## Kit Contents: OEM Audio Plus Reference 400CF

<table>
<thead>
<tr>
<th>Item</th>
<th>Item 2</th>
<th>Item 3</th>
<th>Item 4</th>
<th>Item 5</th>
<th>Item 6</th>
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<th>Item 9</th>
<th>Item 10</th>
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### Hardware Content

<table>
<thead>
<tr>
<th>Item</th>
<th>Quantity</th>
<th>Description</th>
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<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>1&quot; Soft Dome Tweeter with Neodymium Magnet</td>
</tr>
<tr>
<td>2</td>
<td>2</td>
<td>4&quot; Carbon Fiber Mid-Range w/ LH/RH Bracket</td>
</tr>
<tr>
<td>3</td>
<td>2</td>
<td>6&quot;x9&quot; Carbon Fiber Woofer</td>
</tr>
<tr>
<td>4</td>
<td>2</td>
<td>6.5&quot; Carbon Fiber Coaxial Rear Speaker</td>
</tr>
<tr>
<td>5</td>
<td>1</td>
<td>8&quot; Carbon Fiber Subwoofer in Custom Fit Sealed Enclosure</td>
</tr>
<tr>
<td>6</td>
<td>1</td>
<td>Amplifier Module (1) DSP Amplifier (1) Subwoofer Amplifier</td>
</tr>
<tr>
<td>7</td>
<td>1</td>
<td>Long Arm for Amp Bracket</td>
</tr>
<tr>
<td>8</td>
<td>1</td>
<td>Quick-Sync Harness</td>
</tr>
<tr>
<td>9</td>
<td>1</td>
<td>Subwoofer Umbilical cable</td>
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<tr>
<td>10</td>
<td>1</td>
<td>6&quot;x9&quot; Umbilical Cable</td>
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<tr>
<td>11</td>
<td>1</td>
<td>Fuse Holder Assembly</td>
</tr>
<tr>
<td>12</td>
<td>2</td>
<td>1-30 Amp Fuse, 1-20 Amp Fuse</td>
</tr>
<tr>
<td>13</td>
<td>8</td>
<td>Rivets</td>
</tr>
<tr>
<td>14</td>
<td>1</td>
<td>Corrugated Loom</td>
</tr>
<tr>
<td>15</td>
<td>10</td>
<td>Cable Ties (Not pictured)</td>
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### Recommended Tools

#### Personal & Vehicle Protection

<table>
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<th>Notes</th>
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<tbody>
<tr>
<td>Safety Goggles</td>
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<tr>
<td>Seat Covers</td>
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<tr>
<td>Floor Covers</td>
</tr>
<tr>
<td>Protective Blanket</td>
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<td>Safety Gloves</td>
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#### Special Tools

<table>
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<th>Notes</th>
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<tbody>
<tr>
<td>Panel Clip Removal</td>
</tr>
<tr>
<td>SST # 00002-06001-01</td>
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<tr>
<td>Socket Wrench</td>
</tr>
<tr>
<td>Sockets 10mm, 12mm</td>
</tr>
<tr>
<td>Socket Extension 6&quot;</td>
</tr>
<tr>
<td>Screwdriver #2 Phillips</td>
</tr>
<tr>
<td>Side Cutters</td>
</tr>
<tr>
<td>Rivet Tool Use 1/8&quot; Nose</td>
</tr>
<tr>
<td>Drill</td>
</tr>
<tr>
<td>5/32&quot; Drill Bit</td>
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<tr>
<td>T25 Torx bit</td>
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#### Wire Strippers

| Needed for 12g & 14g butt Sealed-Crimp-Solder Connectors |

#### Heat Gun

| Needed for 12g & 14g Installation Tools |

#### Masking Tape

<table>
<thead>
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<th>Notes</th>
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<td>10 Piece bundle Included</td>
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#### Special Chemicals

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<th>Notes</th>
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<tr>
<td>Lubricant For Pulling Wire Through Grommet</td>
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<tr>
<td>Silicone Sealant For Sealing Grommet</td>
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#### Personal & Vehicle Protection

<table>
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<th>Notes</th>
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<tr>
<td>STOP: Damage to the vehicle may occur. Do not proceed until process has been complied with.</td>
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### Tools & Equipment

| Used in Figures to call out the specific tools and equipment recommended for the process. |

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**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.

