Kit Contents: OEM Audio Plus Reference/System Series

Item 1	Item 2	Item 3	Item 4	Item 5

Item 6	Item 7	Item 8	Item 9	Item 10	Item 11

***Item applies to Reference 500 ONLY**

Hardware Content		
Item	**Quantity**	**Description**
1	2	1" Soft Dome Tweeter with Neodymium Magnet
2	2	6"x9" Carbon Fiber Woofer with Neodymium Magnet
3	2	6.5" Carbon Fiber Coaxial Rear Speaker
4	2	6.5" Carbon Fiber Coaxial Cargo Speaker
5	1	8" Carbon Fiber Subwoofer in Custom Fit Sealed Enclosure
6	1	DSP Amplifier
7	1	Quick-Sync Wiring Harness
8	1	Subwoofer Umbilical Cable
9	1	Fuse Holder Assembly
10	1	30A Fuse
11	1	Corrugated Loom
12	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
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

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. Amplifier Installation.....3-5
3. Quick-Sync Wiring Harness (Preparation).....5-10
4. Behind the Radio.....10-11
5. Power Wire Installation.....12-15
6. Sub Umbilical Installation.....15-17
7. Subwoofer Installation.....17-18
8. Front Dash Tweeter Installation.....18-19
9. Front Door Speaker Installation.....19-21
10. Rear Door Speaker Installation.....21-22
11. Cargo Hatch Speaker Installation.....22-23
12. Under the Hood.....24

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 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 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.

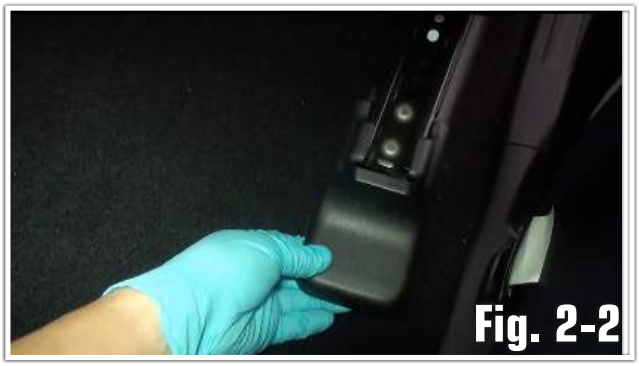
c. Disconnect the negative (-) battery cable.

d. Prepare a protective surface to place all vehicle components on.

2. Amplifier Installation

a. On the passenger side front seat remove the trim panels covering the seat bolts. **(Fig. 2-1)**

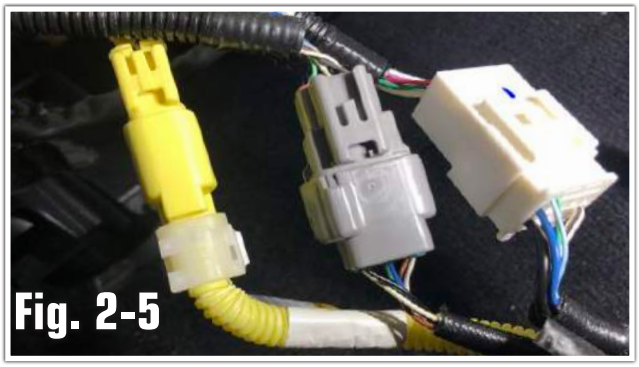
b. Slide forward and remove the trim panels covering the seat bolts on the rear side of the seat. Locate the slots in the trim covers and pry them off using the forked end of your trim tool. **(Fig. 2-2)**



