

HOGTUNES

Audio Solutions For The Great American Cruiser



902.2/REV INSTALLATION MANUAL

**INCLUDES (1) HOGTUNES NCA 70.2 AMPLIFIER
AND (1) PAIR HOGTUNES 902.2-AA SPEAKERS**

Fits 1998-Current "Batwing" Model Bikes With Factory Radios

For Best Results Please Read the Entire Manual Before Starting!

Adjusting Your System--Please Read!

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

- 1) Set your "Automatic Volume Control" (AVC) to 3 bars. After extensive on road testing, we found that this AVC position works and sounds best. Your new amplifier has been specifically set-up for this radio setting.
- 2) Your 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 your 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 you have an aftermarket car radio on your bike, everything will work fine, but 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., all designed for a quiet environment, and all of which will hurt your 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 you're 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 it can. The article is at: http://www.hogtunes.com/techzone_files/Level_matching.pdf



A video version of this manual is available at **www.hogtunes.com**. If you still need assistance, please consider a professional installation by your motorcycle dealer.

Hogtunes Contact Information

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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: Take the 2 wires off each front speaker by gently pulling one at a time. Undo the screws that attach each speaker/grill assembly to the inner fairing and remove. Pull the stock speaker out of each grill assembly.
- Step #4: "Clip" the Hogtunes speaker into each grill assembly. Position your new speaker/grill assembly onto the inner fairing, and re-attach each one using the OE screws. Although a hand driven tool is suggested for this, the screws need to be tight enough so the speaker/grill assembly will not rattle during riding and potentially cause a false warranty claim.