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**Issue A 08/01/11**
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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 covers 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

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1. **Vehicle Preparation**
   a. Apply parking brake.
   b. Disconnect the negative (−) battery cable.
   c. Prepare a protective surface to place all vehicle components on.

2. **Installation Prep for Amplifier Assembly**
   a. Remove the Amplifier Assembly and bracket arm from the box. *(Fig. 2-1)*
   b. Using a **T-25 Torx** bit, remove the screw located at the bottom of the Assembly and install the bracket arm. *(Fig. 2-2)*
   c. Re-install the screw and tighten.

3. **Initial Vehicle Disassembly**
   a. Remove trunk area mat and floor board.
   b. Remove tire jack storage tray by removing two (2) 10mm hex bolts located on the tray bottom. *(Fig. 3-1)*
   c. Remove Driver and Passenger side Threshold Panel. **Note:** Disengage both ends of the panel before pulling upward. *(Fig. 3-2)*
d. Remove Driver and Passenger Kick Panel
Trim by disengaging snaps and pulling away from position. [Fig. 3-3]

![Fig. 3-3]

e. Loosen Driver and Passenger Door weather-strip by carefully pulling outwards. [Fig. 3-4]

![Fig. 3-4]

f. Remove Rear Bottom Seat Cushion.
   1. From the Driver’s side, locate Bottom Cushion locking tab.
   2. Pull straight up to disengage. (Fig. 3-5)
   3. Repeat step for Passenger side.

![Fig. 3-5]

g. Remove Driver and Passenger Rear Side Panels.
   1. Remove plastic locking tab located at the bottom of the panel. (Fig. 3-6)

![Fig. 3-6]
2. Open plastic trim cover and remove 10mm hex bolt. (Fig. 3-7)

3. Fold down rear seat back rest and reach for lower rear edge of the panel to disengage snaps. (Fig. 3-8)

4. Hold the panel and disengage the front and top edge snaps one at a time while simultaneously pulling the panel towards you. (Fig. 3-9)

5. Slip the rear panel through the seat belt to remove.

6. Repeat steps 1-5 for opposite side.

4. Rear Speaker Installation
   a. Removing Rear Speakers (Fig. 4-1)
      1. Unplug speaker connector. **Note:**
         Observe speaker input connector position to establish mounting orientation.
      2. Unbolt three (3) 10mm mounting bolts and remove factory speaker.
b. Install OEM Audio Plus 6.5" coaxial speaker by reversing steps 1-3. ([Fig. 4-2])
c. Repeat Installation steps for opposite side.

5. Subwoofer Umbilical Cable Installation
   a. From the passenger side of the vehicle, run the subwoofer cable from the trunk area to the kick panel area. **Note:** Provide 18” of cable slack in the trunk to accommodate final cable routing to Subwoofer and 24” of cable slack in the kick panel to accommodate final cable routing to the Sub Amp location. ([Fig. 5-1])

   1. Once past the rear seat area, run cable under the seat belt bolt and towards the threshold area.
   2. Unfasten white plastic carpet clips and release carpet to expose cable route underneath the carpet. ([Fig. 5-2])
   3. Run cable all the way to the kick panel.
   4. Re-attach carpet and close clips.
5. Reinstall the tire jack storage tray.

   **Note:** Run the cable through the channel on the bottom side of the tray and exit through the back by the tail light cover. [Fig. 5-3]

6. Reinstall two (2) 10mm hex bolts located on the tray bottom to secure.

6. **Reassemble Rear Seat Location** (see Pg. 4, Part 3, Sections e-g).
   
   a. Reinstall rear side panels in reverse order.
   
   b. Reinstall rear bottom seat cushion.
   
   c. Reinstall Driver and Passenger weatherstrip.

