

Element X Amplifier

Installation Manual

Please take a few minutes and read this manual <u>BEFORE</u> starting the installation! This amplifier manual is not "vehicle specific" so reading before starting will help you choose a good mounting location, and help plan your wiring.

Metrix Audio and Hogtunes Inc. are Owned by Powersports Audio Inc., Barrie, Ontario, Canada All Products Designed and Engineered In Canada

Congratulations and thank you for your purchase of this Metrix Audio amplifier! 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. Please email info@metrixaudio.com, or call us during regular business hours (EST) at (705)-719-6361. If you still need help, then please consider a professional installation by your retail dealer.

Element X is a 2 channel amplifier rated at 75 watts per channel at 4 ohms. It comes equipped with 2 pairs of stereo output plugs (1 pair of left and right "Mains", and 1 pair of left and right "EXT's") allowing a total of 4 (2 pairs) of 4 ohm speakers to be powered by the single amplifier. When running 4 speakers, the amp is then rated to produce 125 watts per channel and is running at 2 ohms "total". Do not run 4 speakers with impedances lower than 4 ohms or the amplifier will not work properly.

This amplifier is made to work in a wide variety of applications and will need to be "set up" for your installation. Please pay particular attention to "setting the amps crossover" and "input selection" sections to avoid unnecessary technical support calls.

Mounting Location Considerations:

Like all amplifiers, Element X will generate heat. When choosing a mounting location, please make sure the amp has adequate air flow. This amplifier is "smart" in that, if it gets hot enough where it thinks damage to itself will occur, it will shut itself off (go into protection) until its cool enough to safely operate again. Mounting the amplifier next to a motors exhaust system or near radiators may cause the amplifier to prematurely go into protection due to high ambient air temperatures. Please consider this carefully when choosing your amplifiers mounting location. Also, as major fans of playing with Powersports toys as we are, we understand that this amplifier may be subject to getting wet or very dirty. If you think you may ever be in a high water situation, you may want to mount the amp higher up off the floor if possible. While every attempt has been made to prevent water from getting inside your amp, it is not waterproof, and cannot be <u>submerged</u> without risking non-warranty damage. In all cases, the amp must be mounted "inside" the vehicle, and must NOT be subject to impeding any moving parts of the vehicle including (but certainly not limited to) suspension etc.

The amplifiers mounting flanges have holes for screws or fasteners for securing the amp, as well as "rectangles" in case you need to use "zip ties". IN ALL CASES, screws or fasteners is the suggested and preferred method to attach the amplifier to the vehicle! Please take extra care to make sure the amplifier does not come loose while operating your vehicle!

Input Selection:

Input refers to getting music from your device or radio into the amplifier. Element X has 3 ways to get music into the amp. Please read below and choose the one that works for your installation. On the same side of the amplifier that has the power wires coming out, you will see a removable rubber "plug" Once you choose the method of input you will use for this installation, you will have to make sure the input switch (behind the rubber plug) is in the correct position.

- 1) If you are using the control box from a Metrix Audio MA 4-BT as the music source, locate the bag marked "hi level input" and plug the flat 4 pin plug to the mating plug on the amp. The 4 pin blue plug on the "hi level input" harness will plug directly into the MA4-BT "Audio Out". This is a "hi level" input so the input selector switch needs to be in the "out" position.
- 2) If you have a car type radio in your vehicle that is directly powering speakers (no external amplifier), you will need to connect the radios speaker wires to the amp. Locate the bag marked "hi level input" and plug the flat 4 pin plug to the mating plug on the amp. Cut the blue 4 pin connector off, and connect the radios speaker wires to the 4 wires on the "hi level input". For reference:

Grey = R+
Grey with Black =RWhite = L+
White with Black = L-

This is also a "hi level" input so the input selector switch needs to be in the "out" position. Taking extra care to make sure your connections are solid will eliminate unwarranted technical support calls.

3) If you have a radio with a preamp level out (RCA connectors) or a device such as a phone, or tablet, and want to use the "headphone output" of that device to send music into the amp, you will use the use the "low level input". This is a black wire coming out of the amplifier that has 3.5mm (1/8" mini) female audio plug with a "cap". This wire is labeled "low level input". You will use the appropriate cable to go from your music device into the low level input. If using this method of input, make sure the input selector switch is set to the "in" position.

