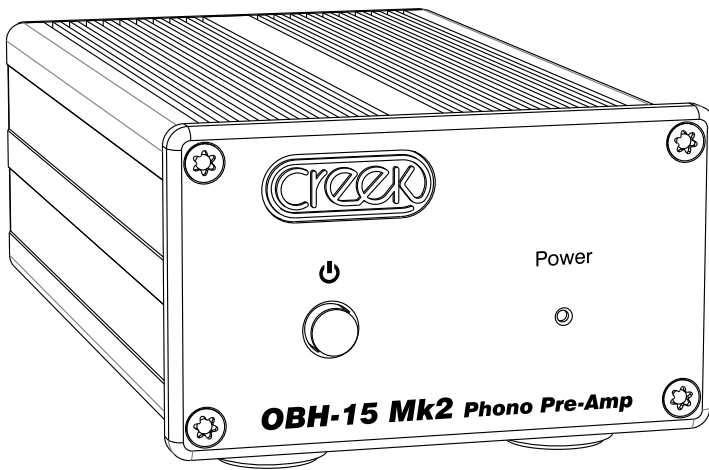


CREEK

OBH-15 Mk2 Phono Pre-amplifier



Operating instructions



Operating instructions

Thank you for purchasing the OBH-15 Mk2 Phono Pre-amplifier. You are now in possession of a State-of-the-Art Analogue product. Although the functions of the OBH-15 Mk2 are relatively simple, please take a few minutes to read this manual and familiarise yourself with the design and operation before connecting to your system. Please keep it for future reference, or download the pdf version from the Creek website.

The function of the OBH-15 Mk2 Phono Pre-amplifier is to boost the level and correct the frequency response (RIAA) of the output from a Moving Magnet or Moving Coil Phono cartridge to make it compatible with standard 'Line level' amplifier inputs. Most modern amplifiers no longer have the necessary circuitry built-in.

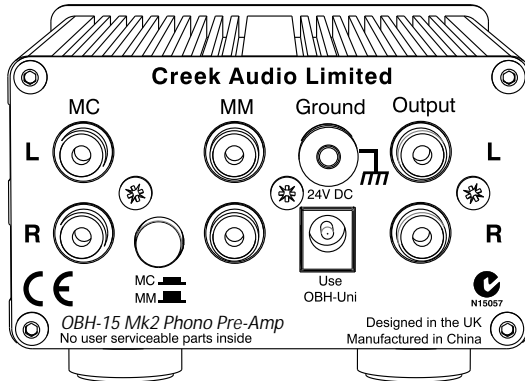
Plug the output from your cartridge, mounted on the tone-arm of your turntable, into the appropriate MC or MM Input on the back of the OBH-15 Mk2 (See below for help in choosing the correct input).

Using a good quality RCA to RCA stereo interconnect cable, connect the output of the OBH-15 Mk2 to an auxiliary input on your integrated amp or Pre-amplifier; Your dealer can advise you about which cable option is best for you.

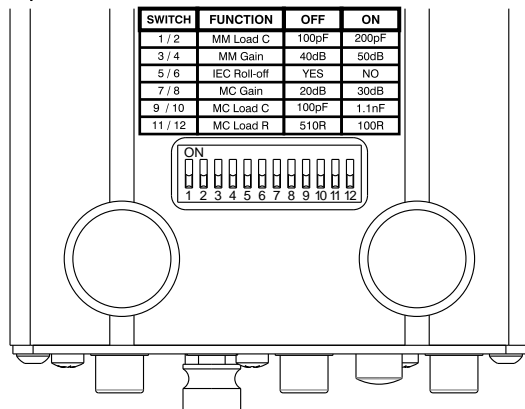
The output of the OBH-15 Mk2 is capable of driving a long cable, without high frequency degradation, so it can be situated a long way from the amplifier if required. The output level should be approximately equivalent to a Tuner or CD player, so the required volume control position should also be roughly similar. If it's not, you may want to change the gain of the OBH-15 Mk2 to better match the level, *See next page*.



To select either MM or MC, use the push button switch on the rear panel. It is not advisable to connect cartridges to both inputs simultaneously.



The OBH-15 Mk2 has 6 pairs (left and right) of switchable options located on the bottom of its case, as seen in the diagram. Switches 1 to 6 need to be configured for MM inputs and switches 3 to 12 are configured when using the MC input. The switch “ON” position is towards the label, “OFF” is towards the rear panel.



Moving Magnet (MM) cartridges provide a relatively high output level (2.5 mV to 5mV) and nearly always require a matching resistance of 47k Ohms, as provided on the MM input. Connect these cartridges into the MM input only and ensure the MM/MC switch is in the OUT position. It is not necessary to add much capacitance for MM, but you can select either 100 or 200pF (Pico Farads) to suit the cartridge recommendations or to balance the treble frequencies to your taste. Set switches 1 and 2 to OFF for 100pF or ON for 200pF input loading.



To adjust the MM input Gain for higher (>3mV) output cartridges move switches 3 and 4 to the OFF position (gain = 40dB). For lower (<3mV) output cartridges move switches 3 and 4 to the ON position (gain = 50dB).