c. Using a socket wrench, remove the four (4) 14mm seat bolts. **(Fig. 2-3)**

d. Tilt the seats towards the rear of the car. **(Fig. 2-4)**

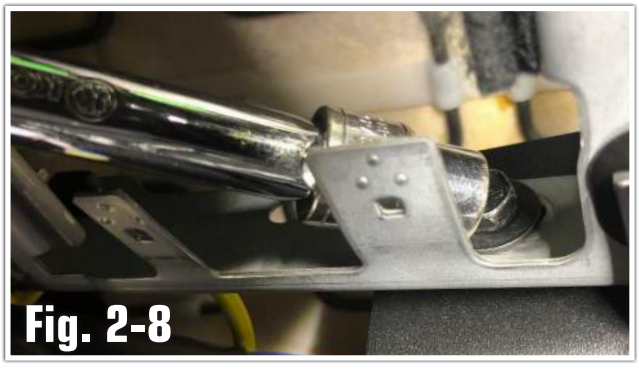
e. Remove connectors from assembly to allow clear workspace for installing amplifier mounting bracket. Connectors may remain plugged in while being removed. **(Fig. 2-5)**



g. Apply provided foam tape to potential contact points of amplifier/under-seat springs to omit any possible rattles. **(Fig. 2-6)**

h. Position amplifier assembly so that the rear bracket hooks on the rear most spring and front threaded rivet nut lines up with mounting opening on the under-seat front frame. The amplifier connector receptacles will face the passenger side of the vehicle. **(Fig. 2-7)**

i. Use the provided 10mm bolt to secure the amplifier bracket assembly to the under-seat frame. **Note**: Use of Universal Joint Socket can make threading this bolt easier based on the location (though not required).
(Fig. 2-8)



j. Return the three (3) factory connector-housings, connectors and cable mounting clip to their original factory locations. **(Fig. 2-9)**

Fig. 2-9

3. Quick-Sync Wiring Harness Installation (Preparation)

a. Remove the passenger side front threshold, lifting straight up disengaging all factory clips. **(Fig. 3-1)**

Fig. 3-1

b. Remove the Passenger side kick panel by unscrewing the black locking tab (counter-clockwise) and gently pulling the panel away. **(Fig. 3-2)**

Fig. 3-2

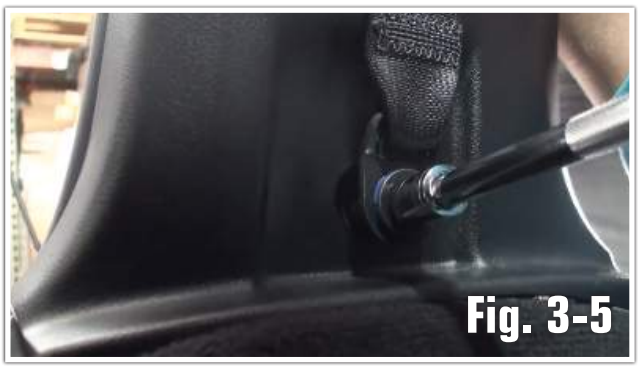
c. Check for factory snaps that may not have come off with the panel. Re-insert to panel if applicable.

d. Remove the Passenger side rear threshold by pulling in an upward motion. **(Fig. 3-3)**

Fig. 3-3

e. Loosen the seatbelt trim weather-stripping by hand carefully in an outward direction on both the front and rear passenger side thresholds. **(Fig. 3-4)**

f. Remove the lower seatbelt mounting bolt cover by hand or with a panel tool and Remove the lower seatbelt mounting 14mm bolt. **(Fig. 3-5)**



g. Disengage Passenger side seat belt trim panel by pulling directly towards you from the top portion of the panel and working your way down disengaging the clips behind. Re-insert any snaps to the panel if applicable. **(Fig. 3-6)**

You have now prepped the run for the Quick-sync Wiring harness to connect to the amplifier, ground location, radio/power wire, and sub umbilicals.

h. Unfasten grey and white plastic carpet clips along the threshold area and lift carpet edge to expose cable route. **(Fig. 3-7)**

i. Run the Quick-Sync Harness amplifier connectors and ground underneath the carpet opening from the front passenger side threshold to the passenger side opening under the seat (behind the front seat bolt location). **(Fig. 3-8,9)**

j. Locate the ground location underneath carpet. Install the harness ground with the provided 10mm bolt and tighten. **(Fig. 3-10/11)**

k. Plug the 20-pin connector from the Quick-Sync Harness into the designated receptacle on the DSP Amplifier. The 20-p connector inserts into the receptacle towards the front of the vehicle.
(Fig. 8-8) Note: You want to make sure the Quick-Sync Wiring Harness has enough slack so that the cable is in a rested position even when the driver's seat is pushed all the way back.

