THE VINYL

Owner's manual

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Safety warnings

NEVER OPEN THE EQUIPMENT: There is a risk of electric shock inside. Only qualified personnel should open the device. There are not user serviceable parts inside. QHW Audio declines every responsibility derived from not qualified personnel manipulation.
DO NOT EXPOSE THE EQUIPMENT TO MOISTURE OR WATER: Exposing the equipment to moisture or water can lead to a risk of electric shock or fire. If, due to any circumstance, the device gets wet in such way that water could reach the interior, take it to a technician before connecting it again in order to verify it didn't suffered damage which can lead to danger.
DO NOT USE THE EQUIPMENT NEAR WATER: This equipment must not be used near water, bathtubs, wash tubs, swimming pools or any other you can imagine. If the equipment gets wet or water it should lead to a risk of electric shock and/or fire, and get permanently damaged.
DO NOT PLACE THE EQUIPMENT NEAR HEAT SOURCES: Keep a reasonable distance between the equipment and heat sources for it not getting direct heat from heaters, candles, fireplaces, air conditioners or any other appliances which can send out heat, as computers or power amplifiers. Don't place the equipment blocking ventilation outlets from other equipment. Do not place another equipment as near as it could block ventilation openings of this device, keeping a fair distance of 10 cm from side panels to other apparatus, furniture or surface.
CLEANING: Disconnect the appliance from mains before cleaning it. Use a clean and dry cloth. Don't use aggressive cleaning chemicals, as glass cleaners, because it could damage painting.

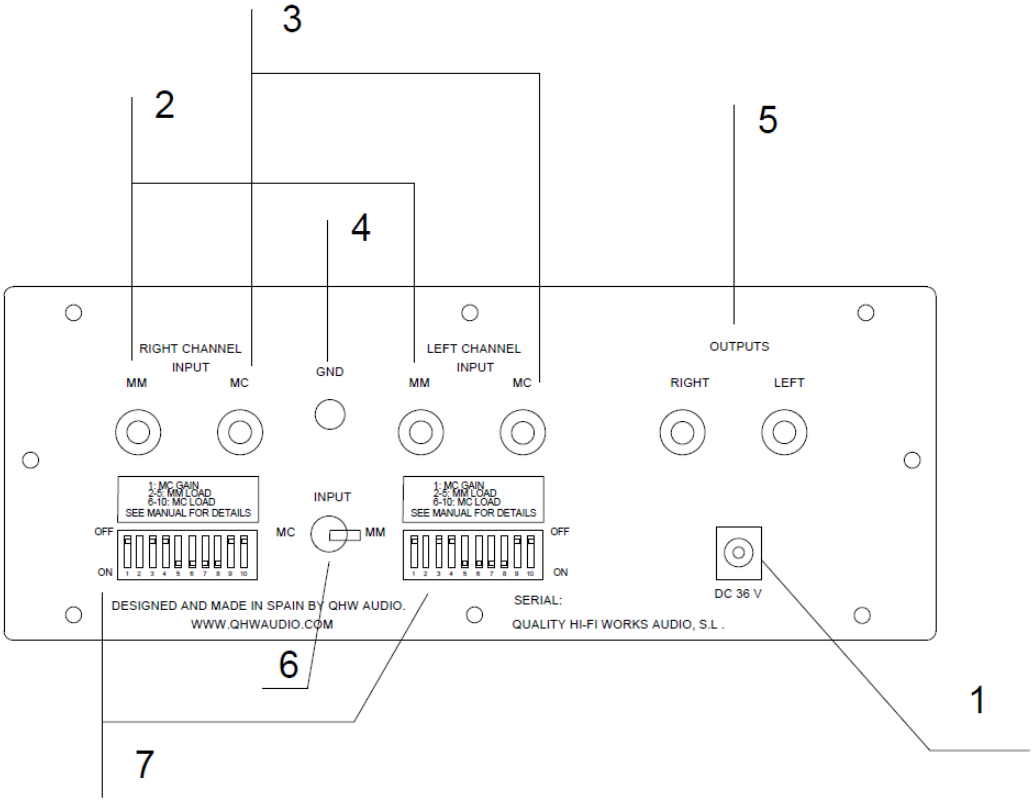
This appliance meets the requirements found in European Union and Council directives 2014/30/EU, 2014/35/EU, 2012/19/EU, 2009/125/EC, y 2002/95/EC.

This appliance meets FCC Part 15 of electromagnetic compatibility since it is a low frequency device which does not generate any pulse or signal.

Thank you

Thank you very much for purchasing a QHW Audio product designed by sound lovers for sound lovers and congratulation for your intelligent decision. This is an electronic instrument designed for accomplish its task with great precision and fidelity for many years. This manual will help you in your new equipment installation and will give you information about its work. Please, read it before using it.