7. **Quick-Sync Harness Installation**
   
   a. Glove Box Removal
      
      1. Squeeze sides of glove box and pull down and out in one motion to remove. [Fig. 7-1]

      2. Locate *cabin filter cover*: To remove, gently unsnap and pull outwards. [Fig. 7-2]

   b. Radio Removal
      
      1. Lay down protective blanket over climate controls and transmission area.

      2. Remove radio trim panel by inserting plastic trim tool to loosen the bottom edge and carefully pry away by hand. [Fig. 7-3]
3. Disconnect hazard light connector.  (Fig. 7-4)

4. Using a 10mm socket wrench, remove the four (4) bolts holding the radio in place. (Fig. 7-5)

5. Disconnect connectors and antenna lead. (Fig. 7-6)

6. Remove radio and store.

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

1. Enter through the radio cavity and run harness through the space above the air conditioning unit in the direction of the passenger side kick panel. Run neatly and out of the way. Use cable ties as necessary. (Fig. 7-7)
2. Locate and remove the 10mm ground bolt located in the passenger side kick panel area.  
(Fig. 7-8)

3. Install the harness ground together with the factory ground.  
   **Note:** Make sure harness ground terminal rest on top of the factory ground.

4. Re-install the 10mm bolt and tighten.  
   (Fig. 7-9)

d. Run Driver side of Quick-Sync Harness.  
   1. Enter through the radio cavity and run the harness towards the accelerator pedal.  
      (Fig. 7-10)

   2. Separate the yellow power wires from the main harness and lay on the floor.  
      (Fig. 7-11)
3. Finish routing the Quick-Sync Harness by routing it 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. 7-12)

4. Connect Quick-Sync Harness to the 6x9 Umbilical Cable.  
(Fig. 7-13)

e. Install 6x9 Umbilical Cable (Fig. 7-14)
1. Run the 6"x9" umbilical cable from the kick panel area to the factory amplifier located under the Driver seat.
2. Unfasten white plastic carpet clips along the threshold area and lift carpet edge to expose cable route.
3. Run the cable under the carpet and exit under the driver seat through the opening used by the factory amplifier wiring harness.
4. Remove the factory amplifier cover by removing the two (2) plastic locking tabs on the backside. *(Fig. 7-15)*

5. Unplug the 10-pin male connector from the amplifier and connect to the 10-pin female connector from the 6x9 Umbilical cable. **Note:** The factory amplifier is by-passed and not used. *(Fig. 7-16)*

6. Reinstall the cover.

7. Re-attach carpet and close clips.

8. **Power Wire Installation**
   a. Under the hood.
      1. Locate the grommet for the main factory wiring harness on the driver side of the firewall directly under the two (2) heater hoses.
      2. Identify unused nipple and slice the tip off to create an opening for the power wire. *(Fig. 8-1)*
   
   b. Under dash area (Driver side)
      1. Lubricate power wire with *silicone spray* or comparable substitute.
      2. Run entire length through the grommet. **Note:** Avoid interference with accelerator and brake pedals. *(Fig. 8-2)*
3. Pull back approximately 6” of the wire and apply a small amount of silicone sealant on the wire to seal the grommet opening.

4. Push back entire length. **Note:**
   Inspect grommet from the engine compartment and verify seal.  
   *(Fig. 8-3)*

5. Once the power wire installation is completed under the dash area, secure any wire slack to existing factory wiring. Use cable tie as necessary.

c. Under hood wiring routing.
   Install supplied high-temp corrugated split loom to cover the power wires and insulate against extreme temperature under the hood. *(Fig. 8-4)*