Fig. 8-8

l. Connecting the Subwoofer :

1. **(For SINGLE Subwoofer)**
Connect the 8-pin connector of the Subwoofer Umbilical (C09) into the SUBWOOFER OUTPUT receptacle on the Amplifier. **(Fig 8-9)**

Fig. 8-9

1. **(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. 8-10)**

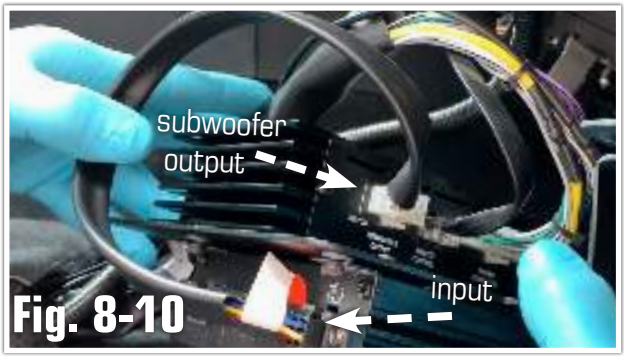
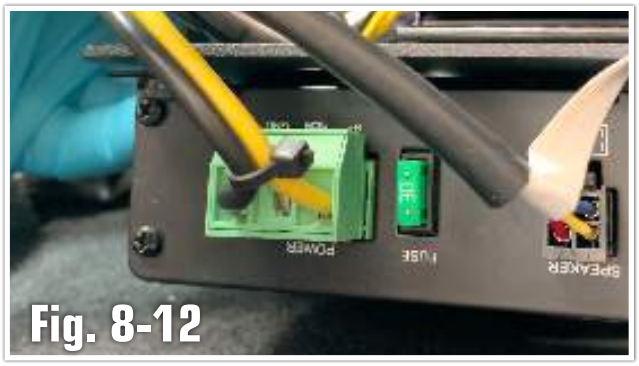


Fig. 8-10

2. Connect the Subwoofer Umbilical (C09) with the SPU-Output Connector (C13), to the SPEAKER receptical on the SUB Amplifier. **(Fig. 8-11)**

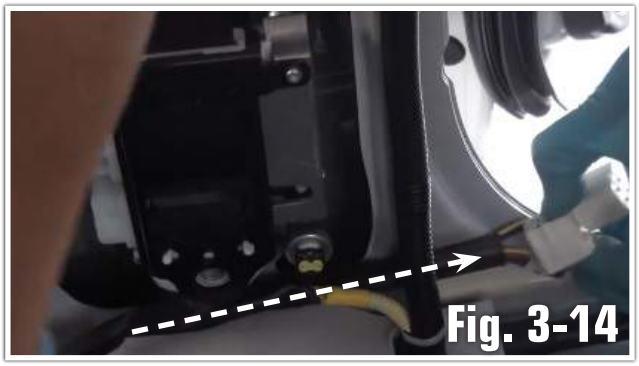
Fig. 8-11

3. Connect Power & Ground (Green Connector) to the designated Green receptacle on the SUB Amplifier. **(Fig. 8-12)**



n. Route the Radio/Power side of the Harness alongside the passenger side threshold towards the kick panel. Leave this portion of the wiring harness in the kick panel floor area for the time being. **(Fig. 3-13)**

o. Run the subwoofer umbilical cable alongside the passenger side threshold towards the rear of the truck behind any factory wiring in seat beat panel area. Disengage the white plastic clips along the route. Use cable ties as necessary. **(Fig. 3-14,15)**



p. Re-engage clips and leave this portion of the Harness in the passenger rear seat floor area for the time being. Reinstall passenger side seat belt trim, weather stripping, seat belt bolt and cover in reverse order.

