

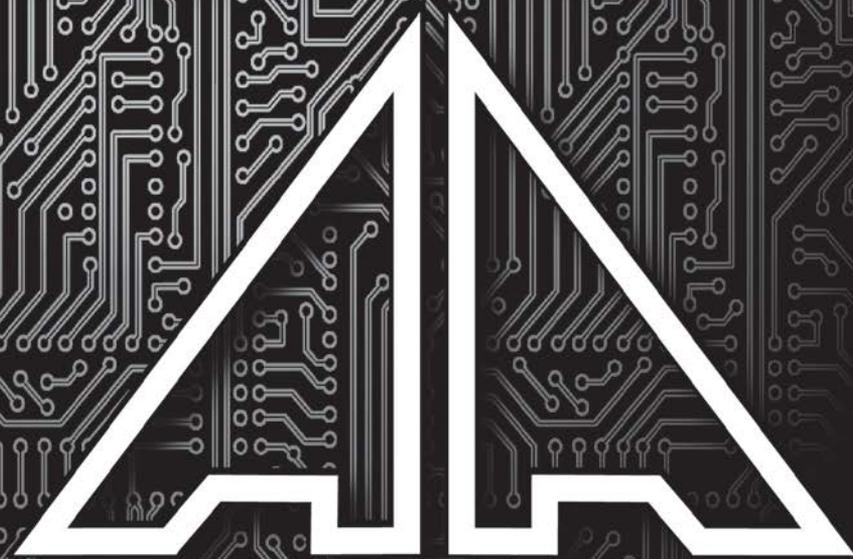
# OWNER & INSTALLATION MANUAL

**FLECK SERIES AMPLIFIERS**

**F300.1**

**F300.4**

"ONE HIT AND YOU'RE HOOKED."



**ADDICTIVE AUDIO**

# Specifications

<b>F300.1 (13.8V)</b>	<b>STEREO</b>	<b>BRIDGED</b>
Signal to Noise Ratio >110dB High Efficiency 88% THD: 0.05% Lowest Recommended Load: 2ohm Mono	N/A	205x1 watts RMS @ 4ohm 300x1 watts RMS @ 2ohm  Do Not Operate at 1ohm Mono
<b>F300.4 (13.8V)</b>	<b>STEREO</b>	<b>BRIDGED</b>
Signal to Noise Ratio >110dB High Efficiency 88% THD: 0.03% Lowest Recommended Load: 2ohm Stereo or 4ohm Mono	75x4 watts RMS @ 4ohm 110x4 watts RMS @ 2ohm  Do Not Operate at 1ohm Stereo	200x2 watts RMS @ 4ohm  Do Not Operate at 2ohm or 1ohm Bridged

## Common Design Features

- ✓ **Intelli35© Intelligent 3.5mm Input Circuitry for Addictive Audio mini-BAR©**
- ✓ **FLEXInputs© Flexible Input s and Outputs to Prevent Vibration Damage**
- ✓ **Short Circuit, Thermal, Low / High / Reverse Voltage Protection**
- ✓ **C2C ReverseLoc© Aluminum Heatsink for Max. MOSFET Heat Dissipation**
- ✓ **INFINIFLO© Provides Strategic Air Flow over Key Components**
- ✓ **Input Sensitivity: 220mV – 6 Vrms**
- ✓ **Low Pass Filter: 50 – 250Hz (-12dB/Octave)**
- ✓ **High Pass Filter: 25 – 250Hz (-12dB/Octave)**
- ✓ **Subsonic Filter: 10 – 55Hz (-12dB/Octave)**
- ✓ **Bass Boost from 0 to +18dB (45Hz)**
- ✓ **3 Channel Operation with RCA/3.5mm Bridge Capabilities (F300.4)**
- ✓ **Laser Etched Logo (Not another Peel-n-Stick amp)**
- ✓ **Heavy Duty 4oz Copper Trace PCB Board**
- ✓ **Direct Cable Connection for Superior Conductivity**

## Congratulations!

Selecting fine audio equipment, such as the Addictive Audio unit you have just purchased, is only the beginning of your musical enjoyment. Now is the time to consider how to maximize the fun and excitement your equipment has to offer. Addictive Audio and the Electronic Industry Associations Consumer Electronic Group want you to get the most out of your equipment by playing it at a safe level, a level that lets the sound come through loud and clear without annoying blaring distortion; most importantly, without affecting your sensitive hearing.

