

HOGTUNES

Audio Solutions For The Great American Cruiser



FL7REV

AMPLIFIED 7" FAIRING LOWER WOOFER KIT INSTALLATION MANUAL

***May be used on '06-'10 CVO Ultra's
by following special instructions inside**

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 your 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.

Thank you for choosing the Hogtunes Model FL7REV Amplified 7" Fairing Lower Woofer kit. 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.

Hogtunes Contact Information:

Email: tech@hogtunes.com

Tel: 705-719-6361

Hogtunes FL7 REV works on any 1998 and newer bike with a factory radio and VENTED (2005+) Ultra style fairing lowers. The radio will power the existing speakers, and the amp powers the speakers in the lowers only. You can see how to add more speakers/amps to your system further on in the manual.

Woofers or Sub-Woofers? The 7" woofer is a large full range speaker without an additional high frequency speaker (tweeter). The woofer is designed to enhance sound at speed and will give a "full" range of sound, but should not be confused with a "Sub-Woofers". For more information, please read the article at: http://www.hogtunes.com/techzone_files/7_inch_woofer_vs_sub.pdf

IMPORTANT: If you are installing this kit on a 2006-2010 Screamin' Eagle® Ultra Classic, you will need to go to [page 14](#) for the special plug and play instructions required to make the Hogtunes amp work in unison with the factory amplifier mounted under your Tour-Pak.

If you're installing this kit on a 2011+ CVO Road Glide Ultra or 2011+ CVO Ultra, please call for technical help. Due to a harness change on these model year bikes, this kit is NOT quite plug and play, but is easy to make work. Our tech support line is at 705-719-6361 or you can email: tech@hogtunes.com

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.

CHOOSING THE CORRECT MOUNTING OPTION FOR YOUR EXISTING SYSTEM

If you have a Standard, Street Glide, Classic, or Ultra Classic, and this is the only amp in your fairing

- 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.*



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

If you have a Standard, Street Glide, Classic, or Ultra Classic with an existing amp in your fairing

Hogtunes 2CHSP (2 Channel Side Plate) Drag Specialties Part# 4405-0234 is required to bolt the second amp in your fairing. The install manual for this plate is available on our website at:
http://www.hogtunes.com/manuals_files/assets/2chsp_instal_manual.pdf

