

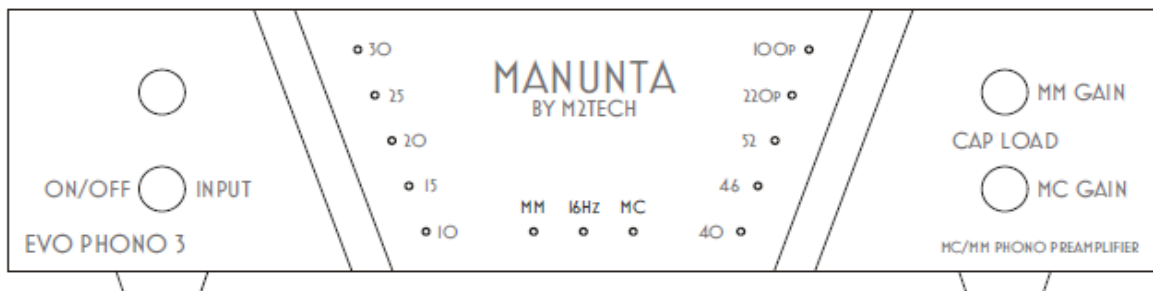
# MANUNTA

BY M2TECH

## EVO PHONO 3

MC/MM PHONO PREAMPLIFIER

### USER MANUAL





## Warning!

**Changes or modifications not authorized by the manufacturer can invalidate the compliance to CE regulations and cause the unit to be no more suitable to use. The manufacturer refuses every responsibility regarding damages to people or things due to the use of a unit which has been subject to unauthorized modifications or to misuse or to malfunction of a unit which has been subject to unauthorized modifications.**



This unit is compliant with the following CE regulations: CEI EN 55022:2009 Class B (Radiated Emissions), CEI EN 55024:1999, CEI EN 55024:A2/2003, CEI EN 55024:IS1/2008 (Radio Frequency Electromagnetic Fields, 50Hz Magnetic Field Immunity Test and Electrostatic Discharges – ESD).

**For a proper operation of this unit, all connections to other equipment in the system must be done when all equipment are off. Failing to comply with this advice may lead to damage to the Evo Phono 3.**



The label above, printed on the product case, indicates that the product, when no more usable, can't be treated as generic garbage, but must be disposed of at a collection point for recycling of electrical and electronic equipment, in compliance with the WEEE regulation (Waste of Electrical and Electronic Equipment).

By making sure that this unit is correctly recycled, you will help preventing potential damages to environment and human health, which could be caused by a wrong treatment of this product as generic garbage.

Materials' recycling helps saving natural resources. For more in-depth information about recycling this product, please contact M2Tech Srl.

**WARNING: the information contained in this manual are considered to be reliable and accurate. M2Tech reserves the right to change or modify the information any time, without prior advice. It's up to the customer to ensure that the manual being consulted is the latest version.**

Dear customer,

Thank you for purchasing EVO PHONO 3. You are the owner of a very high quality phono preamplifier with many unique features designed to obtain the best performance in every hi-fi system.

EVO PHONO 3 implements a specific set of technological and functional solutions, from the discrete components MC step-up, to the passive RIAA equalization, to the low noise supply network that powers all stages with clean current, ease of use and reliability.

EVO PHONO 3 is provided with separate inputs for MC and MM cartridges, to allow for using two turntables or a turntable provided with two arms.

The gain is enough to accommodate every cartridge model and to drive every amplifier.

The fully-loaded remote control allows for total control of the EVO PHONO 3, as well as other Manunta by M2Tech products.

We're sure that your expectations will be fulfilled by purchasing EVO PHONO 3: you'll hear your favourite music as never before, so you can now prepare for a whole new listening experience!