1. Run power wires to the battery by following the direction of the factory wiring harness to the ECU.  
   *(Fig. 8-5)*

2. Continue in between the ECU and Air Filter Box and end by the battery. Secure using cable ties as necessary.

d. Installation of the Fuse Holder
   1. Remove the 10mm bolt from the battery’s positive terminal and install the ring terminal of the fuse holder lead. Re-install the 10mm bolt and tighten. **Note:** Do not install fuses at this time!  
      *(Fig. 8-6)*
2. Connect the power wires to the fuse holder using the pre-installed butt connectors. Use wire stripper and strip 3/8" off the end of each power wire. (Fig. 8-7)

3. Start with the [larger] 12 ga. power wire by inserting it into the Yellow butt connector. **Note:** Use appropriate Crimp Tool (Fig. 8-8) and apply heat to activate the solder and heat shrink insulator for the best connection possible. (Fig. 8-9)

4. Insert 14 ga. wire into the Blue butt connector and crimp. **Note:** Use appropriate Crimp Tool (Fig. 8-8) and apply heat to activate the solder and heat shrink insulator for the best connection possible. (Fig. 8-9) Secure using cable ties as necessary.
9. Amplifier Assembly Installation
   a. Connecting the DSP and Sub Amplifiers
      (Fig. 9-1)
         1. Plug the White and Gray 22-pin connectors from the Quick-Sync Harness into their designated receptacles on the DSP Amplifier.
         2. Plug the Black 10-pin connector from the Quick-Sync Harness into its designated receptacle on the Sub Amplifier.
         3. Plug the 6-pin Gray connector from the Sub cable into its designated receptacle on the Sub Amplifier.
   b. Mounting the Amplifier Assembly
      1. Remove the outward-facing 10mm bolt used on the a/c blower unit. (Fig. 9-2)
      2. Remove the lower side-facing 12mm bolt off the black chassis reinforcement bracket located above the passenger side kick panel. (Fig. 9-3)
      3. Carefully insert Amplifier Assembly through the bottom opening underneath the glove box cavity. (Fig. 9-4) Note: Tilt Amplifier Assembly to the right to clear long mounting arm and slip into the designated mounting location.
4. Line up each bracket arm to their corresponding mounting positions.  
   (Fig. 9-5)  
   a. Upper Short Arm to 10mm bolt location  
   b. Lower Long Arm to 12mm bolt location  
5. Tighten by hand initially. If binding occurs remove the bolt and repeats steps.  
6. Use socket wrench to tighten.  
c. Re-install cabin filter cover and glove box.  
   **Note:** Refer to Page 7, Step 7, Section A  
d. Connect the Quick-Sync Harness into the Radio and factory harness using the designated connectors. (Fig. 9-6)  
e. Re-install Radio and Trim Panel in reverse order. **Note:** Refer to Pg 7, Step 7, Section B.  

### 10. Front Speakers Installation  
   a. Door disassembly (See Nomenclature)  
      1. Remove sail panel by disengaging snaps and pulling towards you.  
      2. Use panel tool to remove the cover behind the interior door latch. (Fig. 10-1)  
      3. Remove #2 Phillips screw behind the door latch.
4. Use panel tool to remove silver trim from grab handle. **Note:** Tool insertion slot at the bottom of the trim. *(Fig. 10-2)*

5. Remove the two (2) #2 Phillips screws securing the grab handle.

6. Use a panel tool to remove the window/door lock control panel. **Note:** Insert tool between the rear edge of the panel and the cloth section of the trim to remove. *(Fig. 10-3)*

7. Disconnect window/door lock control connectors from the panel and re-install back in place.

8. Use panel tool to disengage the clips behind the door panel one at a time. Start at the bottom, then the sides and finish at the top. *(Fig. 10-4)* **Note:** Use gentle force to remove door panel.

9. Remove door latch assembly from door panel and disconnect the factory tweeter. *(Fig. 10-5)*
b. Removing Factory Speakers.

