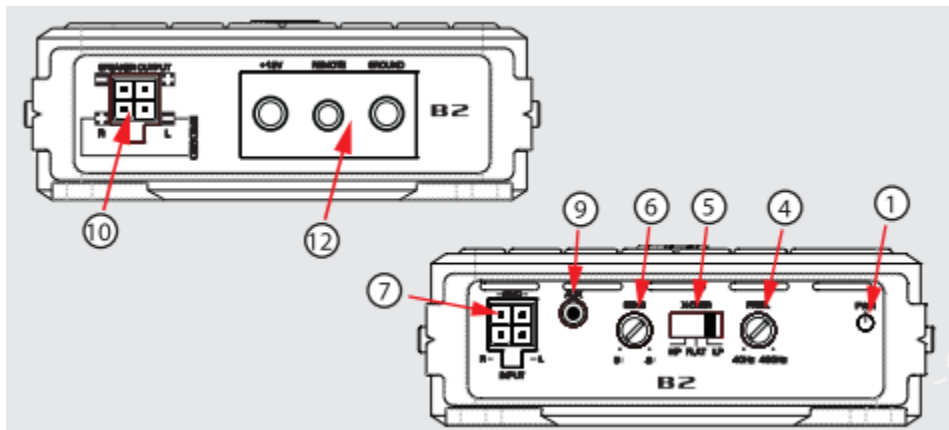


IMPORTANT: The information contained within this document is intended to offer some basic guidelines for the most common installations. More complex audio systems should be installed by a competent professional. Motorcycle Tunes is NOT responsible for any damage to your bike or equipment caused by improper installation or faulty equipment.



- ① **Status LED's** - These lights indicate when the amplifier is powered up normally and when there is a protection fault. The Protect LED is laminated when there is a problem with your amplifier. Please contact your authorize CVM dealer or call CVM's technical support.
- ② **HPF Crossover Adjustment** - Use this adjustment to select the crossover point. Remember that you must select the High Pass position (HPF) of the crossover adjustment switch first. The range of adjustment is limited between 50-250 Hz.
- ③ **Vega Bass Boost** - This control adds 0 to +12dB of boost at 45Hz. Be cautious when adding boost to some subwoofer systems as they may not be able to handle the additional low frequency boost. In the 0dB position, no bass boost is added.
- ④ **LPF Crossover Adjustment** - Use this adjustment to select the crossover point. Remember that you must select the Low Pass position (LPF) of the crossover adjustment switch first. The range of adjustment is limited between 50-150 Hz (-12dB).
- ⑤ **Crossover Selection Switch** - This switch allows you to select the crossover. Use High Pass for midrange or high frequency speakers. Use Low Pass for subwoofers. In the FLAT position, neither crossover adjustment knob has an effect and all speakers will receive the full frequency range.
- ⑥ **Input Gain Adjustment** - This control matches the preamp stage of the Cerwin-Vega Mobile amplifier to your source unit. This is NOT a volume control. The range is between approx 200mV and 6V.
- ⑦ **RCA Input** - The RCA jacks allow for a normal Left and Right channel signal input. Simply connect to the source unit using RCA type audio cables, keeping them away from power wiring wherever possible to reduce risk of noise.
- ⑧ **2/4 channel Input Select** - (B4 ONLY) Use this switch when you are using a stereo ONLY output and would like all 4 output channels on the B4 to have signal/power output. Or when bridging stereo the B4 to be a big 2 channel high pass or a stereo subwoofer amplifier.
- ⑨ **AUX Input** - Use these inputs when there is no low-level RCA output available from your source unit. For example a MP3 player, iPhone or Android Smartphone. NOTE: Only connect AUX input OR RCA input, but NOT both!
- ⑩ **Speaker Output Terminals** - Connect your speakers to these terminals. Stereo connections are connected as labeled. Bridged connections use the LEFT + and RIGHT - as the two connections. The 2 and 4 channel amplifiers will perform into 2 Ohm stereo loads or 4 Ohm bridged loads. DO NOT run 2 Ohm bridged loads on these amplifiers! The mono blocks will run 2 ohms mono, BUT NOT 1 ohm mono!
- ⑪ **Remote Level Control** - B1/B4 amplifiers have this port is for the remote level control (included). The control is intended to allow the user to control the level of gain up to the maximum adjustment level set on the amplifier. The control does not add additional boost, it only attenuates the setting that is fixed at the amplifier's control panel.
- ⑫ **Power Input Connections** - These connections are for input power, chassis ground, and remote turn-on. Use a minimum of 8 gauge wiring for power and ground connections. 4 Gauge is recommended for the mono block. The terminals will handle up to 8 gauge wiring with no problem whatsoever(4 gauge on the mono block). Be sure any wiring that passes through metal has a grommet!

