



CUM-3

BASS MAXIMIZER PROCESSOR



USER MANUAL

Introduction

Congratulations for purchasing the Cerwin-Vega Mobile CVM for your car audio system. You have chosen Cerwin Vega Mobile because you deserve the best!

The Cerwin-Vega Mobile CVM-3 processor is designed and engineered to reproduce extreme bass in your vehicle! Our authorized Cerwin Vega Mobile dealers can help guide you with various installation applications and technical information in order to customize your sound system according to your own listening preference. It is highly recommended that you have your new CVM-3 installed by an authorized Cerwin Vega Mobile dealer to ensure that you receive the ultimate listening experience!

If you decide to install the amplifier processor by yourself, please thoroughly read through this manual before getting started. This manual will help familiarize yourself with this product and guide you through the installation process and procedures for this particular product. Please contact your local authorized Cerwin-Vega Mobile dealer if you have any questions regarding the instructions in this manual or the CVM-3 processor's application capabilities. If you require additional assistance, please contact the Cerwin-Vega Mobile Technical Support Department during business hours at 213-261-4161.



Features

Bass Driver:

The CVM-3 contains a bass driver circuit that accurately recreates and injects low frequency information back into the signal path. In laymen's terms, the BASS BOOSTER will give more bass impact to your best music source, even compact discs or old tapes.

Bass Equalization Circuit:

The CVM-3 has a unique equalization circuit that contours the restored bass to your speaker systems.

Mountable Remote Location Controller:

The CVM-3 comes with a mountable remote location controller that allows you to enjoy the effects of the CVM-3 without having to leave the driver's seat. The mountable remote location controller has a LED indicator; this LED will grow brighter as you add more bass or dimmer as you decrease it.

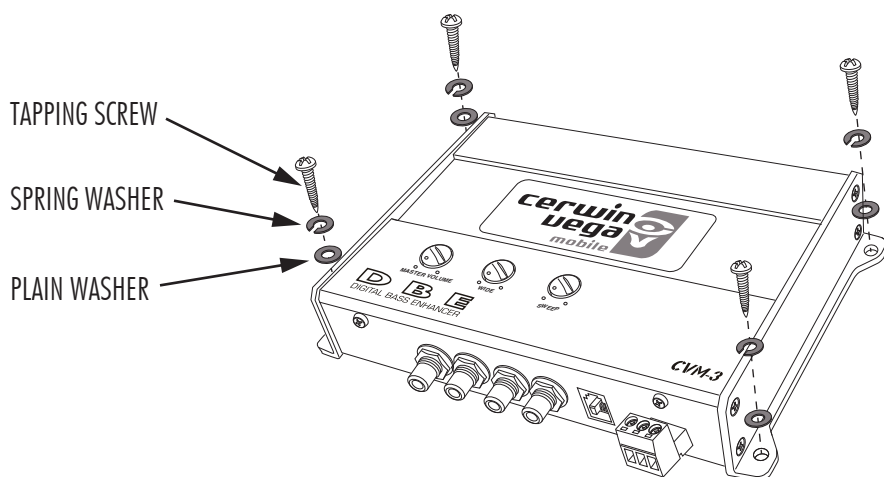
Subsonic Filter Control:

This unique feature gives you the ability to fine tune the bass response of any system, why waste power on nasty subsonic information when Subsonic filter control can help you to clean things up?

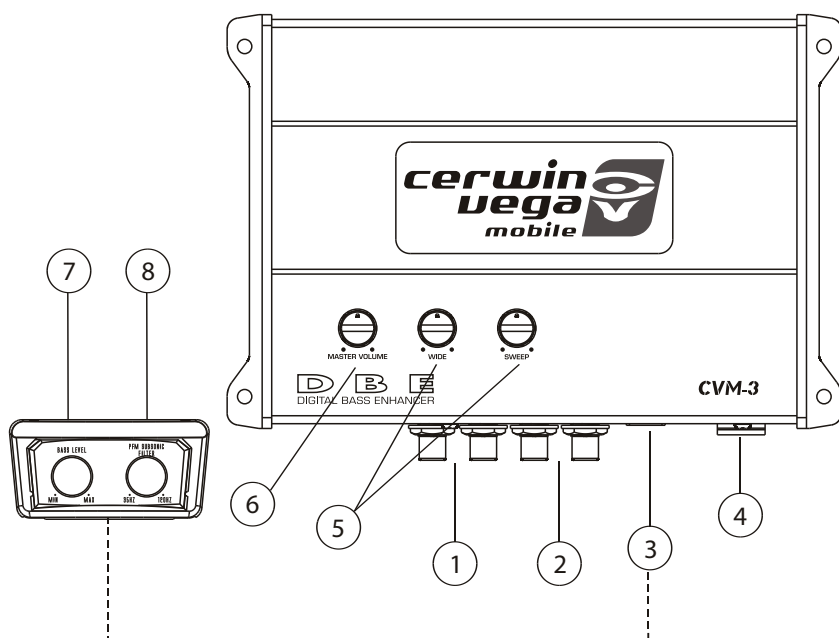
Bass Output Control:

The CVM-3 has the ability to produce large amounts of deep bass without damaging your speakers. The bass output control allows you to maximize the bass output of any audio system while restraining destructive bursts.

Installation



Functions



- 1. Inputs:** The RCA inputs of the CVM-3 use a balanced differential input circuit to help minimize induced noise. They are also designed to handle very high signal voltage up to 15 volts.
- 2. Outputs:** The RCA output connectors should be connected to the next component after the CVM-3 such as a crossover, equalizer, or amplifier. Just remember, the CVM-3 should go in-line before a crossover.
- 3. Remote Controller Cable Socket**
- 4. Power Connector:** Requires B + (12v), Ground and Remote turn-on trigger.
- 5. Bass Controls:** These 2 knobs control the bass functions of the CVM-3. The SWEEP knob allows you to pick the center frequency that you want the CVM-3 bass restoration circuit to maximize. The WIDE knob adjusts how wide of a frequency range the CVM-3 will affect.
- 6. Master Volume Control**

Dashmount Remote Controller

7. Sub Volume Control

8. **Subsonic Control:** Controls the subsonic frequency from 35Hz to 120Hz.

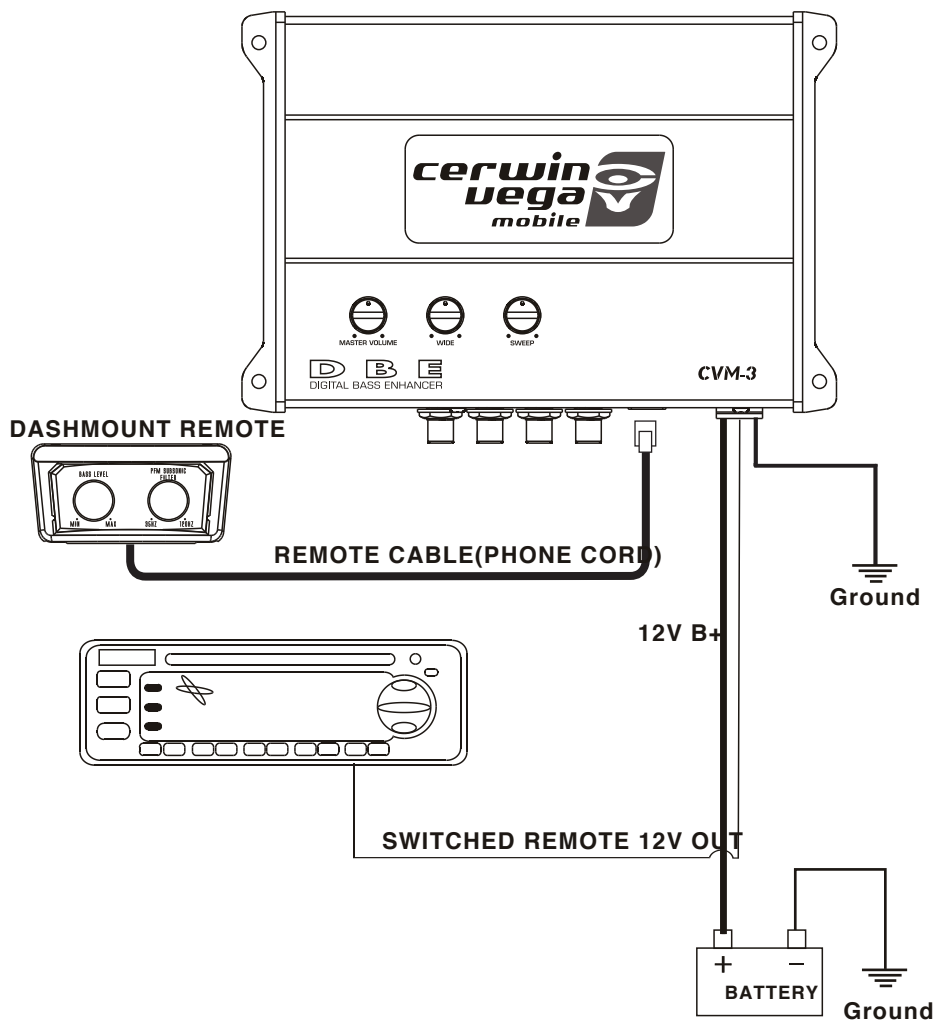
Connections & Wiring

POWER CONNECTIONS:

