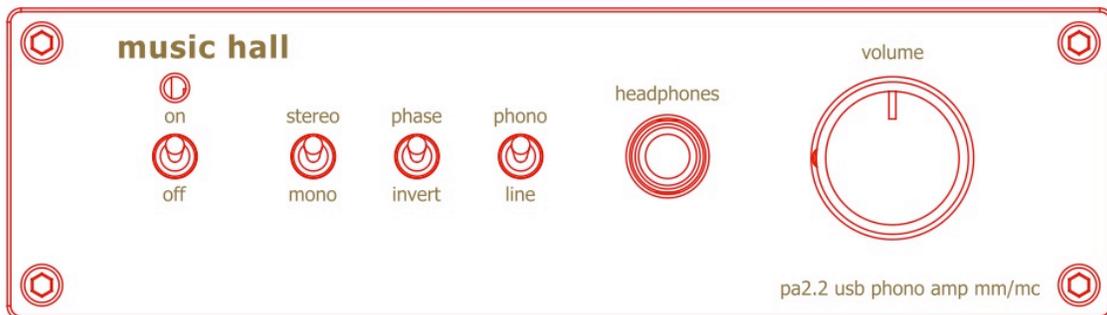


music hall pa2.2

INSTRUCTION MANUAL



CONGRATULATIONS ON YOUR PURCHASE

You have selected an exceptional phono preamplifier. Each component used in the construction of the pa2.2 was selected to provide you with superior performance and the highest level of sound reproduction available today. We know of no phono preamplifier that costs as much to produce yet sells for so little. The precise and elegant design of this phono preamplifier makes it easy to install and operate. Please take a few moments to read over the operating instructions to ensure that you get the best performance from your preamplifier and years of trouble-free service.

SAFETY GUIDELINES

This product is designed and manufactured to strict quality and safety standards. However, you should be aware of the following installation and operation precautions:

1. Take heed of warnings and instructions

Read all the instructions before connecting or operating the preamplifier. Keep this manual so you can refer to these safety instructions.

2. Water and Moisture

To reduce the risk of fire or electric shock, do not expose the phono preamplifier to moisture or water. If the phono preamplifier is exposed to moisture, immediately disconnect the power cord from the wall. Take the preamplifier to an authorized music hall service center for inspection. Do not touch the phono preamplifier, power cord, or plug with wet hands.

3. Object or liquid entry

Do not allow foreign objects or liquids into the unit. If this happens, immediately disconnect the power cord from the wall and take the unit to an authorized music hall service center for inspection.

4. Heat

Keep the phono preamplifier away from naked flames, radiators, heat registers, stoves, or any other heat-producing appliances (including amplifiers).

5. Climate

The phono preamplifier has been designed for use in moderate climates. Do not attempt to use below 41 degrees Fahrenheit (5 degrees Celsius) or above 95 degrees Fahrenheit (35 degrees Celsius).

6. Racks and Stands

Place the phono preamplifier on a fixed, level surface strong enough to support its weight. Do not place it on a moveable cart that could tip over. We recommend only using stands approved for use with audio equipment.

7. Cleaning

A soft towel can be used.

8. Power Sources

Connect the phono preamplifier only to a power supply of the type and voltage described in the operating instructions or specified on the rear panel of the unit.

9. Power-cord protection

Connect the phono preamplifier to the power outlet only with the supplied power supply. Do not modify the supplied power supply in any way. Do not attempt to defeat grounding and/or polarization provisions.

Do not use extension cords.

Do not route the power cord where it will be crushed, pinched, bent at severe angles, exposed to heat, or damaged in any way.

10. Non-use periods

If the preamplifier is to be left unused for a long period of time, the power supply should be unplugged from the wall outlet.

11. Damage Requiring Service

Stop using the phono preamplifier immediately and have it inspected by an authorized Music Hall service center whenever:

1. The power supply cord or plug has been damaged.
2. The phono preamplifier has been exposed to rain.
3. The phono preamplifier does not operate properly.
4. The phono preamplifier has been dropped or damaged.
5. Smoke or any unusual smell is detected from the phono preamplifier.