q. Return seat back in place and confirm that the seat bolt holes are lining up.

r. 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.

s. Finish tightening all four (4) seat bolts using your 14mm socket and ratchet. Return seat bolt trim panels to their original locations. **(Fig. 3-16)**

Fig. 3-16

4. Behind the Radio

a. Remove radio trim panel by inserting plastic trim tool to loosen the bottom corner edge and carefully pry away by hand. This will loosen complete bezel assembly including climate controls. **(Fig. 4-1)**

Fig. 4-1

b. Once loosened carefully disengage cable clip and factory connector allowing you to remove assembly completely.

c. Lay down protective blanket over shift control area.

d. Using a 10mm socket wrench, remove the four (4) bolts holding the radio in place. **(Fig. 4-2)**

Fig. 4-2

e. Remove radio trim panel by gripping the top and bottom edge and carefully pry away by hand. **(Fig. 4-3)**

f. Taking note of the factory orientation Disconnect connectors and antenna lead. Remove radio and store safety.

Fig. 4-3

h. Remove the under glove box panel by pulling directly down and away. **(Fig. 4-4)**

i. Run Passenger side of Quick-Sync Wiring Harness entering the channel along the side of the glovebox to above the glovebox assembly. **(Fig. 4-5)**

TIP:
Wrapping the Quick-Synch wiring Harness in an empty speaker bag before running it up and through the glovebox channel will help keep individual cables from catching on anything in the process. **(Fig. 4-6)**

j. From the side kick panel area pass the radio connectors up the channel to the space above the glove box. Subsequently reach in the channel above the glove box and pull the harness through the radio cavity. **(Fig. 4-7)**

k. Run neatly and out of the way. Use cable ties as necessary.

l. Connect the factory 10-pin and 6-pin connectors to the Quick-Sync Wiring Harness and then connect the Quick-Sync Wiring Harness 10-pin and 6-pin connectors to their designated locations in the radio. **(Fig. 4-8)**

Fig. 4-8

m. Re-install all connections, radio assembly, four (4) 10mm bolts, radio trim panel and all connections related to climate control back in reverse order.

5. Power Wire Installation

a. Under the hood on the passenger side of the vehicle, locate the grommet for the main factory wiring harness on the passanger side of the firewall directly below factory wiring.

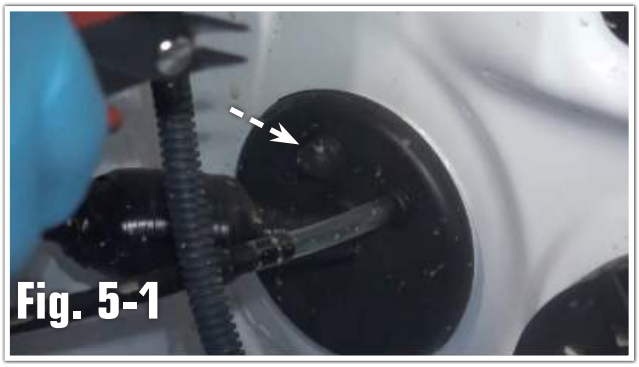


Fig. 5-1

b. Identify unused nipple and slice the tip off to create an opening for the power wire. **(Fig. 5-1)**

c. For best results, insert a 10 inch wire or cable tie through the grommet from under the hood and attach power wire from the kick panel area. **(Fig. 5-2)**