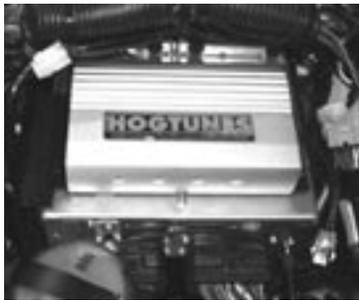


Diagram 1.1

Standard, Street Glide, EG Classic.
No CB/XM Module Present

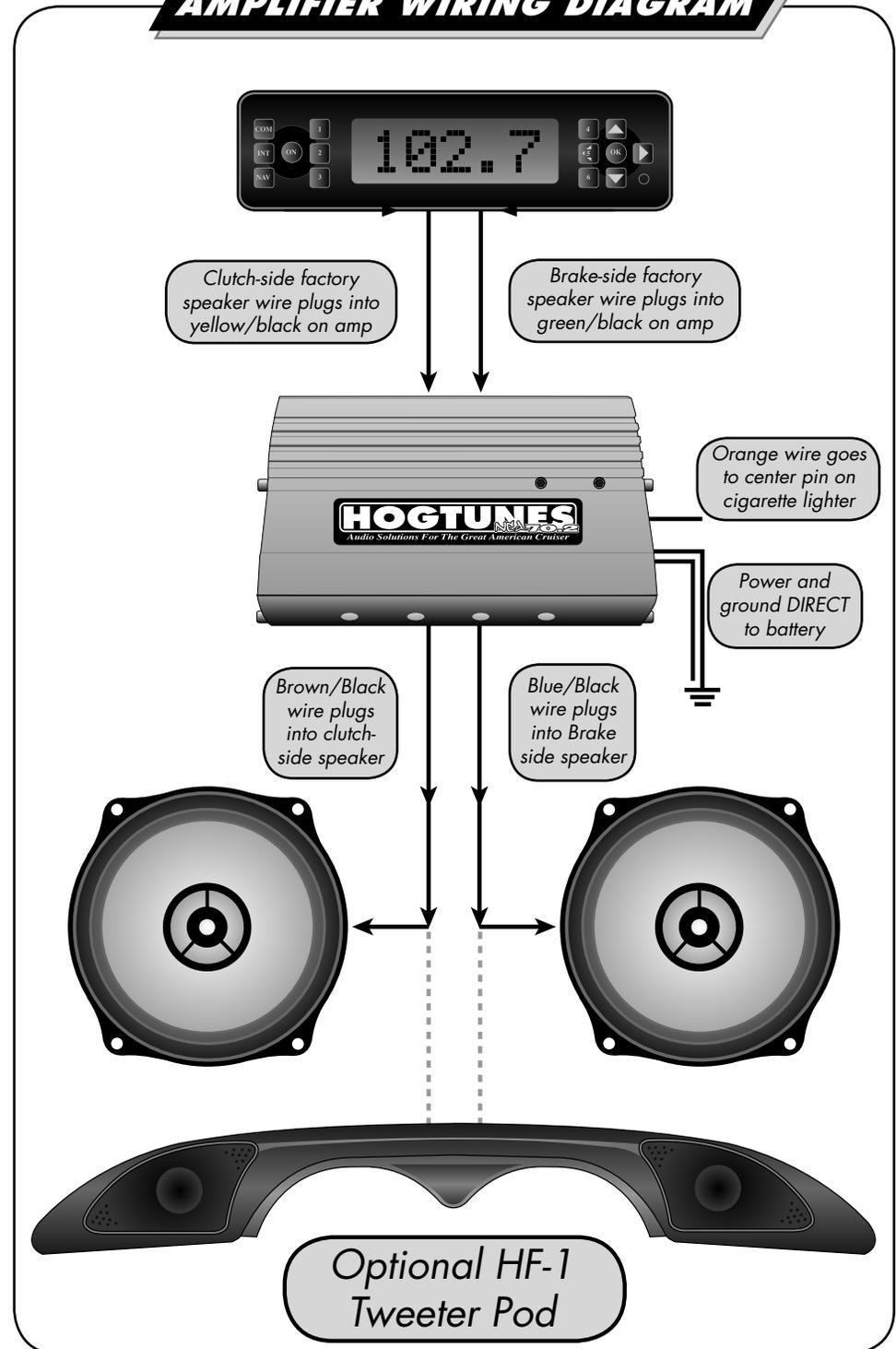


Diagram 1.2

Ultra Classic. Shown mounted
on top of CB Module

The amplifier gets mounted to the top of the factory radio using the supplied "hook and loop" adhesive, and must sit so you can read the text on top of the amplifier as in diagram 1.1. The amplifier needs to mount as far back on the radio as possible so the fairing can go back on. The minimum distance from the back of the radio to the most forward edge of the amplifier is 5/8" (15mm). On pre-2006 model bikes, it is a tight fit-but will go. 2006+ (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 each piece on either side of this bump. The amp will then mount flush. Most adhesives work best at room temperature or higher. Note: 2006 and newer 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.

AMPLIFIER WIRING DIAGRAM



WIRING THE AMPLIFIER

Step #1: Plug the 2 connectors of the main wire harness into "Power" and "Audio Input" on the amplifier. Tighten (snug) the 2 small flathead screws on the power connector to prevent it from backing out while riding.

- Step #2:
- 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 in to 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 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 #3:
- On the opposite side of the amp are 3" (75mm) wires ending with a 4 pin black connector. This plug sends amplified power to your speakers. Locate 4 pin black plug wire harness with brown/black and blue/black wires, and plug it into the amplified output plug.
 - 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.

- Step #4:
- The orange wire is the "remote turn on lead" and tells the amp to turn on whenever it sees +12v (.5 amp min.). Unplug the factory center wire (+) on the cigarette lighter.
 - Plug the orange lead from the amplifier directly onto the lighter using the female connector.
 - Plug the factory lighter wire to the male "take off" connector which is part of the amps orange turn on lead.

IMPORTANT: If you do not attach the orange wire from the amp to the center wire at the cigarette lighter, the amplifier will not turn on. If the factory fuse for your cigarette lighter is blown, and your cigarette lighter does not work, your amplifier will not turn on.

ROUTING THE POWER HARNESS

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 07+ 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 bikes factory harness using zip ties. When correctly installed, the power and ground wires are the right length to connect onto the battery.

- 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 amplifier is working fine.

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!

