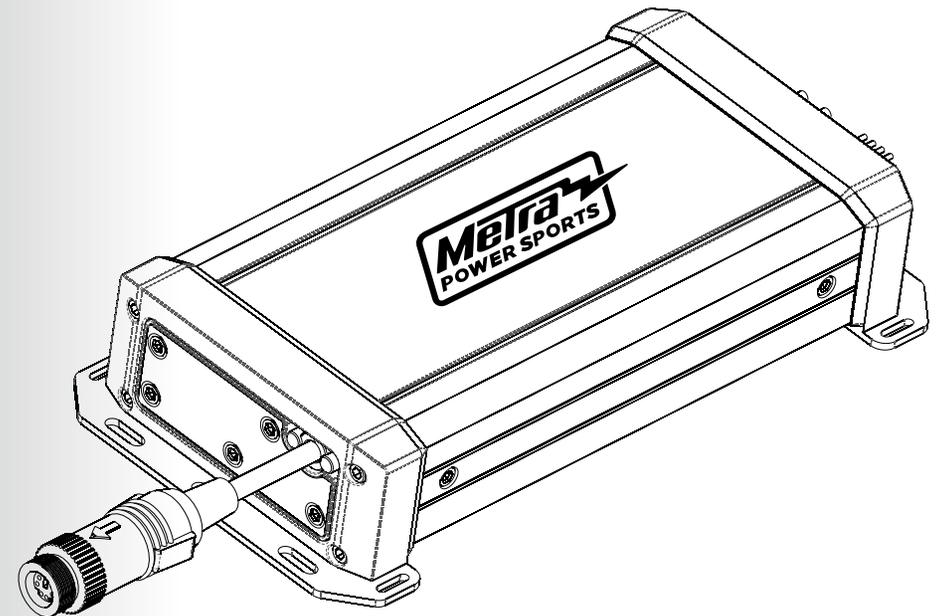




MPS-AMP60X4/MPS-AMP100X2



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POWERSPORTS Power Amplifiers USER MANUAL

POWERSPORTS Power Amplifiers:

MPS-AMP60X4 (60 Watts, 4 Channels)

MPS-AMP100X2 (100 Watts, 2 Channels)

Introduction:

Looking forward to fun and good sound?

Thanks for purchasing a Metra Powersports Amplifier for your system. For over 70 years Metra has been bringing great designed and engineered audio products to life, we hope that the addition of this amplifier to your system will bring you a lot of enjoyment.

Metra amps are designed and engineered in the USA to reproduce great sound quality for extreme environments. We highly recommend that your new amp be installed by an authorized Metra Powersports dealer. Your authorized dealer can professionally assemble and install your system to best meet the demands of your install and supply ideal sound quality.

If you decide to install the amp by yourself, please thoroughly read through this manual before getting started so you make the process successful. This manual will familiarize you with the amps features and how best to install it and guide you through the proper installation process and procedures.

Please contact your authorized Metra Powersports dealer if you have any questions regarding the instructions in this manual. If you require additional assistance contact Metra at 800.253.TECH (8324).

Before securing the amplifier, inspect the mounting location carefully to ensure that you do not drill into or damage any electrical, hydraulic, fluid, or fuel lines.



ONE YEAR LIMITED WARRANTY

Metra Electronics Corporation warrants the original owner that this product will be free of defects in material or workmanship for the period of one year from the date of original purchase, if (i) the allegedly defective product has not been abused, misused or improperly maintained and/or repaired during the warranty period, (ii) the defect is not caused by flooding, fire, explosion, earthquakes or similar phenomenon, and (iii) the defect is not caused by improper use. In order to obtain warranty service, contact your Metra Powersports Authorized Retailer.

Metra Electronics Corporation will, at its option, repair or replace the product free of charge.

To the full extent allowed by law, Metra Electronics Corporation excludes and disclaims liability, whether based in contract or tort (including negligence for any consequential, indirect incidental or special damages of any nature arising out of the sale, maintenance, use or failure of this product, even if Metra Electronics Corporation has been advised of the possibility of such damages in advance, and Metra Electronics Corporation limits its liability to replacement, repair or refund of the purchase price paid, at Metra's option.)

Some states do not allow limitations on how long an implied warranty lasts and/or do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation on implied warranty and incidental or consequential damages may not apply to you. This warranty gives you specific legal rights. You may have other rights, which vary from state to state.