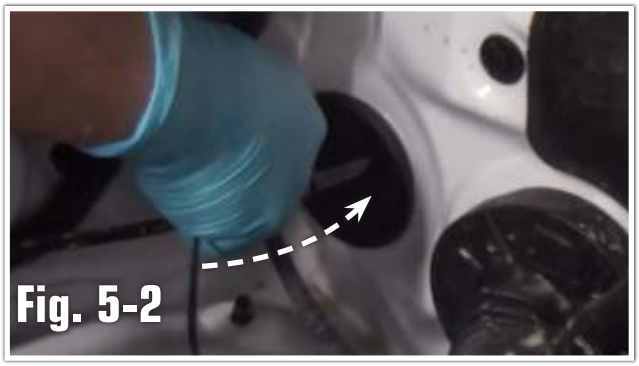


Fig. 5-2

d. Attach power wire from the to the wire or cable tie from the kick panel area. **(Fig. 5-3)**

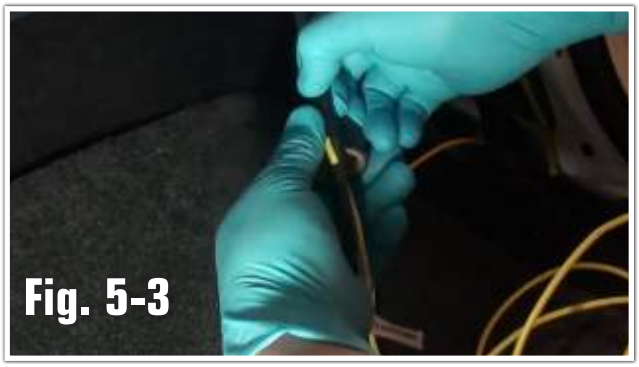
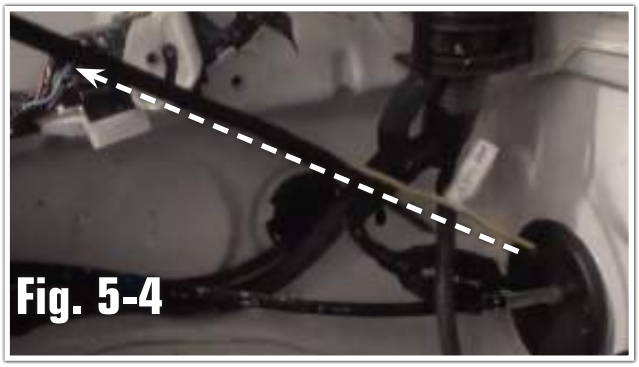


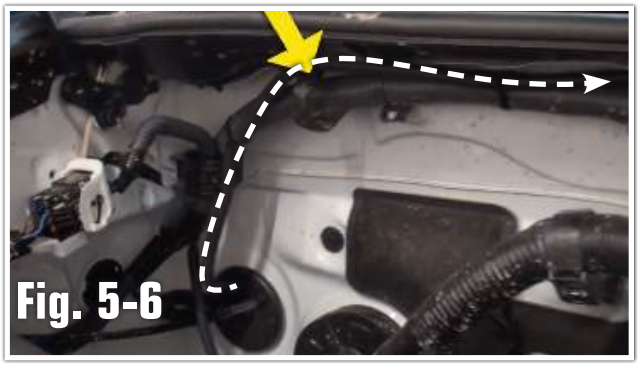
Fig. 5-3

e. Run the length of the wire through the grommet. You'll want just enough length to reach your battery. Cut any additional slack. **(Fig. 5-4)**



f. Install supplied high-temp corrugated split loom to cover the power wires and insulate against extreme temperature under the hood. **(Fig. 5-5)**

g. Run loomed power wire toward the battery. Secure using cable ties as necessary. **(Fig. 5-6)**