Sound can be deceiving over time your hearing “comfort level” adapts to higher volumes of sound, what may have sounded “normal” can actually be too loud and harmful to your hearing.

Prevent this by setting your equipment at a safe level BEFORE your hearing adapts.

To establish the “safe level”.

- Start your volume control at a low setting.
- Slowly increase the sound until you can hear it comfortably and clearly, and without distortion.
- Once you have established a comfortable “sound level” make a note of this position and do not go above this setting.

Taking a minute to do this will help to prevent hearing damage in the future. After all, we want you listening for a lifetime.

## **Introduction**

Your ADDICTIVE AUDIO amplifier has been designed to give you very high performance, and valuable features, at a very reasonable price. Take the time to read over this brief set of instructions, and you will get full enjoyment from your system.

## **Installation**

The quality of the installation will affect system performance and reliability. You may wish to contact a dealer or professional installer. The amplifier is generally mounted in the rear trunk area but can be mounted in any convenient area such as beneath a seat. Please be sure to locate this unit where you have reasonable air circulation and protection from any moisture.

When considering the mounting location you should minimize the length of the power supply and speaker leads. Minimizing both leads will provide higher audio output from the system. It is important to ensure that the heat sink is not against a panel or a surface preventing air circulation. Mark the location for the mounting screw holes by using the amplifier as a template. Drill #29 or 9/64” diameter holes at the marked locations and firmly fasten the amplifier in place with the mounting screws supplied in the accessory kit.

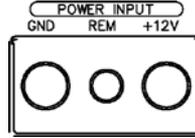
### **Caution**

Before drilling or cutting any holes investigate the layout of your automobile thoroughly! Take care when working near the gas lines, hydraulic lines and electrical wiring.

### **WARNING**

This power amplifier has a protection feature to prevent any damage from misuse or faulty conditions - excessive heat, short circuit speakers or overload. If the unit senses one of the above conditions, the protection indicator will light and the system will shut down. To diagnose the problem turn all levels down, all power off and check the installation for possible wiring mistakes or shorts. In the event the amplifier shuts down due to excessive heat under adverse conditions simply allow time for the unit to cool down at which time, the protection indicator will not light.

# Power Supply Connections



The +12VDC and GROUND wires should be heavy gauge copper wire with heavy insulation and of the same gauge. Please see the chart below for recommended gauge and fuse.

<b>F300.4</b>	<b>60 AMP FUSE</b>	<b>8 GAUGE</b>
<b>F300.1</b>	<b>60 AMP FUSE</b>	<b>8 GAUGE</b>

In addition, it has a 12V remote control wire and it should be 14AWG-18AWG. It is preferable to have longer speaker wires and shorter power supply wires to minimize power losses.

## **+12V Power (+12V)**

This wire is usually connected directly to the positive battery terminal. Be sure to use proper fuse as rated above within 16 inches of the main battery.

*(Refer to Fig. 1)*

**Ground (GND) Same gauge as +12V and no longer than 36"**



This connection must be completed using an "O" ring (to prevent coming loose) with insulating sleeve. This wire is the electrical ground and must be fastened securely to the vehicle chassis. The best method is to use threading sheet metal screw(s) since the threads cut into bare metal. Ensure that all paint coating or other insulation is removed from around the ground area. Use as short of a piece of cable as possible – Again, use the same gauge as the +12V. *(Refer to Fig. 1)*

