

HOGTUNES

Audio Solutions For The Great American Cruiser



ULTRA KIT-XL

XL SERIES 4 SPEAKER KIT WITH DUAL 225 WATT AMPS

FOR USE ON 1998-2013 ULTRA CLASSIC AND ULTRA TRIKE MODELS

INSTALLATION MANUAL

HOGTUNES XL

NEXT LEVEL SOUND FOR '98-'13 BIKES

THANK YOU FOR CHOOSING
THE HOGTUNES® ULTRA KIT-XL.
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. IF YOU
NEED ADDITIONAL ASSISTANCE
WITH YOUR INSTALLATION,
PLEASE CONSIDER A
PROFESSIONAL INSTALLATION
BY YOUR MOTORCYCLE DEALER.



*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!*

IMPORTANT:

You will see notes throughout the manual for installs on bikes with factory radios, or bikes that have replaced the factory radio with popular aftermarket “plug and play” radios. This kit is for Ultra Classics so we are assuming any aftermarket radio has been wired so the radio’s built in power is powering the rear speakers.

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GETTING STARTED

- Step #1: Remove the seat and both wires (+ and -) from the battery.
[Negative being removed first is a good practice]
- Step #2: Remove the outer fairing/headlamp assembly. Refer to a service manual if you need help with this. Note: Placing a towel on the front fender can help prevent scratches or “dings” from dropped tools or fasteners etc.
- 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. Gently pull the stock speaker out of each grill assembly.
- Step #4: Although the 352-XLF speakers will work behind the factory grill cloth, the metal mesh grills in this kit are designed to replace the front speaker grill cloth on your bike. You can usually peel away the mesh from the body of the grill by hand. With the factory grill cloth/mesh off, you should see the exposed two-way tape used to hold the factory mesh on the main grill body. Before applying the new mesh, have a look as you will see it only “lines up” one way.
- Step #5: On the brake side of the bike, remove the bolt on the fairing “upright” that attaches the silver horizontal fairing bracket and remove the bracket. It is not re-used for this installation. Remove the factory bolt at the very top of the fairing “upright”, also on the brake side of the bike.
- Step #6: “Clip” the 352-XLF front speaker into each grill assembly so that the speaker’s terminals are adjacent to the thickest part of the grill assembly. When installed, this puts the terminals in the top (12 o’clock) position. Using the factory screws, re install the speaker on the CLUTCH side of the bike. On the brake side of the bike, put the speaker and grills assembly in place and “start” the top 2 (longer) screws so the speakers will hold itself in place.
- Step #7: Hand tools are STRONGLY suggested for this step. Locate the “2CHSP” metal plate. You will see it will only fit in one way on the brake side. Attach it to the bike using the bolt removed from the very top of the fairing “upright”, the bolt that attached the horizontal fairing bracket to the upright, and the screw on the bottom left of the front speaker. With everything in place, make sure all the speakers screws and the metal plate are secured.
- Step #8: Remove each rear speaker grill by undoing the 4 screws on the front of the grills. Carefully lift up on each speaker and take the 2 wires off by gently pulling one at a time from the stock speaker. Put the grills, fasteners and speakers aside.

REV 225-AA AMPLIFIER INSTALLATION INSTRUCTIONS

- Step #: 1 Open one of the 2 REV 225-AA amplifiers that came in this kit. Locate the bag marked "input" and plug its 8 pin plug into "Audio Input" on the side of the amp. Locate the bag marked "output" and plug it into the black 4 pin amplified output "pigtail" on the opposite side of the amp. Make sure to plug this into the black plug and NOT the blue plug on the 8 pin input connector.
- Step #2: Locate the supplied Velcro and separate the 2 halves. Apply one of the halves to the bottom of the amplifier. Note: Most adhesives work best at room temperature or higher.
- For 2006-2013 Ultras with the factory CB Module on top of the radio, apply the other piece of Velcro directly on top of the CB Module. You may want to cut the Velcro to fit the CB Module. When installed the amp will sit "half on/half off" this module but the Velcro is plenty strong enough for this.
 - For 2006-2013 Ultras without the CB module present, the factory radio have a "bump" on top of the radio that runs from front to back down the center of the radio. Cut the velcro in half and apply one piece on either side of this bump. The amp will then mount flush as shown in Fig 1.1.
 - On 1998-2005 model bikes or bikes with popular after market direct replacement radios, apply the other half of Velcro to the top of the radio.

In all cases, the amplifier must sit so the power connector "points" to the brake side and the amplified output 4 pin black "pigtail" points to the clutch side. The amplifier needs to mount as far back on the radio as possible so the fairing can go back on. **IMPORTANT:** The amplifier that mounts on top of the radio will always be the amp that powers the front speakers. This is important and will help up help you if you ever call for tech support.

