

WBA WHOLE HOG RG"

For Use On 2015 and Newer Road Glide Ultras

IMPORTANT!

This Kit Is Not For Use On CVO Model Bikes and Cannot Be Used On Bikes With Air Cooled Motors

Thank you for your purchase of Wild Boar Audio's WBA WHOLE HOG RG KIT. We want your new system to work as well as it was designed to, so if you have any questions or concerns, please email: tech@hogtunes.com or call us during regular business hours at 705-719-6361 (EST). If you still need help, please consider a professional installation by your dealer.

<u>Important—Please Read Before Proceeding!</u>

In order for the supplied amps to work properly, your radio must have the proper "flash" installed. It should be noted that non CVO Road Glide Ultra models come from the factory with the required "4 speaker no amp flash" and the system will "work", HOWEVER, having the "4 speaker no amp" flash done by a "Techno Research" dealer WILL bring the system to its full potential. From the factory, we have found RG Ultra radio's put out less volume than FLH "Batwing" Ultras. An OE Dealer reflash will NOT CORRECT THIS. OE Dealer re-flashes are done by the bikes VIN and will reinstall the same lower volume flash. The Techno Research flash will put the correct higher volume flash into the radio and allow the system to work as designed.

- The amplifiers have built in protection and will turn off to protect your charging system if your charging system/battery goes below 10.5 volts.
- In very high heat situations the amplifiers will shut off to avoid damage. Once cooled down to safe operating temperatures, each amp will turn itself back on.

The WBA 300.2 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 WBA 300.2 features a proprietary circuit design called R.E.M.I.T. (Reduced Electro Magnetic Interference Technology) that Wild Boar Audio believes gives the BEST FM reception available for any Class D Amplifier designed for a motorcycle.

Reduction of FM reception is considered normal.

Wild Boar Audio understands that some riders prefer the cosmetics of in fairing antennas, however it should be noted that <u>NOTHING</u> works as well as the factory antenna. If FM is an important part of your listening, we strongly advise against the use of any in fairing type antenna!

Getting Started

Step #1: Remove the seat, and both wires (+ and -) from the battery.

Step #2: Each front speaker grill will be removed from the inner fairing by carefully prying up on them. Remove the outer fairing and headlamp assembly. Refer to a service manual if you need help with these steps! Note: A towel on the front fender can help prevent scratches or "dings" from dropped tools etc.

Step #1: Looking at Fig 1.2 below for reference, you will see a factory wire connector with pink/pink black wires that needs to be separated on the brake side speaker box.

Step #2: See Fig 1.1 and Fig 1.2 below. There are 5 factory "allen key" fasteners highlighted by arrows that need to be removed to allow the speaker cabinet to come off the bike. Its a good idea to remove the 3 fasteners shown in Fig 1.1 first. Note: As you are pulling the speaker cabinet away from the bike, you will see a "Christmas Tree" fastener that secures a factory cable to the speaker cabinet. This needs to be undone so the cabinet can come away from the bike. Put the speaker cabinet and factory fasteners aside for now.



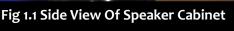
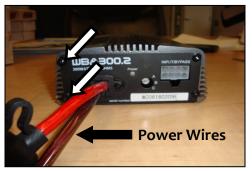




Fig 1.2 Top View Of Speaker Cabinet

Step #3: Open the WBA 300.2 amp that came in the kit. The FLTR Side Plate-RM (also in your kit) will now be attached to the WBA 300.2 amplifier.

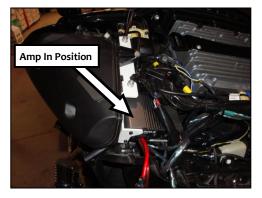


Step #4: For this installation, we will refer to the power "end" of the amp as the front. Remove the 2 small allen head fasteners highlighted by the white arrows. Also remove the 2 screws on the back end of the amp, directly opposite the first 2 screws just removed.



Step #5: Slip the mounting plate over the amp as shown and reinstall the 2 screws into the front, and 2 screws into the back of the amp.

