



# VINTAGE-STYLE PHASERS

Set your pedalboard to stun as we check out four 1970s-style phasers, revisited and revamped for the modern pedalboard

Words Trevor Curwen Photography Olly Curtis & Joseph Branston

It's the early 1970s and a new type of guitar pedal has appeared on the scene: the phase shifter or phaser. Up to that point the effects pedal scene was in its infancy. Wah and fuzz pedals were commonplace, but the only major modulation pedal was the Uni-Vibe, which was technically a four-stage phaser itself, but of a different design and with a distinctive sound that puts it into a category of its own rather than be lumped in with pedals that are actually called phasers. The new phaser pedals, arguably, heralded the birth of the stompbox as we now know it today and would hold sway as the only mass-produced type of modulation pedal available until the chorus and flanger appeared later in the decade.

Phasers give a swirl or whoosh (a swoosh, perhaps?) to the sound. There's not the space here to go into the theory, but the sound – in which different frequencies are emphasised and de-emphasised – is a result of

notches in the frequency response being swept up and down. Phasers can be categorised by the number of shifting stages they use: the more stages, the more notches. Each pair of stages adds one more notch.

How did the phaser come about? Well, the design started off in life (like the Uni-Vibe before it) trying to replicate the sound of a rotary speaker. Audio engineer and synth pioneer Tom Oberheim has stated that he was inspired by George Harrison playing through a Leslie speaker on a Beatles album and decided to make something to recreate that sound. When it came down to it, he actually found the Leslie sound too complex to recreate, but in the process came across a phase shift circuit that he thought sounded “really cool” in its own right. From here, he designed the Maestro PS-1A unit, which he describes as the first phase shifter that was available for musicians.



The iconic 'swoosh' of the phaser has been sending guitar tones off into the stratosphere since the 70s. Now, those vintage tones live on in expertly emulated, new and improved phasers for your 'board

The Maestro was a simple unit with just three buttons for different phase speeds. It was used by John Paul Jones of Led Zeppelin for his keyboards, and guitarists Steve Howe (Yes) and Joe Walsh among others, but perhaps its greatest use on guitar was by Ernie Isley on the Isley Brothers' *That Lady*, released in 1973, where its phasing mixed with fuzz delivers liquid synth-like lead lines that still sound fresh today.

While the PS-1A was a large unit, the next phaser to really make a splash was the MXR Phase 90: a four-stage phaser designed by Keith Barr in 1974, which put phasing into a more manageable underfoot size and set the style for modern effects pedals. This little box had a single rotary knob to change the speed of the phasing, and was pretty much the go-to phaser for pro guitarists in the mid-70s, used by many names. It was towards the end of the decade, in 1978, that one of its best known

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exponents, Eddie Van Halen, emerged using it on tracks such as *Eruption*. MXR also produced the two-stage Phase 45 and the six-stage Phase 100 (used by Keith Richards, notably on the recording of The Stones' *Some Girls* album in 1977).

MXR pedals were relatively expensive items back in the 1970s, but there was soon a four-stage phaser available for those on a tighter budget. Electro-Harmonix was probably the most prolific of pedal designers in the 1970s, with a massive range of exotically titled pedals. The company came up with the David Cockerell-designed Small Stone in 1974/'75. Based around Operational Transconductance Amplifiers (OTA) rather than the FETs of the Phase 90, the Small Stone was easier to mass produce and sold in truckloads. Jonny Greenwood of Radiohead is one notable contemporary user. Also in EHX's 70s roster was the larger Bad Stone, which featured a different circuit design, and the mains-powered Polyphase.

### Phasing Into The Future

While many companies produced phasers in the 1970s, (and there are others that deserve a mention here such as Roland's AP-7 Jet Phaser with its built-in fuzz), there's one particular phaser that's held in very high-esteem and commands prices in excess of £1,500 if you can find one. The Musitronics Mu-Tron Bi-Phase's designer, Mike Beigel, had the smart idea of putting two six-stage phasers in one box with an optional foot controller. This is the phaser used on many of Lee Perry's classic reggae productions, but has a sound that will also be familiar to Smashing Pumpkins fans as it's all over their *Siamese Dream* album. Musitronics also produced The Phasor II, a smaller pedal that's effectively half of a Bi-Phase.

Nowadays, there are numerous modulation pedals seeking our attention. Besides chorus and flanging we have very accurate-sounding Uni-Vibe recreations and dedicated rotary speaker emulation pedals, but there is still a role for the phaser's swirl, whoosh or warble, and if you want that 70s sound, it's still up for grabs.

So, here we have four classic phasers: the latest repro from MXR, Electro-Harmonix's compact and pedalboard-friendly version of its Small Stone, plus boutique reproductions of the Maestro PS-1A and the Mu-Tron Bi-Phase from Heptode in France and Prophecysound Systems in Australia respectively. Time to squeeze into those loon pants... **G**

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**1 PROPHECYSOUND**

PI-PHASE MK2 £429

**ORIGIN:** Australia**FEATURES:** True bypass, manual sweep, expression pedal sweep control**CONTROLS:** 2x Rate, 2x Feedback, 2x Depth, 2x Shape switches,

Man/Ped switch, Gen1/Ped Sweep switch, Sweep switch, Norm/Rev Sync switch, bypass footswitches Phaser A &amp; B

**CONNECTIONS:** Standard inputs/outputs A&B, Expression/CV pedal input  
**POWER:** 9V DC adaptor (not supplied) 300mA**DIMENSIONS:** 188 (w) x 122 (d) x 50mm (h)**Joe's Pedals****07793 814123**[prophecysound.com](http://prophecysound.com)

**Prophecysound Systems' pedal** aims to be an accurate recreation of the Mu-Tron Bi-Phase by using as many of the same components as the original. While it's much smaller, it manages to provide the same control layout, ergonomically laid out for a logical workflow.