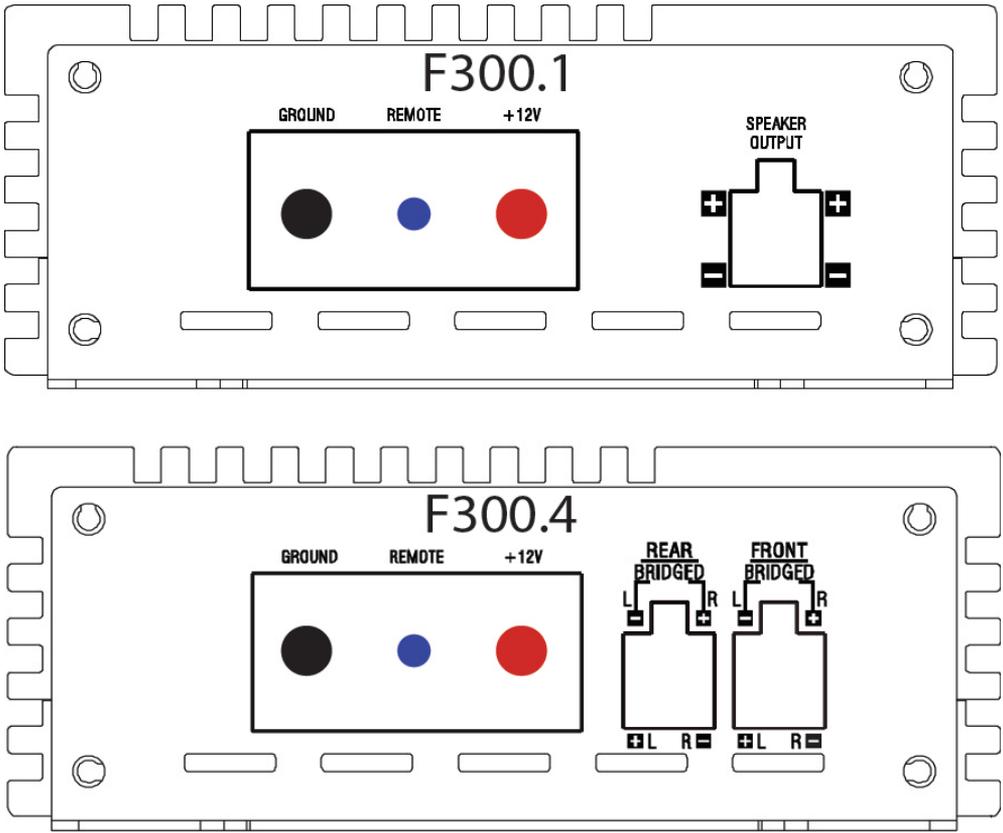
## **Remote (REM)**

Many source units (cd player) or other music sources have an output terminal for connection of the remote turn-on of the power amplifier. If the source unit doesn't have a remote turn-on feature, then you can connect the remote wire to a switch that derives power from an ignition switched circuit. *(Refer to Fig. 1)*

### **Caution**

First make +12V wire connection then the ground connection and finally the remote connection. Furthermore the +12V wire must always be fused at the battery for protection against possible damage. If you need to replace the power fuse, replace it with a fuse of the same value. Using a fuse of a different type or rating may result in a serious hazard.

FIG.1



## Signal Input Connections

### Signal Input (RCA) “Input”

Addictive Audio amplifiers have RCA connection type input terminal for low level input. A standard pair of RCA type cables can be used for all models (*Refer to Fig. 2*). Adjustment of input level is accomplished by the gain control. Adjusting this control allows the amplifier gain to be controlled to match the source unit.

