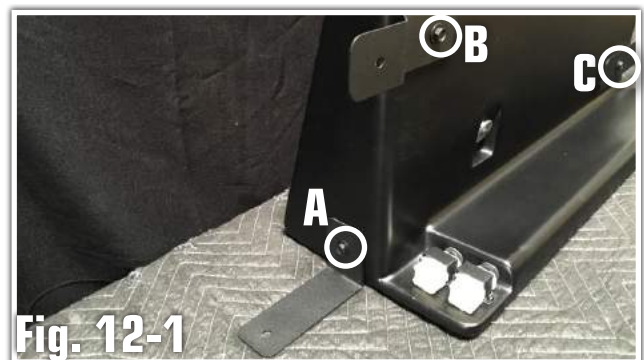
m. Re-install rear side panel, weather stripping, seat-bolt assembly and threshold.



## 12. Subwoofer System (Installation)

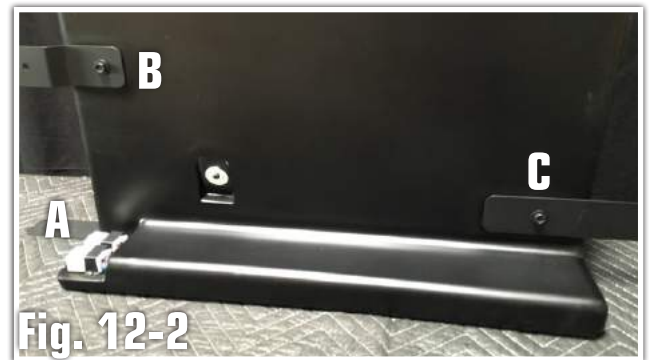
a. Mount the subwoofer brackets to the subenclosure

1. Remove the three (3) 10mm bolts on the subwoofer. Two bolts are located on the rear of the subwoofer, and one is located on the side to near the subumbilical plugs. **(Fig. 12-1)**





2. Place the three subwoofer brackets onto the subwoofer and attach using the three 10mm bolts. bracket A mounts to the side of the enclosure, and brackets B and C on the rear. Take note of the orientation of the brackets. **(Fig. 12-2)**

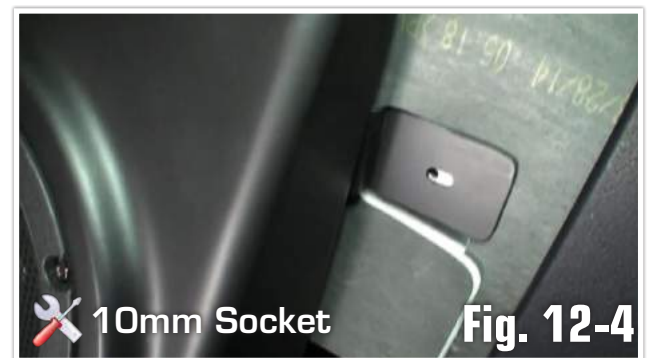


a. Position Subwoofer into it's designated location.  
**(Fig. 12-3)**



b. Connect the two (2) subwoofer umbilical cables to OEM Audio Plus Sub Enclosure.

c. Install the three (3) provided 10mm bolts into the subwoofer mounting arms. Tighten by hand initially. If binding occurs remove the bolt and repeat steps.  
**(Fig. 12-4, 12-5)**



d. Use socket wrench to tighten.

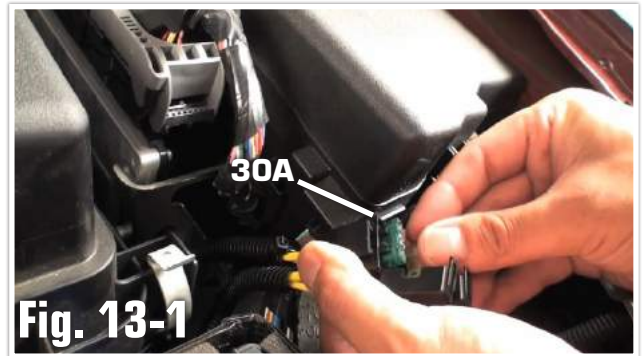
e. Reassemble rear seats.

1. Tighten the seat bolts by hand at first to ensure proper alignment. If there is too much resistance, start over again and double check the alignment. Tighten all four seat bolts.



### 13. Fuse Installation

- a. Insert the 30A fuse. **(Fig. 13-1)**



### 14. This concludes the OEM Audio Plus SYSTEM/REFERENCE 450Q Installation for the TOYOTA TUNDRA CREWMAX.

- a. Start your engine.
- b. Turn on your radio.
- c. Enjoy!