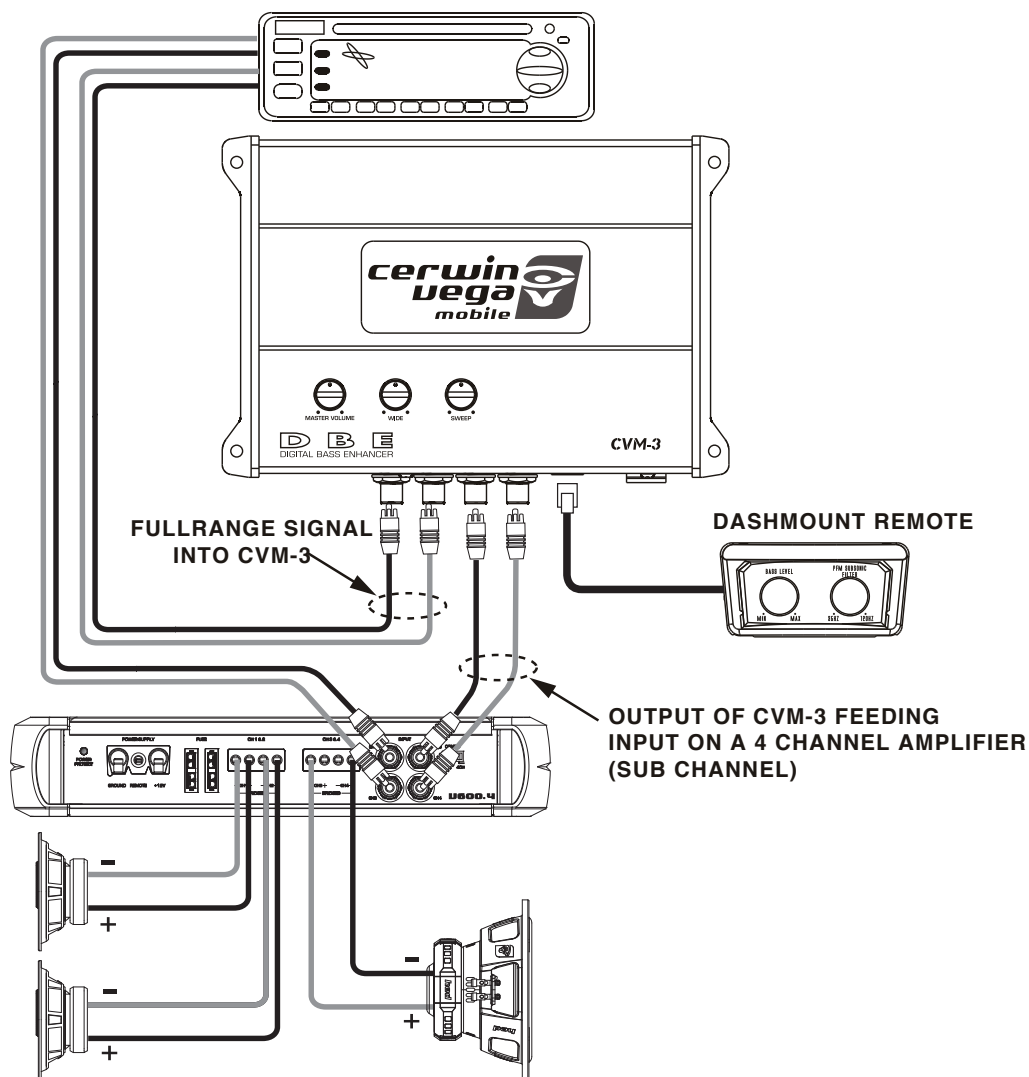
B+(12V): Connect the red wire to the car battery .

REMOTE: Connect the orange wire to remote activation (12V DC) wire of car stereo or equalizer .

GND: Connect the black wire to the car chassis for ground connection.



Connections & Wiring



NOTE: For signal connection, the output RCA connectors should be connected to the first component after the CVM-3, such as a crossover, equalizer, or amplifier. Remember, the CVM-3 should go in front of any device with a crossover as it needs a full range signal to function properly.

