# HOGTUNES

Audio Solutions For The Great American Cruiser



# **REV 225-AA**

225 Watt 2-Channel Amplifier

FOR USE ON 1998-2013 MODEL BIKES

INSTALLATION MANUAL

Thank you for choosing the Hogtunes REV 225-AA Amplifier for 1998-2013 Bikes. Since positive word of mouth is the best way to grow our business, we want your new system to work as well as it was designed to. If you have any questions or concerns, we are here to help.

The REV 225-AA amplifier is a Class D design. It should be understood that ALL Class D amplifiers, REGARDLESS OF BRAND, cause a reduction in FM reception. The REV 225-AA features a proprietary circuit design called R.E.M.I.T. (Reduced Electro Magnetic Interference Technology) that Hogtunes believes gives the BEST FM reception available for any Class D Amplifier designed for a motorcycle. If you add a 2nd or 3rd model amplifier to your system, reduction of FM reception is increased and is considered normal.

Hogtunes understands that some riders prefer the cosmetics of in fairing antennas, however it should be noted that NOTHING works as well as the factory antenna. If FM is an important part of your riding experience, we strongly advise against the use of any in fairing type antenna!

To help protect your bike's electrical system and battery, the amp has a built in feature where it will turn itself off if it sees less than 10.5 volts, whether the bike is running or not. If you're listening to your stereo while not riding, this feature can help protect your battery so the bike can still start. If you're riding and the amp shuts off, this could be showing a potential issue with your charging system. If this feature is activated and the amp shuts off, it will turn the amp back on again if the voltage exceeds the 10.5 volt threshold.

REV 225-AA is rated for 112.5 watts per channel @ 2 ohms. Although this amplifier makes its highest power with 2 ohm speakers, if Hogtunes 5.75 ohm speakers or 4 ohm car speakers are used there will still be a noticeable improvement in volume and sound quality.

A video version of this manual is available at www.hogtunes.com/support/videos.html

If you still need assistance, please consider a professional installation by your motorcycle dealer.

#### **Hogtunes Contact Information**

Email: tech@hogtunes.com (USA) 608-554-7631 • Canada) 705-719-6361

# MOUNTING CONSIDERATIONS/ REQUIRED ADAPTOR KITS

Depending on the model of bike or what is already installed in the bike, a Hogtunes amplifier adaptor kit may be required.

If you have a Standard, EG Classic, Street Glide or Ultra and this is the only Hogtunes amp in the system, the amp will adhere to the top of the radio using the supplied "hook and loop" adhesive. No adaptor needed.

If you have a Standard, EG Classic, Street Glide, or Ultra and this will be the 2nd amp in the system, Hogtunes "2CHSP" (Drag Specialties Part # 4405-0234) is required. This kit bolts into your fairing and locates the REV 225-AA between the radio and brake side speaker. Please do not continue the install until you have the required parts. 2CHSP can also be used if you prefer not having an amplifier sit on top of the radio.

<u>If you have a Road Glide or Road Glide Ultra</u>, Hogtunes has two different RG adaptor kits available. If you don't have the required adaptor kit, please do not continue the install until you have the required parts.

- If this is the only amp in the system or if you already have a Hogtunes NCA 450-AA or NCA 40.4 and are adding to the system, you will need Hogtunes RG2CH-AA (Drag Specialties Part # 4405-0486) which bolts the amp to the main studs that attach the inner fairing to the frame of your bike.
- 2) If there is a REV 225-AA in the bike, it should be mounted to a plate attached to the main studs that hold the inner fairing to the frame of the bike. The second amp will bolt in using Hogtunes RG4CH-AA (Drag Specialties Part # 4405-0405). This will locate the second amp off to the extreme brake side of the inner fairing.

If you do not have the required adaptor, please consult your retail dealer.

## GETTING STARTED

- Step #1: Remove the seat and both wires (+ and -) from the battery.
- Step #2: Remove the outer fairing/headlamp assembly. Refer to a service manual if you need help with this. NOTE: A towel on the front fender can help prevent scratches or "dings" from dropped tools or fasteners etc. Expletives will also be kept to a minimum!
- Step #: 3 Locate the main power harness and plug it into the matching connector on the amplifier. Locate the 8 pin harness and plug it into "Audio Input" on the side of the amp. If using this amplifier to power front speakers (and tweeter pod if present) locate the 4 pin harness ending in a black plug and plug it into the black 4 pin connector on the amp. Make sure to plug this into the black plug and NOT the blue plug on the 8 pin input connector. NOTE: If using this amplifier to power Hogtunes 692.2/Lids 6x9"speaker lid kit, FL-7W 7" Fairing lower woofer kit or speakers as part of Hogtunes rear speaker pod kit, the speaker wire harness that comes in those kits will now plug into the 4 pin black plug on the side of the amp.

