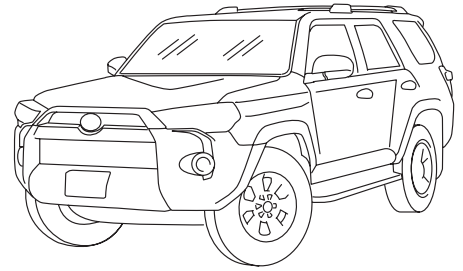


# Toyota 4Runner

## PSU-300FRN Sound System Upgrade

### Installation Manual



- Model: 4Runner
- Model Year: 2010 - UP

\*Not compatible with factory JBL® amplified systems

Toyota	Model	Year
	4Runner	2010 - UP

\* The specified vehicles have been tested and have met compatibility specs at the time of testing. Compatibility is not guaranteed if the manufacturer has made production changes to the listed vehicles above.

**⚠ Warning: Before you begin, remove the ground wire from the NEGATIVE (-) terminal of the battery. Failing to do so can lead to electric shock, injury or damage to equipment.**

### Introduction

- Congratulations on purchasing the PSU-300FRN. This installation manual is designed to take you through the step-by-step installation of the PSU-300FRN into a 2010 – UP Toyota 4Runner. Please familiarize yourself with the owner’s manual and if you still have additional questions please call 1-800-TECH-101.



### Note

- Design and specifications are subject to change without notice for improvement.





### To Ensure Safe Use, Always Follow These Precautions

- The installation of this product requires specialized skills and experience. We recommend that you have the product installed by an Alpine authorized dealer.
- Before you use this product, be sure to carefully read this installation manual and the separate user’s manual so that you can use the product correctly. Alpine Electronics bears no responsibility for problems that arise as a result of failure to follow the instructions in the manuals.
- This manual includes a number of symbols that are intended to help you use the product safely, to prevent harm to you and others, and to protect against damage to property. These symbols and their meanings are listed below. Make sure you fully understand these symbols before you begin reading the main text.

### Explanations of Injury and Damage That May Result from Incorrect Use

 <b>Warning</b>	Ignoring the content marked by this indication and using the product incorrectly may lead to death or serious injury.
 <b>Caution</b>	Ignoring the content marked by this indication and using the product incorrectly may lead to injury or property damage.


**Types of Precautions**

 Forbidden	Indicates actions that are forbidden (must not be performed)
 Forbidden	Indicates that disassembly is forbidden.
 Mandatory	Indicates actions that are mandatory (must be performed)
	Marks content that should receive your full attention.


 **Warning**

**Do not disassemble or modify the product. Doing so could lead to an accident, fire, or electric shock.**  Forbidden


**Store screws and other small objects where small children cannot reach them. If one of these small objects is swallowed, consult with a doctor immediately.** 

**When replacing fuses, be sure to use fuses with the specified current rating. Failing to do so could lead to an accident or fire.**   Forbidden Mandatory


**Only connect the product to a 12 VDC negative ground car. Failing to do so could lead to an accident or fire.**  Mandatory

**Before you begin wiring, remove the ground wire from the negative terminal of the battery. Failing to do so could lead to electric shock or injury.** 


**Do not cut the insulation on a cord and take power from another device. Doing so could lead to fire or electric shock.**  Forbidden

**Do not install the product in a location where it will obstruct the driver's forward view; interfere with the operation of the steering wheel, gearshift, or the like; or pose a threat to passengers. Doing so could lead to an accident or injury.**  Forbidden

**When making a hole in the vehicle body, be careful to avoid damaging pipes, the fuel tank, electrical wiring, and the like. This kind of damage could lead to an accident or fire.** 

**When installing and grounding the product, do not use any of the bolts or nuts of the steering wheel, brakes, fuel tank, or the like. Doing so could make the brakes stop working or lead to fire.**  Forbidden

**Do not install the product near the passenger-side airbag. Doing so could interfere with the operation of the airbag and lead to an accident or injury.**  Forbidden


**Bundle cords so that they don't interfere with driving. Wrapping cords around the steering wheel, gearshift, brake pedal, or the like, could lead to an accident or damage equipment.** 

 **Caution**

**Connect the product properly according to the instructions. Failing to do so could lead to fire or an accident.**  Forbidden

**Do not sandwich cords between the seat railing or allow them to touch protrusions. Resulting breaks or shorts could lead to electric shock or fire.** 


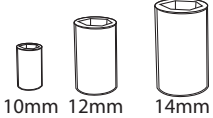
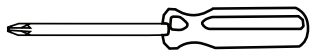