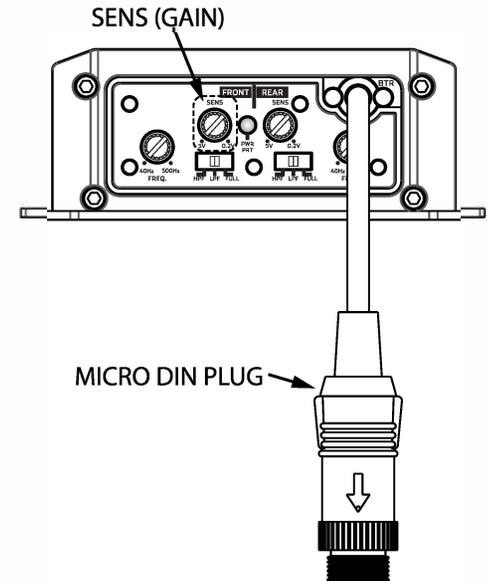
SPECIFICATIONS

MODEL NO.	MPS-AMP100X2	MPS-AMP60X4
POWER OUTPUT AT 4 Ω	100W x 2	60W x 4
POWER OUTPUT AT 2 Ω	150W x 2	90W x 4
POWER OUTPUT AT 4 Ω BRIDGED	300W x 1	180W x 2
WATERPROOF LEVEL	IPX66	IPX66
TOTAL HARMONIC DISTORTION	0.07%	0.07%
S/N RATIO REF 1W AT 4 Ω	>90dB	>90dB
GAIN RANGE	0.2V-5.0V	0.2V-5.0V
CROSSOVER RANGE	40Hz-500Hz	40Hz-500Hz
FREQUENCY RANGE	20Hz-20KHz	20Hz-20KHz
INPUT/POWER	Unbalanced (RCA) 0.2-5V	Unbalanced (RCA) 0.2-5V
DIMENSIONS (Lx106.4x39.2MM)	201MM 7.92"	191MM 7.52"

Input Section: (Waterproof Mini DIN input harness)

Because of the wide range of smartphones Bluetooth[®] output configurations our amps have an adjustable input sensitivity for gain. The gain is not a volume or a power limiting control like a throttle, it makes the amp more sensitive to input from the Bluetooth[®] controllers output. With the gain turned up the amp will reach full output at a lower volume setting on the Bluetooth[®] controller. At higher gain settings the amp also becomes more sensitive to noise from the vehicles electrical system.

Try to run the gain at the lowest setting possible for your system. There is no correct gain setting because speakers require different power demands to reach the same output the gains most often need to be used to compensate for these differences We recommend, for our Bluetooth[®] controller to set all the gains at 11 o'clock this way your system will reach it max audible output at around 75% up on the volume knob. Using good judgment and listening carefully to each speaker is still the best way to tune a system. Your goal is to drive the system to full power output, before the speakers start clipping, at ¾ volume output.

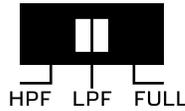


Waterproof Crossover Controls:

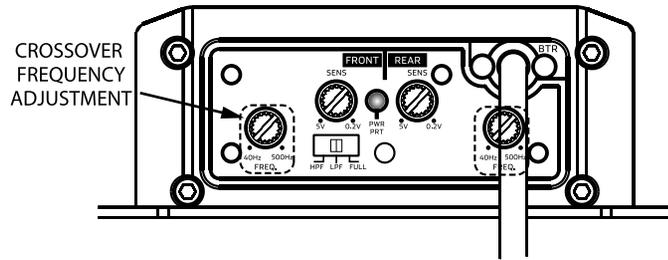
A crossover is a device that removes unwanted frequencies from the output of the amplifier. For instance, a tweeter can easily be destroyed by bass notes if they are not filtered out, likewise, a subwoofer will not sound natural if it is playing midrange notes. A crossover removes these sounds from the speaker. As you might guess, careful adjustment is needed to ensure that all the speakers are playing the right sounds and that you are left with no holes or low spots in the frequency response.

There is a switch for three different setting:

HPF – High pass filter blocks all low frequencies
 LPF – Low pass filter blocks all high frequencies
 FULL – Full range setting for no crossover engagement



Both the HPF and LPF have a potentiometer to set the desired crossover point:



HPF is adjustable from 40Hz to 500Hz which means when the switch is engaged and the potentiometer set the crossover will not allow any frequencies to pass-through below 40 - 500Hz.