Amplifier Out:

Output refers to sending music from your amplifier out to the speakers it will play. As mentioned near the beginning of this manual, the Element X amplifier is a 2 channel amplifier with 4 outputs (1 pair of left and right "Mains", and 1 pair of left and right "EXT's"). When running one left and one right 4 ohm speaker, the amplifier is rated for 75 watts per channel. For easy system expansion, you can use the second set of amplifier "EXT" outputs to run a second pair of 4 ohm speakers. For you fellow audio types....the outputs are paralleled inside the amp. When running 4— 4 ohm speakers, the amp drops to playing a 2 ohm load, and is rated to make 125 watts per channel in this configuration.

On the side of the amp you will see 4 connectors which are the amplified outputs that go to speakers. You will see there are common colors. For reference, the colors are:

Left Channels are Brown/Black Right Channels are Blue/Black

Please Note that the BLACK WIRES ARE POSITIVE

You will see there are 2 pairs of brown/black and 2 pairs of blue/black. The ones marked "EXT" are the secondary outputs, used when driving four speakers. If you are using this amplifier with 1 pair Metrix Audio UTV speakers, the connectors on the speaker's wire will plug into the amp. You would simply plug them together. You would run one speaker to the "left output" and the other to the "right output"

If you are using this amplifier with 2 sets of Metrix Audio UTV speakers. You would plug one left speaker into "left output" and the second left speaker into "EXT" that has brown/black wires. You would plug one right speaker into "right output" and the second right speaker into "EXT" that has blue/black wires.

If you are using another brand of speakers, you can cut the supplied end off the amp and hardwire directly to the speaker's terminals, once again noting the <u>BLACK WIRES ARE POSITIVE</u>. Taking extra care to make sure your connections are solid will eliminate unwarranted technical support calls.

Getting Power to your amp:

Plug the long harness with red, black, and blue wires into the mating 3 pin connector on the amp.

Ground: The black ground wire must be properly connected to a good chassis ground. Poor ground connections are the cause of most amplifier failures! When an amplifier is playing, if the amp is "consuming" 10 amps of current, the amp must "discard" that same 10 amps of current through the ground. When the ground connection is not good, the amplifier cant "discard" properly, and that's when things start to go bad. Please insure an excellent ground connection. Using a "star" washer is a good idea.

<u>Power:</u> The ring terminal end of the red wire must go to a <u>constant</u> (non-switched) B+ power source. The supplied fuse is rated at 20A so please consider this when choosing where to get your B+ from. Taking extra care to make sure your connections are solid will eliminate unwarranted technical support calls.

IMPORTANT: DO NOT REMOVE THE FUSE HOLDER FROM THE POWER LINE! Damage to the amplifier may occur which is not covered by warranty!

The blue wire is the 'remote turn on" and tells the amplifier to turn on or off when the blue wire "sees" 12v or not. If you are running a Metrix Audio MA4-BT, you can attach the blue wire on the amplifier to the same place you have switched power attached to for MA4-BT. If you are running a radio or other device that has a "remote turn on lead", you will attach the blue wire on the amp to that lead. If you are running a hand held device, you must attach the amplifiers blue lead to a switched B+ power source. In this case the amplifier will turn on and be powered up when ever the vehicles ignition is in the ON position.

Setting the amps crossover:

Behind the rubber plug (removed earlier) you will see a 3 position switch labeled HP, LP, and AP. In order to give maximum flexibility, Element X can run in three configurations:

High Pass (HPF) The amp only allows music above 60 Hz to play

Low Pass (LPF) The amp only allows music below 120 Hz to play

All Pass (Full) The amp plays full range (20hz-20 kHz)

The 3 position switch can be adjusted easily with a suitable "flat head" tool. It will switch positions easily so please use care when adjusting. PLEASE NOTE: the image of the crossover adjustment shown below is exaggerated! The actual "swing" of the switch is only 15 degrees from position to position. (Don't break the switch!)