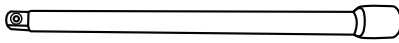
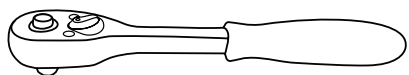
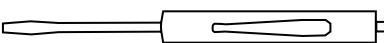
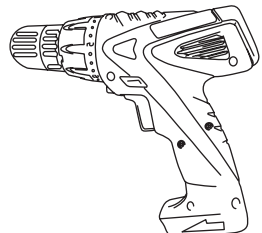
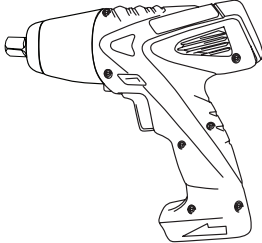
**Do not block vents or heat sinks. Doing so could lead to fire or damage equipment.** 

**Use the accessories according to the instructions, and attach them securely. Failing to do so could lead to an accident or damage equipment.**  Forbidden

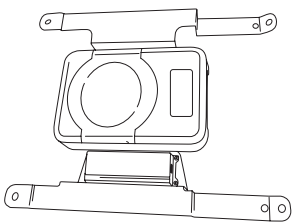
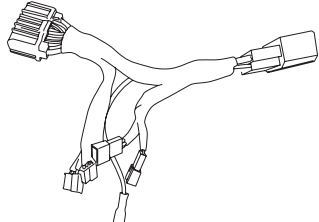
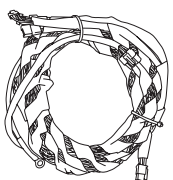

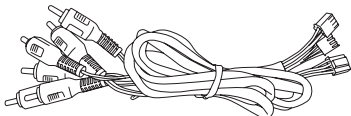
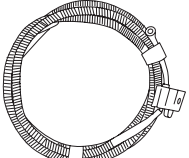
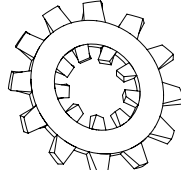
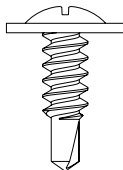
**Do not install the product where it may be exposed to water or in a place with high levels of humidity or dust. Doing so could lead to fire or damage equipment.**  Forbidden

**The installation and wiring of this product requires specialized skills and experience. Have the product installed by an Alpine authorized dealer.** 

**Tools Required**

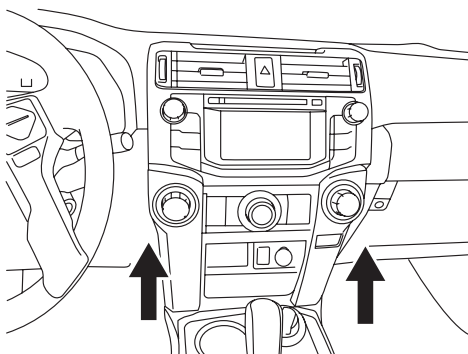
<p><b>Panel Removal Tool</b></p> 	<p><b>Sockets</b></p>  <p>10mm 12mm 14mm</p>	<p><b>Phillips Screwdriver</b></p> 
<p><b>Wire Cutters</b></p> 	<p><b>Extension</b></p> 	<p><b>Ratchet</b></p> 
<p><b>Flathead Screwdriver</b></p> 	<p><b>Cordless Power Drill</b></p> 	<p><b>Cordless Impact Gun</b></p> 

**Accessory List**

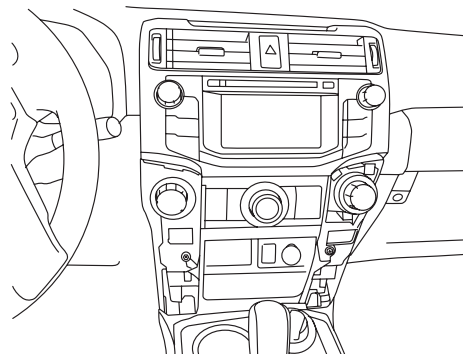
<p><b>Amplifier Assembly</b></p> 	<p><b>T-Harness</b></p> 	<p><b>Main Harness</b></p> 
<p><b>(10) Cable Ties</b></p> 	<p><b>RCA Adapters</b></p> 	<p><b>Power Cable</b></p> 
<p><b>Lock Washers</b></p> 	<p><b>1/2" Wafer head self tapping screw</b></p> 	

## Factory Equipment Removal Process

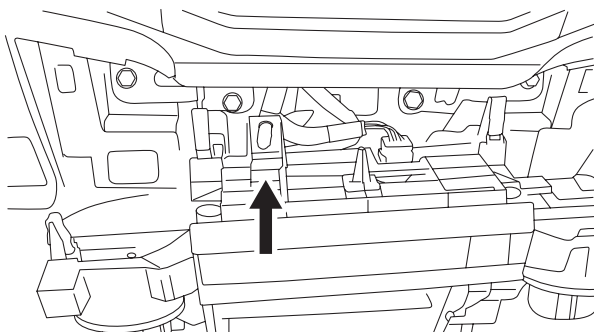
- 1** Use a panel removal tool to release clips on both right and left side panels of the HVAC control.