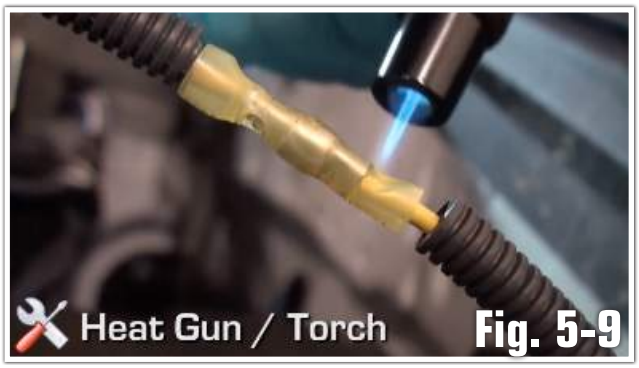


h. Use a wire stripper to strip 3/8" off the end of each power wire.

i. Connect the power wire to the fuse holder assembly by inserting the 12-gauge stripped power wire into the yellow butt connector. **(Fig. 5-7)**

j. Crimp the yellow butt connector. **(Fig. 5-8)**

k. Apply heat to activate the solder and heat shrink insulator for the best connection possible. **(Fig. 5-9)**



l. Remove the 12mm bolt from the battery's positive terminal. **(Fig. 5-10)**

m. Install the ring terminal of the fuse holder lead. **(Fig. 5-11)**

n. Re-install the 12mm bolt and tighten. **Note**: Do not install fuse at this time. **(Fig. 5-12)**

o. Back in the vehicle, re-install the under-glovebox panel, kick panel and the passanger-side front threshhold panel.

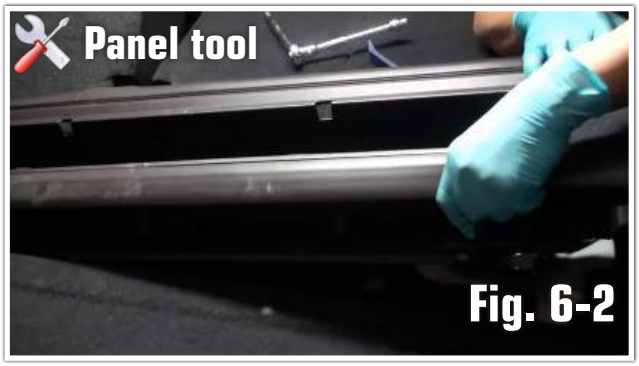
6. Sub Umbilical Installation

a. Fold rear passenger side seat forward.

b. Disengage the two (2) 10mm bolts securing the rear cargo area threshold. **(Fig. 6-1)**

c. Once bolts are loosened assembly will pull straight up disengaging two (2) yellow panel clips. **(Fig. 6-2)**

d.Disengage any clips that remain in original mounting point and return to panel.



e. Run the Sub Umbilical cable underneath the carpet opening from the rear passenger side threshold to the opening where rear cargo threshold was. **(Fig. 6-3))**

f. Run all cable slack through and position cable on passenger side of threshold mounting points. **(Fig. 6-4)**

g. Using panel tool tuck carpet under rear seat side panel if loosened.

h. Run cable from passenger to driver side under the carpet along the channel between the rear seat and the cargo area. **(Fig. 6-5)**

i. Run cable under the Driver side rear side panel to the far rear cargo area.

1. Open the two (2) plastic trim covers on driver side rear side panel and remove 10mm bolts. **(Fig. 6-6)**

2. Disengage rear cargo net hook to remove the #2 phillips screw. **(Fig. 6-7)**

3. Remove two (2) floor screen locations securing this panel in place. **(Fig. 6-8)**

k. Using a pick tool remove the trim panel of the floor cargo net hook exposing the 10mm bolt. Remove the 10mm bolt and hook assembly. **(Fig. 6-9)** Subwoofer connectors will run through this cavity.

l. With Rear side panel loosened, run cable behind panel and to floor hook assembly opening. You'll need 6-10." **(Fig. 6-10)**