- Step #3: On the audio input harness, locate the yellow and black wires and plug them into the factory speaker wires on the clutch side of the bike. Locate the green and black wires on the same harness and plug them into the factory speaker wires on the brake side of the bike. You will see these only plug in one way.
- Step #4: On the amp's output harness, take the blue/black wires and plug directly to the front 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 plug on the amp and not the blue 4 pin plug on the input harness.

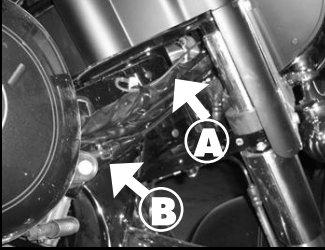
- Step #5: Open the second REV 225-AA amplifier that came in this kit. In the main kit box (not the amp box), locate the harness marked "input link" and plug its 8 pin connector into "Audio Input" on the side of the amp.
- Step #6: Locate the supplied Velcro and separate the 2 halves. Apply one of the halves to the bottom of the amplifier. The other half of the Velcro will be applied to the 2CHSP plate. The second REV 225-AA will get "stuck" to the 2CHSP plate oriented so the power harness is at the bottom. There is an obvious mounting plane the amp will stick to. The REV 225-AA must sit down approximately 1/2" from the top of this plane so the fairing can go back on. You may need to make adjustments when its time to re-install the outer fairing.
- Step #7: Locate the long harness that came in the kits box marked "rear". You will see that the rear harness has 2—4 pin white plugs on one end, and one 8 pin plug on the other. One of the 4 pin plugs will plug into the "amplified output" pigtail on the amp. The other 4 pin plug on the rear harness will plug into the mating blue connector on the input link— noting it will only go in one way. You will have a left over blue plug on the input link. It is not used for this installation, but is there for possible future system expansion.
- Step #8: In the main box the kit came in, you will see a long power harness with red and black wires. This harness has "ring terminals" on one end, and the other end "splits" into 2 amp connectors on the other end. Plug on of the amp connectors into the power plugs on each amp.



Showing the front speaker amp on top of radio and rear speaker amp mounted on 2CHSP Side Plate

ROUTING THE MAIN WIRE HARNESS

Step #1: The balance of the 2 wire harnesses will pass under the inner fairing where the bikes 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. NOTE: although not necessary, the power harness and rear harness can run along the back bone of the frame inside the factory wire "chase" if you choose to remove and reinstall the bikes fuel tank. With the power harness and rear harness in the battery area, move to Step #2.



Stock Harness and Amplifiers Harnesses Passing from Fairing to Just in Front of Tank (Arrow A). Cable Tying the Harnesses To The Main Bike Harness Just In Front Of The Tank (Arrow B) Allows The Amp Harnesses To Go Up Towards The Tanks Chrome Console Easier And Makes For a Cleaner Install.

Step #2: The balance of the rear wire harness should be run along the CLUTCH side of the bike and cross over to the brake side just behind the battery. Be sure to run the 8 pin harness UNDER the air line for the brake side rear shock. On the 8 pin rear harness "end" you will see 2 pairs of black shorter wires in a sheath and 2 pairs of black longer wires in a second sheath. Put the ends of the shorter wires into the brake side rear speaker box. These wires will enter where the factory wires enter the rear speaker box. Plug the factory rear speaker wires into the male wires of the amp harness noting they will only go on one way. Note: The factory female rear speaker connectors are non-insulated. Once the factory female rear speaker connectors are plugged into the Hogtunes male connectors, wrap each connection with electrical tape to prevent the positive and negatives from touching each other.

Step #3: Take a Hogtunes XL Series rear speaker and plug the female connectors of the amp harness into the speaker. They will only go one way. Repeat this step using the longer wires on the clutch side of the bike. Once you are confident the wires are correctly attached to the rear speakers, sit them in place, put the grills back on and secure the speakers by reinstalling the 4 screws on each grill. Attach the amps red wire to the positive (+) battery terminal and the amps black wire to the negative (-) battery terminal. The factory battery wires are also re-installed at this point. When attaching the power and ground wires, it is always a good practice to do the positive first.

Step #4: Turn the stereo on, and at low volume, test to make sure all 4 speakers are working. Re-install the seat making sure the amplifiers "+" and "-" connectors are positioned in such a way so they will not bend or break when the riders weight is on the seat. This is the best time to take a few minutes to "clean up" the wiring and secure using supplied zip-ties.