Step #6: IMPORTANT. Please make sure the A-B-C switch on the power end of the amp is set to the "A" position.



Step #7: The speaker wires coming out of the factory cabinet end in a connector that is secured to the cabinet with a "Christmas Tree" fastener. Carefully pry up on this connector to allow it to hang free. The amplifier will not fit with that connector secured to the cabinet! The holes on the top of the plate mate with the screw holes on the top of the speaker cabinet (bolt holes in Fig 1.2) Holding the amp in position, slide the cabinet/amp into position noting that

the amp plate sits over <u>TOP</u> of the factory metal plate. When correctly in place, the factory screws will go through the amp plate, through the factory steel plate, and into the speaker cabinets. We strongly suggest getting all 5 factory fasteners "started" before tightening into place.

WBC 1654 RG Front Speaker/Installation:

Step #1: Grill Trim Ring Selection: In the box, you will see that the metal mesh grill with tweeter in it is sitting in the black trim ring...If you want to use the chrome trim instead of the black trim, now is the time to do this. No matter which trim rings you choose, the metal mesh grill with tweeter must be properly "seated" in the trim ring and all 6 metal mesh "tabs" must be folded over before proceeding.

<u>Step #2 - Installing Factory Parts on Wild Boar Grills:</u> On the back of each factory grill, there is a rubber gasket and 2 white clips which will be removed from the factory grills and re-installed on the Wild Boar Audio grills.



NOTE: The factory clips must be removed carefully! Using your thumbnails or a flat edge under each side, gently pry the 2 ends apart (as per the image) and pull up to release each clip from the stock grill. If you put a flat edge under one end only, the clip cannot release and you have a very good chance of breaking the clip.

Once you have the metal mesh grills installed into the supplied trim you like, and have the factory gaskets and clips installed onto the Wild Boar grills, put the grills aside as installing them happens later in the installation.

<u>Step #3 - Removing the Factory Speakers:</u> Remove the 4 screws that secure each factory speaker to bike. Gently pull up each factory speaker so it's coming away from the bike and carefully remove the speaker wires. Put the factory speakers aside.

Step #4 - Installing the Wild Boar Audio WBC 1654 RG Speaker: Take a Wild Boar Audio woofer and attach the factory speaker wires. You will need to "maneuver" the new woofer into place so it will go past grill opening on inner fairing, noting it will go in without force. In order to make the speaker install properly, the speaker wires must be oriented so they are closest to the top of the inner fairing (12 o'clock position). When installed correctly, the 2 small wires that go from the back of the speaker and "through" the speakers ring will also be in the 12 o'clock position. Reinstall the factory screws to secure the woofers in place making sure the speaker is flush to the mounting plane.

Rear Speaker Installation:

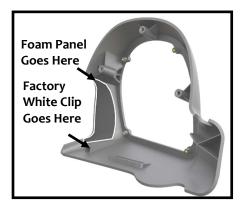
<u>Step #1:</u> Doing one side at a time, remove the 4 screws that secure the rear speaker to the speaker "pod". Lift the speaker out and carefully remove each speaker wire from the speaker.

Step #2: Take a WBC 1654 REAR speaker and attach the factory speaker wires noting they will only go on one way. For the speaker going in the brake side pod, the connectors must be oriented so they are in the "3 o'clock" position or it will not fit. For the speaker going in the clutch side pod, the connectors must be oriented so they are in the "9 o'clock" position or it will not fit. With each new speaker and grill trim ring in place, secure the speaker/trim rings to the pods using the factory screws. Like the lower speakers, we suggest getting the machine screws "started" BY HAND. Get all 4 machine screws "snug" and then tighten in an "X" pattern.

Installing Speakers In Lower Fairings:

Step #1: Starting on the brake side lower fairing, use a coin or something similar to carefully pry off the front access cover. With the cover removed, look inside the opening, and at the very back, you will see a 7/16" nut that is to be removed. This nut allows the painted fairing lower "cap" on the front to come off. With the painted cap off, you will see a "bar" that secures the top half of the lower to the crash bar. Remove the 2 nuts and the bar and put aside for now. At the bottom of the lower is a clamp that holds the bottom half of the lower to the crash bar. Remove the bolt that secures the clamp.