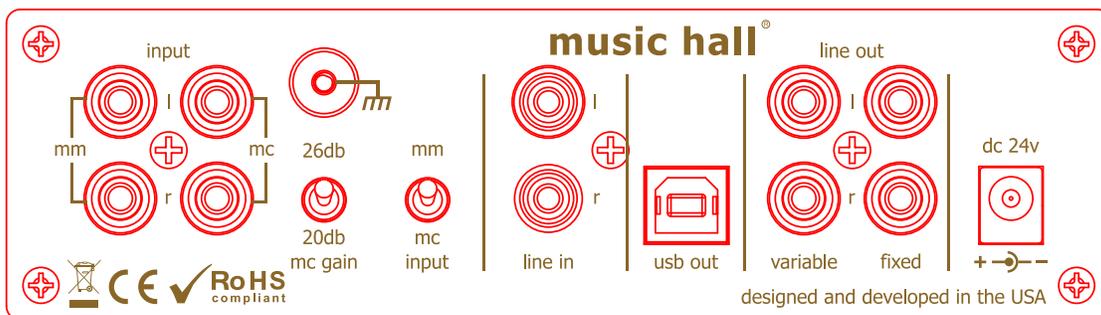
GETTING STARTED

Thank you for purchasing the Music Hall pa2.2 usb phono preamplifier. This manual provides valuable information that will help you get optimum performance from your system. Please contact your authorized Music Hall dealer for any additional clarifications you may require. **Save the shipping carton and all enclosed packing material for future use. Shipping or moving the pa2.2 in anything other than the original packing material may result in severe damage that is not covered by the warranty.** Be sure to keep the original sales receipt; it is your best record of the date of purchase, which you will need in the event warranty service is required.

SET-UP

The pa2.2 may be used in either MM (moving magnet) or MC (moving coil) mode according to the construction principle of the phono cartridge to be used. Before setting the **mm/mc** switch, the unit must be disconnected from the power supply and amplifier. Once disconnected choose the appropriate setting **mm/mc** for the cartridge you're using.

To find out which type of cartridge you have, please consult the literature accompanying your cartridge. If in doubt please consult your dealer. A switch on the back of the pa2.2 sets the correct loading and level of amplification for the cartridge. If you are using an ultra-low output moving-coil cartridge you can add an additional 6 dB of gain by switching the **mc gain** switch on the back to 26dB. If you're using a standard low-output moving coil cartridge best results will be obtained with the 20dB gain setting.



Connecting the Turntable

Connect the turntable signal lead to either the **mm** or **mc input** on the pa2.2 depending on the type of cartridge your using. Take care to connect the left and right channels correctly. The right channel is marked with red the left channel is marked with white. The ground wire of the turntable lead should be connected to the ground screw.

Connecting a Line Input

You can connect any standard line output component (cd player, tape deck, tuner, etc.) to the **line in** input . This will allow you to listen to a standard line signal through the pa2.2 or convert the analog line signal to a digital signal via the **usb out** for recording on a computer. To listen to the output of the **line in** the **phono/line** switch on the front panel must be switched to **line**.

Connection to the Amplifier

Locate the **line out** connectors on back of the pa2.2. You have a choice between **variable** or **fixed** output. The **variable** output will allow you to adjust the volume level of the output with the **volume** control on the front panel. Please note: the **volume** control also controls the volume of the headphone output.

Connect the **line out (fixed or variable)** of the pa2.2 to a line input (i.e. AUX, CD, TUNER, etc.) on your amplifier. Take care to connect the left and right channels correctly. Make all connections while the phono box is disconnected from the power supply.

DO NOT CONNECT THE PA2.2 TO A PHONO INPUT.

Mains Connection

The pa2.2 is supplied with a high efficiency multi-region regulated power supply. It provides a stable output from any mains voltage from 100 – 240V. Connect the low voltage plug from the power supply to the **dc 24V** socket on the pa2.2 before connecting to the mains. You may need to snap on a different power plug adaptor for your country. Plug-in and enjoy.