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CAUTION: Amplifier is NOT waterproof. Install it under the seat, saddlebag, travel trunk, fork bag, or in our amplifier bag.

CAUTION: DO NOT INSTALL THE FUSE FOR THE AMPLIFIER, UNTIL INSTRUCTED TO DO SO.

CAUTION: The Cerwin Vega amplifier has a built in heavy duty heat sink, designed to keep the amplifier cool and prevent heat robbing distortions from running the music. This allows the amplifier to be installed in tight locations without heat issues.

Begin by planning on where you are going to mount the speakers and amplifier. Keep in mind the amp needs a minimum of 1" around it for proper cooling. Plan the wire routing; you don't want it around the exhaust or for it to rub. You also don't want to route the power cable next to the audio input cable, because this can add noise to the system.

Amplifier Power

There are 3 Power Wires (1 Power Red Wire, 1 Remote Turn On Blue Wire, and 1 Ground Black Wire)

Step 1: Bigger Red Wire with Yellow Ring Terminal - Hook bare end to the +12V hookup on the amplifier and the terminal ring to the positive battery post.

Step 2: Black Wire with Yellow Ring Terminal (Ground) – Hook the bare end to the GROUND terminal on the amplifier, and hook the terminal end to the negative battery terminal of the motorcycle or to the frame of the motorcycle.

GETTING A GOOD GROUND IS VERY IMPORTANT, BECAUSE 99% OF NOISE ENTERS THROUGH THE GROUND OF A SYSTEM.

Step 3: Blue Wire– This is the wire that turns the power to the amplifier on and off with key, or by pushing the power button on the BT Remote.

To hook up this wire follow the directions below for the system you purchased [Bluetooth Edition](#), or the [Non Bluetooth Edition](#)

If you ordered the Bluetooth edition, included in the box are some wires (blue, red, and black and some butt connectors) that can be used to lengthen the wires between the Bluetooth and the amplifier.

The **Blue wire** on the bluetooth remote goes to the terminal on the amplifier marked **REMOTE** (located between the red power and black ground)

The **Red wire** on the bluetooth remote will hook to a **switched and fused power supply**, can wired to a switched and fused 12v power source on your bike so that it turns on/off with the key. You can use a test light to find a wire that turns on/off with your key, such as a headlight wire, or accessory spot on the fuse box.

The **Black wire** on the Bluetooth remote is the ground and will hook to the negative battery terminal, or to the frame of the bike.

If you ordered the Non Bluetooth edition,

Use the included **Blue wire** to hook to the REMOTE terminal on the amplifier (located between the red power and black ground wire), the other end can wired to a switched and fused 12v power source on your bike so that it turns on/off with the key. You can use a test light to find a wire that turns on/off with your key, such as a headlight wire, or accessory spot on the fuse box. Run the bare end up to where you are going to mount the amplifier.

Speaker Mounting

Step 4: Mounting the Speaker Clamps: Get an idea where you want to mount the speakers. Mount the clamps to your bars. There will be a gap on the clamps that will tighten up when the speakers are installed..

Important: Make sure the speakers will not interfere with your steering, or gauges.

