

MODEL M5-HPA HIGH PASS AMPLIFIER PRELIMINARY OWNERS MANUAL

CAUTION: PLEASE READ THIS MANUAL BEFORE PLUGGING IT INTO THE WALL!

-If the amplifier came in from the cold (less than 50 degrees Fahrenheit) let the entire assembly come to room temperature to minimize condensation. **FOR STABILITY REASONS USE SPEAKER WIRES THAT ARE 4 FEET OR LESS IN LENGTH!**

-Do not move the amplifier or power it up without the cover on with all screws in place or the PCB could be damaged.

-UNPLUG THE M5-HPA FROM AC FOR 3 MINUTES BEFORE CHANGING THE ROTARY HIGH-PASS SWITCH TO A DIFFERENT FREQ!

UNPACKING THE M5-HPA

-You have obviously opened the carton to find this owners manual.

-Remove the power cord and remove the top tray.

-Using the Speaker Output connector and the Logo Recess on the Front Panel lift the M5-HPA out of the shipping carton.

-Remove the Plastic Bag.

-Install the HRS footers with the ones marked with the Yellow Dot in the front two threaded inserts and the ones marked with Light Blue Dot into the rear threaded inserts hand tight (it is very important to get the color coding correct).

-Locate the M5-HPA near the speakers directly on the floor without amplifier base except for a piece of 1 inch granite if desired.

PREPARING THE M5-HPA FOR OPERATION

-Remove the 14 screws attaching the cover and lift straight up and off (not necessary if the M5-HPA will be used in the 100Hz high pass mode as they come set to 100Hz).

-Set the High-Pass Rotary Switch located approximately in the middle of the main circuit board (comes preset to 100Hz) for the high-pass frequency desired. Example: QUATRO / QUATRO CT, MODEL 5, 5A,5A CARBON, SEVEN, SEVEN Mk II = 100Hz. Any speaker while using the 2W, 2Wq ,SUB THREE or any other application requiring 80Hz high pass = 80Hz. A total of five settings are available: 20, 40, 80, 100 and 200Hz. **DO NOT CHANGE THIS SWITCH SETTING WHILE THE M5-HPA IS PLUGGED INTO AC POWER!** Reinstall the cover and its 14 screws. **DO NOT TRY TO MOVE THE M5-HPA WITHOUT THE COVER INSTALLED AS IT IS AN INTEGRAL PART OF THE CHASSIS' INTEGRITY AND DAMAGE TO THE PCB COULD RESULT.**

-Hook up speaker cable maintaining proper polarity. A few words about speaker cables as they can be very expensive, using the M5-HPA near the speaker sounds better because ones budget will allow a higher quality cable and bi-wiring if applicable. Long Balanced interconnects cost less and cause less signal degradation as the input impedance is 200k. When doing true bi-wiring it is best to connect both positive wires and both negative wires into one set of a sufficiently large Ring Lug Connectors (available from your VANDERSTEEN DEALER). By removing the Knob of the Cardas speaker connector used on the M5-HPA the Pressure Block can be removed allowing appropriate 1/4 inch Ring Lug to be installed. Reinstall the Pressure Block which is indexed and will only go on one way.

-Plug in the provided power cord IEC-C20.

-Turn on the Circuit Breaker/Power Switch on the back of the M5-HPA. The left LED on the Front Panel should flash red and turn green. If the M5-HPA has been off for any time, wait 20 minutes before trying to go to operate.