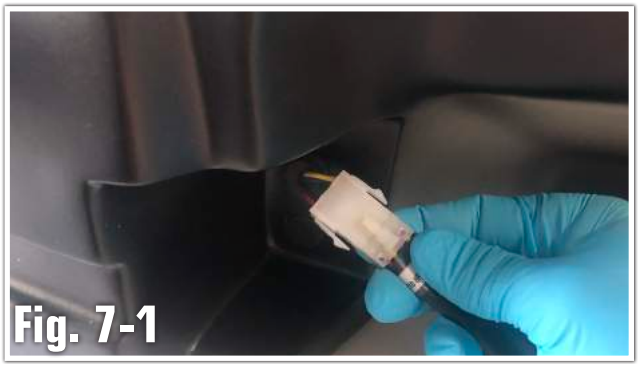
m. Run cable cleanly and out of the way. Use cable ties as necessary. Reinstall rear side panel, cargo threshold and ALL corresponding hardware.

n. Reinstall passenger side rear threshold panel.

7. Subwoofer System Installation

a. Using provide alcohol wipes prepare cargo floor beneath subwoofer mounting location.

b. Connect subwoofer umbilical cables to the OEM Audio Plus subwoofer system. Connectors are interchangeable and can be plugged in either order. **(Fig. 7-1)**



c. Remove adhesive from provided industrial hook-and-loop stripes (2) on undercarriage of subwoofer assembly.

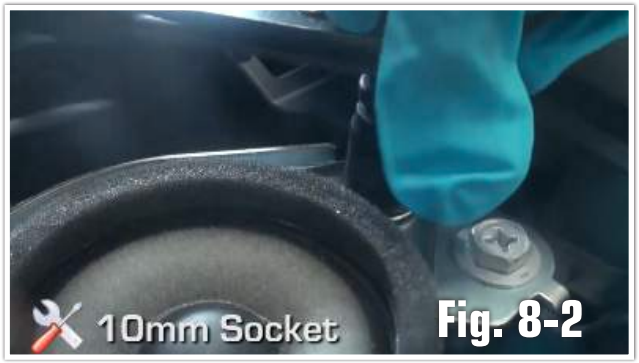
d. Slide subwoofer system into floor and panel cavity until it rests in place. Subwoofer will rest completely flush, corner-mounted against driver side of vehicle. **(Fig. 7-2)**

8. Front Dash Tweeter Installation

a. Using a pick or panel tool, carefully lift the dash speaker grill up and out of position. **(Fig. 8-1)**

b. Remove the two (2) 10mm holding the factory speaker in place and remove the speaker. **(Fig. 8-2)**

c. Disconnect the factory dash speaker.



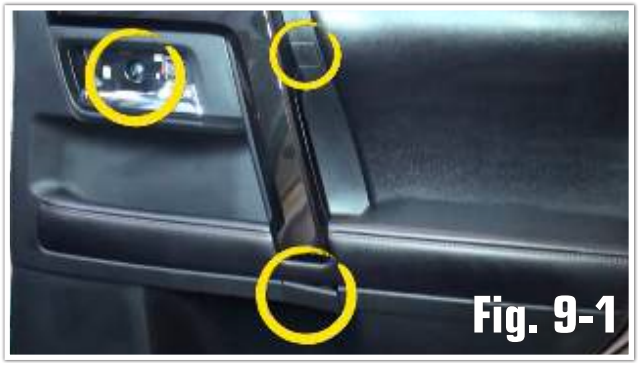
d. Reinstall the dash speaker connector and position the OEM Audio Plus 1" Soft Dome Tweeter. **(Fig. 8-3)**

e. Mount using the original 10mm bolts. **(Fig. 8-4)**

f. Reinstall the dash speaker grill and repeat the process for the other side of the vehicle.