Step #4a: Mounting the amp For Standards, Street Glide, EG Classic and Ultra Classic-If this is the only amp in the system, the amplifier gets mounted to the top of the factory radio using the supplied "hook and loop" adhesive and must

sit so if in front of the bike looking down, the power connector is on your left and the amplified output 4 pin black "pigtail" is on your right. The amplifier needs to mount as far back on the radio as possible so the fairing can go back on. On 1998-2005 model bikes, it is a tight fit-but will go. 2006-2013 (Advanced Audio) radios have a "bump" on top of the radio that runs from front to back down the center of the radio. Cut the adhesive in half and apply one piece on either side of this bump. The amp will then mount flush as shown in Fig 1.1. Most adhesives work best at room temperature or higher.

NOTE: 2006- 2013 Ultras have the CB module on top of the radio. The amp will adhere on top of the CB module so it is "half on/half off" this module as shown in Diagram 1.2. The supplied adhesive is plenty strong for this! The amp can adhere on top of CB and XM modules without issue.



Diagram 1.1 No CB/XM Module Present



Diagram 1.2 - Shown mounted on top of CB Module

## If this is the 2nd amp in the system, mount the amp to the Hogtunes 2CHSP plate and install in your bike.

Step #4b: Mounting the amp For Road Glide or Road Glide Ultra – The amp will mount to the plate and the plate will mount to the bike as per the plate's instructions. NOTE: Use the harnesses that comes in this kit and NOT the harnesses that came as part of the selected Hogtunes adaptor kit for RG.

### WIRING THE AMPLIFIER

- Step #1a: Follow this step if this is the only amp in the bike. On the audio input harness, locate the yellow/black pair of wires with the male connectors. Unplug the factory speaker wires on the clutch side of the bike and plug the yellow/black wires into those. They will only go in one way. Also on the audio input harness, locate the green/black pair of wires with the male connectors. Unplug the factory speaker wires on the brake side of the bike and plug the green/black wires in to those. NOTE: The blue 4 pin plug with black wires on the input harness is an "expansion port" which is used to send music to a second amp or is used to send radio power to run other speakers on the bike. You can see how the expansion port can be used further on in this manual.
- Step #1b: Follow this step if this is the second amp in the bike and the first amp is a Hogtunes NCA 450-AA or NCA 40.4. Locate the blue plug with red/black and white/black wires on it and plug this into the "bypass out" (also a blue plug) on the side of the NCA 450-AA or NCA 40.4. Take the white/black wires on the bypass plug and plug them into the yellow/black wires on the input harness of the REV 225-AA. Take the red/black wires on the bypass plug and plug them into the green/black wires on the input harness of the REV 225-AA.
- Step #1c: Follow this step if this is the second amp in the bike and the first amp is also a Hogtunes REV 225-AA, REV 200-AA or NCA 70.2. Locate the blue plug with red/black and white/black wires on it and plug this into the expansion port (also a blue plug) located on the input harness of the "First" REV 200-AA. Take the white/black wires on the bypass plug and plug them into the yellow/black wires on the input harness of the REV 225-AA being installed. Take the red/black wires on the bypass plug and plug them into the green/black wires on the input harness of the REV 225-AA being installing.

- Step #2: Earlier in the install, you located the black 4 pin plug with the blue/black and brown/black wires on it and plugged it into the "amplified output" on the amp. The blue/black wires will plug directly to the speaker on the brake side of the bike. The brown/black wires will plug directly to the speaker on the clutch side of the bike. Please double check that this harness is plugged into the **BLACK** pigtail plug on the amp and not the blue 4 pin plug on the input harness
- Step #3: Routing the power harness For Standards, Street Glide, EG Classic, and Ultra Classic - For 98-06 bikes, the power harness will pass under the inner fairing where the throttle and idle cables pass through on the brake side of the bike. The harness is designed to be routed between the frame backbone and gas tank on the brake side of the bike and come out just behind the gas tank. You MAY need to undo the back bolt of the gas tank and pivot the tank up to allow the harness to pass through at the back of the gas tank. Be sure to re-install this bolt and torque to factory specs! For 2007-2013 bikes, the balance of the main wire harness will pass under the inner fairing where the main wire harness passes through on the brake side of the bike. Loosen the tank console and run wires up and over the gas tank, but under the tank console. There is a provision on the front of the tank console for wires to pass. Secure the amplifiers harness to the bike's factory harness using zip ties. When correctly installed, the power and ground wires are the right length to connect onto the battery.