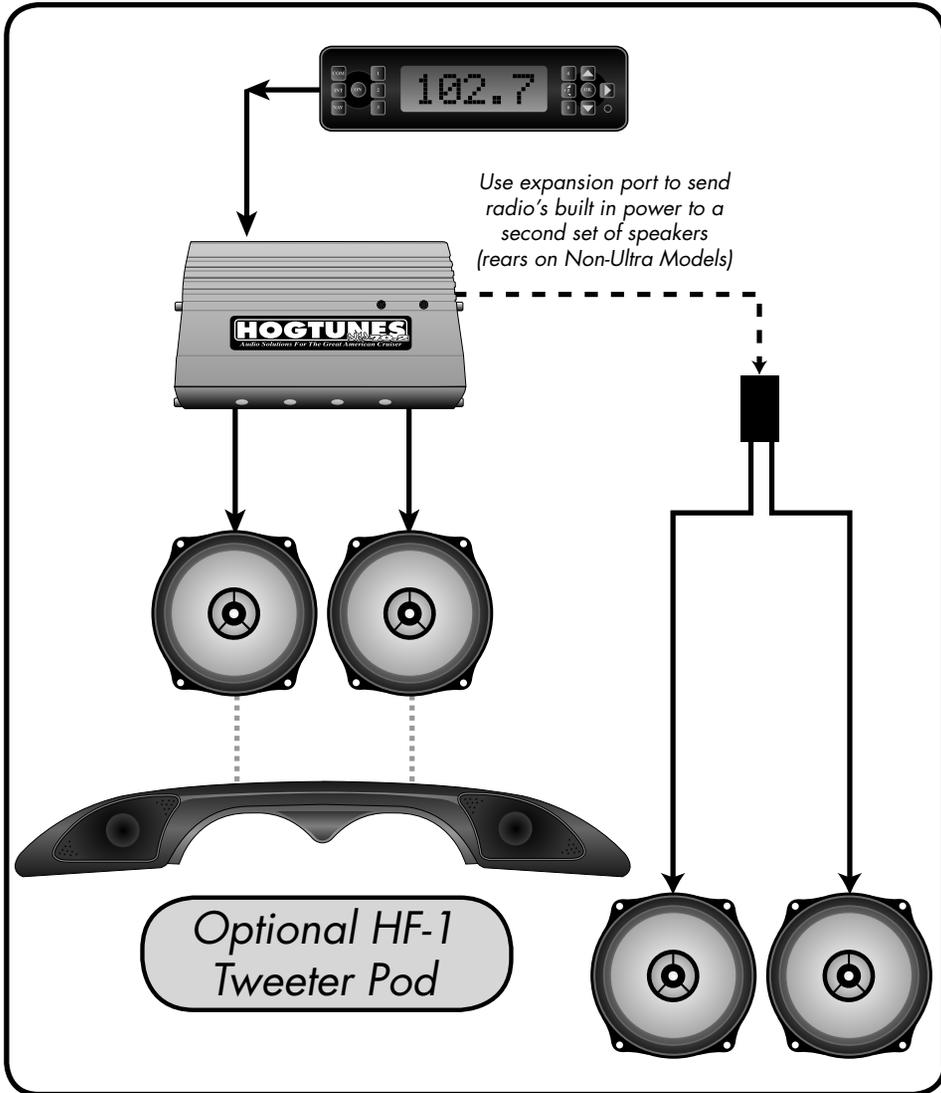
On the brake side of the amplifier is the amp level switch. The switch has 3 positions labeled -3, 0, and +3.

- If the expansion port has been used to power additional speakers, use the switch to set the "balance" between the amplified fairing speakers, and additional speaker powered by the radios built in power.
- If you have a dual amp system, you can use the switches on each amp to balance the level of sound to each set of speakers as a means to tailor the sound to your liking. In a multi amplifier system, this gives you AWESOME flexibility!

SYSTEM UPGRADE #1

This system is an easy way to add rear speakers to your bike if you've added 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.