Step 5: Mounting the Speakers: Mount each speaker to the clamp and make sure they are secured, but do not apply too much torque to the nut. The bottom mounting bolt is chromed stainless steel.

Use a pair of vice grips on the end of the clamps to slightly pull them together, that way when you put the speaker mounting bolt through the clamps, you will have more room to tighten the nut a few turns by hand. This will ensure the nut has good thread before you tighten it by wrench, and will prevent the nut from cross threading and seizing up.

The 3-Piece clamps will NOT close all the way, just tighten them snugly.

IMPORTANT The speaker mounting bolt is chromed stainless steel, and the treads on this bolt can be stripped easily if the nut tightened too much, or if the nut is not perfectly aligned before tightening. When you mount the speakers to the clamps use care, or you can damage the thread. Run the speaker wires down to where you are going to mount the amplifier. You may want to run the Audio Adapter Cable at this time a well.

Step 6: Hooking up the speaker wires to the Amplifier Speaker Output Plug.

Amplifier Speaker Output Plug – This is a small 4 prong plug, with 4 short speaker wires on it. The speakers will hook to these wires then the plug will plug into the amplifier.

Left Speaker **Red** to the Solid White

Left Speaker **Black** to White/Black

Right Speaker **Red** to Solid Grey

Right Speaker **Black** to Grey/Black

If you purchased the Extreme Setup

Left Rear Speaker **Red** to the Solid Green

Left Rear Speaker **Black** to Green/Black

Right Rear Speaker **Red** to Solid Purple

Right Rear Speaker **Black** to Purple/Black

Step 7. Amplifier Audio Input.

There is a small pigtail plug that has two RCA plugs on it.

If you ordered the Bluetooth edition, Locate the black audio input cable, it is black and one end has RCA plugs, the other end has a 3.5mm male plug on it. Plug the rca plugs into the amplifier pigtail and plug it into the amplifier. Run the 3.5mm end of this cable up to the Bluetooth controller and plug it into the 3.5mm female jack on the Bluetooth.

If you ordered the Non Bluetooth edition, There is a long cable, one end has RCA plugs on it, the other end has a 3.5mm Jack on it. Plug rca plugs into the amplifier pigtail and then plug the pigtail into the amplifier. Run the 3.5mm end of this cable up to. where you want to mount the inline volume control.

Step 8: Volume Control –

If you ordered the Bluetooth edition the Bluetooth has a built in volume controller.

If you did NOT order the Bluetooth edition, The volume control is used to make adjustments to the volume while you ride. The male end of the In-Line Volume Control will plug into the headphone jack or audio output jack of your audio device. You can use the included cable ties to secure the volume control to your handlebars so that it can be safely adjusted while your ride.

If you have an iPhone or Android Phone, you can go to the app store and download a third-party speed based volume control, some are free, some cost.

Step 9. Check Wiring. RECHECK YOUR WIRING, AND MAKE SURE EVERYTHING IS HOOKED UP CORRECTLY.

There are two power wires on the Amplifier Power Plug, The red power wire should be hooked to the positive battery terminal. The smaller blue wire should be hooked to a switched and FUSED 12v power source that turns on/off with the key. The Black wire should be hooked to the negative battery terminal of your bike,

Make sure that all wires are away from hot areas, and that everything is secured to your bike. Before your turn on the power, make sure that your devices volume is turned down. You can damage your speakers/amplifier if your device is at full or loud volume when the amp is turned on. You will always want to start off with a low volume and build up to a louder volume. This will prolong the life of your speakers/amplifier. Everything should now be hooked up correctly.

When you turn the key on, the amplifier light should also come on, this indicates that it is properly hooked up.

CAUTION: HOOKING THE AMPLIFIER UP INCORRECTLY CAN CAUSE PROPERTY DAMANGE OR PERSONAL INJURY.