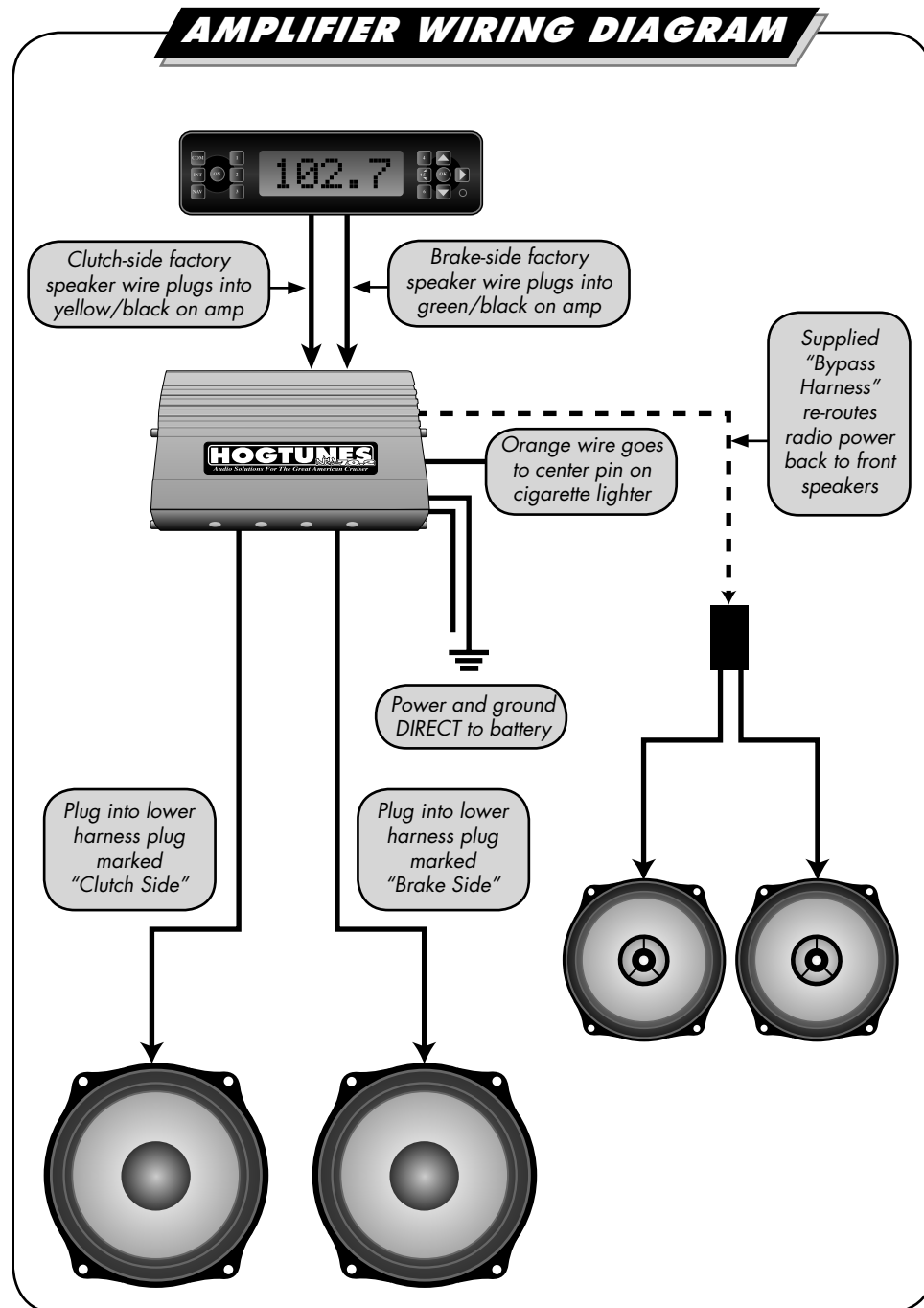
If you have a Road Glide, or Road Glide Ultra Classic, and this is the only amp in your fairing

Hogtunes RG Adaptor Kit Drag Specialties Part # 4405-0096 is required to bolt the amplifier in your inner fairing. In the RG Adaptor kit, the mounting plate and hardware to mount the amp is all that is used. The wires that came in this kit are all the correct length for this application. The install manual for this plate is available on our website at:
http://www.hogtunes.com/manuals_files/assets/RG_Adaptor_Plate_Manual.pdf

If you have a Road Glide, or Road Glide Ultra Classic with an existing amp in your fairing

If you currently have a Hogtunes 2 channel amp (USA 24.2 or NCA 70.2) mounted on our amp plate which attaches to 2 of the 4 main studs that hold the inner fairing to the bike, a Hogtunes RG 40.4 adapter plate Drag Specialties part # 4405-0232 is required to mount the amp in this kit off to the brake side of your inner fairing. The install manual for this plate is available on our website at http://www.hogtunes.com/manuals_files/assets/RG_40.4_Adaptor_Plate_Manual.pdf

If you currently have a Hogtunes 4 channel amp mounted on a Hogtunes plate above the brake side turn signal, a Hogtunes RG Adaptor kit Drag Specialties Part # 4405-0096 is required to mount this amp. The install manual for this plate is available on our website at:
http://www.hogtunes.com/manuals_files/assets/RG_Adaptor_Plate_Manual.pdf