NOTE: although not necessary, the power harness can run along the back bone of the frame if you choose to remove and reinstall the bikes fuel tank. Attach the red wire to the positive (+) battery terminal and the black wire to the negative (-) battery terminal. The factory battery wires are also re-installed at this point. Turn the ignition of the bike to the "on" position and play the stereo at low volume to verify the system is working fine.

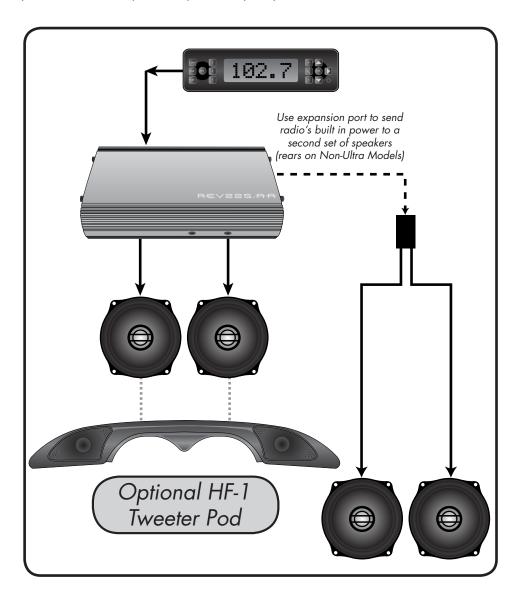
Step #4: Now is a good time to "clean up" and secure any wiring inside your fairing using supplied zip ties. For best possible FM reception, <u>DO NOT</u> attach any of the amplifiers wiring to any factory antenna wires. Doing so will hurt your radios ability to receive FM signals!

IMPORTANT: With all wires secured, turn the front wheel to each extreme side, making sure that any wires cannot bind or impede the steering of the motorcycle. Failure to do so can cause an accident resulting in serious injury or death!

Please see you can easily add on to your system if you want over the next 3 pages. We strongly suggest you read the "Adjusting Your System" section on page 10.

#### SYSTEM UPGRADE #1

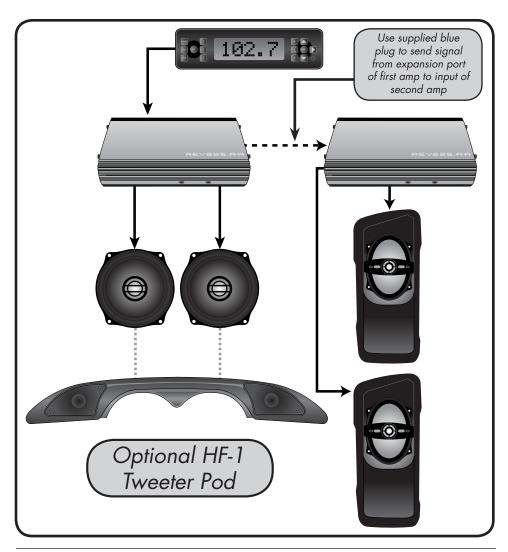
This system is an easy way to add rear speakers to the bike if it has a King Tour-Pak®. Hogtunes rear speaker pods come with a wire harness set up for quick detach Tour Paks that will plug right into the expansion port on the amp. IMPORTANT: Since the RADIO power will be used to power the rear speakers, you must use rear speakers specific to your year of bike!