Step #2: Gently push the top of the lower towards the back of the bike just enough so you can remove the 3 torx screws (normally hidden by the painted cap) that hold the lowers front panel in place. Gently pull on the front panel to release 2 clips which will allow the front panel to come away, but not completely free from the bike yet. There is a small arm for the vent mechanism still attached that is removed by squeezing the top of the pivot pin and lifting up on the arm. You can now bring the factory lower front panel to a work bench and remove the torx screw that holds the vent adjuster and arm to the factory panel. Using the same screw, install the vent adjuster and arm into your new speaker adaptor.



Step #3: The kit comes with die cut foam panels. Find the one for the side of the bike you are working on and apply as shown noting you should clean the area with isopropyl alcohol first. On your factory front panel, you will see 2 white clips. One of these clips will come off and be installed onto the new speaker adaptor.

Step #4: Moving to the front side of the lower, in the area normally hidden by the painted cap, you will see a hole where the bolt passes through that secures the painted cap. Just above that hole and approximately 2" back from the bolt hole, you will need to drill a 3/8" hole for the wires to pass. When this install is finished, the painted cap will hide the wire nicely. It's a good idea to start with a pilot hole and then drill the final size. Use care to make sure your drill bit does not pierce the coolant tank inside the lower on the brake side!

Step #5: Locate the supplied wire harness marked "LC LOWER". On the harness you will see a main 4 wire harness with blue/black, and brown/black wires covered in a black sheath. You will also see two-2 wire harnesses (wires are all black) that each need to be unplugged from the main harness.

<u>Step #6:</u> Locate the 2 wire harness marked "brake side" and plug it into the main harness connector noting it will only go in one way. The other side of the same harness will go into the lower. Pass the larger connector first. You can tear off the sticker if that makes it easier. Once the wires are in the lower, take up the slack along the crash bar keeping the main harness (with blue/black, and brown/black wires) as close to the center of the crash bar as possible.

<u>Step #7:</u> The kit comes with strips of black gummy material. Take one of the strips and use it to seal the hole around the wire on the outside of the lower.

Step #8: Snap the arm for the vent back into place on the pivot pin. Re install the 3 factory torx head screws (by hand just until they are snug) to secure the panel to the lower. The "bar" and 2 nuts removed earlier that secure the top of the lower to the crash bar will now be reinstalled. The bolt removed earlier that secures the lower to the bottom of the crash bar is also re installed.

Step #9: Using some of the supplied zip ties, secure the speaker wire to the crash bar keeping the main harness as close to the center of the crash bar as you can. It's a good idea to trim the excess of the zip ties as close to flush as possible so there are no sharp edges. When done, install and secure the painted fairing lower cap with the 7/16" nut removed earlier.

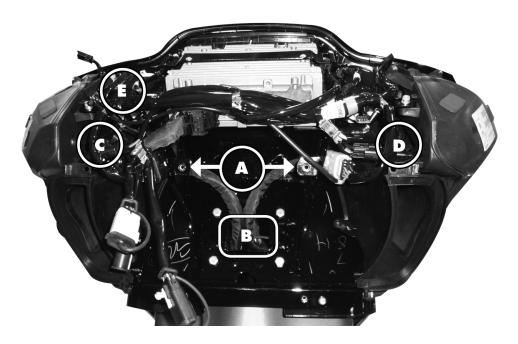
Step #10: Take one of the Wild Boar WBC 1654 REAR speakers that came in the kit and attach the speaker wires just installed into the fairing lower on to the speaker, noting the wires will only go on one way. Sit the speaker and its trim ring into the lower, and BY HAND, get the supplied machine screws "started" into the brass threads. Get all 4 machine screws "snug" and then tighten in an "X" pattern.

<u>Step #11:</u> Repeat the previous steps to install the lower speaker adaptor for the clutch side of the bike. The left over portion of the lower speaker wire harness will get routed and plugged in later on in the install.