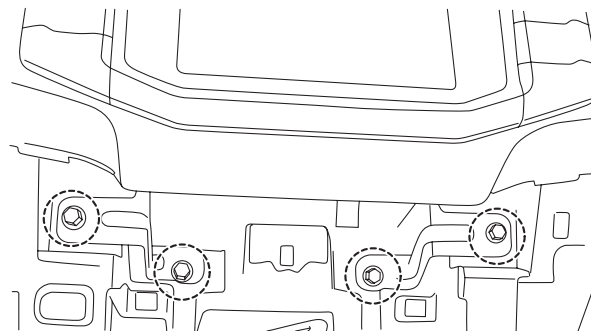
- 2** Use a panel removal tool to release the HVAC control unit.



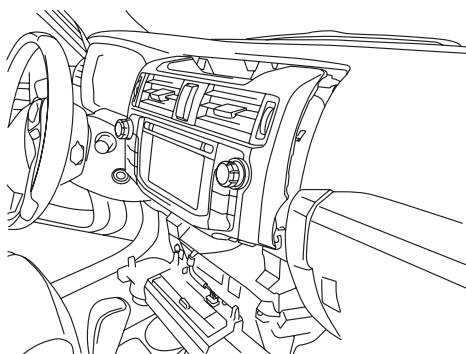
- 3** Use a pair of needle nose pliers to close the tabs on the wire harness anchor. Disconnect and remove the HVAC control unit.



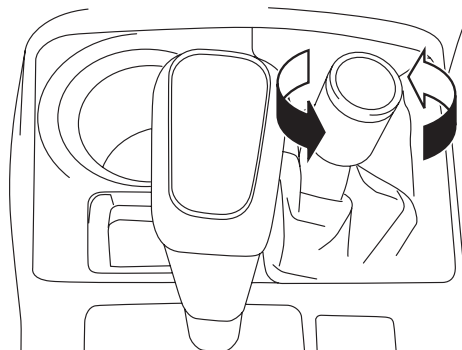
- 4** Use a 10mm socket to extract (4) screws below the factory radio.



- 5** Use a panel removal tool to release the clips and remove the factory radio.

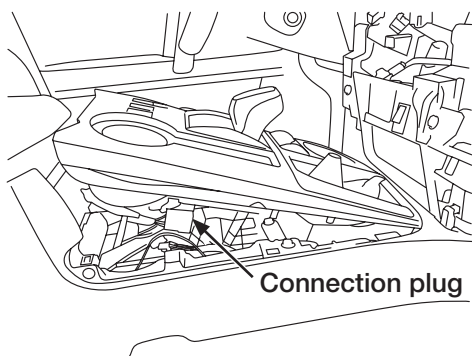


- 6** Turn the 4WD gear shifter counter clockwise to remove it.  
(This step is only required on 4WD models with manual shifter.)

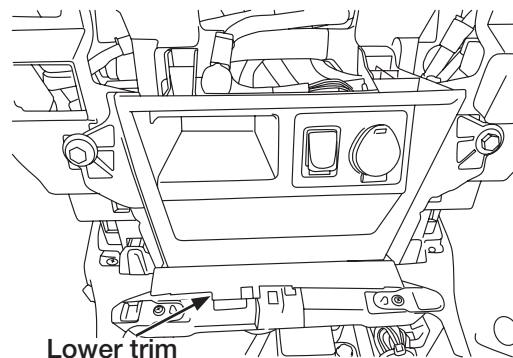


**Factory Equipment Removal Process (continued)**

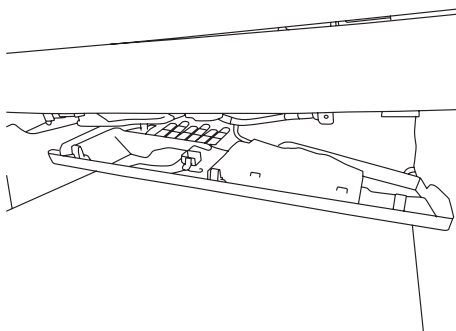
- 7 Carefully lift the shifter panel to release the clips, disconnect and remove it.