Marco Manunta, CEO

Please note here your EVO PHONO 3 serial number and purchase info for future reference:

S/N: \_\_\_\_\_ Date of Purchase: \_\_\_\_\_  
Place of Purchase \_\_\_\_\_

**Note: Proof of retail purchase, such as your purchase receipt, will be required in the unlikely event that any warranty service will be required.**

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## 1. Unpacking and Placing the Unit

Lay the package on a table. Open the box by lifting the front wing. The following items are included:

- one EVO PHONO 3;
- one wall wart (AC-to-DC adapter);
- one remote control;
- two AAA type batteries.

Should one or more item be missing, please contact your retail dealer.

Remove the EVO PHONO 3 from the box and place it onto a stable base, far from heat sources. Avoid full sunlight on the unit. Allow for ample room around the unit for venting.

The EVO PHONO 3 is a high efficiency device; therefore it doesn't produce relevant heat during its operation. Regardless, it's recommended to guarantee an adequate air flow around the unit. Moreover, every time it will mainly be operated by remote control, it's recommended to place it so as the remote control's infrared signals can easily reach its front panel.

Avoid smoke, moisture, dirt and liquids from reaching the unit. Please note that any signs of abuse will void warranty coverage.

Do not place the unit on thick carpets or inside a box or piece of furniture, not even close to curtains.