AMPLIFIER WIRE COLOR CODES

YELLOW/BLACK:	Clutch Side Amplifier Input From Factory Radio
BROWN/BLACK:	Clutch Side Radio Power Output to Front Speaker
GREEN/BLACK:	Brake Side Amplifier Input From Factory Radio
RED/BLACK:	Brake Side Radio Power Output to Front Speaker
BROWN/BLACK:	Amplified Output to Clutch Side Lower Speaker
BLUE/BLACK:	Amplified Output to Brake Side Lower Speaker
ORANGE:	Remote Turn On Lead
RED:	12v Positive-Attaches Directly to "+" Battery Post
BLACK:	12v Negative-Attaches Directly to "-" Battery Post

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 input harness, locate the yellow/black pair of wires with the male connectors and plug them into the factory speaker wires on the clutch side of the bike. Also on the input harness, locate the green/black pair of wires with the male connectors and plug them into the factory speaker wires on the brake side of the bike. The connectors are sized correctly, and will only go in one way.

Step #3: Locate the wire harness with the blue plug and white/black, and red black wires on it, and plug it into the blue plug which is part of the input harness you just installed into the amp. Take the white/black wires and connect them directly to the clutch side main fairing speaker. Take the red/black wires and connect them directly to the brake side speaker.

Step #4: 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 the 4 pin black plug wire harness with brown/black and blue/black wires, and plug it into the amplified output plug. If not already installed, plug the wires that will go into your lowers marked clutch side and brake side into the open end of the harness you just plugged into the amplified output plug.

Step #5: 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.

Step #6: The red (B+) and black wires (B-), and the speaker wires marked "Clutch Side" and "Brake Side" of the main wire harness will pass under the inner fairing where the throttle and idle and/or bikes main wire harness pass through on the brake side of the bike. Let the Clutch Side and Brake Side wires hang on the front side of the crash bar for now. The red and black wires are designed to be routed under the gas tank and across the motor mount 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! When correctly installed, the power and ground wires are the right length to connect onto the battery.

NOTE: on '07 and newer bikes it is much easier to run power and ground wires up and over the gas tank, but under the chrome gas tank console!

Step #7: 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. Secure the FL7 Rev harness to the bikes factory harness' along the frame and behind the tank using supplied zip ties.



Diagram 1.3

Stock Harness and FL7 Rev Harness Passing From Fairing To Under Tank.

Note: Harness will pass over front gas tank mount/bolt. Opening the fuse holder and removing the fuse will allow the wires to pass easier. Careful!-The ring terminals can easily scratch paint!

INSTALLING THE SPEAKERS INTO YOUR LOWERS

Step #1: Remove access covers from the front of the glove boxes. Using a cutting tool such as side cutters, the 4 male parts each access panel snaps into will be cut and removed. Cutting them from inside the glove box will eliminate marks on the front of the glove box. When cut, parts may “fly” so please be careful and wear eye protection!

Step #2: Looking inside the glove box, locate the 2 nuts at the back of the glove boxes, and remove. This will release the painted lower fairing “cap” so be careful it doesn’t fall and get scratched!! Remove and put aside.

Step #3:

- Looking from the front side of lower, locate the flat plane approx. 1” towards the motor, directly across from the lower bolt hole for the fairing cap just removed.
- Drill a 1/8”(3mm) pilot hole in the center of this plane, then a final 5/16”(8mm) hole. You will go through 2 layers.
- The wires that go into lowers are marked clutch side/brake side. Pass wire into glove box, large connector first. The sticker can be removed to fit through the hole if needed. Pull up any slack into the glove box so that wire will go along crash bar, making sure to keep quick release plugs in the center.
- Using the supplied black “gummy” material, seal the hole around the wires inside the glove box.

Step #4:

- Pull grills off and remove woofers from adaptors.
- Locate the angled woofer holder for the side of the bike your working on and attach it to the glove box opening using the parts in the kit. Supplied hardware goes through the holes made when male plugs were cut. Washers will go on the studs inside the glove box before securing the adaptor down with the supplied nuts.
- Once secured, reinstall the painted lower fairing cap.
- Take a speaker and attach the speaker wires.
- Locate the silver “posts” with the hex key opening and put the woofer in place. Start each thread into the brass inserts in the angled woofer holder BY HAND!!!! After all the threads are started, use supplied hex key to tighten the woofer into place. Press the grill into place by lining up the holes on the inside of the grills on to the silver posts
- Please MAKE SURE the female rubber parts on the inside of the grill attach to all 4 posts holding the woofer in. Failure to do so can allow the grill to come off while riding.