LPF is adjustable from 40Hz to 500Hz which means when the switch is engaged and the potentiometer set the crossover will not allow any frequencies to pass-through above 40 - 500Hz.

FULL means that the crossover doesn't engage allowing the amplifier to pass full range frequencies through to the speaker.

Speaker Outputs:

Know your total ohm load before you make any connections.

Metra MPS-65CSRGB tower speakers are a 4-ohm load.

These amplifiers are multi-channel amplifier designs. Meaning it has more than one channel of speaker outputs.

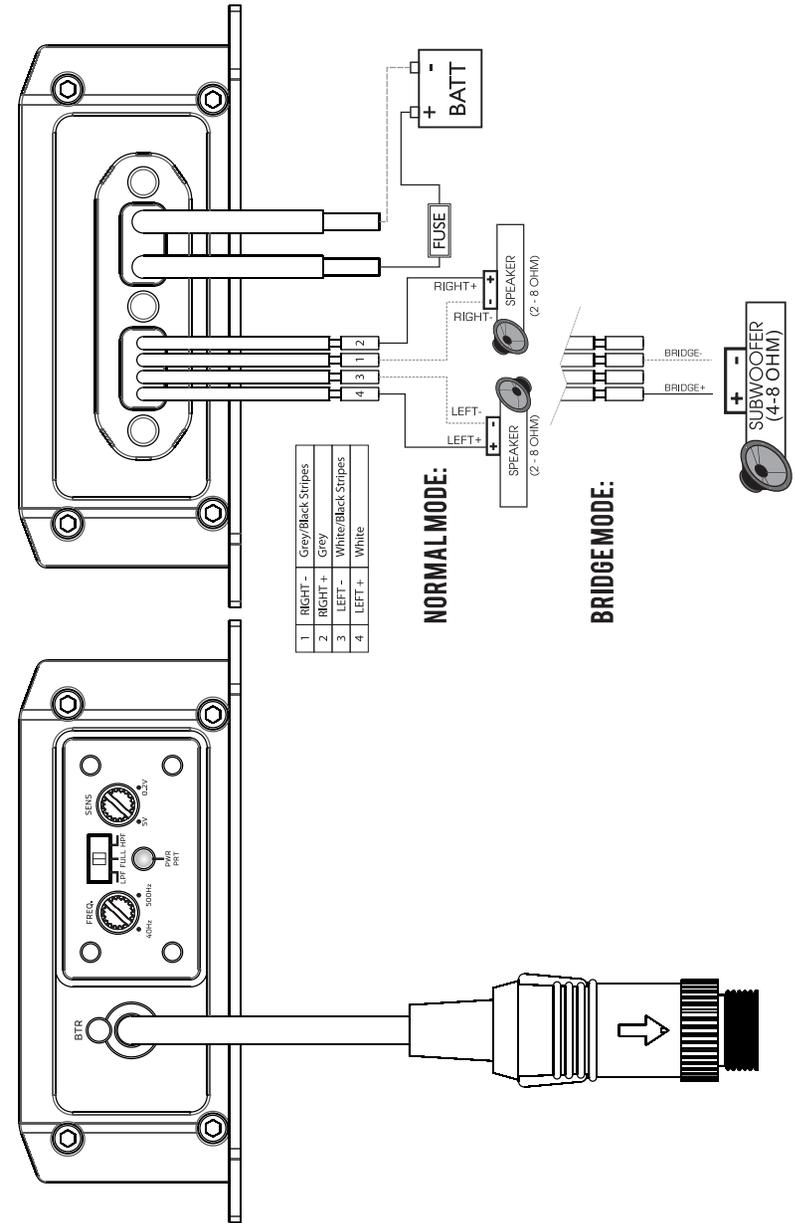
MPS-AMP100x2 is two channel – 4 wires (2 positive, 2 negative)

