



## CVO - with iPod Amp & Speaker Upgrade Install Instructions for Batwing Fairing

### Tools Needed:

- 1/2 inch Socket
- 7/16 inch Socket
- 5/16 inch Socket
- 1/2 inch Ratchet Wrench
- Wire Cutters
- Wire Strippers
- Phillips Screwdriver
- T25 Torx driver



**Installation steps:**



- Cover tank and fenders to avoid scratches during this process.
- Remove bottom bolts from fairing then put and wheel chock and secure. -
- Remove the remainder of fairing bolts.
- Loosen Windshield mount and remove windshield.
- Remove windshield bolts while holding on to outer fairing. -
- Remove headlight plug.
- Cover outer fairing and place in safe spot.



- Remove rear seat with one seat bolt nut.
- Remove main seat with two seat bolt nuts.



- Remove ECM to gain access to battery
- Remove battery cover.



- Locate opening in frame to route Amp Wiring Harness to battery.
- Feed piece of wire from front to back of frame. Wire should come out next to battery as shown above.
- Hook end of wire and tape Amp Wiring Harness to it. Pull wire from back to front pulling Amp Wiring Harness along with it. Leave enough of the harness to attach to battery and secure.



- Disconnect battery negative terminal first.
- Make sure that fuse is not in fuse holder.



- Remove existing amplifier from the top of radio.

## Replacing Fairing Speakers and Dash-Mounted Tweeters



- Prep new tweeter for Installation
  - Remove Grill
  - Separate housing
  - Spray face with protective clear coating - Allow to dry



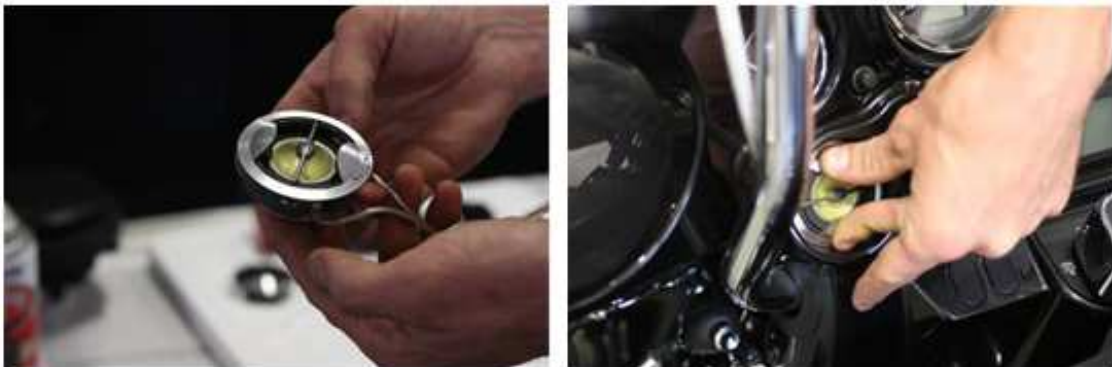
- Disconnect speaker wire and remove old speakers from fairing
- Disconnect speaker wire and remove old tweeters from inner fairing using 5/16 socket.



- Remove harness looming, carefully using razor blade to cut electrical tape - Free wiring harness from behind radio to allow access.



- Trim new speaker grills to match holes and fairing - Hot glue grills in place



- Reassemble tweeters  
- Place new tweeters in place and secure with hot glue from the back. Take extra care not to push bar in middle of tweeter while holding in place, it will break off.



- Install 6.5 speaker adapters.
- Hold 6.5 speaker adaptors in place making sure to line up with existing speaker brackets. Get all screws started before tightening. Install new 6.5" speakers to adaptors.



- Remove connection to gages
- Remove speedometer and tachometer

## Modify Gauge Mounts to fit 4-Channel Amp



- Using air saw trimmer, cut as shown creating flat spacer ring and having to mounting tabs (the shoulder of the mounting tabs may need to be trimmed for proper tolerance)



- Before installing gauges run zip ties to top of radio rubber grommet holes -  
Using zip ties, from previous step - secure factory wire loom

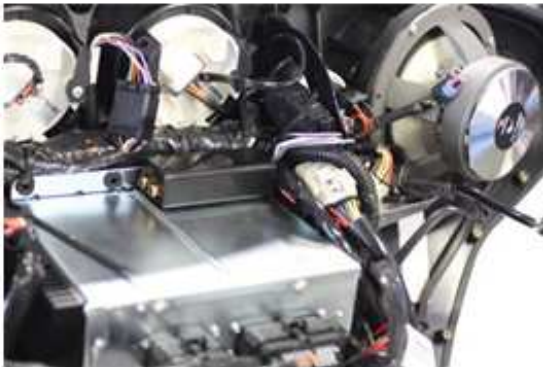




- Re-install gauges making sure index points on gauges are properly oriented -  
Install gauges with modified mounting tabs oriented upwards.



