

Installation Guidelines

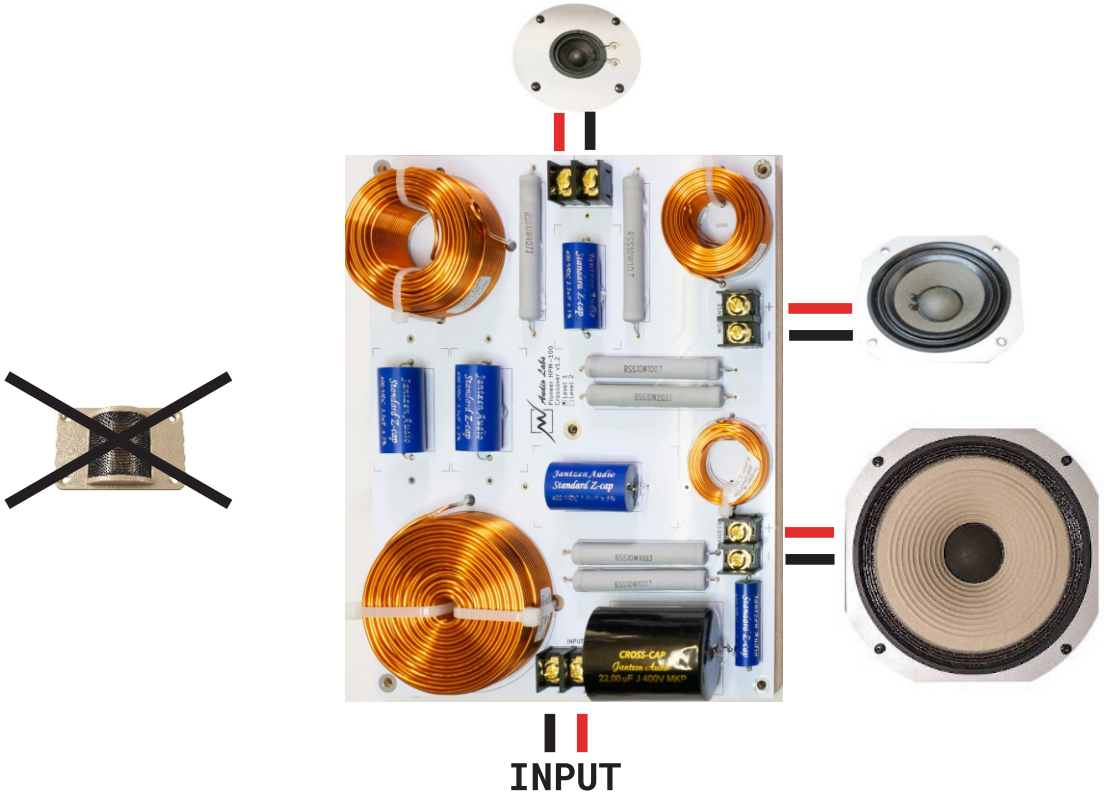
for

HPM-100 Upgrade Crossover

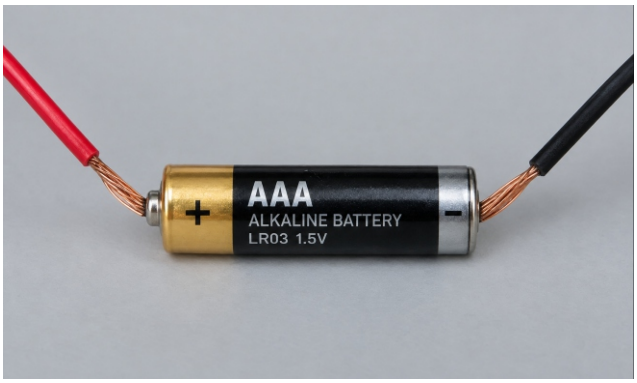
V1.0

Connection Diagram of the HPM-100 Upgrade Crossover

All connections to drivers are made as marked on PCB! So midrange “+” goes to positive terminal and “-” to negative etc. Supper tweeter is omitted by design and is left unconnected.