#### SYSTEM UPGRADE #2

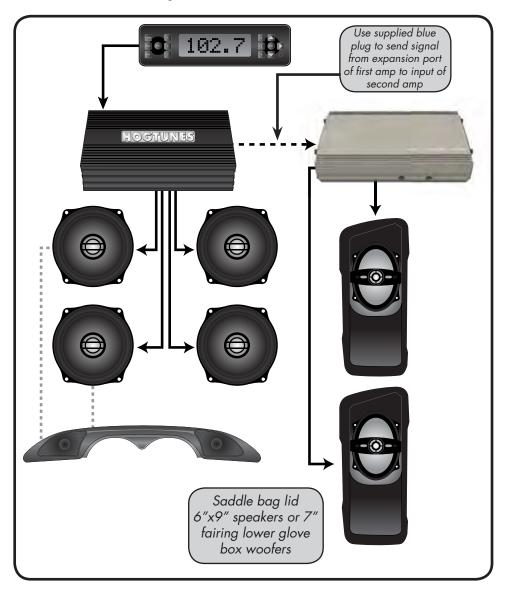
This system has the incredible power of 2 REV 225-AA Amplifiers to your bike! The first amp will run the 5.25" fairing speakers and HF-1 Tweeter Pod (if present). The second amplifier is used to power a set of 692.2/Lids, FL-7W Fairing lower woofers or rear Tour Pak speakers.

For all Standard/Classic/Ultra/Street Glide models, the purchase of Hogtunes 2CHSP adaptor kit is required! The metal plate in that kit is used to bolt the second amplifier into the fairing



#### SYSTEM UPGRADE #3

This system adds a Hogtunes 4-channel amp; 2 of its channels would power the front speakers (and tweeter pod if present) and the other 2 channels would power rear speakers or fairing lower woofers. The original 2-channel amp would power 692.2/lids or lower speakers. You can literally build the system the way you want based on the body work you have on your bike. This can be done at any time, all bolt in, all plug and play! Hogtunes 2CHSP mounting plate is required to bolt the REV 225-AA into the fairing.



#### ADJUSTING YOUR SYSTEM-PLEASE READ!

In order to make this new system perform as well as it was designed, please take a minute to understand and follow these tips:

- 1) Set this "Automatic Volume Control" (AVC) to 3 bars. After extensive on-road testing, we found that this AVC position works and sounds best. This new amplifier has been specifically set-up for this radio setting.
- 2) This Hogtunes system is designed specifically for a motorcycle at speed. Exhaust noise and wind noise have been taken into careful consideration in how your system performs. How this new system sounds in a driveway or garage is radically different from how it will sound at highway speeds. Although your system was set-up with a factory radio, with its bass and treble controls in the middle position, if you feel the need to make adjustments please do so (carefully) at your normal cruising speed.
- 3) If there is an aftermarket car radio on your bike, its functions will work fine. Please remember that car radios are designed to work in an environment with little or no exhaust or wind noise. Many car radios have features such as equalizers, loudness contours, surround effects, etc. These are all designed for a quiet environment and all of which will hurt the ability to hear your motorcycle system at speed if left on. Please take a minute and turn as much of these features off. With a car radio in your bike, the only adjustments you should be able to access for best performance are volume, bass, treble, balance and fader.
- 4) If using an external device to supply music through the radios AUX port, we have an article on our website that can help make your peripheral audio device sound as good as possible. The article is at: http://www.hogtunes.com/techzone\_files/Level\_matching.pdf

#### WARRANTY INFORMATION

#### Please Record Your Amplifier's Serial # Here

The REV 225-AA Amplifier is warranted for 3 years from original purchase date. Proof of purchase is required for all warranty claims. The warranty applies to the original retail customer and is not transferable. Please contact Hogtunes for all warranty claims. Products found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Hogtunes sole discretion. Hogtunes complete warranty policy is available on our website at:

#### www.hogtunes.com/warranty.html

#### What Is Not Covered:

- 1) Any expense related to the removal or re-installation of Hogtunes products.
- 2) Repairs to these products performed by anyone other than Hogtunes.
- 3) Subsequent damage to any other components.
- 4) Any product purchased from a non-authorized Hogtunes dealer.
- 5) Damage to Hogtunes products due to an accident or collision.
- 6) Hogtunes Amplifiers with broken or removed "warranty void" stickers.
- 7) Damage due to water from custom installations.
- 8) Damage from incorrect installation, improper use, abuse or modifications.
- 9) Damage to inbound product due to improper packing.

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Hogtunes products will play much louder than the Original Equipment, which can be a distraction to the rider and/or passenger. Please use caution when adjusting or playing your stereo at high volume, especially in traffic.

You are a valued customer so please:

## Ride Alert Arrive Alive!

www.hogtunes.com

REV 225-AA Manual Ver 2.0