

Moonphaser

Owner's manual



Congratulations on your purchase! The Moonphaser is the finest analogue phase shifting effect currently available in a stompbox.

We use 1970s electronic design and new-old-stock components in critical areas to give you vintage "liquid" phasing effect. Modern PCB design and high quality passive components provide reliability and low noise.

The Moonphaser is hand-built in England.

Outline technical description:

The Moonphaser is a six stage mono phaser for guitar or keyboard.

The multiple stages of phase shifting result in notch frequencies centred at approximately 550Hz, 2.25kHz and 8.5kHz and resonant peak frequencies centred at approximately 90Hz, 1.2kHz and 4.1kHz. A low frequency oscillator (variable between approximately 0.125Hz and 6Hz by the "speed" knob) controls the sweep of these frequencies. The result is a spatial effect similar to that of a rotating loudspeaker. The "depth" control governs depth of effect rather than depth of sweep; it controls the positive feedback around the phase shifting chain, increasing the amplitude of the three resonant peaks as it is turned up.

Power supply and battery access:

The Moonphaser accepts an internal MN1604 or equivalent 9V alkaline battery and also has a 2.1mm 9Vdc power jack (polarity is sleeve +ve) mounted on the rear panel. Inserting a plug into this jack automatically disconnects the battery from the circuit. The Moonphaser is protected against reverse polarity.

Ⓢ *NEVER use zinc-carbon batteries since they give a short operating life and are certain to leak sooner or later, seriously damaging the unit. Use of zinc-carbon batteries is a false economy and may invalidate your Moonphaser's warranty.*

Ⓢ *If you have a power supply connected to the power jack the battery is disconnected from the circuit and the input jack may be left connected indefinitely.*

Ⓢ *If using the Moonphaser on a permanently wired pedalboard or similar setup we strongly recommend removing the battery completely (to avoid leaks) and instead powering the pedal from a suitable external power supply.*

Ⓢ *If operating the pedal with no battery installed please ensure the battery clip terminals are insulated so as not to short to any part of the internal circuitry!*

Ⓢ *Rechargeable batteries (NiCd or NiMH) may be used although they will generally not yield as long a life as alkaline batteries and cannot be recharged while installed in the Moonphaser; battery charging via the power jack is not possible.*



www.moonphaser.co.uk

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Registered in England 04372981

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To access the battery, first unplug all connections to the Moonphaser then remove the four screws holding the rear cover in place. Carefully remove the battery and unplug the battery clip. Connect and replace the new battery, refit the rear cover and tighten the four screws.

Signal connections:

Connect the Moonphaser's output jack on the left hand side of the unit to your amplifier, mixer or to the next effect in your chain. This connection can be left permanently in place.

Connect your guitar (or other instrument) to the input jack on the right hand side of the unit. The input plug must be of the mono type since it is also used to turn on the power to the Moonphaser circuit.

① *The Moonphaser circuit is active and drawing power all the time the input jack has a plug connected, even if the LEDs are not lit. Estimated battery life is around 400 hours in this condition.*

① *Typical battery life with the pedal active and the LEDs lit is at least 100 hours (i.e. "playing time")*

① *If you have a power supply connected to the power jack the battery is disconnected from the circuit and the input jack may be left connected indefinitely.*

Controls:

Pressing the footswitch toggles the Moonphaser between true bypass and active modes. Active mode is indicated by the right-hand LED.

The phasing circuit is still running even when bypassed but has no effect on your sound.

The "speed" knob varies the time for one complete cycle of phase shifting. Fully anti-clockwise is slowest at about 8 seconds per cycle, fully clockwise gives around 6 full cycles per second.

The phasing speed indicator LED flashes in time with the phasing cycle whenever the phaser is active, enabling you to set the phasing speed without having to play and listen. This can be a great help on stage. The "depth" knob controls the effect of the three peaking frequencies; fully anti-

clockwise gives you a mildly phased sound, turning the control clockwise dramatically increases the effect of the three peaking frequencies.

① *With the depth control set fully clockwise you will be able to hear some phase-shifted hissing; this is unavoidable noise generated within the phase shifting chain and should be at a level low enough to be inaudible during playing. If the sound is intrusive, turn the depth control down slightly.*

Specifications:

Power supply:	9Vdc
Current draw:	<10mA typical
Signal switching:	True bypass
Input impedance:	1M Ω
Output impedance:	5K Ω
Insertion loss:	0dB
Maximum input:	-10dBm

CE conformance:

Moonphase Limited declare under our responsibility that the Moonphaser effects unit manufactured by us is in conformity with the essential requirements of Council Directive 89/336/EEC as regards Electromagnetic compatibility.

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