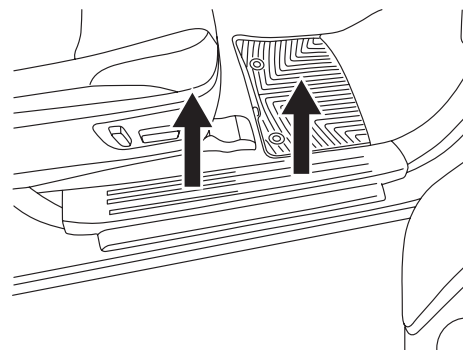
- 8 Remove the lower trim panel and extract (2) 10mm screws from the center compartment panel, disconnect and remove it.



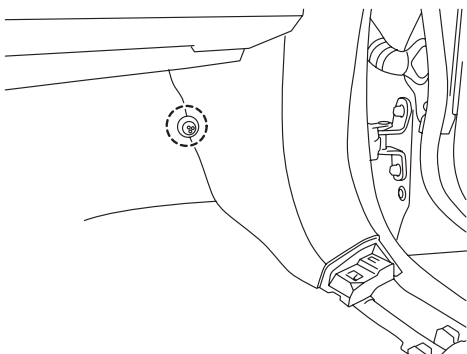
- 9 Remove the passenger's side under dash cover by releasing the clips.



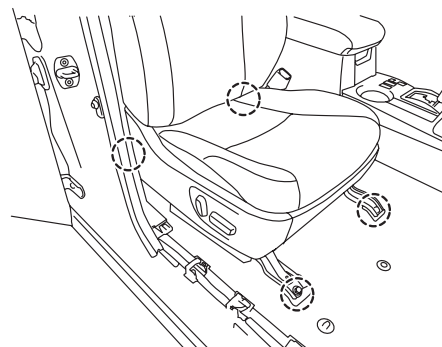
- 10 Remove the passenger side door sill by carefully lifting it up.



- 11 Extract the plastic nut from the passenger's side kick panel and remove it.

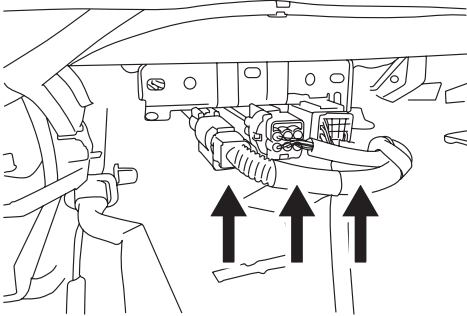


- 12 Remove (4) plastic screw covers from the passenger's side seat and extract (4) 14mm screws to release the seat.



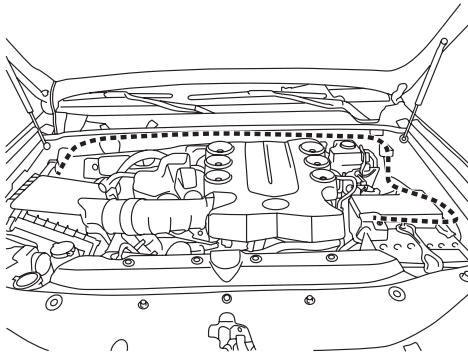
## Factory Equipment Removal Process (continued)

- 13** Tilt the passenger seat towards the back to reveal (3) connectors. Disconnect and remove the seat.

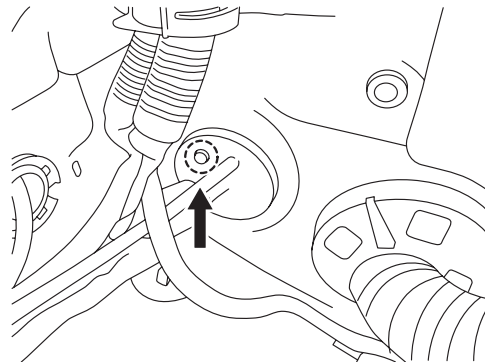


## Installation

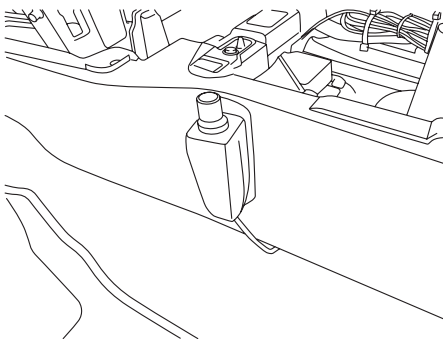
- 1** Connect the power cable to the Positive (+) battery terminal at the fuse block in the engine compartment and route the cable towards the passenger side as shown below. **Note: The negative terminal should remain disconnected until the installation is completed.**



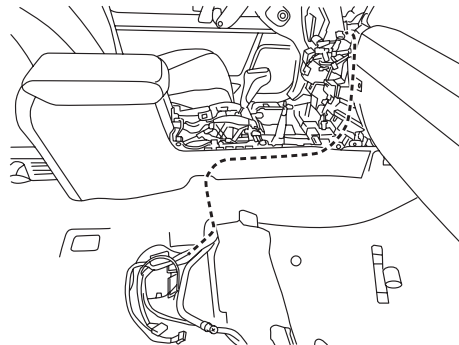
- 2** Route the power cable through the rubber grommet closest to the fender on the firewall.