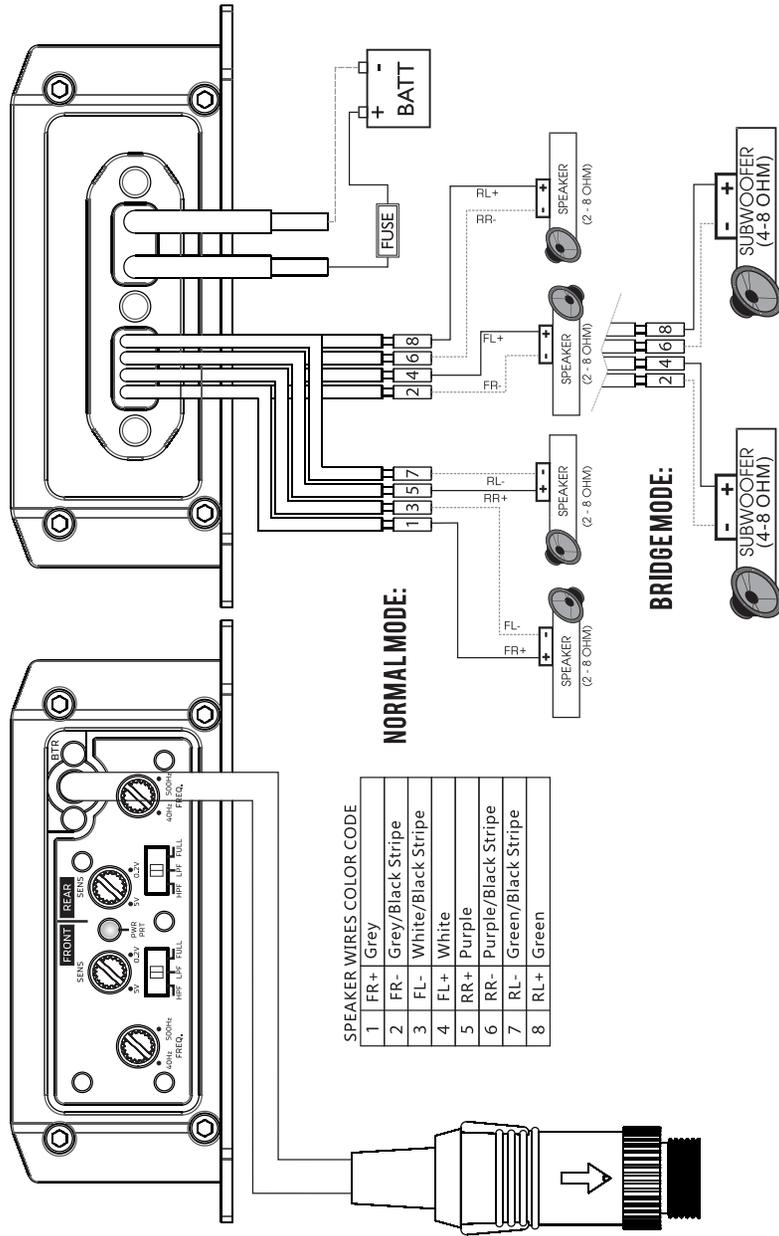
MPS-AMP60x4 is four channel – 8 wires (4 positive, 4 negative)

MPS-AMP100X2

RMS 100W x2CH Full Range Digital Marine Amplifier

Installation

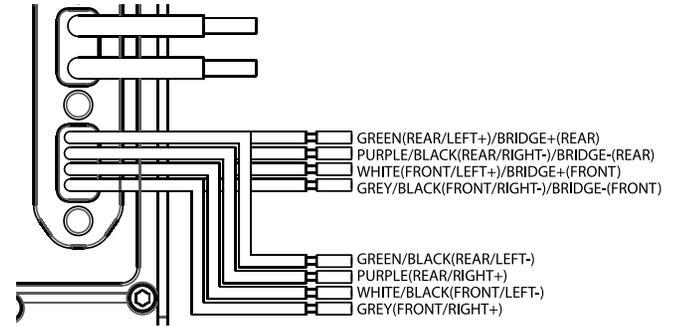




Speaker Outputs:

These amps are equipped with a 12" (30cm) speaker wire leads for speaker connection. Make this connection carefully and neatly, strip your wire back, slide on a piece of heat shrink and twist the exposed leads, solder them and then slide heat shrink over and use heat gun to shrink. This is the best type of wire connection for Powersport applications. If the wires ever come in contact with each other the amplifier will go into protection.