Moving Coil cartridges normally provide a relatively low output level (0.1 to 0.5mV) and usually require a low matching resistance of between 100 Ohms (R) to 510 Ohms (R). Connect these cartridges to the MC input and ensure the MC/MM switch is in the IN position. The MC input resistance is selectable to either 100 Ohms (100R) or 510 Ohms (510 R). Set switches 11 and 12 ON for 100 Ohms or OFF for 510 Ohms. MC cartridges sometimes require a small amount of load capacitance; Set switches 9 and 10 OFF for 100pF or ON for 1.1nF (1100pF) input loading. Consult your cartridge manufacturer's data for the recommended loading values and choose the closest match.

To add a little confusion at this point, it should be pointed out that High Output MC cartridges often have a requirement for 47k Ohms load resistance and a low capacitance matching, such as 100 to 200pF. Since they also output a higher than average level, they are best suited to being plugged into the MM input, not the MC, with the gain set for 50dB. They will not work correctly on the MC input socket.

To adjust for the correct MC input gain in the OBH-15 Mk2, it is necessary to add the gain from the MM and MC circuits together as they are both utilised for MC inputs. Normally, MC cartridges are quoted as low output (0.1 to 0.25mV) or medium output (0.25 to 0.5mV). They will require a total gain setting of 70dB and 60dB respectively. Better performance is achieved by having a high gain on the MC stage and keeping the MM stage gain set at 40dB and thus for 60dB set switches 3,4,7 and 8 to OFF. To obtain 70dB gain set switches 3 and 4 OFF with 7 and 8 ON.

It is possible to achieve a gain of 80dB by setting switches 3, 4, 7 and 8 to ON but this should only be used for extremely low output cartridges (0.1mV and below) to ensure enough headroom in the system and prevent overload of the phono pre-amplifier.



In all modes of use, setting the gain too high will lead to reduced headroom, premature distortion of the output signal and the requirement to use a very low setting on your volume control. Always use an appropriate setting to ensure the highest fidelity performance!

IEC Roll-off is a rumble filter. If you experience low frequency noises or see excessive movement from your loudspeaker cones turn on the IEC filter by setting switches 5 and 6 to OFF (these switches work opposite to expected, to turn OFF the IEC filter please ensure these switches are set to ON). IEC roll-off is particularly beneficial if playing a warped record or if you have bearing or other mechanical noises from your turntable.

Ground is a terminal that allows the tone arm shield cable to be connected to the body of the OBH-15mk2 to eliminate radio interference and hum from the signal.

Power supply requirements

The OBH-15 Mk2 is supplied with an OBH-Uni power supply adapter. This power adapter is designed for use in most countries, as it can produce a stable 24V DC output from a mains input of between 100 to 250V AC, 50 or 60 Hz. There are also 4 different snap-on power connector types supplied. They cover most regions of the world including Europe (2 pin round); UK and many Asian countries (3 Pin flat); Australasia angled (2 pin flat); North America, Japan and several other countries, horizontal (2 pin flat).

Important Note!

Never connect or disconnect a cartridge to the OBH-15 Mk2 when it is powered on as extremely large output signals can be generated. For the same reason, do not alter the position of the MC/MM selector switch when the unit is powered on.

It is always advisable to lower your amplifier volume setting when lifting or placing the stylus on the record. Similarly, lower the volume before powering on or off your OBH-15 Mk2.

Finally, we hope you enjoy your Creek Audio product for many years to come!



Technical Specification

THD+noise at 2Vrms output:

	1kHz	10kHz
MM (40dB gain)	0.002%	0.003%
MM (50dB gain)	0.007%	0.007%
MC (60dB gain)	0.005%	0.005%
MC (70dB gain)	0.011%	0.012%

Channel Separation

MM (all gains) 1kHz	>70dB
MC (all gains) 1kHz	>70dB

Frequency Response ref RIAA

+/-0.5dB

Signal to Noise ratio (2Vrms output)

MM (40/50dB gain)	76/66dB
MC (60/70dB gain)	77/70dB

Overload Margin

	50Hz	1kHz	20kHz
MM (all gains)	21.7dB	21.7dB	21.7dB
MC (all gains)	20.7dB	20.7dB	20.7dB

Maximum Output level

6.1Vrms 6.1Vrms 6.1Vrms

Output Impedance

100 Ohms

Gain

MM	40, 50dB
MC	60, 70 and 80dB

Matching

MM	100pF or 200pF plus 47k Ohms
MC	100pF or 1100pF plus 100 Ohms or 510 Ohms

Size: Width x Height x Depth

100 x 63 x 150mm

Weight:

1.5kgs inc OBH-Uni power adapter

Power consumption

24V @ <150mA (<3.6W)



Notes



Warranty

Creek Audio Ltd reserves the right to change or modify the specification of its products without prior warning.

If within two years of purchase date your Creek product proves to be defective for any reason other than accident, misuse, neglect, unauthorized modification, or fair wear and tear, Creek Audio Ltd. will, at its discretion, replace the faulty parts without charge for labour or return carriage within the United Kingdom.

This warranty is valid only in the United Kingdom and given in addition to statutory rights.

Service enquiries outside the United Kingdom should be addressed first to the supplying dealer and/or the Creek distributor/importer. Warranties granted in these countries are entirely at the discretion of the distributor.

CREEK AUDIO LTD

12 Avebury Court, Mark Road, Hemel Hempstead HP2 7TA United Kingdom

Telephone: +44 (0)1442 260146 Fax: +44 (0)870 6220846

E-mail: info@creekaudio.com Internet: www.creekaudio.com