1. Carefully remove the factory tweeter from the door panel by unlocking the three prongs one at a time. *(Fig. 10-6)*

2. Disconnect the 4" speaker connector.

3. Remove the two (2) 10mm bolts holding the factory 4" speaker in place and remove speaker. **Note:** Hold 4" speaker in one hand while removing mounting bolts. *(Fig. 10-7)*

4. Disconnect factory 6x9 speaker connector.

5. Use a 5/32" drill bit to remove the four rivets holding factory 6x9 speaker. *(Fig. 10-8)*

6. After drilling, remove rivet debris inside the door cavity. *(Fig. 10-9)*

**Note:** Failure to remove debris may induce noise.
c. Speaker Installation

1. Using a rivet tool, install supplied rivet fasteners to mount OEM Audio Plus 6x9 speaker. (Fig. 10-10)
2. Re-install 6x9 speaker connector.

3. Mount the 4" OEM Audio Plus speaker by using the two (2) 10mm bolts and re-install 4" speaker connector. (Fig. 10-11)

d. Tweeter Installation

1. Carefully push-out the tweeter grill from the rear of the door panel. 
   Note: This is necessary to allow inspection of the tweeter installation. (Fig. 10-12)

2. Carefully apply pressure to the tweeter foam gasket and push outwards prior to installation. 
   (Fig. 10-13) Note: This will prevent blockage of the tweeter during installation.
3. Insert the OEM Audio Plus Tweeter in place and make sure the foam gasket is not causing any blockage. (Fig. 10-14)
4. Reinstall the tweeter grill to door panel.

**Door Reassembly**

1. Reassemble door in reverse order by following instructions on Pg. 15, Step 10, Section A.

**Subwoofer Enclosure Installation**

a. Connect Subwoofer umbilical cable to OEM Audio Plus Sub Enclosure. (Fig. 11-1)

b. Slide Sub Enclosure into panel cavity until it locks in place. (Fig. 11-2)

**Fuse Installation**

a. Insert 20A fuse for the 14 ga. power wire [thinner wire] and the 30A fuse for the 12 ga. power wire. (Fig. 12-1)
13. Connect Battery ground (Fig. 13-1).

14. Set Clock to correct time.

15. Verify Radio Settings.

a. Pioneer Base Radio (PT546-00120)
   1. Turn radio off then press and hold “settings” Select “Car Type” > “tC” in “Setup” (Fig. 15-1) (Pg 52 Radio owner’s manual)

   2. Select “Natural” setting in the SSP Menu. (Fig. 15-2) (Pg 9 Radio owner’s manual)

b. Pioneer Premium Radio (PT546-00121)
   1. Turn radio on and select “Car Type” > “tC” in “System settings” (Fig. 15-3) (Pg 57 Radio owner manual)
2. Select "Natural" setting in the "SSP Menu" (Fig. 15-4) [Pg 57 Radio owner manual]

c. Aisin SNS 200 (NSDA-W10U)
   1. Turn radio on and select "Off" setting in the "SSP Menu" [Fig. 15-5] [Pg 187 Radio owner manual]

2. Verify "Parametric EQ" is set to "Flat" [Fig. 15-6] [Pg 185 Radio owner manual]

16. This concludes the OEM Audio Plus Reference 400CF Installation
   a. Start your engine.
   b. Turn on your radio.
   c. Enjoy!
Checklist – These points MUST be checked to ensure a quality installation.

<table>
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<tr>
<th>Check:</th>
<th>Vehicle Function Detail:</th>
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<tbody>
<tr>
<td>Power Windows</td>
<td>Verify power window controls are functioning properly.</td>
</tr>
<tr>
<td>Power Door Locks</td>
<td>Verify power door lock controls are functioning properly.</td>
</tr>
<tr>
<td>Hazard Lights</td>
<td>Verify hazard lights are functioning properly.</td>
</tr>
<tr>
<td>Clock</td>
<td>Verify proper time on clock.</td>
</tr>
<tr>
<td>Radio</td>
<td>Verify radio is functioning properly.</td>
</tr>
<tr>
<td>Navigation (if applicable)</td>
<td>Verify navigation system is functioning properly.</td>
</tr>
<tr>
<td>Bluetooth (if Applicable)</td>
<td>Verify Bluetooth is functioning properly.</td>
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</table>

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