- 3** Use the provided hoop and loop adhesive tape to mount the remote level knob on the driver's side of the center console and route the cable to the passenger side seat.

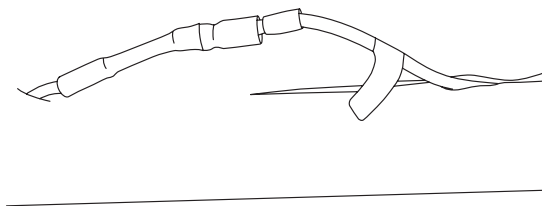


- 4** Route the main harness along the center console to the radio cavity following the factory harness. Use the provided cable ties to secure it.

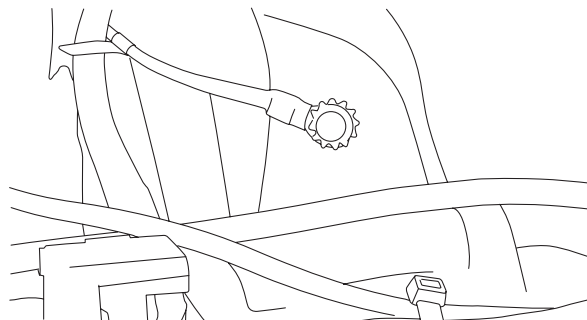


**Installation (continued)**

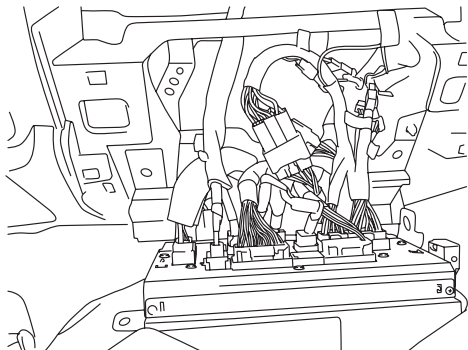
- 5 Connect the power cable to the main harness and secure it along the main harness using the provided cable ties.



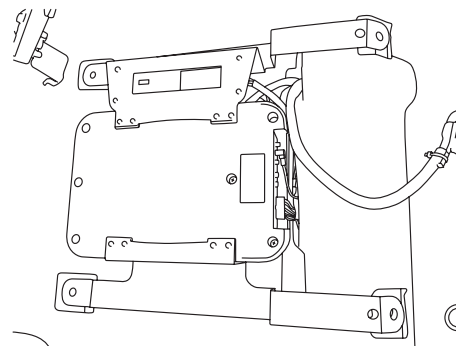
- 6 Remove the paint on the brace area to expose bare metal. Attached the **Negative (-)** ground terminal with the provided screw and lock washer.



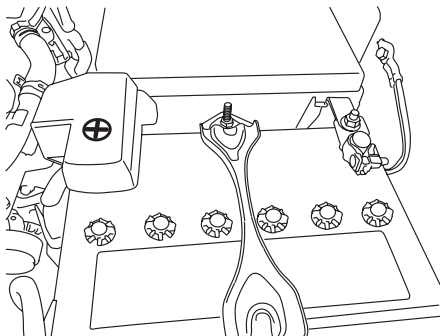
- 7 Connect the wiring behind the radio and amplifier assembly according to the corresponding system diagram on pages 8, 9 and 10. **Note: Be sure to set all gains and crossover settings are as recommended on the diagrams.**