> **Always make sure of correct driver polarity! DO NOT relay just on wire coloring. Even if you are the original owner and are 100% confident that speakers where never opened - still double-check every driver!**





Correct! Incorrect!

Use a 1.5 V battery to briefly connect to the driver terminals, one driver at a time. Observe the direction in which the cone moves.

Correct polarity: The cone moves outward. The wire connected to the battery's positive (+) terminal is the driver's positive wire.

Incorrect polarity: The cone moves inward. The wire connected to the battery's positive (+) terminal is the driver's negative wire.

Connect the drivers to the crossover accordingly.

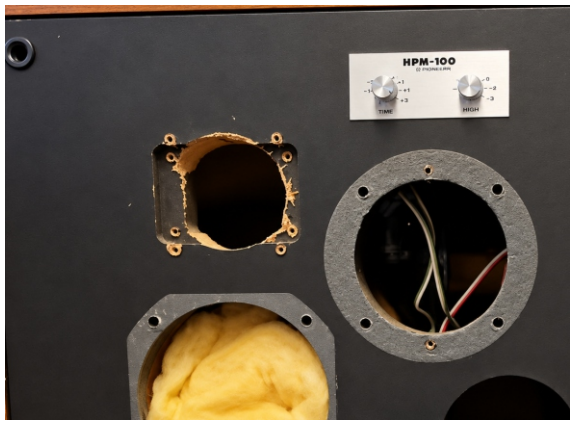
Positioning the HPM-100 Upgrade Crossover

This will depend on whether you are re-using old internal wiring or upgrading it completely.

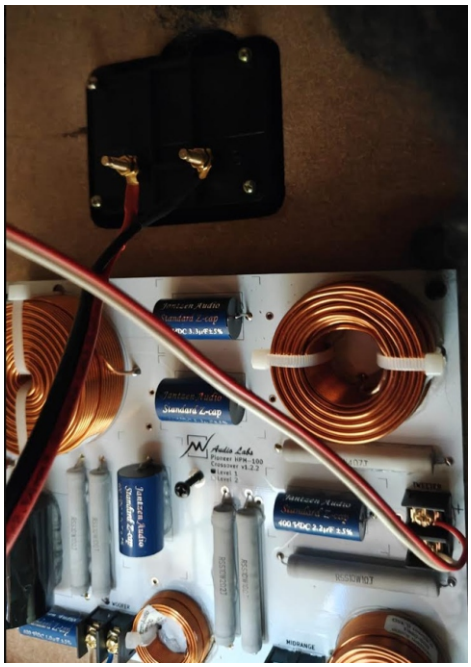
> It is highly recommended to upgrade internal wiring! Any stranded wire of more then 1.5mm^2 will be better than those old telephone wires with oxidized spade connectors. You can now order full upgrade wiring.

When re-using the old wiring - first you must cut wires going from drivers to the front panel attenuators retaining as much wire length as possible.





You can choose how to access those wires by either removing the tweeter or pulling out the knobs and unscrewing the attenuators to access wires properly.





Then you should position new crossover high - near the speaker terminal box. In this position there should be enough tweeter wire length if you connect both pieces together using terminal block (not included). As for the midrange and woofer - there should be enough original wire length left.

As can be seen from the photos - this position is very sub-optimal! Access to the upper crossover plate screws is limited by the bracing plate.
For this reason, reusing the original wiring and mounting the crossover in this position are NOT RECOMMENDED.

Upgrading the internal wiring

By upgrading the internal wiring, our goal is to minimize the resistance between the crossover components and the drivers by using premium-quality wire. This allows you to get the most out of your new crossovers.