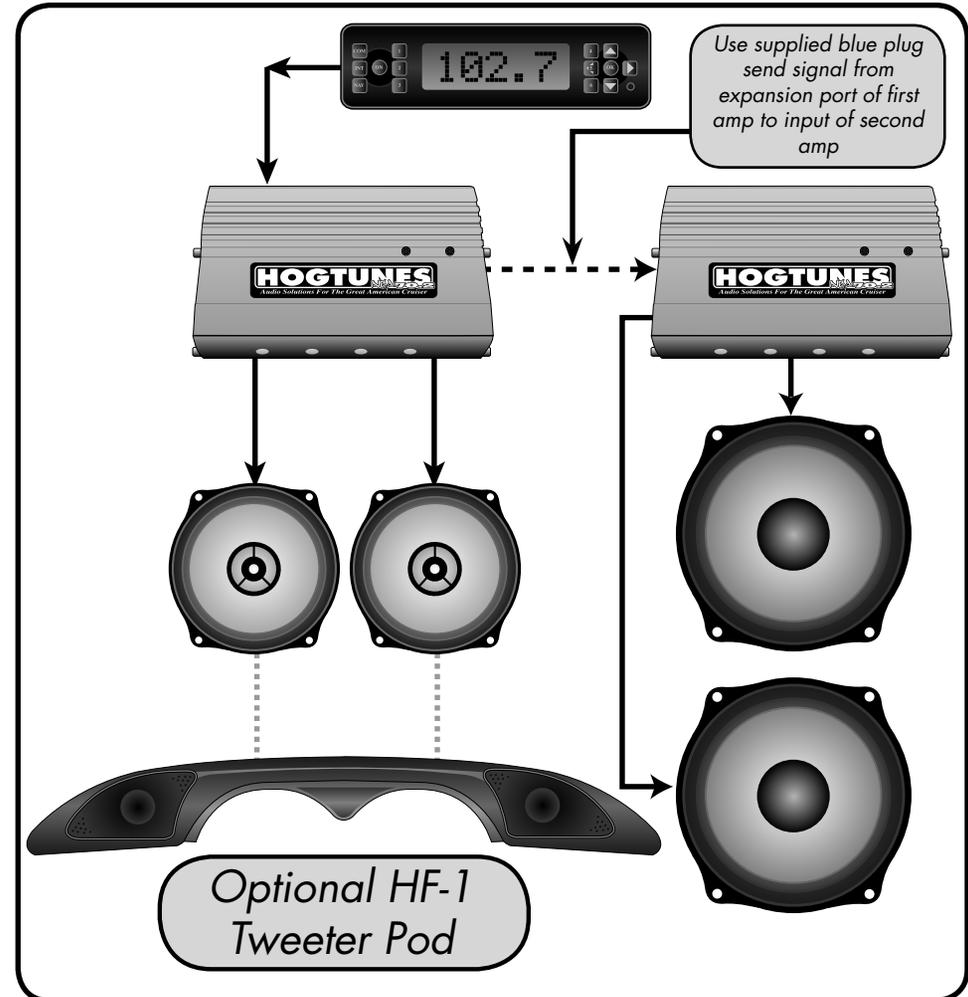
Important: Since the RADIO power will be used to power the rear speakers, you must use rear speakers specific to your year of bike!!