Before re-installing outer fairing, turn front wheel to each extreme side making sure any wiring is not impeding the steering of the motorcycle.

Failure to do so can result in serious injury or death.

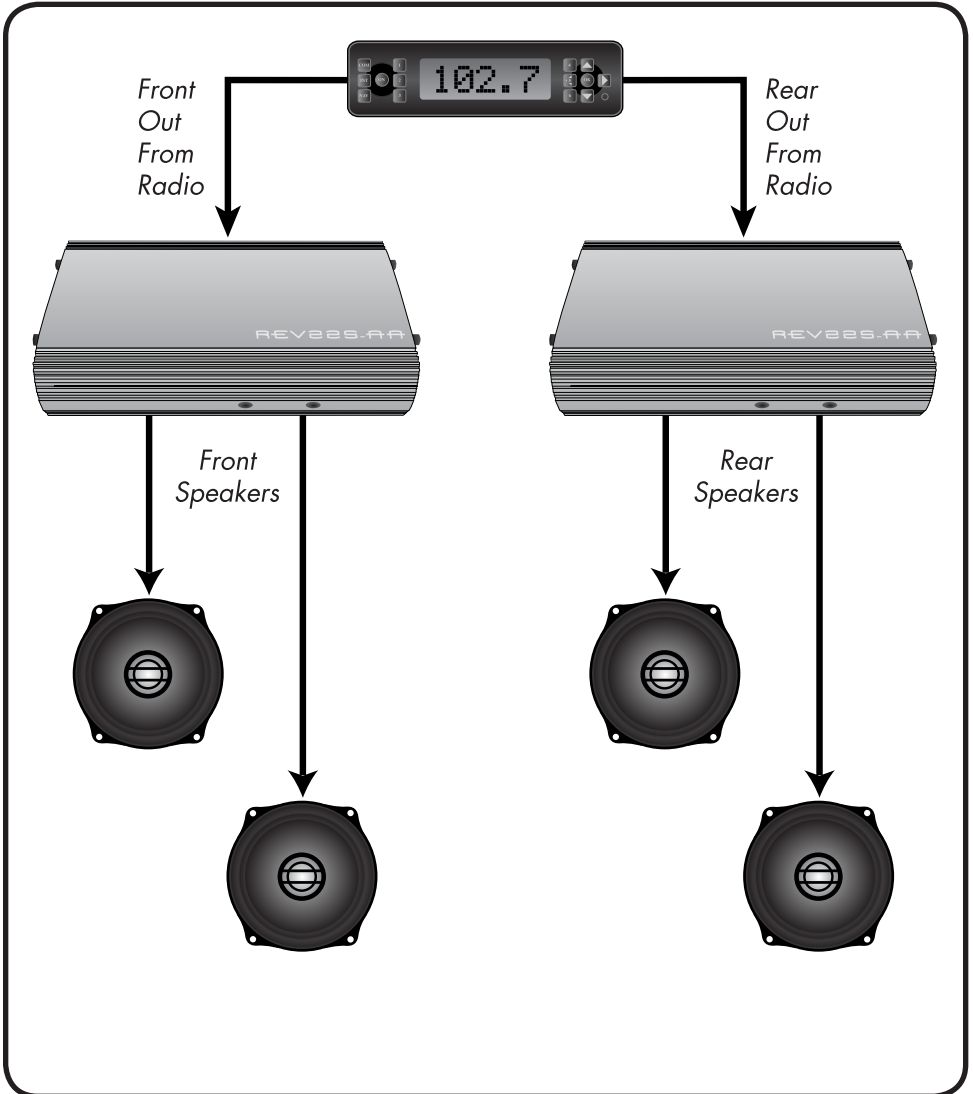
Step #5: Once you are confident that no wires can impede the steering of your bike, you can install the outer fairing noting you may have to adjust the amp on the side plate to allow the fairing to go back on.

Adjusting the System:

- You will see a 3 position switch on the end of each amp marked +3, 0 and -3. These are in place to allow you to "tune" the volume of one set of speakers to the other set. Since this kit was made for an Ultra Classic which has a fader control on the radio, the switches are redundant and in most cases should both be left in the "+3" position.
- Bass and Treble: The way the system sounds sitting still or at a stop light will be RADICALLY different from how it sounds "at speed". You are able to use the radios controls to adjust the sound, but please do so carefully when riding.