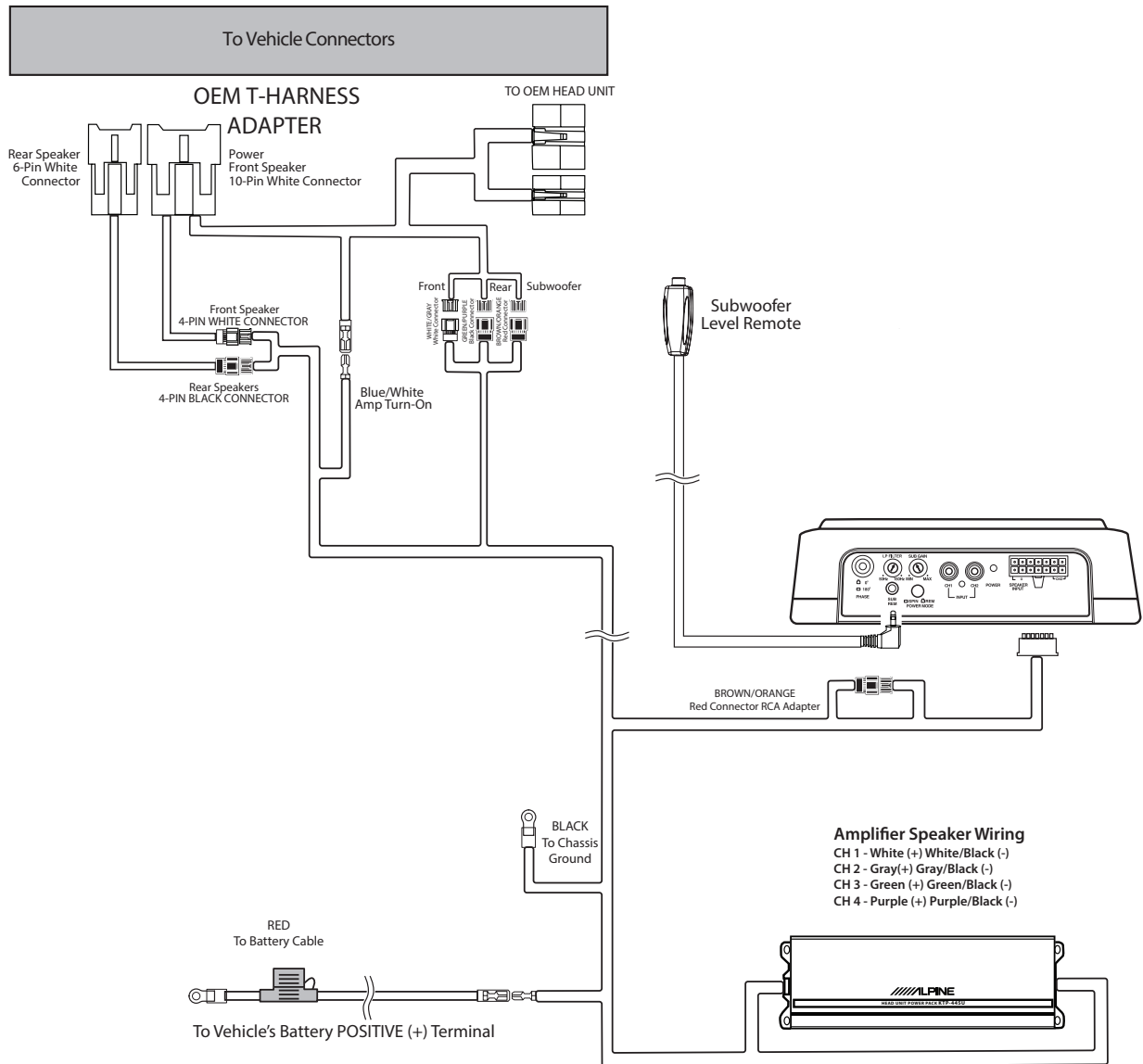
- 8 Align the amplifier assembly to the seat mounting points and return the seat back to its location.



- 9 Return all removed components to their factory location and connect the **NEGATIVE (-)** battery terminal.



# OEM Head Unit Wiring Diagram



**Amplifier Speaker Wiring**  
 CH 1 - White (+) White/Black (-)  
 CH 2 - Gray (+) Gray/Black (-)  
 CH 3 - Green (+) Green/Black (-)  
 CH 4 - Purple (+) Purple/Black (-)

**POWER PACK AMPLIFIER KTP-445U**

Channel settings for the Power Pack Amplifier KTP-445U:

- Channel 1: Up arrow
- Channel 2: Down arrow
- Channel 3: Up arrow
- Channel 4: Down arrow
- Channel 5: Down arrow
- Channel 6: Down arrow

Front Gain: MAX (clockwise)

Rear Gain: MIN (counter-clockwise)

Phase: 0° (selected)