(continued on next page)

Step#5: Once everything is complete in both lowers, use the supplied wire ties to secure the exposed speaker wires to the crash bar. Moving back into the fairing, use supplied wire ties to secure the FL7 REV harness to the bike.

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!

- Turn your system on and make sure both woofers are working.
- On the side of the NCA 70.2 amplifier, there is a 3 position gain switch. Adjusting this switch up or down allows you to “tune” how the new woofers sound along side the rest of the speakers in your system.
- Take one last look at all the wiring you have done, and using zip ties, make sure everything is secure and safe for a bike at speed. Reinstall your outer fairing and enjoy the latest edition to the Hogtunes system on your bike!
- Before riding, please go back and make sure that the 4 rubber parts on the underside of each lower grill is firmly seated on all 4 posts that hold each woofer in!

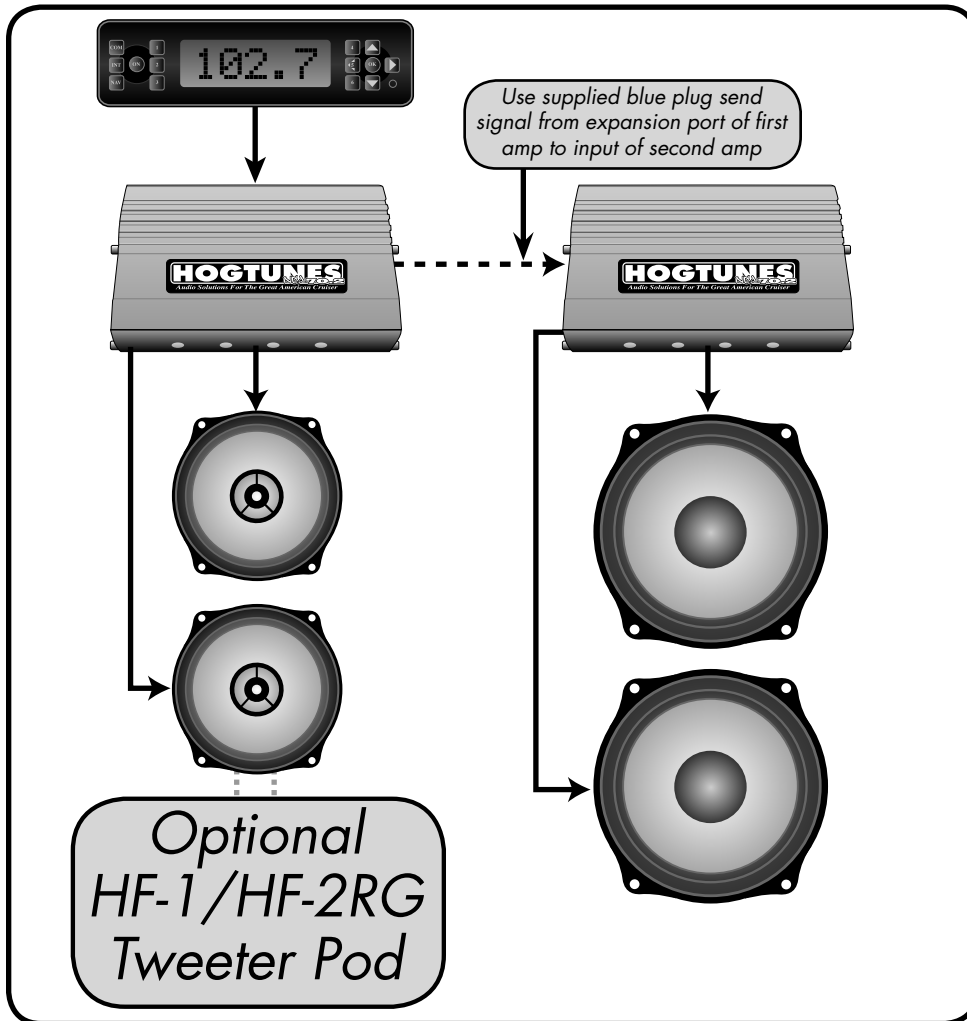
The next 3 pages are designed to show how you can integrate this Hogtunes kit into a full Hogtunes system on your bike if you ever wish to make additions.