9. Front Door Speaker Installation

a. Use a panel tool to remove the cover behind the interior door latch, directly beneath and the top corner of the grab handle. Remove the three (3) #2 Phillips screws from these locations. **(Fig. 9-1)**



b. Remove A Pillar by pulling straight and away from door. Disengage any clips that remain in the door and return to the A Pillar panel. **(Fig. 9-2)**

c. Use panel tool or your hands to disengage the clips behind the door panel one at a time. Start at the bottom, then the sides, and finish at the top. Use gentle force to remove door panel pulling directly away from the door assembly. **(Fig. 9-3)**

d. Disengage the light assembly from the panel. Use a panel tool to remove the assembly, then disengage connector. **(Fig. 9-4)**

e. 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. 9-5)**

f. Disconnect window/door lock control connectors from the panel. Use of a pick tool or precision screwdriver is needed to release connector. **(Fig. 9-6)**

g. Remove the four (4) 10mm bolts holding the factory 6x9 speaker in place, disconnect the connector and remove speaker. **(Fig. 9-7)**

i. Mount the 6x9 OEM Audio Plus Woofer by using the four (4) 10mm bolts and re-install 6x9 speaker connector. **(Fig. 9-8)**

j. Reassemble the door in reverse order taking time to ensure all clips are engaged.

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

10 Rear Door Speaker Installation

Note: Rear door disassembly is near identical to front door process.

a. Use a panel tool to remove the cover behind the interior door latch, directly beneath and the top corner of the grab handle. Remove the three (3) #2 Phillips screws from these locations. **(Fig. 10-1)**

b. Use panel tool or your hands to disengage the clips behind the door panel one at a time. Start at the bottom, then the sides, and finish at the top. Use gentle force to remove door panel pulling directly away from the door assembly. **(Fig. 10-2)**

c. 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. 10-3)**

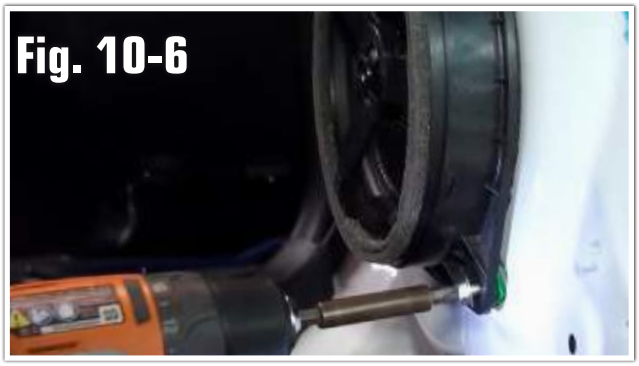
d. Disconnect window/door lock control connectors from the panel. Use a pick tool or precision screwdriver to release connector. **(Fig. 10-4)**

e. Remove the three (3) 10mm bolts holding the factory 6.5" factory speaker in place, disconnect the connector, and remove speaker. **(Fig. 10-5)**

g. Mount the 6.5" OEM Audio Plus coaxial speaker by using the three (3) 10mm bolts and re-install speaker connector. **(Fig. 10-6)**

h. Reassemble the door in reverse order taking time to ensure all clips are engaged.

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



11. Cargo Hatch Speaker Installation

a. With the hatch open. Remove the 10mm Bolt from the grab strap. **(Fig. 11-1)**

b. Disengage the two (2) Hatch light assemblies from the panel. Use a panel tool to remove the assembly, then disengage connector. **(Fig. 11-2)**

c. Use gentle force to remove hatch panel. Start at the bottom, then the sides and finish at the top. **(Fig. 11-3)**

d. Remove the three (3) 10mm bolts holding the factory speaker in place and remove speaker. **(Fig. 11-4)**

e. Disconnect the 6.5" factory speaker connector.

f. Mount the 6.5" OEM Audio Plus coaxial speaker by using the three (3) 10mm bolts and re-install speaker connector. **(Fig. 11-5)**

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

h. Re-engage hatch panel 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.

i. Reconnect light assemblies and re-install grab strap.

12. UNDER THE HOOD

a. Install the provided 30 Amp fuse. **(Fig. 12-1)**

b. Reconnect the battery and close the hood. **(Fig. 12-2)**

13. This concludes the OEM Audio Plus REFERENCE 500 Installation for the TOYOTA 4RUNNER.

a. Start your engine.

b. Turn on your radio.

c. Enjoy!