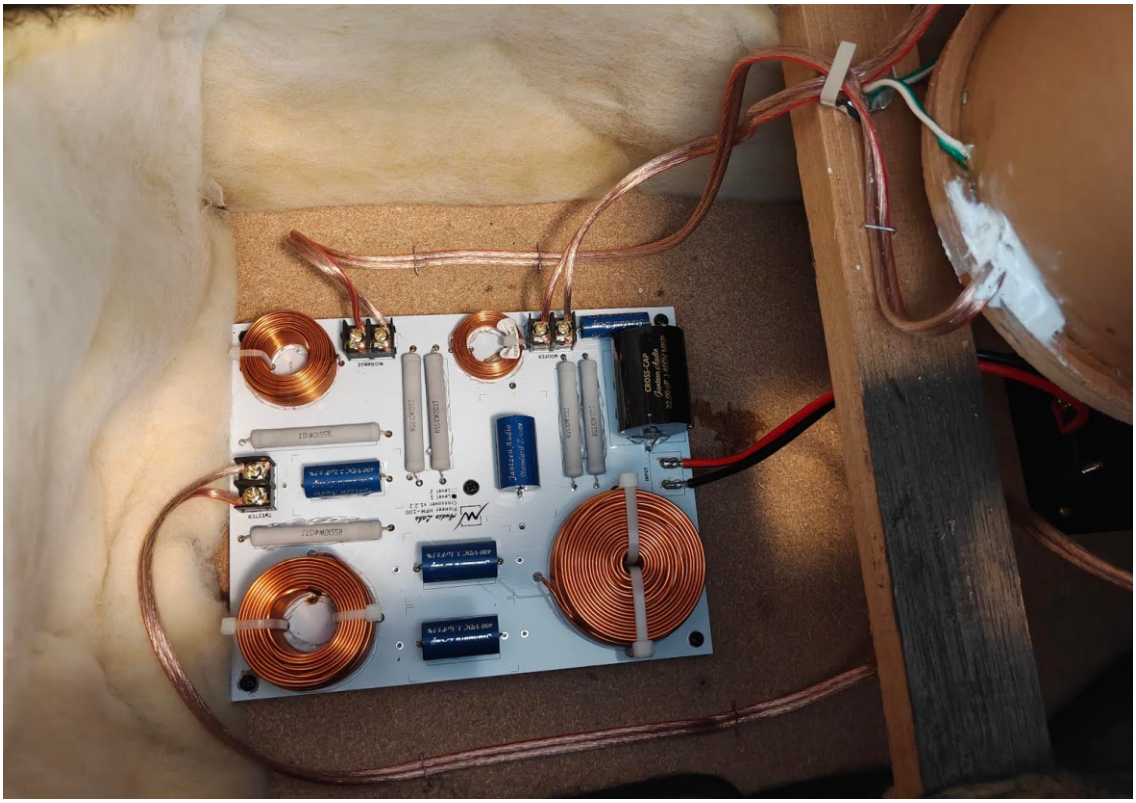
For Level 1 components, I would consider this an upgrade recommendation. For Level 2 components, however, I consider it mandatory! Otherwise, you're leaving a significant part of the performance potential of those premium components untapped. And if you're upgrading the wiring, keeping the original detachable spade connectors at the drivers makes no sense. These connectors introduce additional contact resistance, partially undermining the benefits of the upgraded wiring.



New wires to the drivers terminals
must be soldered!
This is the only proper way to
ensure low-resistance
connection to the original drivers.



After soldering new wires to the drivers, you can position new crossover board right under the woofer. This is the preferred position - it ensures good access to the 5 mounting screws and driver terminals.