If you have any questions on where to go from here, please contact your dealer, or feel free to call us during normal business hours (EST) at 705-719-6361 or email: tech@hogtunes.com

SYSTEM UPGRADE #1

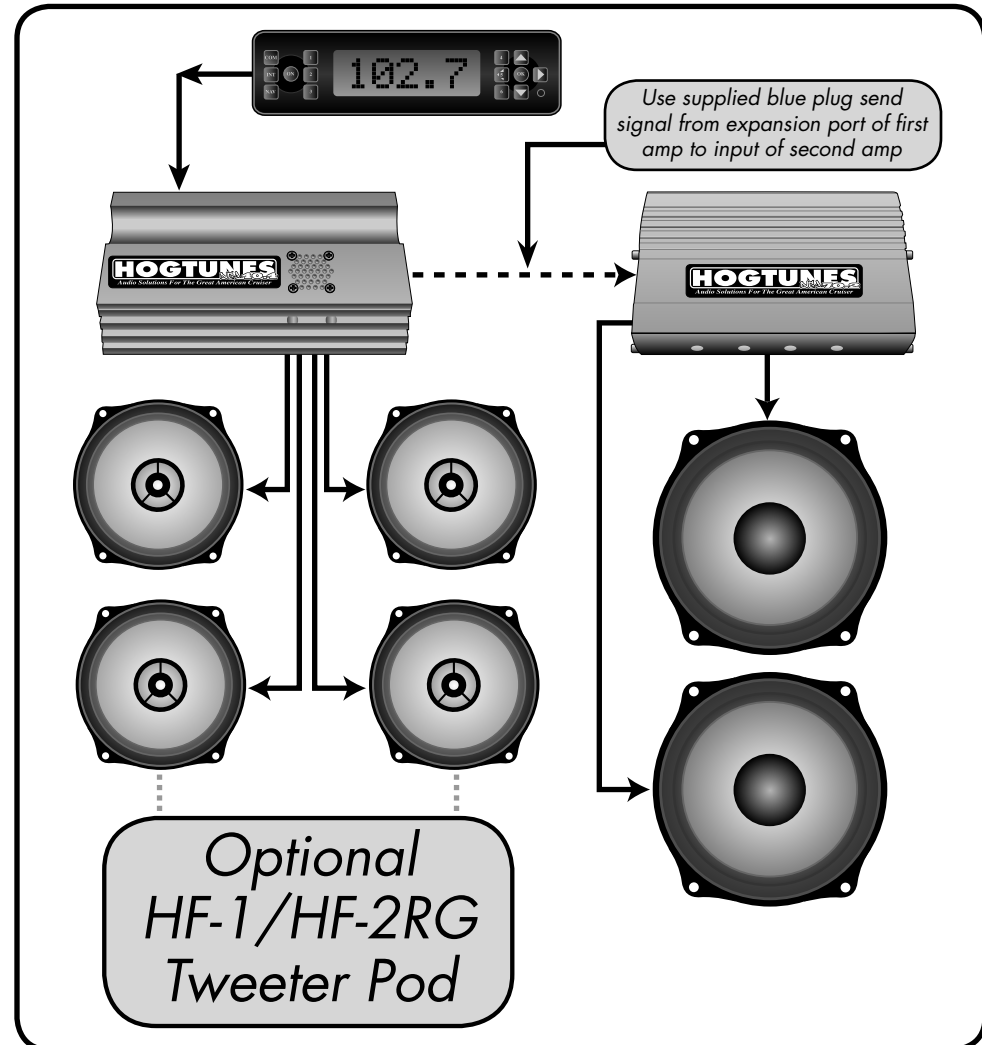
This system has the incredible power of 2 NCA 70.2 to your bike! The first amp will run your fairing speakers, and HF-1/HF-2RG Tweeter Pod (if present). The amplifier supplied in your FL7/Rev kit is used to power the 7" woofers. If you have an Ultra Classic, or Road Glide Ultra, in this configuration, your radio will continue to power your rear speakers