**SUBWOOFER PWE-S8**

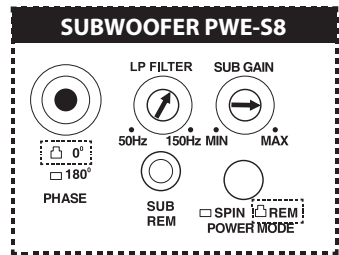
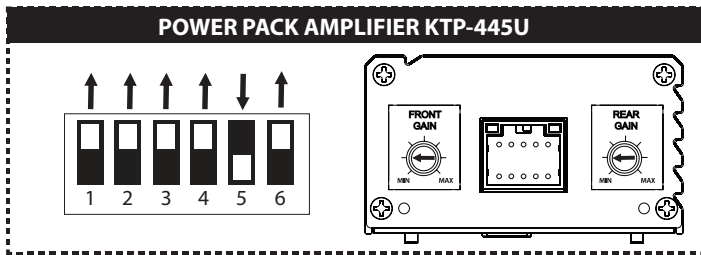
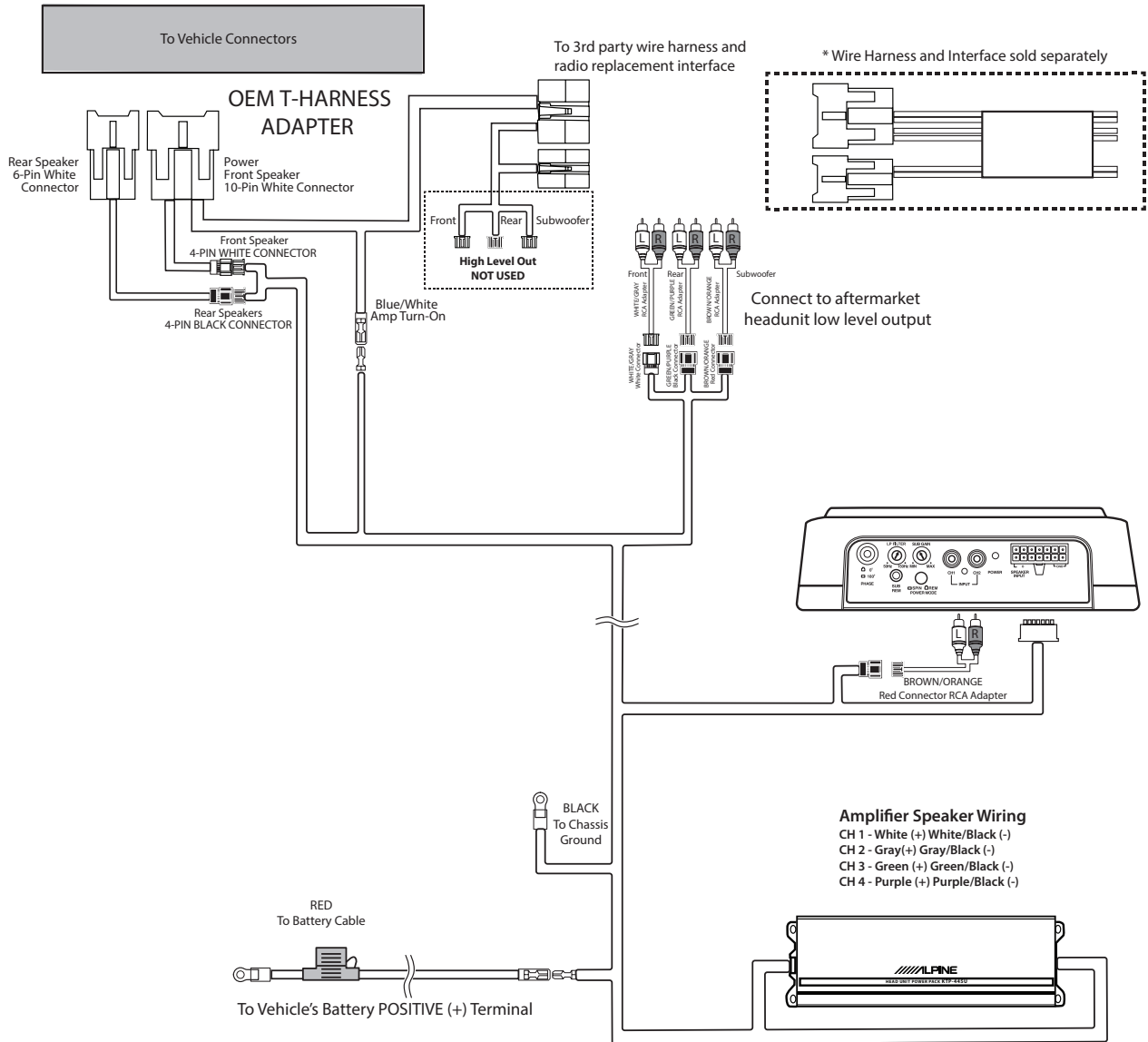
Settings for the Subwoofer PWE-S8:

- LP FILTER: 50Hz (selected)
- SUB GAIN: MIN (selected)
- PHASE: 0° (selected)
- SUB REM: (selected)
- POWER MODE: (selected)