WBA 600.4 Amplifier Installation:

The WBA 600.4 is a 4 channel amp system made up of 2 x WBA 300.2 amps. As the amplifiers come in the box, they are "stuck" to a mounting plate for use in FLH (Batwing) model bikes. "Peel" the amps off the plate and put that plate aside as it's not required for FLTR (Road Glide) installations.

The image below will be one you can reference throughout the installation. Please take a minute and familiarize yourself with the items listed below in the image.



A = Mounting points for Headlight assembly

B = Wire passage from fairing to bike

C = Brake side speaker harness (Pink and Pink with Black Stripe wires)

D = Clutch Side Speaker harness (Pink and Pink with Black Stripe wires)

E= WBA 300.2 already mounted over brake side speaker cabinet

<u>Important—Please Read Before Proceeding!</u>

Power wires, and wires for rear speakers will travel from the inner fairing area towards the back of the bike. You can run the wires in the factory "chase" which is under the fuel tank along the frame, up and over the fuel tank, but under the chrome console. If you are comfortable removing and reinstalling your bikes fuel tank, doing it now can make running these wires much easier.

Step#1: Locate the "splitter" power harness included in the WBA 600.4 box You will see one end that has "ring terminals", and the other end that "splits" and has 2 power connectors on it. Also locate the power harness that came in the WBA 300.2 box. Using the image on the bottom of Page 6 for reference, run the "ring terminal ends" of the power harnesses through "B". Position it so the 2 power connectors on the "split end" are accessible in the inner fairing and the slack can be adjusted later in the installation. Do the same for the power end of the WBA 300.2 harness. Do Not (repeat DO NOT) splice into the WBA 600.4 "splitter" power harness to supply power to the amp mounted on the brake side speaker cabinet. The "splitter" wire gauge is not adequate to **PROPERLY** supply power to the additional amp! Just in front of the tank, there is a structure that attaches the fairing to the frame of the bike. The power harnesses will pass through this structure and exit through the rectangular opening where the factory harness also exits the structure on the BRAKE side of the bike. Note: it can be easier to pass the wire harness through the rectangular opening if you "open" the fuse holder and remove the fuse before passing the wire harness. Once the ring terminal end of the wire harnesses are through the rectangular opening and most of the slack is taken up, move to the next step.

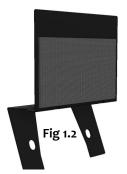
Step#2: Locate the wire harness that came in the kit labelled "WBA Ultra Rear Harness". You will see this long harness has two 4 pin connectors on one end, and large connectors on the other end. At the area where the power harnesses exited the rectangular opening on the CLUTCH side of the bike, you will need to "fish" the end of the rear harness with two 4 pin plugs so those plugs 'end up" in the same general area as the power connectors inside the fairing. The balance of the power harnesses and rear harness will be routed plugged in later in the install.

Important

For the amplifiers mounted on the plate shown in Fig 1.2, we refer to one amp as the "Master" and one amp as the "Slave". The "Master" always has the main input going into it and is always the amp that powers the fairing speakers. When installed, the amp on the BACK SIDE of the plate is the MASTER AMPLIFER

Mounting and Wiring the Amplifiers:

<u>Step#1:</u> Use Fig 1.2 to locate the Road Glide specific mounting plate that came in the WBA 600.4 box. Take one of the amplifiers and "stick it" to the back of the plate as shown in Fig 1.3. The amp on the back of the plate is the MASTER amp.





<u>Step#2:</u> Using Fig 1.1 on page 6 for reference, locate the 4 bolts around "B" and remove the top left and top right ones (only). Have the amp on the plate near to you before proceeding.

<u>Step#3:</u> Also using Fig 1.1 on page 6 for reference, locate "C' and "D" which are 2 pin plugs on each front speakers cabinet with pink and pink with black stripe wires. These plugs attach the bikes wiring to the speaker cabinets and need to be separated noting that the one on the brake side will still be undone from when the speaker cabinet was re-installed.