SYSTEM UPGRADE #2

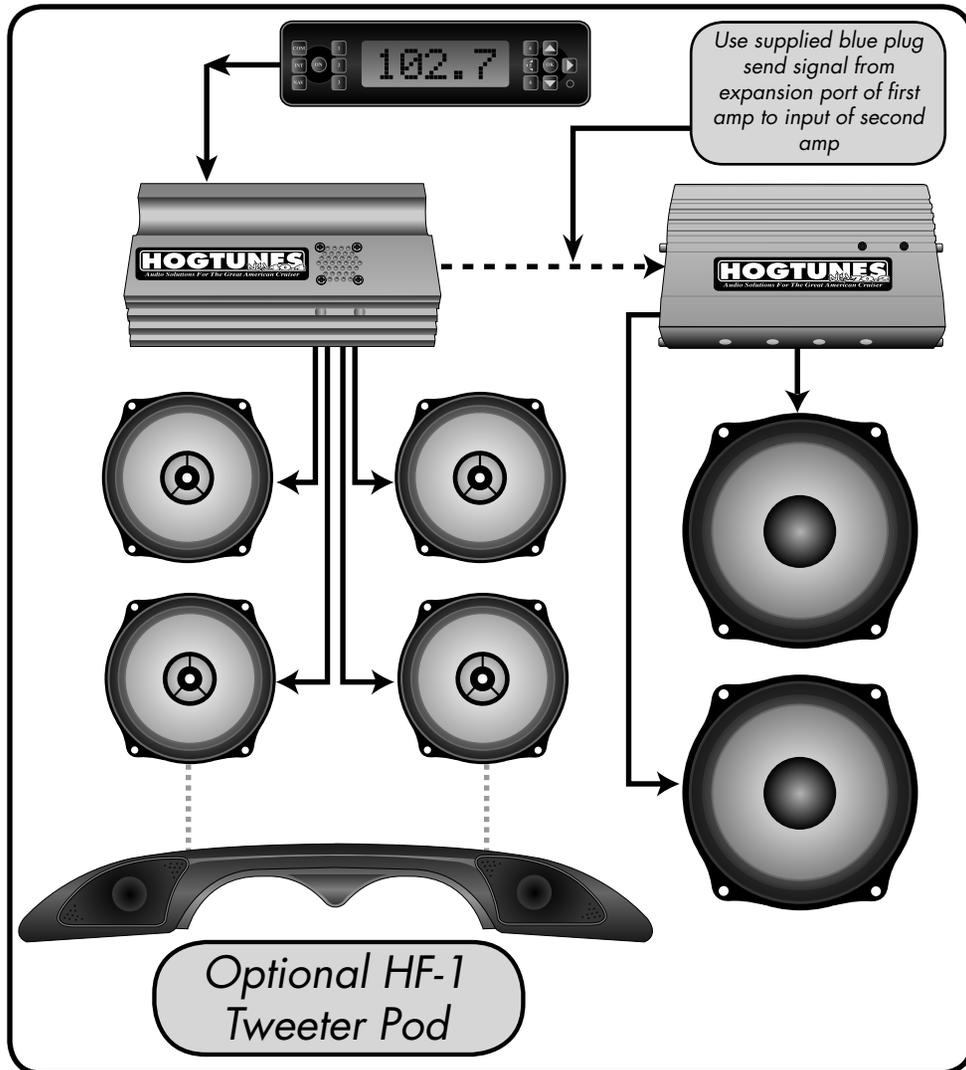
This system has the incredible power of 2 NCA 70.2 to your bike! The first amp will run the 5.25" fairing speakers, and HF-1 Tweeter Pod (if present). The second amplifier is used to power a set of rear speakers, or speakers in your Ultra Classic style fairing lower glove boxes.

Note: If you have added fairing lowers to your bike, the simplest thing to do is purchase a Hogtunes FL7-Rev kit. This kit comes with a NCA 70.2 amp, and 7" woofers. 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 your fairing



SYSTEM UPGRADE #3

This system uses a Hochtunes NCA-40.4 160 watt 4 channel amp and a NCA 70.2 for the ultimate in power! As shown below, the typical system would have 2 channels of the 40.4 power the fairing speakers while the other 2 channels power the rear speakers. The bypass out of 40.4 is used to send music to the NCA 70.2 which powers the fairing lower speakers. The beauty of this system is that all plugs that go to the speakers are the same. If you decide you would like more amplifier power to your rear speakers, by simply moving a couple of plugs around, you can apply the higher power amp to which ever speakers you like to custom "tune" the system for your requirements.



WARRANTY INFORMATION

Hochtunes speakers are warranted for a period of 20 years to the original purchaser. Hochtunes Amplifiers are warranted for 1 year from original purchase date. Proof of purchase is required for all warranty claims. All Warranty claims must be made through the dealer this product was originally purchased from. Speakers found to be defective during the warranty period will be repaired or replaced (with a product deemed to be equivalent) at Hochtunes sole discretion. Amplifiers will be repaired.

What Is Not Covered:

- 1) Any expense related to the removal or re-installation of Hochtunes products.
- 2) Repairs to these products performed by anyone other than Hochtunes.
- 3) Subsequent damage to any other components.
- 4) Any product purchased from a non-authorized Hochtunes dealer.
- 5) Damage to Hochtunes products due to an accident or collision.
- 6) Hochtunes Amplifiers with broken or removed "warranty void" stickers.

TECHNICAL SPECIFICATIONS

Hochtunes NCA-70.2 Amplifier

Rated Power at 2 Ohms:	70 Watts/Channel (@1% THD)
<u>Actual</u> Power at 2 Ohms:	77 Watts/Channel (@1% THD)
<u>Actual</u> Power at 4 Ohms:	> 50 Watts/Channel (@1% THD)
Efficiency:	>66%
Fuse:	15 amp

Hochtunes 902.2-AA Speakers

Power Handling:	> 75 Watts
Frequency Response:	55Hz - 23KHz
Sensitivity:	92dB 1 watt/1 meter
Nominal Impedance:	2.0 Ohms

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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