IF you get NO bass restoration or improvement ...this should be the first place you look

Adjusting the Bass Controls

The bass response in a system is affected by four factors:

- 1. The acoustics of the vehicle
- 2. The location of the speakers
- 3. The source music
- 4. Speakers and speaker enclosures

Because of the variations that happen during the recording of music, we developed CVM-3 to restore any low frequencies lost during the process; however, the acoustics of various environments and recordings are different. The sweep control allows you to select a center frequency (the frequency most affected) between 27 and 63HZ. The “Wide” control then allows you to control the shape of the filter centered on the sweep frequency(how “Narrow” or “Wide” you want the boost)

Bass Output Controls

The CVM-3 is a powerful bass component. This device is equipped with several / different bass output selections, if you should need to change the settings, please use the chart below for guidance. We recommended listen to the factory setting before changing your bass output settings.

Recommended Settings

Setting	Amplifier Input Voltage	Minimum Speaker Size
2.5 Volts	3.0 Volts or less	8"
5.0 Volts	5.0 Volts or less	10"
7.5 Volts	7.5 Volts or less	12"
10 Volts	10 Volts	15"

Specifications

Maximum Input Level.....	15V rms
Maximum Output Level.....	13.2V peak
Frequency Response.....	10Hz -35KHz
T.H.D.....	0.0025%
Signal to Noise Ratio.....	133 dB
Balanced Input Noise Rejection.....	62 dB
Input Impedance.....	10K ohms
Output Impedance.....	150 ohms
Power Supply	High
headroom PWM	
Power draw	150mA

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Note: FOR ADVANCED USERS!!

There are jumpers underneath the top panel located on the top right section of the PCB. See page 7 for detailed instructions

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Troubleshooting

If the Unit does not turn-on, and/or the power indicator LED is NOT illuminated, do the following;

- 1) Check and make sure that B+ and GND are not reversed
- 2) Check that all power wires are properly connected and have the appropriate voltage (11.8 - 15 Volts)
- 3) Check Remote turn on voltage also. This MUST be 12 V DC or higher
- 4) Check that the fuse is intact and functioning..with a DVM or Volt Meter.

If you experience high audible distortion or low output volume:

- 4) Check that the input and output levels are set correctly. Input GAIN (or Sensitivity) is NOT a power control. If your headunit has good voltage out on the RCA's you may find that GAIN is set all the way DOWN. Which is GOOD. Gain all the way up or all the way down does not make your amplifier any MORE or LESS powerful. This is GAIN...Remember that!!
- 5) Check the crossover settings; make sure they are correct; for high "Q" systems, set it at 1 octave higher or more. Meaning if you set the LowPass filter on your crossover at 50Hz , try setting it at 100Hz

If you experience whining or engine noises:

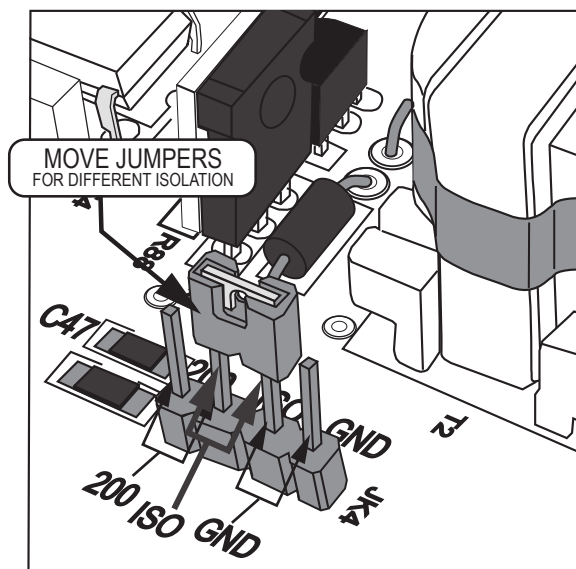
- 6) Verify that the GND connection is secure; the conductor (wire) is not too thin and unnecessarily long.
- 7) Check that the B+ wire is not too thin and unnecessarily long.
- 8) Change the power source; try taking power from a different point.

WHEN ALL ELSE FAILS ...CALL CERWIN VEGA MOBILES TECH LINE

1-213-261-4161

Under the Hood - Trick stuff...If you need it!!