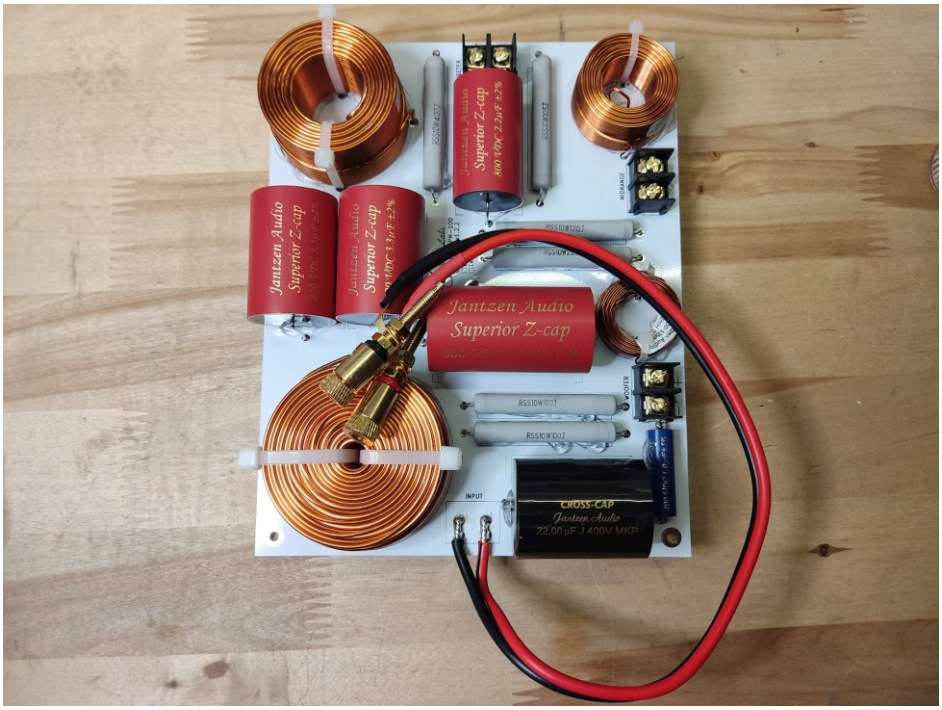


Remove the damping material sheet - install a new board and then attach it back using staples or hot glue (not included).

When installing new midrange wire - don't forget to seal the hole with some putty (Blu-Tack)! This sealant is included with the optional wiring upgrade.

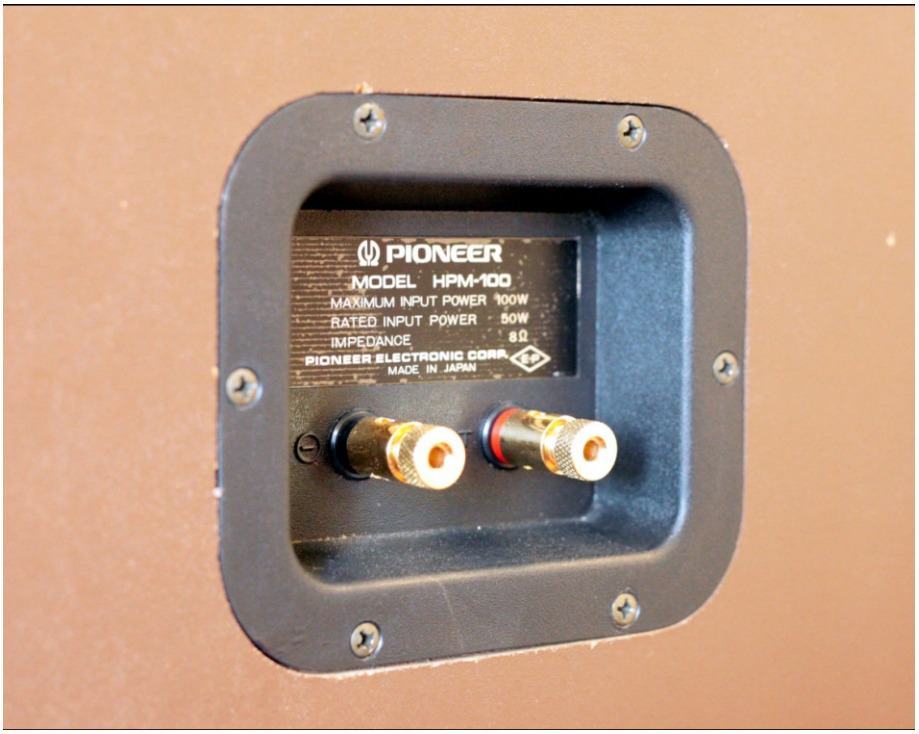
Installing the Binding Posts

If you order the separate Binding Post Upgrade option - your crossovers will arrive with the input wires pre-soldered to the PCB and the new binding posts already attached.



The only remaining step is to enlarge the holes in the original terminal plate to the required diameters:

- 4mm(5/32") for Generic option
- 5mm(13/64") for Premium option



Tighten the locking nuts, and enjoy your upgraded speakers!