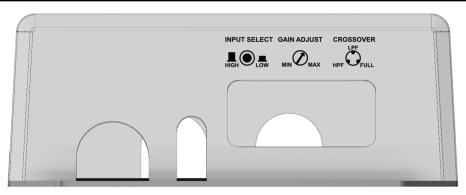
If you are running Metrix audio UTV speakers off this amp, or speakers with woofers smaller than 6x9", put the switch to "HP". This is the way the amp comes preset from the factory.

If you are running any speaker where the woofer is 6x9" or larger, put the switch to "AP".

If you are running subwoofers off this amplifier, set the switch to "LP"

At this point, your amplifier is ready to play but you will need to set the amplifiers gain to achieve the best performance. There is a rotary dial behind the rubber plug marked "gain". It is very important to know that GAIN IS NOT THE VOLUME DIAL! The intent of a gain adjustment is to make it so when your music device is at 60% of its volume, the amp is at 60% of its "power swing". Having the gain set too high on the amplifier will cause your system to sound distorted before it should. To set the gain on the amplifier, start with the gain all the way off (counterclockwise). Put your music device so its volume is approximately 75% of the way up. Start turning the gain dial to the right until the point you hear distortion (sounds like it breaking up) and leave it alone. Note: If you are using a hand held music device to send music to the amp, you can play around with any built in equalizers your device may have built in to get the overall sound the way you like it.

IMPORTANT: MAKE SURE TO PUT THE RUBBER PLUG BACK ON AMPLIFIER Damage to the amplifier may occur which is not covered by warranty!



Warranty Information:

Metrix Audio's Element X amplifier is warranted for a period of 12 months from the original purchase date. The warranty applies to the original (retail) owner of the system only. Proof of purchase is required for all warranty claims. Please visit the warranty section of our website at www.metrixaudio.com and fill out the form, or email or phone us. Products found to be defective during the warranty period will be replaced (with a product deemed to be equivalent) at Metrix Audio's sole discretion.

Metrix Audio and Hogtunes Inc are wholly owned subsidiaries of Powersports Audio Inc., Barrie, Ontario, Canada.

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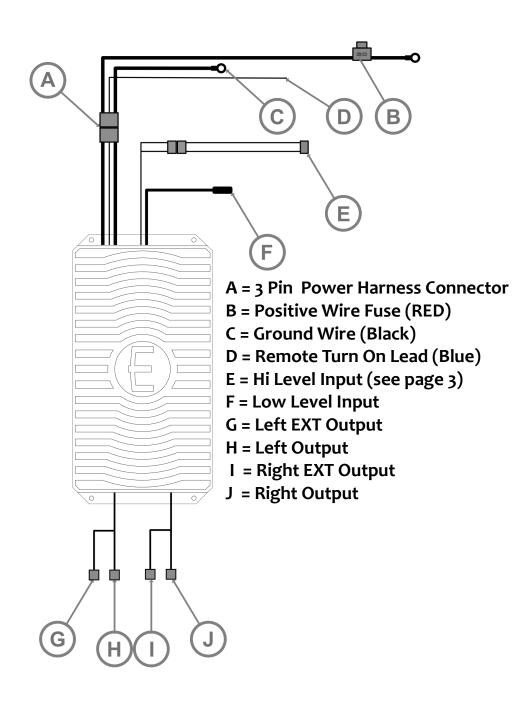
email info@metrixaudio.com

What Is Not Covered:

- 1) Any expense related to the removal or re-installation of this product.
- 2) Warranty to products with missing or defaced serial numbers.
- 3) Damage due to improper wiring
- 4) Repairs of any kind performed by anyone other than Metrix Audio.
- 5) Subsequent damage to any other components.
- 6) Any product purchased from a non-authorized Metrix Audio dealer.
- 7) Damage from an accident or collision.
- 8) Damage from any custom mounting.
- 9) Damage from obvious submersion in water or any other liquid.



Quick Reference Wiring Chart



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Any audio system can be a distraction to the rider and/or passenger. Please use caution when playing your stereo, especially in traffic.

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