Step#4: Locate the "main input" harness and insert its 8 pin connector into the "audio input" on the MASTER amp. Locate one of the 2 input links that came in the kit. It has an 8 pin black plug and 2–4 pin blue plugs. The main input harness just plugged into the amp has a 4 pin blue plug. Plug the "male" blue plug on the input link into the female blue plug on the master amps input harness. The balance of the input link will get plugged in later in the manual.

<u>Step#5:</u> Locate the main output harness which has plugs on all ends, and blue and brown heat shrink near 2 of the ends. Take the 4 pin plug and insert it into the mating "amplified output" pigtail on the MASTER amp.

<u>Step#6:</u> Take one of the 2 power connectors on the "splitter" harness and plug it into the mating connector on the MASTER (back side) amp.

<u>Step#7:</u> With all its wires hooked up, the MASTER amp and the mounting plate are about to get secured to the bike. <u>BEFORE PROCEEDING PLEASE MAKE SURE THE</u> <u>"A-B-C" Switch is set to "A".</u>

<u>Step#8:</u> Using Fig 1.1 on page 6 for reference you will see two large harnesses between "A" and "B". Wiggle the amp/plate around these harnesses so that the holes on the "legs" at the bottom of the plate line up with the holes where the factory bolts around "B" were. With the plate/amp in position, reinstall the factory bolts around "B" which will secure the Master amp on its plate to the bike.

Step#9: On the input harness (from Step 4), take the end with the green heatshrink on the end and plug it into the mating plug on the brake side of the bike. Take the end with the yellow heatshrink and plug it into the mating plug on the clutch side of the bike. On the output harness (from Step 5), take the end with the blue heatshrink on the end and plug it into the mating plug on the brake side of the bike. Take the end with the brown heatshrink and plug it into the mating plug on the clutch side of the bike.

Step#10: Take the second (Slave) amp and plug the other power connector of the splitter harness in to it. Locate the 2nd input link that came in the kit (two 4 pin blue plugs and a black 8 pin plug). Plug the 8 pin connector of the input link into the "audio input" on the Slave amp. The black plug on the long rear harness will plug into the "amplified output "pigtail on the slave amp. The white 4 pin plug on the long rear harness will plug into the mating blue plug on the "input link". The leftover blue plug on the input link just installed is not used for this installation. You can now "stick" the Slave amp to the plate in the same orientation as shown in Fig 1.4. PLEASE MAKE SURE THE "A-B-C" Switch is set to "A".



Step#11: See the "input link" plugged into the Master (back amp) and plug its 8 pin connector into the "audio in" on the amp mounted over top of the brake side speaker cabinet. Take the 4 pin plug from the lower speaker harness and plug it into the "amplified output" pigtail on the amp mounted over top of the brake side speaker cabinet. Plug the power connector from the second power harness into the amp mounted over top of the brake side speaker cabinet.

Step #12: The balance of the 2 power/ground harnesses and rear harness will pass through the inner fairing where the main wire harness passes through on the brake side of the bike. If your comfortable removing and re-installing the fuel tank, the wires can go in the factory wire "chase". Alternatively, you can loosen the tank's "chrome console" and run wires up and over the gas tank, but under the tank's chrome console. There is a provision on the front of the tank console for wires to pass. NOTE: During larger bike services, the technician may want to remove the tank. Running the wires over the tank "could" slow the tech down.



Stock Harness and Amplifier's
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 Tank's Chrome Console Easier
And Makes For a Cleaner Install.

When installed and run correctly, the rear harness is the right length so that its two large ends can sit on the middle of the back fender, just behind the threaded insert for the bolt that holds the back of the seat in place. The power harnesses are the right length so the "ring connectors" are in the immediate vicinity of the terminals on the bikes battery.

<u>Step #13:</u> Just behind the threaded insert that holds the seat bolt on the back fender, you will see a large factory wire plug. One side of the plug has wires that go to each rear speaker pod. Separate this large factory plug. One plug from the amplifiers rear harness will plug into each side of the factory plug just separated. They will only go together one way.