Rear panel description



1.- DC inlet 36 V.
2.- Moving magnet cartridges input (phono MM).
3.- Moving coil cartridges input (phono MC).
4.- Turntable ground connection terminal (GND).
5.- Audio output terminals.
6.- Phono MM or Phono MC input selection switch.
7.- MC gain and MC and MM load selection switches. (See page 6).

Setup and connection

You will need two stereo audio cables with RCA connectors for installing The Vinyl in your equipment. One of cables to connect your turntable to The Vinyl inputs and another one to connect The Vinyl outputs to your line preamplifier or integrated amplifier.

Before doing any connection, be sure The Vinyl is unplugged from mains and rest of equipment involved in operation is off.

Connect your turntable output to The Vinyl inputs using a RCA cable:

- If using a moving magnet cartridge, use MM input.
- If using a moving coil cartridge, use MC input.
- If using a low output moving magnet cartridge (500 uV or less), use MC input.

Set the input selector in the corresponding position for MM or MC [number 6 in description drawing].

Before changing position of input selector lower your amplifier volume.

There is no problem with having two turntables always connected to The Vinyl, with a cartridge of each kind. Just remember to lower the volume before changing input selector.

Connect turntable ground cable to GND terminal of The Vinyl [number 4 in description drawing]. (Case of you have two turntables connected, connect both ground wires.)

Connect The Vinyl outputs [number 5 in description drawing] to a line level input of your preamplifier or integrated amplifier.

Always connect The Vinyl output to a line level input, never to a Phono input, otherwise input will be overdriven and a completely distorted sound will result.

Input impedance selection (MC only)

Before doing these adjustments lower your amplifier volume.

The Vinyl features several values for input impedance (also known as load) for moving coil cartridges (MC).

This setup is done with microswitches in rear panel [number 7 in description drawing] and it is independent for each channel. As described on rear panel, switches for this adjustment are ones from number 6 to 10 (they're numbered from left to right in both channels) and desired values can be set according with the following table, taking in consideration that OFF position is up and ON is down:

POSITION 6	POSITION 7	POSITION 8	POSITION 9	POSITION 10	IMPEDANCE
OFF	OFF	OFF	OFF	OFF	32 Kohm
ON	OFF	OFF	OFF	OFF	1 Kohm
OFF	ON	OFF	OFF	OFF	560 Ohm
OFF	OFF	ON	OFF	OFF	470 Ohm
OFF	OFF	OFF	ON	OFF	100 Ohm
OFF	OFF	OFF	OFF	ON	47 Ohm

You can use a small, flat tip screwdriver to move switches up and down if required.

Most of MC cartridges have an ideal impedance between 100 ohms and 1 Kohms. By default, The Vinyl is configured to 470 ohms.

The 32 Kohms position is specifically suitable for low output moving magnet cartridges that some manufacturers are doing these days which need the gain o a MC but they don't have an adequate response without a high load impedance. The Vinyl has the ability to have a good behavior with this kind of cartridges thanks to adjustable impedance.

Advanced users who want to go deeper in finding the perfect loading for their taste can set ON several switches simultaneously. The total impedance value will be according with the formula:

$$R = \frac{R_1 * R_2}{R_1 + R_2}$$

Where R is the resulting impedance and R_1 and R_2 values for impedance of switches in ON position.

Input capacitance selection (MM only)

Before doing these adjustments lower your amplifier volume.

The Vinyl also features some values for input capacitance of moving magnet cartridges (MM), also known as load.

Like in MC impedance case, this operation is done with microswitches in rear panel [number 7 in description drawing] and it's independent for each channel. As described on rear panel, switches for this adjustment are ones from number 2 to 5 (they're numbered from left to right in both channels) and desired valued can be set according with the following table, taking in consideration that OFF position is up and ON is down:

POSITION 2	POSITION 3	POSITION 4	POSITION 5	CAPACITANCE
OFF	OFF	OFF	OFF	47 pF
ON	OFF	OFF	OFF	220 pF
OFF	ON	OFF	OFF	150 pF
OFF	OFF	ON	OFF	100 pF
OFF	OFF	OFF	ON	100 pF

You can use a small, flat tip screwdriver to move switches up and down if required.

To get higher capacitance values you need to set ON several switches simultaneously. Result value will be the sum of each capacitance corresponding to switches set to ON, taking in consideration that always 47 pF must be added, because is the default value with are switches in OFF.

Gain selection (MC only)

Before doing these adjustments lower your amplifier volume.