## 2. Front Panel

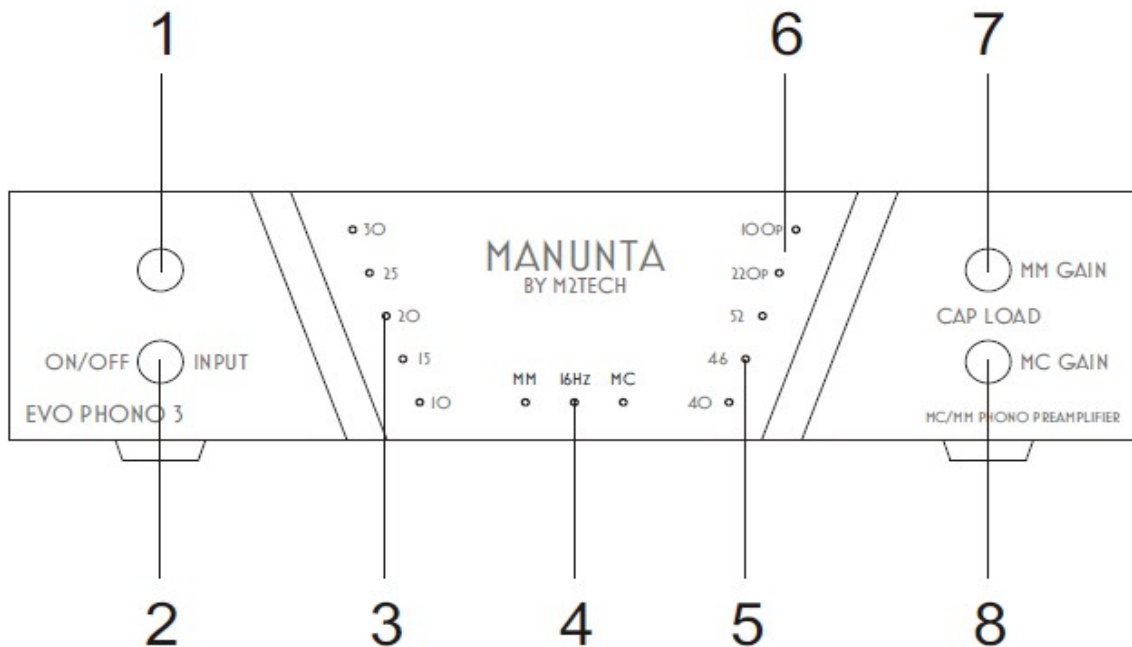


Figure 1

- 1) IR receiver.** Aim the remote control to this point to send commands to the EVO PHONO 3.
- 2) Power on/power off/Input select button.** Press this button to switch the EVO PHONO 3 on when it's off. When the EVO PHONO 3 is on, a short press will change the selected input. A more prolonged press while the EVO PHONO 3 is on will cause it to switch off.
- 3) MC step-up gain.** These LED's indicate the gain in dB applied to the MC step-up. This gain adds to the MM stage gain and it's only relevant when the MC input is selected.
- 4) Input and subsonic filter LED's.** Indicate the selected input and whether or not the high-pass 16Hz subsonic filter is enabled. The 16Hz LED also indicates the stand-by status when it's the only one on.
- 5) MM gain.** These LED's indicate the selected MM stage gain. As the signal always passes through the MM stage no matter the selected input, this value is always relevant. When the MC input is selected, the total gain is the sum of the MM gain and the MC gain.
- 6) MM input capacitive load.** The MM input can be loaded with a capacitive load to optimize the matching with certain MM cartridges. These LED's indicate the chosen load..
- 7) MM gain select / MM subsonic button.** Use this button to set the gain of the MM stage (short press) and to toggle the 16Hz subsonic filter for the MM input (long press). Push this button together with the MC gain select button to set the MM input capacitive load.

**8) MC gain select / MC subsonic button button.** Use this button to set the gain of the MC step-up (short press) and to toggle the 16Hz subsonic filter for the MC input (long press). Push this button together with the MM gain select button to set the MM input capacitive load.

### 3. Back Panel

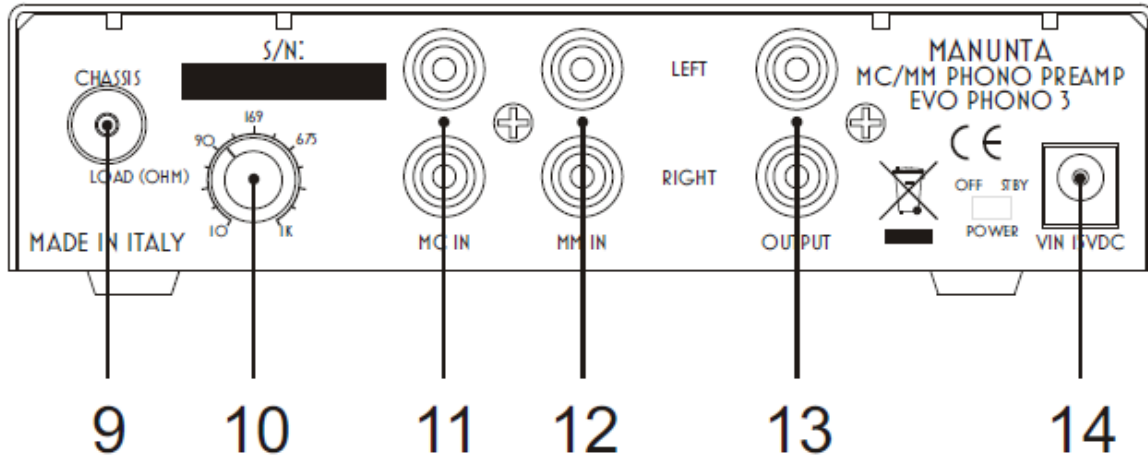


Figure 2

**9) Chassis post.** Connect earth wire from the turntable. You might also use this post to connect the EVO PHONO 3 to earth if some hum is heard when listening to records. Gold-plated post.

**10) MC input impedance pot.** Set the MC input impedance to the value recommended by the cartridge's user manual. Please note that if the cartridge's internal impedance  $Z$  is indicated, a good setting for this pot is 10-20 times  $Z$ .

**11) MC input.** Connect a low output cartridge. Gold plated RCA socket.

**12) MM input.** Connect a medium-to-high output cartridge or a step-up transformer for a low-output MC cartridge. Gold plated RCA socket.

**13) Output.** Connect to any line-level input of an integrated amplifier or preamplifier. Do NOT connect to a phono input. Gold plated RCA socket.

**14) Power supply input.** Connect the connector from the stock 15V adaptor or from the EVO SUPPLY 3 or M2TECH VAN DER GRAAF MKII. 5.5/2.1mm barrel jack with positive on tip.