Step #14- Installing the Wild Boar Audio Speaker Grills: MAKE SURE all 6 metal mesh tabs on the speaker grills have been folded over to properly secure the grill mesh the trim ring! There is a small 2 wire plug for the tweeter on each grill that will get plugged into the mating connector on the wire coming through front of the speakers ring. When these are plugged together, there will be an extra length of wire. In the kit there are foam strips that are "peel and stick" which you can use to secure the extra length of wire on the top of the factory speaker cabinet. The goal is to make sure this extra length of wire does not fall in front of the woofer and rattle against the woofer as its playing. With the extra wire out of the way the, Wild Boar Audio grill SIT in position but NOT be "Clicked in" to the fairing yet. At this point, all audio connections for this system are made!

<u>Step #15:</u> In this order, Attach both amp's brown wire to the negative (-) battery terminal and red wires to the positive (+) battery terminal. The factory battery wires are also re-installed at this point. When the positive connector touches the battery, some sparking is normal as a function of the capacitors in the amplifier charging up.

<u>Step #16:</u> Turn the stereo on and make sure you see an illuminated blue LED on each of the 3 amps. At low volume, test to make sure all speakers are working.

Step #17: Re-install the seat. You can now "clean up" the wiring, noting that under NO CIRCUMSTANCES should any of the blue/silver wires be zip tied to any factory antenna cables anywhere on the bike. Failure to follow this important note has potential to negatively effect FM reception.

Step #16: With everything working, its time to reinstall the outer fairing. There are factory fasteners near each front woofer that will go back in to secure the outer fairing to the bike. Carefully pull the Wild Boar speaker grills away leaving the tweeter wires connected. Pulling the grill away will allow the factory fairing fastener to go back in. Once these fasteners are in, press the Wild Boar speaker grills into their final position.

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!

You did it!

Notes On Adjusting The System:

- A) This kit has been designed to give great sound with the radio bass and treble controls in the middle position. Adjusting the bass and treble up or down no more than 3 bars from center will give excellent and reliable performance for most kinds of music. If you choose to exceed this suggestion and play at high volume levels, you may damage your system!
- B) As mentioned at the beginning of this manual, the correct "flash" must be in the radio for the system to work correctly. The system will "work" with a factory flash, but will SHINE when flashed to "4 speakers no amp" by a Techno Research dealer.
- C) The Wild Boar Audio 300.2 amplifier is a HIGH POWER amplifier specifically designed to work on the small charging system of a motorcycle. You have THREE of these amps on this bike. DO NOT start your motorcycle with the radio past half on the volume dial! When the start button is hit, all available current goes to your bike's starter which "starves" the amplifier and may cause damage to your speakers!

Warranty Information:

Wild Boar Audio branded amplifiers are warranted for a period of 3 years to the original purchaser. Wild Boar Audio speakers are warranted for a period of 5 years to the original purchaser. Proof of purchase is required 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 Wild Boar Audio's sole discretion. Wild Boar Audio's complete warranty policy is available on the website at www.wildboaraudio.com Note: In the event of an amplifier failure, only the failed amplifier will be replaced.

What Is Not Covered:

- 1) Any expense related to the removal or re-installation of products.
- 2) Repairs to these products performed by anyone other than Hogtunes, Inc.
- 3) Subsequent damage to any other components.
- 4) Any product purchased from a non-authorized Wild Boar Audio dealer.
- 5) Damage to products from an accident or collision.
- 6) Damage from incorrect installation, improper use, abuse or modifications.
- 7) Reduction of FM reception.
- 8) Damage caused by incorrect factory radio "re-flash" and amp combination
- 9) Damage to inbound warranty product due to improper packing.

IMPORTANT: In the event of a warranty claim, please fill out the form in the Warranty section of our website www.wildboaraudio.com. Valid claims will have a Return Authorization Number (RA#) generated which MUST appear on the outside of the box when it arrives to our offices.

Goods Arriving Without An RA# Will Be Refused!

Wild Boar Audio is owned by Powersports Audio Inc.





Wild Boar Audio 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!