The Vinyl gain is adjustable for MC input and is done through two microswitches in rear panel [number 7 in description drawing] and it is independent for each channel. As described on rear panel it's adjusted with switch number one in each channel. Usually, lower gain value is adequate for the most of MC cartridges (and low output MM) and is set by default. Values are:

	GAIN
OFF	63 dB
ON	69 dB

You can use a small, flat tip screwdriver to move switches up and down if required.

Operation

Insert the cable from power supply into the DC 36 V inlet of The Vinyl [number 1 in description drawing].

Plug the power supply cable to mains, always lowering your amplifier before. This is due to strong and unpleasant sounds can be produced at the output when volume is high and semiconductors starts conducting

Before plugin power supply to mains always lower your amplifier volume to avoid noises.

If cable coming with The Vinyl power supply does not suit your region plug, you will need one of the type IEC60320 C14.

Always follow rules of electrical installation of your country.

Once plugged to mains, front panel LED will light on, meaning The Vinyl is ready for operation.

The Vinyl doesn't have any power switch and is designed to be always on. For shutting it down, unplug power supply from mains. As any electronic appliance, it is recommended to unplug it if you are going to spend a long time out from your home, like, for example, for holidays or if there is an electrical storm.

Throubleshooting

Frontal LED does not light on

- Is power supply LED light on?
    - Yes: check DC plug is rightly inserted in The Vinyl DC inlet.
    - No:
        - Check mains cable is firmly inserted in power supply.
        - Check mains outlet is working plugging another appliance on it.

Sound is distorted:

- Check you are using the right input, MM or MC, for your kind of cartridge.
- If you are using MC input, check it is in lower gain position. (See page 8).
- Check all audio cables are firmly inserted in both ends.
- Try another cable, there may be some damages not visible in an apparently right cable, that create distortion and strange noises.

A strong or annoying hum noise or interference is heard

- Check the turntable ground cable is connected to GND terminal of The Vinyl and that connection is good.
- Check turntable ground cable or plug is not touching metal parts of RCA audio terminals. This can lead to a ground loop and create hum noise.
- Try to keep power supply cable as far as possible from input cables and that these are as short as possible, specifically with MC input.
- Try to keep The Vinyl as far as possible from other appliance power supplies and from TV receivers, phones or any other that can produce stray magnetic

fields and induce noise in cables. Same is recommended with input cables, specifically with MC input.

- Check all audio cables are firmly inserted in both ends.

- Try another cable, it may be some damages not visible in an apparently right cable, that create distortion and strange noises.
- On regions where the mains cable does not have a plug with defined polarity, try to invert position of the mains plug.
- If possible, try to use another mains outlet to see if noise disappears.
- Unplug and disconnect from audio chain all equipment except those essential to see if noise source is a device not working in that moment.

Never disconnect earth connection as solution for hum. That can be a safety risk for persons.

The Vinyl must be powered with a direct current power supply of 36 V and able to give at least 1 A. QHW Audio does not recommend using a different power supply than the one supplied with it and does not take any responsibility in damages that other power supply can cause to device or environment. If you need to replace power supply, please, contact QHW Audio through our website www.qhwaudio.com.

Never use a power supply with different specifications.

Technical specifications

Nominal gain at 1 KKz:

- **MM:** 43 dB
- **MC low:** 63 dB
- **MC high:** 69 dB

Maximum output level: 9 V RMS or more.
Input impedance MM: 47 KOhm
Input capacitance MM: adjustable from 47 pF to 617 pF.
Input impedance MC: adjustable from 47 Ohm or less to 32 Kohms.
Input capacitance MC: 150 pF.
Total harmonic distortion at 1 KHz, 2 V RMS output, 10 Kohms load (20 HZ – 20 KHz band):

- **MM:** 0,004 % or less.
- **MC low:** 0,007 % or less.

RIAA deviation 20 Hz – 20 KHz: less than ± 0,1 dB.
Residual noise: < 300 µV (MC input shorted).
Equivalent input noise (EIN): < - 133 dB measured with MC low input shorted.
Signal to noise ratio:

- **MM:** -84 dB or better with input shorted, referred to 2 V RMS.
- **MM:** -96 dB or better with input shorted, referred to maximum output.
- **MC (low):** -78 dB or better with input shorted, referred to 2 V RMS.
- **MC (low):** -90 dB or better with input shorted, referred to maximum output.

Crosstalk: Not measurable (at 1 KHz referred to 3 V RMS output at the other channel, input under testing shorted).
Power consumption: < 10 W

Nominal input voltage of power supply: 100 V – 240 V AC 50 - 60 Hz.
Power supply output: 36 V DC.
Maximum dimensions: 243 mm (L) x 218 mm (W) x 89 mm (H) (including connectors and feet).
Weight: 2 kg