The two individually switchable phasers can be used separately or combined for mono (series) or stereo operation. Each phaser has Rate, Depth and Feedback knobs and the option of sine or square wave modulation for its own sweep-generating LFO. If you don't want two phasers running together at different speeds, a single LFO can be used to synchronise the sweeps of both.

A standard expression pedal can be used to alter the sweep rate of the first LFO or to manually sweep either phaser, wah-style. All that control makes for an incredibly nuanced range of excellent-quality phasing sounds. **[TC]**

**VERDICT** The ultimate analogue phaser reborn; cheaper than a vintage unit without the maintenance!

**9/10****2 HEPTODE VIRTUOSO**

PHASE SHIFTER £199

**ORIGIN:** France**FEATURES:** True relay-based bypass**CONTROLS:** Slow Phase, Medium Phase, Fast Phase footswitches**CONNECTIONS:** Standard input, standard output**POWER:** 9V battery or 9V DC adaptor (not supplied) 45mA**DIMENSIONS:** 153 (w) x 88 (d) x 70mm (h)**Heptode****+33 981 861040**[www.heptode.com](http://www.heptode.com)

**Where the original** Maestro PS-1A was a beast of a pedal, Heptode's take cuts it down to a manageable footprint that's just right for housing three footswitches (each with a different coloured LED), but it remains rather tall at 70mm from the base of its rubber feet to the tip of a footswitch. We didn't miss a speed knob because the three speeds cover plenty of musical possibilities, and the option of changes on the fly is a great onstage asset with the speed ramping up or down when switched, as on the original.

The phasing sound is thick and natural, sits well with guitar and features a unique complexity to the sweep with bags of vintage flavour. While we didn't have an original to compare sounds with, we reckon this pretty much nails it – when combined with our 1973 vintage 'Rams Head' Big Muff it was the nearest we got to that Isley Brothers tone than with any other phaser. **[TC]**

**VERDICT** Limited control, but we can't fault the sound. If you want a certain early 70s flavour, you'll find it here

**9/10****3 MXR CSP026 '74**  
VINTAGE PHASE 90 £127**ORIGIN:** USA**FEATURES:** Hardwire bypass, rubber knob cap for foot control**CONTROLS:** Speed, bypass footswitch**CONNECTIONS:** Standard input, standard output**POWER:** 9V battery**DIMENSIONS:** 100 (w) x 144 (d) x 57mm (h)**Westside Distribution****0844 326 2000**[www.jimdunlop.com](http://www.jimdunlop.com)

**Since Jim Dunlop** resurrected the MXR brand, there's always been a Phase 90 in its roster. Four versions are currently available, but the one that most resembles the very first version is this model, complete with original script logo and no concessions to modernity. No status LED or power adapter input here – this baby is battery-power only!

Reverse engineered from an original pedal, this has a hand-wired circuit board with original-spec 1974 components including select resistors paired with hand-matched FETs. This is classic silky phasing with a sweetened top-end that blends incredibly well with guitar and even adds a little grit. The only noticeable difference from our 1974 pedal is that the reissue has a little more heft in the lower midrange. If you want a power socket and LED, look to the standard M101 model (£86), but its sound is more aggressively upfront. **[TC]**

**VERDICT** Industry-standard phaser pedal in as near to its original form as you'll find

**8/10****4 ELECTRO-HARMONIX**  
SMALL STONE NANO £55**ORIGIN:** USA**FEATURES:** True bypass**CONTROLS:** Rate, Color switch, bypass footswitch**CONNECTIONS:** Standard input, standard output**POWER:** 9V DC adaptor (not supplied) 100mA**DIMENSIONS:** 65 (w) x 111 (d) x 50mm (h)**Electro-Harmonix**[www.ehx.com](http://www.ehx.com)

**This 'board-friendly 'Nano'** version of the Small Stone has the same controls as the original: a Rate knob and a Color switch that changes the character of the phasing. In its lower position, Color gives you milder phasing similar to the Phase 90, though not quite as warm sounding and with a faster max phase speed that can approximate a fast Leslie and even goes as far as a metallic ring mod tone. Flick Color up for a deeper, stronger phasing with a more pronounced sweep that manifests itself as a vowel-like 'wow' once the rate knob gets to 12 o'clock and beyond. At full rate, it's a classic 'underwater' sound.

Next to our 70s vintage Small Stone, the Nano can duplicate some of the sounds but gets much brighter in one segment of the sweep, so the dark-to-bright nature of its sweep sounds more intense and is especially notable at slower rate settings. **[TC]**

**VERDICT** Phasing writ large for those who like an obvious effect; also has a wide range of sounds

**8/10**