Connecting to a Computer

Connect to your **Windows PC** or **Apple Mac** computer via the **usb out** on back of the pa2.2. A **usb-B** (pa2.2 end) to **usb-A** (computer end) cable is required for this connection. Connect the pa2.2 to your computer when both products are powered on. Your computer will recognize the pa2.2 and download any necessary drivers.

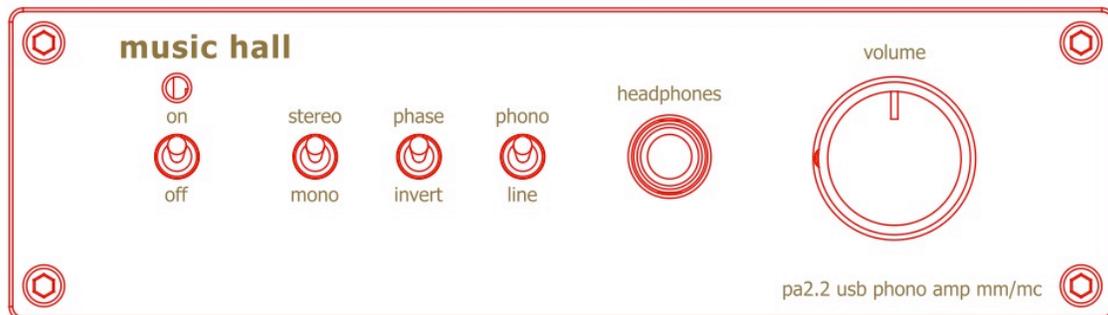
You can select the pa2.2 on a Windows PC under Start > Settings > Sound

Apple Mac computer under System Preferences > Sound > Input

For recording to your computer with the pa2.2 we recommend the use of Audacity freeware. The Audacity recorder and audio editor for your computer can be downloaded and set-up at: <http://www.audacityteam.org>.

Help, FAQ, and Tutorials can also be found on their site.

Front Panel Controls



on/off

Use this switch to power the unit on and off.

stereo/mono

Switch between stereo or mono audio output. The sound of mono records is significantly improved by toggling this switch to mono.

phase/invert

Switches the output signal between absolute polarity **phase (0°)** and reversed polarity **invert (180°)**. The majority of recordings are in phase, but some are recorded inverted phase or out-of-phase. The music will sound more full and rich when matched to the correct phase.

phono/line

Switches the audio output between phono and line inputs.

headphones

¼" output for headphones.

volume

Turn to adjust the headphones and variable output volume level.

TECHNICAL SPECIFICATIONS:

- MM input impedance: 47 kohms+ 220 pF
- MC input impedance: 100 ohms + 1 pF
- Analog line-level input impedance: 47 kohms
- MM gain at 1khz: 39 dB
- MC gain at 1khz: 59 dB (20 dB gain selected) / 65 dB (26 dB gain selected)
- MM input sensitivity for 316 mV output: 3.3 mV
- MC input sensitivity for 316 mV output: 0.4 mV (20 dB gain selected) / 0.2 mV (26 dB gain selected)
- MM signal-to-noise ratio unweighted (with cartridge connected): 70 dB
- MC signal-to-noise ratio unweighted (with cartridge connected): 75 dB (20 dB gain) / 70 dB (26 dB gain)
- Analog Line-level input Signal-to-noise ratio: 120 dB
- MM Input overload level at 20Hz/1kHz/20kHz: 8/71/650 mV
- MC Input overload level at 20Hz/1kHz/20kHz (20 dB gain selected): 0.95/48/450 mV
- MC Input overload level at 20Hz/1kHz/20kHz (26 dB gain selected): 0.45/24/225 mV
- MM Total Harmonic Distortion + Noise (10 mV in): <0.01%
- MC Total Harmonic Distortion + Noise (1 mV in and 20 dB gain selected): <0.05%
- MC Total Harmonic Distortion + Noise (1 mV in and 26 dB gain selected): <0.05%
- Analogue line-level input total harmonic distortion + noise: <0.01%
- RIAA curve accuracy: +/- 0.3 dB
- MM Crosstalk: 65 dB
- MC Crosstalk: 65 dB (20 dB gain) / 60 dB (26 dB gain)
- Line-level input crosstalk: 63 dB
- Fixed line-level output impedance: 270 ohms
- Variable line-level output impedance: 270 ohms
- Headphone stage output impedance: 2 ohms
- Headphone stage maximum output level: 6.8 V
- Headphone stage total harmonic distortion + noise: <0.02%
- USB output: maximum 24 bit linear PCM
- USB output sampling frequency: maximum 96 kHz
- Power Supply Rejection Ratio: 80 dB
- Power supply: external 24VDC with multi-region plug adaptors
- Power consumption without signal: 2.9 W
- Unit dimensions (W x H x D): 6.3 x 2.0 x 6.73 in. (159 x 51 x 171 mm)
- Unit weight: 2lbs. (900g)