STEP 10. Setting up the amplifier. Before you mount the amplifier, you want to get set the settings because it may not be easily assessable once installed. Make sure the volume on your audio device is turned down, then Plug the 3.5mm male end of the Volume Control into the headphone jack or audio output jack of your device. Turn on the Key, this will power up the amplifier Turn on your audio device, and push play, turn you can adjust the volume on your device and use the the in-line volume control.

The only setting on the amplifier you should worry about is the gain dial, for most people turning this up about ¾ is the sweet spot, but it is a personal preference. See Amplifier Setting Chart for how to set gain.

Step 11 Mounting the Amplifier Securely mount the amplifier to the motorcycle. Be sure to allow at least 1” around the amplifier for proper cooling.

Step 12: Safety Check Important: Make sure that your driving ability is not hindered by the items added to your bike, and that you can safely operate your bike before your road test the equipment. Motorcycle Tunes yields all responsibility of any damage caused by or any damage that may result from the Motorcycle Tunes audio system. When purchasing our item, you are agreeing to release Motorcycle Tunes of all legal liabilities of all products/advice given through website, instructions, email, or phone. As the purchaser, you are agreeing to assume all responsibility of the items once they have been shipped.



NOTE: If you are having problems after installation follow the Troubleshooting procedures below.

Procedure 1: Check Amplifier for proper connections.

Verify that POWER light is on. If POWER light is on skip to Step 3, if not continue.

1. Check in-line fuse on battery positive cable. Replace if necessary.
2. Verify that Ground connection is connected to the negative battery terminal. Repair/replace if necessary.
3. Verify there is 9 to 16 Volts present at the positive battery and remote turn-on cable. Verify quality connections for both cables at amplifier, stereo, and battery/fuseholder. Repair/replace if necessary.

Procedure 2: Protect light is on.

1. This is a sign of a possible short in the speaker connections. Check for proper speaker connections and use an ohm meter to check for possible shorts in the speaker wiring. Too low of a speaker impedance may also cause Protect to light. The amplifier is 4 ohm and 2 ohm stable.
2. In the event that the speaker connections are not the issue, check for proper speaker impedance and rewire if needed. This can also be a sign of driving the amplifier at very high power levels without adequate airflow around the amplifier. Shut off the system and allow amplifier to cool. Check that the motorcycle charging system is maintaining proper voltage. If the previous items do not solve the problem, a fault may be in the amplifier, call customer service for support.

Procedure 3: Check Amplifier for audio output.

1. Verify good RCA/Speaker input connections at stereo and amplifier. Check entire length of cables for kinks, splices, etc. Test RCA/Speaker inputs for AC volts with stereo on. Repair/replace if necessary.
2. Disconnect RCA/Speaker input from amplifier. Connect RCA/Speaker input from test stereo directly to amplifier input.

Procedure 4: Check Amplifier if you experience Turn-on Pop.

1. Disconnect input signal to amplifier and turn amplifier on and off.
2. If the noise is eliminated, connect the REMOTE lead of amplifier to source unit with a delay turn-on module.

OR

1. Use a different 12 Volt source for REMOTE lead of amplifier (i.e. battery direct).
2. If the noise is eliminated, use a relay to isolate the amplifier from noisy turn-on output.

OR

1. In a high level(speaker) input application the Variable High Level Adjustment can be used to delay the turn on eliminating turn on/off pop.

Procedure 5: Check Amplifier if you experience excess Engine Noise.

1. Route all signal carrying wires (RCA, Speaker cables) away from power and ground wires.

OR

2. Bypass any and all electrical components between the stereo and the amplifier(s). Connect stereo directly to input of amplifier. If noise goes away the unit being bypassed is the cause of the noise.

OR

3. Remove existing ground wires for all electrical components. Reground wires to different locations. Verify that grounding location is clean, shiny metal free of paint, rust etc.

OR

4. Add secondary ground cable from negative battery terminal to the chassis metal or engine block of vehicle.

OR

5. Have alternator and battery load tested by your mechanic. Verify good working order of electrical system including distributor, spark plugs, spark plug wires, voltage regulator etc.

Resistor Plugs can be installed to help remove any noise.