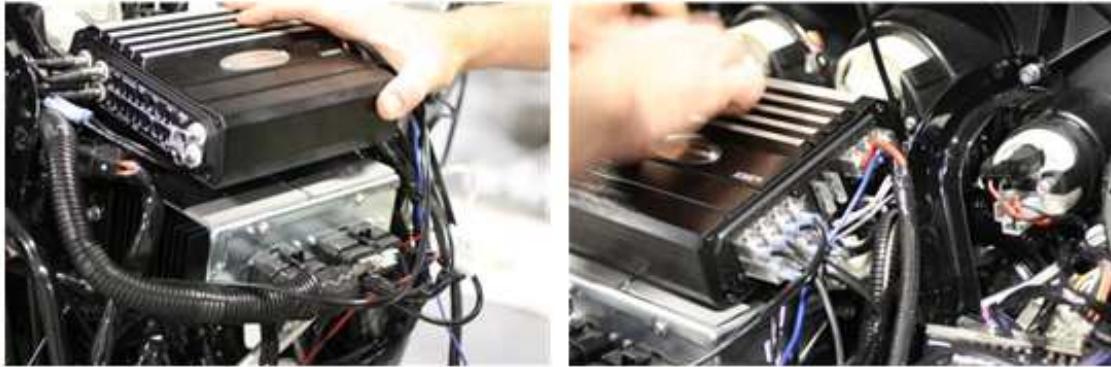
- Locate orange wire with white tracer on headlight loom. Attach blue trigger wire to end of wire.



- Connect line level converter to existing radio harness connector. Tuck adaptors next to fairing bracket.
- Use double sided tape to attach line level converter to radio as far back as it will go.
- Attach RCA splitters to line level converter



- Remove front tabs from amplifier (See pictures). Do not remove rear foot tabs.
- Install 2 layers of double back tape on front edge of radio



- Put zip ties around harness to attach mounting rear tabs on back of amplifier.
- Place the amp on top of radio and secure with zip ties in mounting tabs.
- Connect RCA's from line level converter to amplifier.
- Remove excess from zip ties.
- Connect power wires to amplifier.
- Connect supplied blue turn on wire to amp. (Connected to orange and white accessory wire on headlight loom.)



- use existing speaker wire from lower fairings attached to amplifier. Attach to amplifier with new wire and connectors. Make sure to keep polarity the same through the process.
- Connect 6.5 inch speakers and tweeters to crossovers. Use new speaker wire to connect to your amplifier
- Mount crossovers to side of fairing bracket as shown using double sided tape and zip ties.

## Lower Fairing Speakers



- Remove screws for lower fairing speakers. Gently pry speakers from lower with a screwdriver or blade.
- Change speaker wire ends to the supplied connectors for new speakers.
- Connect speakers and attach to lower fairing without using speaker ring. Direct the tweeter toward the rider, hot glue tweeter into place.

## Saddlebag Speakers



- Remove speaker grills, then screws to remove old speakers. - Remove old speaker
- Use grinder to cut off fins at bottom of speaker basket, so that new speakers will fit.
- The two rear speaker holes will need to be slotted to align with OEM speaker mounting holes.
- Start all screws on speaker before tightening.
- Wrap speaker grills with waterproof cloth before attaching - for extra protection. - Replace speaker grills.



### **Important Final Steps:**

- Ensure that all connections are secure and wiring is neatly fastened inside fairing.
- Reconnect battery putting black wire on ground terminal and red wire through fuse on positive terminal.
- Install supplied fuse
- Reinstall all parts opposite removal

Make sure your Bass and Treble are at middle setting on radio and AVC - AUTOMATIC VOLUME CONTROL is set to the OFF position.

**Amp Tuning:** Locate crossover switch and select to "High" then rotate dial to approximately 110 Hertz. Put in a CD or other music device and play a song. Turn stereo all the way up to max and back one notch. At this time adjust gains equally up until you are able to make music as loud as possible without distortion. Your Tuned!

**Warning:** Keep in mind any speaker can be blown by simply playing distortion through it at too high volume. Some songs will distort before others due to recording quality and recording levels. If you hear distortion through your speakers simply turn the radio down a notch or two.