Input Connections: 3 pairs of RCA sockets (left/right) 1 x MM, 1 x MC, 1 x Line

Output Connections: 2 pair of RCA sockets (left/right) 1 x variable, 1x fixed
1 x headphone output 32 - 600Ω

A/D Converter: Wolfson WM 8786, Tenor TE7022L 24Bit Delta Sigma

Sampling Rates: 8, 16, 32, 44.1, 48, 96kHz

USB Output: USB 2.0, fully backward-compatible with USB 1.1

Operating Systems: Windows: WinXP/Win7/Win8/Win10

MAC: Mac OSX10.6.6 ~ OSX10.11

music hall reserves the right to make technical modifications

TROUBLESHOOTING

Music Hall phono preamplifiers are manufactured to the highest standards and undergo strict quality controls before leaving the factory. If, for some reason your phono preamplifier is not working properly, please take a few moments to review this list of potential causes.

NO SIGNAL IN ONE OR BOTH CHANNELS:

- The phono preamplifier is not connected to the mains power supply.
- No mains at the socket.
- No connection between the phono preamplifier and amplifier.
- Correct input not selected at amplifier.
- Poor contact or broken connection between the amplifier or turntable.
- Amplifier not switched on.
- Amplifier or speakers defective or muted.
- Cartridge not wired into the head shell.
- Loudspeakers not connected.
- The correct input **line or phono** is not selected for the source that's playing.
- The turntable is not connected to the selected input **mm** or **mc**.

LOUD HUM ON PHONO INPUT:

- No earth connection from cartridge, tonearm, or audio cable to amplifier.
- Ground loop.
- Phono preamplifier too close to one or both speakers.

DISTORTED SOUND FROM ONE OR BOTH CHANNELS:

- MM/MC switch on pa2.2 incorrectly set.
- Dust on the stylus.
- Needle or cantilever damaged.

SERVICE

Should you encounter a problem that you cannot solve, please contact your Music Hall dealer. Never return a phono preamplifier without authorization and without safely disconnecting it and correctly packing it in the original packaging. Repairs will only be made under warranty if the unit is returned correctly packaged in its original box.

WARRANTY

This entitles you to have the Music Hall pa2.2 repaired free of charge, at our discretion, for one year after the date of purchase, at any authorized Music Hall service center, provided the unit was purchased from an authorized dealer. Your original sales receipt is proof of purchase date. Music Hall takes no responsibility for defects arising from accident, misuse, abuse, wear and tear, neglect or unauthorized repair and/or adjustment. Music Hall cannot accept responsibility

for damage or loss that occurs during transit. The warranty does not cover transportation costs.

CLAIMS UNDER WARRANTY

The pa2.2 should be packed in the original packing and returned to the dealer from whom it was purchased, or, upon authorization, to a Music Hall service center. It should be sent by a reputable carrier, carriage prepaid. Do not send the phono preamplifier via USPS (United States Postal Service). Since no responsibility will be accepted for a unit in transit to the dealer, customer, or authorized service agent, customers are advised to insure against loss, damage, or theft.

FOR FURTHER INFORMATION CONTACT:

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