## 4. Remote Control

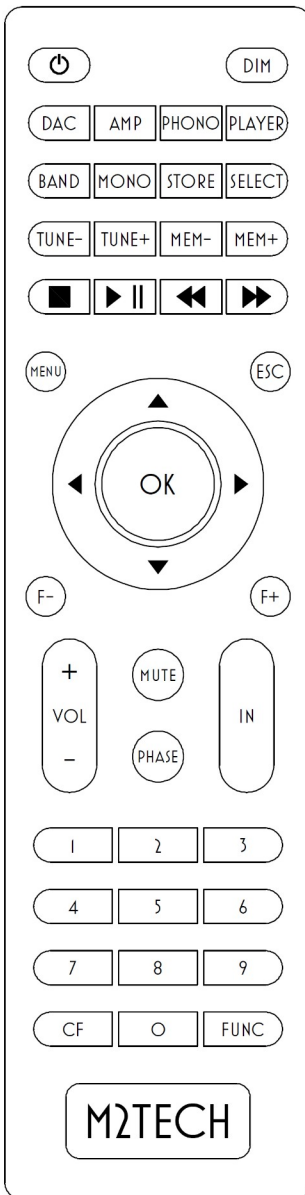


Figure 3

The EVO PHONO 3 comes with a fully-loaded remote control which allows for setting various controls, as well as for controlling other M2Tech Rockstars series products.

Please note when a command is sent to the EVO PHONO 3 the “PHONO” key blinks in green. If any of the other key “AMP”, “DAC” or “PLAYER” blinks instead, the EVO PHONO 3 will not receive the command. In this case, press the “PHONO” key to select the right commands codes for the EVO PHONO 3.

Below is a brief description of the relevant keys for the EVO PHONO 3.

**Standby key:** This allows for putting the EVO PHONO 3 in standby mode (prolonged push) and for awakening it.

**DIM:** Display dimming.

**PHONO:** Instructs the remote to send commands using the Phono system code.

**IN+/IN-:** Input selection.



## 5. Connecting and Powering the Unit

**WARNING: All connections between the EVO PHONO 3 and other equipment must be made when all units are turned off and completely powered down or unplugged. Failing to do so may cause damage to the EVO PHONO 3 and/or other units.**

Please refer to chapter 3, “Back Panel”.

Connect the cable from the turntable to one of the input pairs (Figure 2, 11-12). When two turntables or a turntable provided with two arms is used, both inputs can be used.

Connect the EVO PHONO 3 output pair to a pair of inputs on an integrated amplifier or preamplifier (Figure 2, 13).

Connect the plug from the stock wall wart or from the EVO SUPPLY 3 to the EVO PHONO 3 power input (Figure 2, 14).

Connect the wall wart or the EVO SUPPLY 3 to a mains outlet. The former will automatically accept any voltage from 90V<sub>AC</sub> to 265V<sub>AC</sub>.

Switch the EVO PHONO 3 on by pushing the left front panel button (Figure 1, 2). If you're using the EVO SUPPLY 3, you have to activate the output used to power the EVO PHONO 3 first.

**NOTE: it is possible to use a dedicated low noise power supply in place of the wall wart, to increase the sonic performance MANUNTA BY M2TECH provides a device for this purpose, the EVO SUPPLY 3. M2TECH's VAN DER GRAAF MKII can also be used. Should the user opt for use of power supply not provided by MANUNTA BY M2TECH or M2TECH, we reserve the right to void the EVO PHONO 3 warranty.**





## 6. Cleaning the Unit

The EVO PHONO 3 should be cleaned with a soft, slightly damp cloth. Do not use alcohol or any other types of cleaning fluids as they could damage the unit.

Avoid fluids from dropping or leaking inside the unit. Fluids of any type poured into the unit will void your warranty.



## 7. Using the EVO PHONO 3

At activation, the EVO PHONO 3 performs a routinary check for all indicators, then it sets idle ready for commands.