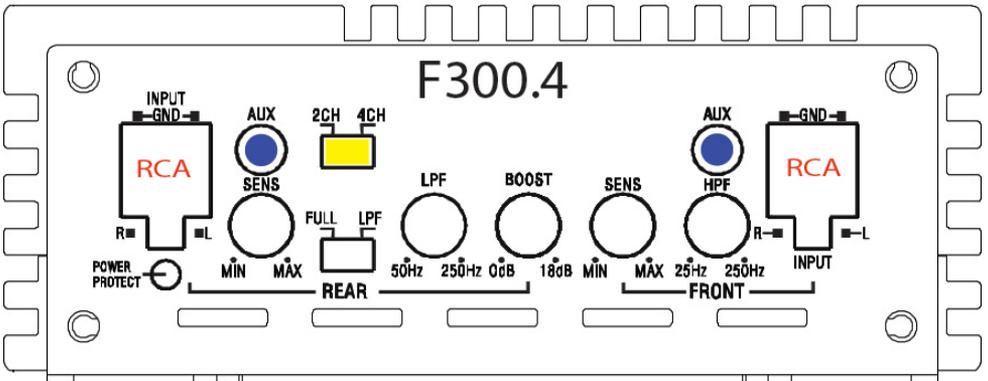
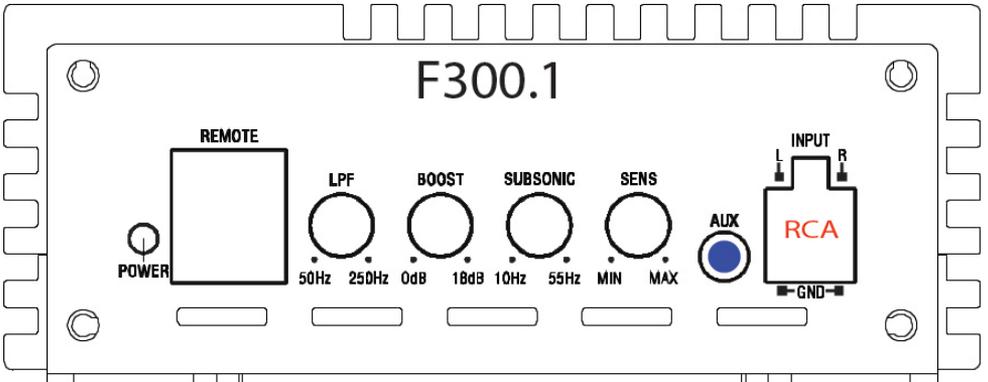
NOTE: For F300.4 set 2CH/4CH switch to “2CH” when running two separate sets of RCA cables. When running a single pair of RCA cables set 2CH/4CH switch to “4CH” to allow signal to pass through to all channels.

## Signal Input (3.5MM) “AUX”

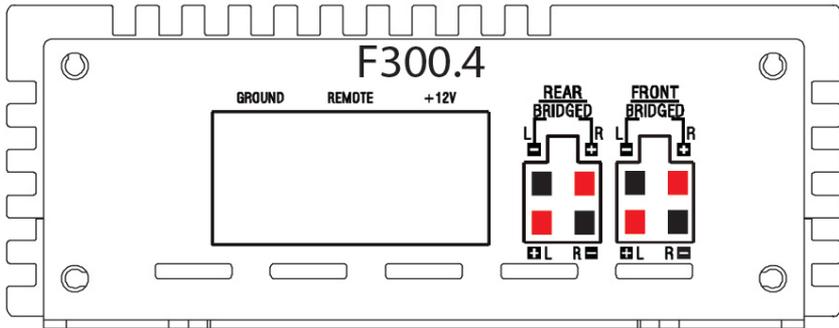
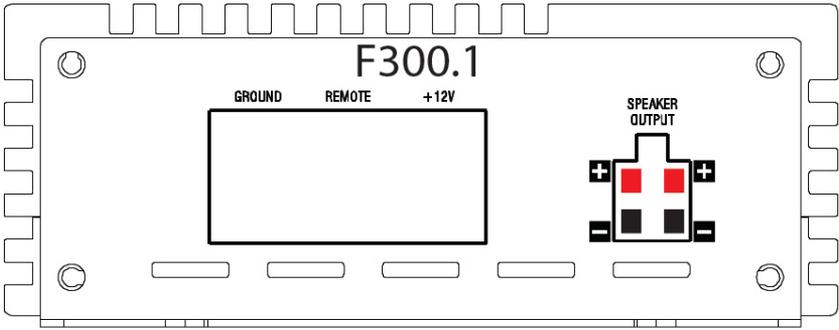
DO NOT USE AUX INPUT WHEN USING RCA INPUTS and VISA VERSA. Addictive Audio FLECK amplifiers also have 3.5 connection type input terminals. This allows for easily connecting a mobile media player or the *Addictive Audio mini-BAR* (for wireless streaming) without having to use a source unit. Adjustment of input level is accomplished by the gain control. Adjusting this control allows the amplifier gain to be controlled to match the source unit.