**NOTE: FOR BEST PERFORMANCE SET AMPLIFIER AND SUBWOOFER TO RECOMMENDED SETTINGS AS SHOWN ABOVE**

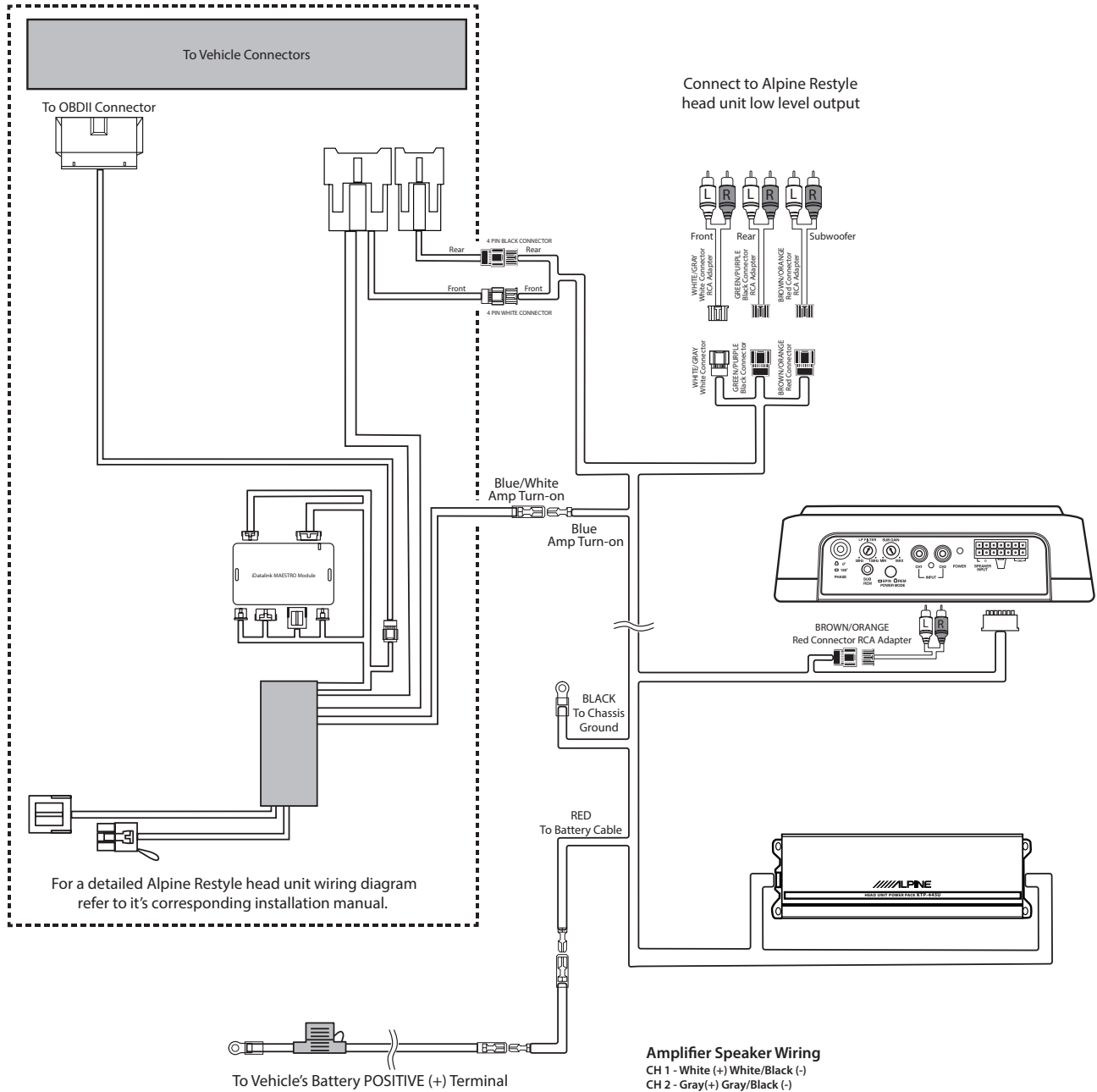


# Aftermarket Head Unit Wiring Diagram



**NOTE: FOR BEST PERFORMANCE SET AMPLIFIER AND SUBWOOFER TO RECOMMENDED SETTINGS AS SHOWN ABOVE**

# Alpine Restyle Head Unit Wiring Diagram



**POWER PACK AMPLIFIER KTP-445U**

FRONT GAIN: 1, 2, 3, 4, 5, 6

REAR GAIN: MIN, MAX

**SUBWOOFER PWE-S8**

LP FILTER: 50Hz, 150Hz, MIN, MAX

PHASE: 0°, 180°

SUB REM:  SPIN  REM

POWER MODE:  SPIN  REM

NOTE: FOR BEST PERFORMANCE SET AMPLIFIER AND SUBWOOFER TO RECOMMENDED SETTINGS AS SHOWN ABOVE