KNOW YOUR TOTAL OHM LOAD BEFORE CONNECTING



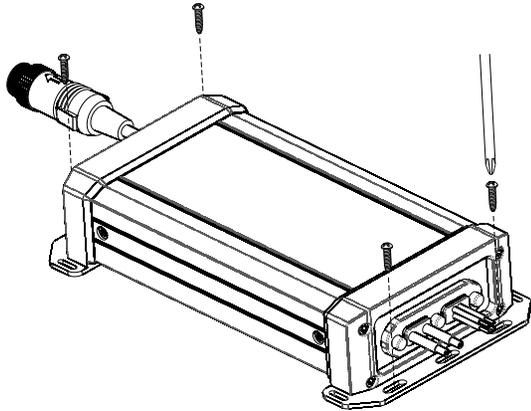
Installation Instructions:

Note: Fuses are installed inside the fuse holder! Remove cover and use the supplied Allen wrench to un-install the ATC fuses during installation.

1. Before you start disconnect the negative cable from the car battery and wrap in black tape so it is isolated from the battery and metal around the battery.
2. Your amplifier comes with 8' (244cm) of copper OFC power and ground wire that has been specified to handle the current needs of your amplifier. You need to decide the placement of your amp and then run the power and ground wire to the battery compartment. Leave enough wire to attach directly to the battery. Trim the balance off. There are two sets of ring terminals supplied, one set with 5/16th inch holes for a standard battery post and 3/8th inch holes for use with a motorcycle battery. Select the proper size for your install and crimp them to the ends of the power/ground wires. There are protective boots in RED and BLACK that need to be used with the respective wire. Do not connect to the battery until all other connections have been completed. The final step is to connect to the battery.
3. To protect your vehicle, the amplifier is supplied with a waterproof fuse holder and fuses (fuses already mounted inside the holder), this needs to be placed into the positive (RED) cable about 12" (30cm) from the batteries terminal.

PLEASE NOTE: If the power or ground wire should short out to the metal vehicle body and it is not properly fused your vehicle could catch on fire.

4. Run the speaker wires from the speakers to the amplifier. Metra speakers are pre-terminated but if using another brand It is advised that you leave some extra wire at this point. You can clean it up later.
5. If you haven't already done so, mount the amp now. Be careful of gas tanks and any electrical wiring or hydraulic fluid lines.

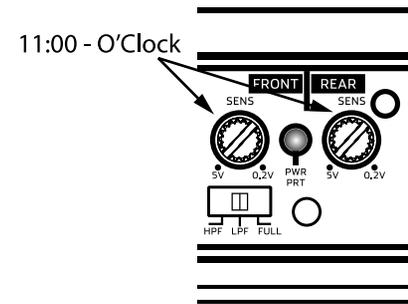


6. Connect the speaker wires to the amp. (make sure the amp is still not connect ed to the battery). Make sure the polarity (+ / -) is correct. Wiring the speakers out of phase will make them not perform properly.
7. Connect the power and ground to the amplifier. Only after this step should you install the fuses into the waterproof fuse holder at the battery.
8. Connect the Metra MPS-BTK Bluetooth® receiver controller to the amplifier, this is accomplished by plugging the male and female Mini DIN connectors together and screwing the stainless steel flange on firmly.

If you are using a head unit or another brand of Bluetooth® controller there is a break out cable supplied, you would use standard connections at this point, RCA cables and remote trigger (blue wire with white stripe) to supply audio and remote turn-on of the amplifier.

Now is a good time to turn on the amp for the first time. Make sure it turns on properly and does not go into protection.

9. Double check the amplifier controls at this time. Make sure everything is set correctly for your system. Confirm gains and crossover settings at this time.
10. Now you're ready to play it for the first time. It is best to leave the gain at 11 o'clock if using a Bluetooth® controller or if using an alternative source have them all the way down at first. Start with the head unit volume low and work your way up.



13. Now you can tune the amp. Take your time and make only one adjustment at a time. It may take some time to get the system fully adjusted. During this time the amp is drawing current from the battery so you should check the battery voltage from time to time and re-charge it if it gets to low, a low voltage will either cause possible performance issues or drive the amp into protection. That's it. You're done. Now have fun.

Should your amplifier require service:

Before calling METRA.....Please consult with the authorized dealer from which it was purchased.

Do not attempt to return your amplifier directly to METRA without first calling for a Return Authorization Number. Units received without an accompanying Return Authorization Number will be refused. Additionally, you must include a copy of your purchase receipt from an authorized dealer for consideration of in-warranty service; otherwise repair charges will apply.