NOTE: For F300.4 set **2CH/4CH** switch to “2CH” when running two separate 3.5mm cables. When running a single 3.5mm cable set 2CH/4CH switch to “4CH” to allow signal to pass through to all channels.

**COOL NOTE:** When running an F300.4 and an F300.1 amplifier in a single installation, use **Y35 adaptor** (sold separately) to allow a single source (mobile phone or *Addictive Audio mini-BAR*) to send signal to both amplifiers. BE SURE TO SET **2CH/4CH** SWITCH ON THE F300.4 to “4CH” TO ALLOW SINGLE INPUT TO BE PASSED THROUGH TO ALL CHANNELS.



# Speaker Output Connections



## **F300.1: 2ohm and 4ohm Stable ONLY – DO NOT RUN AT 1ohm.**

When wiring a single subwoofer to the amplifier, combine both positive (+) wires to the positive (+) wire of the subwoofer and both negative (-) wires to the negative (-) wire of the subwoofer.

## **F300.4:**

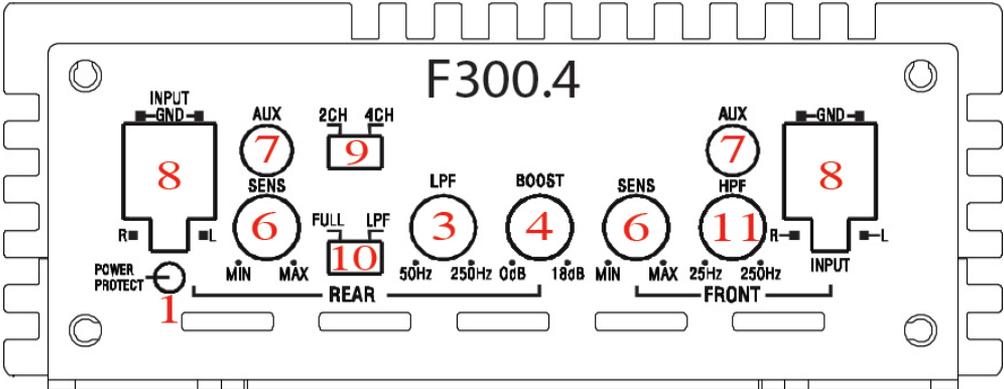
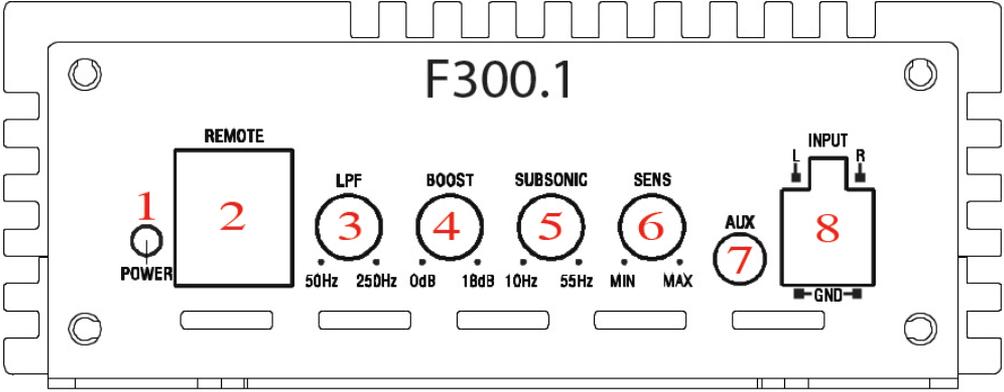
**4 CHANNEL CONNECTION:** Connect each pair of speaker wires to each individual set of speaker connections. **2ohm and 4ohm STEREO ONLY.**

**3 CHANNEL CONNECTION:** (Front=Mids/Highs and Rear=Sub) Connect the front two speakers to each individual set of speaker connections. **2ohm and 4ohm STEREO ONLY.** Bridge channels 3 and 4 to the subwoofer by using R+ and L- outputs. **4ohm BRIDGED ONLY.**

## **2 CHANNEL CONNECTION:**

Bridge channels 1 and 2 to the speaker by using front R+ and L- outputs. Bridge channels 3 and 4 to the speaker by using rear R+ and L- outputs. **4ohm BRIDGED ONLY.**

# Amplifier Features and Controls



## 1. Power / Protection

**POWER LED:** Will illuminate BLUE when +12VDC is applied to both the remote turn on and +12V input from the battery and a solid ground has been made. The input from the battery to the amplifier can be more than 12VDC.