WARNING: If you choose to add a 2nd amp to power your fairing speakers, please make sure the speakers you have can handle the ACTUAL power of this amp! Stock speakers should not be used. If you choose a brand other than Hogtunes for your fairing speakers, be advised, we have seen many competitors over-rate the ACTUAL power handling of their speakers by as much as 3 times!!



SYSTEM UPGRADE #2

This system uses a Hogtunes 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. If you have an Ultra or RG Ultra, our Big Ultra, or Big RG kits have everything you need for this upgrade all in one box. Everything installs easy and your fader still controls front/rear. If you have a "non-Ultra" but have added a King Tour-Pak® and Ultra Style Fairing Lower, Hogtunes Rear Speaker Pods can be added and the system below is also easily done.



WARRANTY INFORMATION

Hogtunes speakers are warranted for a period of 20 years to the original purchaser. Hogtunes 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 Hogtunes sole discretion. Amplifiers will be repaired.

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.

TECHNICAL SPECIFICATIONS

Hogtunes 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

Hogtunes 702.2W Speakers

Power Handling:	75 Watts RMS / 150 Watts Peak
Frequency Response:	100hz-7Khz
Sensitivity :	94 db 1watt/1meter
Nominal Impedance:	2.0 Ohms

Harley-Davidson, Electra Glide, Road Glide, Street Glide, Ultra Classic, Tri Glide, CVO, Screamin Eagle and Tour-Pak® are Trademarks, and/or Registered Trademarks of Harley-Davidson, Inc., Milwaukee, Wisconsin, USA, and if Used or Implied are for Reference Only. There is No Affiliation Between Harley-Davidson, Inc., and Hogtunes Inc.

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INSTALLATION INSTRUCTIONS

IF USING THIS KIT ON A 2006-2010 CVO ULTRA CLASSIC

Go to page 4 of this manual, and follow instructions on how to mount the amplifier. When done, come back and start wiring the amp as per the instructions below.

WIRING FOR '06-'10 CVO ULTRA CLASSIC

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: Locate the harness with white/black wires, red/black wires and a 4-pin male blue plug, and plug it into the female blue plug which is part of the input harness you just installed into the amp.

- On the **brake side of the bike**, near the fairing speaker locate the Grey/Red and Green/black wires that have quick disconnects joining them. These are NOT the wires directly on the speakers!
- When the quick disconnects get separated, a male and female connector will be exposed on each side of the wire, the same style as the connectors on the speakers. Take the green and black wires from the Hogtunes amp (male connectors) and plug them into the bikes Grey/Red and Green/Black wires (female connectors) at the connectors you just unplugged.
- Take the red/black wires on the amps input harness (female connectors) and plug them into the bikes Grey/Red and Green/Black (male connectors)
- Each connector is pre-sized correctly and can only go in one way.

- On the **clutch side near the fairing speaker**, locate the White/Orange wire, and Green/White wires and separate the connectors same as the brake side. These are NOT the wires directly on the speakers!
- Take the Hogtunes yellow and black wires (male connectors) and plug them into the bikes White/Orange and Green/White wires (female connectors)

- Take the white/black wires on the amps input harness (female connectors) and plug them into the bikes White/Orange and Green/White wires male connectors.
- Each connector is pre-sized correctly and can only go in one way.

Step #3: At this point the “special” wiring for CVO models with factory amps under the tour pak is complete. From here, you will complete the install by going back to page 7 and starting at Step #4.



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