OPERATION

- The left LED should be green. Press the Stainless Steel Button and the left LED goes Blue. If the blue LED will not stay on, wait 20 minutes and try again, especially if this is the first time after powering the M5-HPA up.
- If the Right LED goes Yellow this indicates over temp. Check for wires touching at the Amp Output Connector or Speaker Input Connector. Check for adequate ventilation.
- If the Right LED goes Cyan this indicates over current. Check Speaker Wires for shorts. If no shorts are found this could indicate the Speakers have too low an impedance for the M5-HPA to operate properly. Buy a Pair of VANDERSTEEN speakers.
- If the Right LED goes Red this indicates a fatal fault. Try turning the Power Switch/Circuit Breaker on the rear of the M5-HPA. Note: there will be a 4 to 10 second delay before the Left LED goes Blue. After checking Speaker connections and ventilation this indicates a failure of a component in the M5-HPA. Call your Dealer or VANDERSTEEN AUDIO at 559-582-0324 for assistance.
- The Right LED may flicker during operation which indicates clipping. This is near max power and is not a problem if seen occasionally on peaks. When the Red LED goes from a flicker to steady Red the protection circuit will see it as a DC offset and kick the Power Switch/Circuit Breaker off. Lower the listening level and reset the M5-HPA.
- Intermittent Red LED failure for no apparent reason could indicate a Pre-Amp or source that has excessive DC offset. The protection circuit will not allow operation until this is solved.

12 VOLT TRIGGER

- 12 volt DC pulse "ON" 12 volt DC pulse "OFF".

View is from the rear of RJ-11 jack where the phone cable is inserted.

DBS JACKS

The M5-HPA has two unidentified DBS jacks to the left of the RJ-11 phone jack. If you chose AudioQuest speaker wires or interconnects these can be used in place of the battery packs. You would to order the AudioQuest speaker wire or interconnect with the pigtailed for the battery pack at the amplifier end. This will provide the voltage required as long as the amplifier is in standby or operate and eliminate the need to replace the batteries.

TESTING FOR USE WITH SPEAKERS OTHER THAN VANDERSTEEN

The M5-HPA is a high-pass amplifier with several high-pass optional frequencies. When selecting 20, 40, or 60Hz the current demands on the amplifier increase so this should not be used with speakers that are 4 ohm or less. There are no fuses or circuit breakers in the signal path but the M5-HPA has a very sophisticated protection circuit to protect the speakers and the amplifier. If the protection circuit sees a signal beyond its capability the amp will simply shut down. Try driving any speaker at the desired high-pass frequency at levels found satisfactory to assess whether the M5-HPA is compatible and has enough power. Speaker below 6 ohms will not be good candidates. If you are using one or two Vandersteen 2W, 2Wq, SUB THREE or SUB NINE set the high-pass switch to 80Hz and use any speaker you like ie: full range planar or small monitor.

LED INTENSITY

NOTE: THIS OPERATION REQUIRES THE AMPLIFIER TO BE ON. PLEASE USE CAUTION AND HAVE ONE HAND IN A POCKET FOR SAFETY. BE CAREFUL NOT TO TOUCH ANYTHING EXCEPT THE WHITE POT AS HIGH VOLTAGES ARE PRESENT!

-The Green LED (Standby) and the Blue LED (Operate) intensity can be adjusted. They are controlled by one Pot under the transformer behind the front panel. Remove the cover and look under the large transformer on the left side (facing the front panel) for a white disk with serrations. Turn it carefully for LED brightness desired. The Green and Blue LED will go up and down together so match the right and left amplifiers LED intensity for the color that has the most importance.

SPECIFICATIONS

-Frequency response: 20Hz, 40Hz, 80Hz, 100Hz, 200Hz to 200KHz -3db (High-pass switch dependent).

-Power: 300 watts 4 ohms, 150 Watts 8 ohms @ 120 volt line.

-Input impedance: 200K Balanced.

-Gain 25db.

-Distortion: .15 @ 300 watts, .01 @ 1 watt.

-Signal to noise: -90db A weighted 2 volts out. -110db full power.

-Power consumption: Standby (green) 20 watts, Operate (blue) 60 watts, maximum power 600 watts.

WARRANTY

Vandersteen M5-HPA High-Pass Amplifier is warranted for 5 years to the original purchaser to be free from defects in material or workmanship, SUBJECT TO THE FOLLOWING CONDITIONS AND LIMITATIONS:

-Not been used in accordance with the instructions contained in this operation manual.

-Been subject to misuse or abuse.

-Been modified, repaired or tampered with by anyone not specifically authorized to do so by VANDERSTEEN AUDIO.

-Been subject to inputs in excess of the maximum ratings.

-Suffered physical damage to the structure or components due to accident, neglect or transportation.

-Act of God.