**PROTECTION:** Will illuminate RED when any one of the following occurs:  
Short Circuit (Immediately)  
Reverse Voltage (Immediately)  
Thermal (On at 141°F or 60°C)  
Low Voltage (On at 9VDC)  
High Voltage (On at 16VDC)

## 2. REMOTE

Plug the remote bass knob into this port on the 5 channel amplifier for independent subwoofer control.

### 3. Low Pass Filter

This controls the low pass crossover point for the speaker outputs. This crossover, when selected, will attenuate the frequencies above the crossover point with a slope of -12dB per octave. The crossover point is adjustable from 50-250Hz. This filter reduces unwanted upper frequencies from being played through the subwoofer(s).

### 4. Bass Boost

This allows the ability to Boost low frequency response (45Hz) up to +18dB.

### 5. Subsonic Filter

Control the high pass crossover point for the speaker outputs to eliminate ultra low frequencies. This crossover is always on with a -12dB per octave slope and adjustable from 10-55Hz. This filter is used mainly in ported applications, to protect the subwoofers from excessive excursion below the port tuned frequency. Not necessary when dealing with sealed enclosures, but can still be used to help protect the subwoofer system.

### 6. Gain Level Control \*NOT A VOLUME KNOB\*

This allows for the adjustment of the gain of both channels to match the output level of the source unit. In addition, it allows adjustment from 0.2V to 6.0V.

QUICK REFERENCE GAIN KNOB SETTING						
<b>CAUTION:</b> The gain knob is not a volume control. It is designed to match the input level of the amp to the output level of the source unit. Over-driving (clipping) the input stage of the amp will cause damage to the amplifier.	MAX. INPUT VOLTAGE BEFORE CLIPPING					
	RCA LEVEL	6V	4.5V	1.5V	.375V	.2V

### 7. 3.5mm “AUX” Input Jacks

DO NOT USE AUX INPUTS WHEN USING RCA INPUTS and VISA VERSA. Addictive Audio FLECK amplifiers also have 3.5 connection type input terminals. This allows for easily connecting a mobile media player or the *Addictive Audio mini-BAR* (for wireless streaming) without having to use a source unit. Adjustment of input level is accomplished by the gain control. Adjusting this control allows the amplifier gain to be controlled to match the source unit.

### 8. RCA Line Input Jacks

Addictive Audio amplifiers have RCA connection type input terminal for low level input. A standard pair of RCA type cables can be used for all models

Adjustment of input level is accomplished by the gain control. Adjusting this control allows the amplifier gain to be controlled to match the source unit.

## 9. 2CH/4CH Signal Pass-Through Selection Switch

For F300.4 set 2CH/4CH switch to "2CH" when running two separate RCA/AUX cables. When running a single RCA/AUX cable set 2CH/4CH switch to "4CH" to allow signal to pass through to all channels.

## 10. MODE

**LPF:** Set the MODE SWITCH to the LPF position when the amplifier is used to drive a subwoofer system. The frequencies above the crossover point will be attenuated at -12dB/octave. Adjust the crossover frequency by rotating the LPF knob to the desired frequency ranging from 50-150Hz. See #5 below for more details.

**FULL:** Set the MODE SWITCH to the FULL position when the amplifier is used to drive full-range speakers and/or components that come with their own crossover. The full frequency bandwidth will be output to the speakers without high or low frequency attenuation.

## 11. High Pass Filter

This controls the high pass crossover point for the speaker outputs. This crossover, when selected, will attenuate the frequencies below the crossover point with a slope of -12dB per octave. The crossover point is adjustable from 25-250Hz. This filter reduces unwanted lower frequencies from being played through the speaker(s).