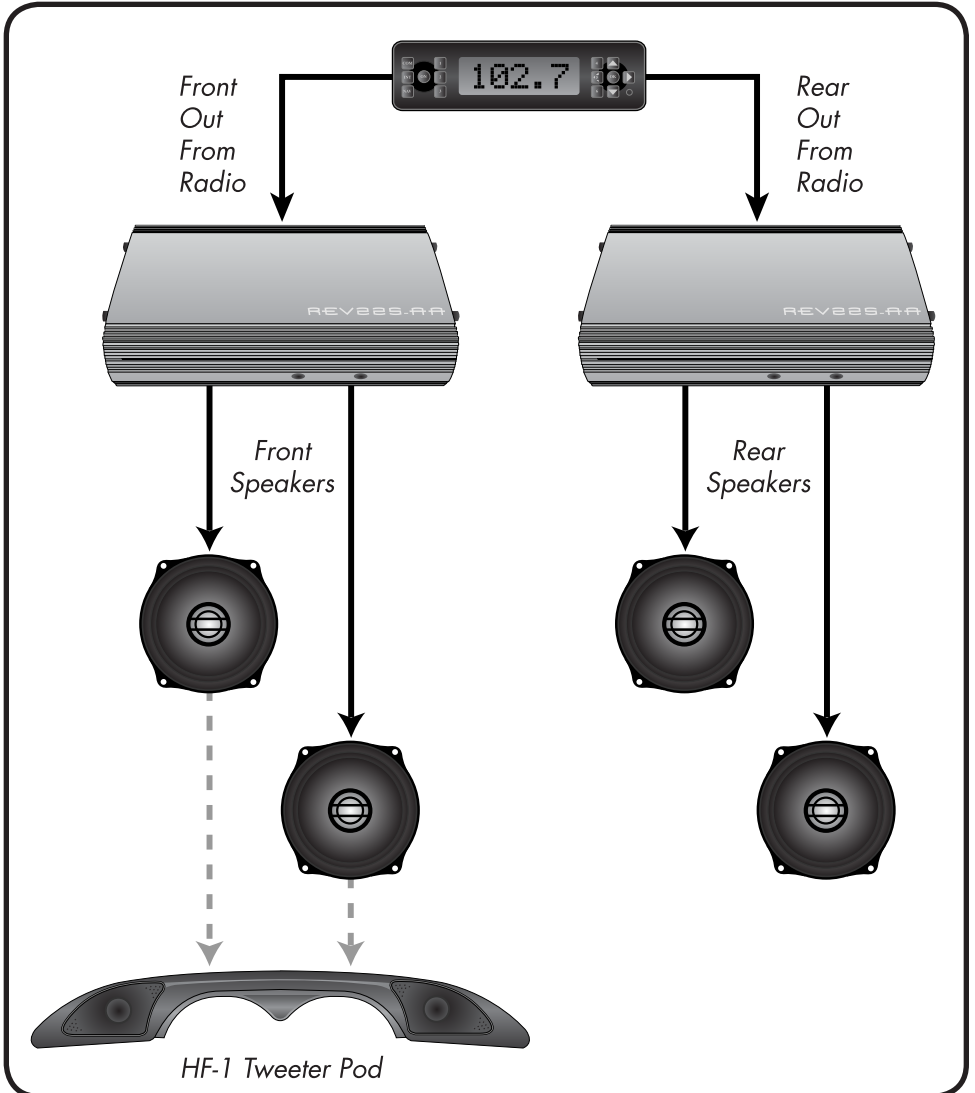
BASIC SYSTEM DIAGRAM

If your bike has the factory radio, or one of the popular aftermarket plug and play radios, the basic diagram below shows how one amplifier powers the front speakers, the second amplifier powers the rear speakers, and the radios fader control still works as usual.



SYSTEM UPGRADE #1

The Hogtunes HF-1 tweeter pod not only looks great, it's easy to install and brings ANY audio system to the next level! Adding these tweeters to any system "fixes" the inherent audio issues created by the stock speaker locations and will give much better clarity, especially at speed. Out of the box, HF-1 matches the factory "satin black" perfectly, but also comes apart easily and can be painted to match any custom inner fairings. HF-1 comes with plug and play wiring and everything needed to complete the job. You can learn more by visiting <http://www.hogtunes.com/products/tweeters/hf-1.html>



TECHNICAL SPECIFICATIONS

Hogtunes REV 225-AA Amplifier

RMS Power at 2 Ohms:.....112.5 watts x 2
Freq. Response:30hz-25khz
Fuse at Amp:15 amp

Hogtunes XL Series Speakers

Power Handling:150 RMS-200 Peak
Frequency Response:40hz-25Khz
Sensitivity:94 db 1watt/1meter
Nominal Impedance:2.0 Ohms

WARRANTY INFORMATION

XL Series speakers are warranted for a period of 5 years. 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!**

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