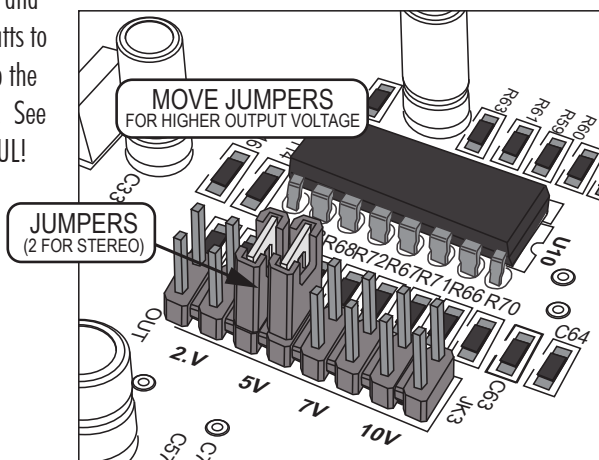
THESE ADJUSTMENTS requires complete disassembly of the CVM-3 processor!
DO NOT attempt unless you are technically qualified!!



If you have some alternator "whine" then you may have a "ground loop".

If so try changing the ISOLATION configuration JUMPERS as shown to the left. Stock position is the ISO setting (which is the correct setting 90% of the time) There is a 200 ohm setting and a GND setting. Try either of these and see which one solves your issue. Otherwise call Cerwin-Vega Mobile tech support

Assuming you have 15 inch subwoofers and multiple amplifiers with thousands of watts to throw at them ..you may want to set up the CVM-3 at the 7.5 Volt or 10 Volt output. See the adjustment to the right. BE CAREFUL!



Warranty

Thank you for purchasing a Cerwin Vega Mobile product and we hope to provide you with countless hours of listening enjoyment. Please take a brief moment to register your new product. By registering your new product, you will receive benefits such as:

- Important product notifications that may pertain to your purchase.
- Confirmation and record of ownership in case of loss or theft.
- Knowledgeable customer service and technical assistance pertaining to your product.

Registering your new product is as easy as completely filling out the Product and Warranty Registration form below or by registering online on our consumer website at:

www.cerwinvegamobile.com

Registration is voluntary and failure to register will not diminish your limited warranty rights.

Limited Warranty (U.S.A.)

Cerwin Vega Mobile warrants all of our amplifiers and speakers to be free of defects in materials and workmanship for a period of one (1) year. This warranty is non-transferable and applies only to the original purchaser from an authorized Cerwin Vega Mobile dealer. If service is required and necessary under this warranty due to manufacturing defect or malfunction, then Cerwin Vega Mobile will repair and/or replace defective product with either new or remanufactured like product at no charge at our discretion.

Damage to product caused by the following will not be covered under this warranty: abuse, accident, misuse, neglect, modifications, repairing attempts, seller/installer misrepresentation.

This warranty does not cover any incidental, consequential, or cosmetic damage due to accidents or normal wear and tear, nor does it cover the cost of removing or reinstallation of the product.

Warranty is void if the product's serial number has been removed, defaced, and/or tampered with.

Warranty Procedure:

We recommend that you contact your Cerwin Vega Mobile authorized dealer where your original purchase was made to initiate all warranty claims. Our authorized dealers can guide you through the warranty procedure to ensure that your claim will be processed in a timely manner. All warranty returns must be accompanied with a proof of purchase (a copy of the original sales receipt) and be shipped freight prepaid to our facility with an RA (Return Authorization) number clearly marked on the outside of the package. Direct returns from consumers or non-authorized dealers will be refused if shipped without a valid RA number authorized by Cerwin Vega Mobile beforehand.

For subwoofer returns, remove the cone from the basket by cutting the surround and then the spider, thus allowing the cone to completely lift out. All returns must have the serial numbers taped to the cone. The serial number can be found on the basket of all speakers and underneath the spider attached to the top of the magnet plate. Please remove the sticker and tape it to the cone.

For coaxial speaker returns, the tweeter should be broken off and sent in with the cone. For component speakers, only return the defective part such as tweeter, midbass, or crossover only.

Products returned without proof of purchase will be determined from the manufacturing date code. If warranty period has expired, a service/repair fee quote will be given if product is to be repaired or replaced. Non-defective items received will be returned freight collect. Please Ship All Warranty Claims With Pre-Authorized RA Number To:

Cerwin Vega Mobile
ATTN: Customer Service Department
1225 E. 7th St.
Los Angeles, CA. 90021

Please Contact Customer Service for Further Warranty Information:

U.S.A.

Tel: 213.261.4161 / Hours: 9:00 AM – 6:00 PM (Pacific Standard Time)

INTERNATIONAL

Products purchased outside of the U.S.A. are covered only by that country's distributor and not by Cerwin Vega Mobile U.S.A.



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