## Adjusting the Amplifier

1. Disconnect the negative battery post and secure it to something so accidental re-connection does not occur during the installation process.
2. Run all wires needed for the amplifier to work correctly. Do not attach the fuse in the fuse holder by the battery until all wires have been plugged into the amplifier.
3. Turn the amplifiers gain and boost all the way down (counter clockwise).
4. As a good "starting point" set phase to 0, subsonic and other adjustment knobs all the way down (counter clockwise) and mode switches to the correct MODE being used.
5. Attach the recommended fuse (*refer to fuse chart on pg.4*) to the fuse holder by the main battery.

6. Re-attach the negative battery post from step 1.
7. Turn the head unit on and start at a low volume. Check amplifier to make sure all wires are correct and no protection lights are on.
8. Set the head unit's tone controls, balance, and fader to the center or flat position. Be sure to turn off any loudness or other signal processors.
9. Use a very clear original recording not mp3 or burned cd. Turn the volume of the head unit to its maximum undistorted volume. On most *quality* head units this is around 7/8 of the maximum volume.
10. Slowly turn up the gain (clockwise) to match the voltage output of the head unit or until the speakers reach the maximum *undistorted* output.
11. Adjust the low pass, high pass, subsonic filters and phase to desired settings.
12. Play a few different selections of music to check for overall system balance.
13. ENJOY!

**NOTE:** Many vehicles have small and insufficient wire to connect the alternator's positive connection to the battery and to ground the battery to the vehicle chassis. To prevent voltage drops, these wires should be upgraded to 4-0 AWG when installing one or more

Addictive Audio amplifiers.



# ADDICTIVE AUDIO

## LIMITED WARRANTY INFORMATION

Addictive Audio warrants this product to be free from defects in material and workmanship under normal use for a period of one (1) year from date of original purchase when installed by an authorized dealer. Items not installed by an authorized dealer will be warranted for ninety (90) days from date of original purchase. All returns must be accompanied with original sales receipt. Should service be necessary under this warranty for any reason due to manufacturing defect or malfunction during the warranty period, Addictive Audio will replace or repair (at its discretion) the defective merchandise with equivalent merchandise at no charge. Discontinued products may be replaced with equivalent products.

This warranty is valid only for the original purchaser and is not extended to owners of the product subsequent to the original purchaser. Any applicable implied warranties are limited in duration to a period of the express warranty as provided herein beginning with the date of original purchase at retail, and no warranties, whether express or implied, shall apply to this product thereafter. Some states do not allow limitations on implied warranties, therefore these exclusions may not apply to you.

## THE FOLLOWING IS NOT COVERED BY WARRANTY

This warranty is valid only if the product is used for the purpose for which it was designed. It does not cover:

- Product Modification
- Damage through negligence, misuse, or accident.
- Items physically damaged due to abuse.
- Failure to follow installation instructions.
- Cosmetic Damage due to accident or normal wear and tear
- Freight damage.
- The cost of shipping product to Addictive Audio Service Center.
- Items repaired by any unauthorized individuals or dealers.
- Items returned from unauthorized individuals or dealers.
- Items returned without original sales receipt
- Return shipping on non-defective items.

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## WHAT TO DO IF YOU NEED WARRANTY OR SERVICE

Please follow each step below completely. Warranty or service will not be honored unless each and every step below is completed.

### 1. Obtain an Return Authorization Number

- Go to: [www.addictive-audio.com](http://www.addictive-audio.com) and click "SUPPORT" then click "OBTAIN R.A.#"  
ADDICTIVE AUDIO NO LONGER PROVIDES RA#S BY PHONE. PLEASE VISIT OUR WEBSITE.

### 2. Pack items in original container(s) or in a package that will prevent shipping damage.

- Original sales receipt from Authorized Dealer must be included for each item returned.

### 3. The RA# should be clearly marked on outside of the package. Return only defective components.

### 4. Freight must be prepaid; items received freight collect will be refused.

**THE SHIP TO ADDRESS AND INSTRUCTIONS WILL BE EMAILED TO YOU WITH THE RA#.**

Failure to complete any one of the steps above when obtaining warranty/service may void your warranty.



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