### 7.1. Gain Settings

Due to the structure of the signal chain, the MM stage gain and the MC step-up gain can be set independently. The MC gain is indicated by the 5 LED's to the left of the front panel. The MM stage gain is indicated by the 3 LED's to the lower right of the front panel.

**NOTE: Please remember that the MC step-up gain adds to the MM stage gain when the MC input is selected.**

**NOTE: When the MM input is selected, all LED's to the left of the front panel are off, because MC step-up gain is not relevant for the MM input.**

The MM gain is sufficient to accommodate every MM and medium-to-high MC cartridge, including most of the moving iron and moving flux models which work well when loaded with 47k Ohms. Choose 40dB when using most MM cartridges. 52dB are suitable for 1mV output cartridges, while 46dB can be chosen for 2.5mV output cartridges. The setting also depend on the preamplifier sensitivity.

Setting the MC gain requires operating on both the MM gain and the MC gain. If a total MC gain of 60dB is required, set the MM gain to 40dB and the MC gain to 20dB.

**NOTE: Please note that the MM gain set for the MC input doesn't affect the MM gain set for the MM input and vice versa. This is useful when two cartridges are connected to the EVO PHONO 3 at the same time.**

### 7.2. MC Input Load Impedance

The EVO PHONO 3 is provided with a knob on the back panel which allows for setting the MC input load impedance between 10 Ohms and 1000 Ohms (Figure 2, 10). This range covers all the low and medium output MC cartridges requirements.

Please set the knob to the appropriate value as indicated by the cartridge's user manual. If this value is not found on the manual, a good rule of the thumb is to set the load impedance to 10 times the cartridge's internal or output impedance.

**NOTE: Too low or too high a value with regards to the recommended loading value will not harm either the cartridge and the EVO PHONO 3; anyway it will impair the sound quality, particularly in the treble range.**

**NOTE: Please note this setting only affects the MC input, the MM input's load impedance is always 47k Ohms.**

### **7.3. MM Capacitive Load**

MM Cartridges often give the optimum performance when loaded with a capacitive load. The EVO PHONO 3 allows for setting the MM input capacitance to 0pF, 100pF, 220pF or 320pF. To set the capacitance value, press the two right buttons together until the desired value is indicated by the 2 LED's to the upper right of the front panel.

As this setting is only relevant for MM input, these two LED's are off when the MC input is selected.

### **7.4. Subsonic filter**

Warped records and turntable resonances may, under certain circumstances, drive the power amplifier to overload, even at normal listening levels, due to low-frequency oscillations which, while inaudible, cause the power amplifier to deliver high power to the speakers.

In order to attenuate this phenomenon, the EVO PHONO 3 is provided with a 16Hz high pass filter which strongly reduces the infrasonic signal from the cartridge, while allowing the full content of the music program to be amplified and passed to the preamplifier.

The subsonic filter can be independently set for MM and MC inputs by using the related gain button with a long press.

## 8. Specifications

Inputs:	Single-ended MC and MM on gold-plated female RCA sockets
Outputs:	Single-ended line on gold-plated female RCA sockets
Power input:	5.5/2.1mm jack with positive on tip
Output voltage:	2.0Vrms (MM input, 5mVrms, 40dB)
Signal-to-noise ratio:	85dB (MM input, 5mVrms, 40dB, "A"-weighted) 70dB (MC input, 0.5mVrms, 60dB, "A"-weighted)
THD+N:	0.5% (MM input, 5mVrms, 40dB, 1kHz)
MC load impedance:	10 Ohms to 1000 Ohms
MM load impedance:	47k Ohms
MM load capacitance:	0pF, 100pF, 220pF, 320pF
Output impedance:	5 Ohms
Subsonic filter:	high-pass, -3dB @ 16Hz
Supply:	15V <sub>DC</sub> 230mA
Power consumption:	3.5VA 0.3VA standby
Size:	250x40x160mm (w x h x d)
Weight:	0.7kg (device and ancillaries) 1kg (packed)