



# MXR Carbon Copy, '74 Vintage Phase 90, Stereo Tremolo **£199, £159 & £219**

MXR continues its program of recreating sounds from the past with a modern twist *by Trevor Curwen*

**M**XR has been busy with new releases this year. The EVH Wah features in this issue's Quick Test pages, and here are three new stompboxes from the company: an analogue delay, a custom shop reissue of what is probably the company's most revered pedal, and the new Stereo Tremolo.

## Carbon Copy

When all the makers of digital delay pedals are adding features to make the sounds of the repeats more 'analogue', it's pretty obvious that there is a demand for echo repeats that are not just pristine clones of the original sound. The time must be ripe, therefore, for enterprising souls to dust off the old BBD technology and create some new versions of the real thing rather than a digital reproduction of it. MXR is the latest to introduce a new-build analogue delay with the Carbon Copy that has, er, echoes of the old

MXR Analogue Delay (discontinued in the eighties) – not least in its three control knobs and greenish colouring, albeit in a much more spangly metallic shade this time around.

It looks very smart indeed, the same size as other MXR pedals such as the Phase 90 but packing a lot of control into a small space by utilising a triangular knob configuration. Those knobs control the delay time (20ms up to 600ms), the number of repeats (regen), and the volume of the repeats via a mix knob that goes from a totally dry sound increasing the volume of the repeat to a maximum setting where the first repeat is slightly louder than the dry signal. A small 'mod' switch (with blue status LED) brings in a degree of modulation – a slight up and down pitch shift – to add flavour to the repeats. Two internal trim pots, which are accessed by removing four screws and the pedal base

(the same for battery access), adjust the width and speed of the modulation applied. The idea is that you experiment to find your ideal sound and then just leave them set.

## Sounds - Carbon Copy

The first thing you notice when you stomp down on the Carbon Copy is the sheer brightness of the blue status LED associated with the on/off footswitch, which may be no bad thing on a dark stage. Soundwise the pedal does everything you would expect of an analogue delay, including the regen knob that sets off self-oscillation for dub and spacey effects when turned past midnight. The sounds range from springy metallic reverb at very short delay times through Elvis-style slapback and on to all types of rhythmic and ambient delay – revisiting Edge and Gilmour up to the maximum 600ms – which is much more



The new Carbon Copy is reminiscent of the discontinued MXR Analogue Delay


**The separate stereo and mono outputs**

than a lot of vintage and some new build units with a maximum delay time of about 300ms can do. Tonally, the repeats have clarity combined with a dark warmth and a natural sounding decay that seems to work well between guitar and amp.

Now the Carbon Copy has pretty much the same knob controls as any other analogue delay – vintage or new – out there but the modulation adds more scope. With modulation engaged on the stock factory settings the effect is very subtle indeed, but with a delve into the innards you can adjust the trim pots for more dissipated repeats that recall the warble of a tape echo.

### Stereo Tremolo

The new MXR tremolo is based on the Dunlop TS-1 and keeps all the effects and controls of the original pedal while putting them in a smaller housing (the size of a Phase 100), designed to take up less space on a modern pedal board. Power is supplied by two PP3 batteries easily accessed via a plastic lid on the base. Alternatively you could invest in an 18-volt adaptor – Dunlop has a model called the ECB-004 but distributor JHS doesn't actually stock that. It does, however, have the DC Brick (£133) multi-power outlet which will do the job.

This pedal can operate as a normal mono tremolo pedal but also has stereo operation, which opens up the possibility of using

two amps or creating stereo width in recording. This is accomplished by having both a standard mono input and output plus a separate stereo input and output, each of which use a single 6.4mm TRS jack allowing several mono in/stereo out and stereo in/stereo out routing possibilities.

Three knobs control the sound: depth and speed are self-explanatory while the shape knob is the one that changes the nature of the type of tremolo you hear as it gradually changes the shape of the waveform. Fully counter-clockwise you get a sine wave, the centre position gives a trapezoid wave, while fully clockwise dials in a square wave. As well as the standard effect on/off footswitch there's a second footswitch that turns the pedal into a stereo panner – it switches the tremolo modulation phase of the stereo channel so the sound alternates between the two outputs.

### Sounds - Tremolo

With a single amp this pedal is capable of lots of classic tremolo sounds with a huge speed range from a really slow pulse to a fast warble. The shape knob takes the sound from soft Fender amp trem territory through very subtle variations on the theme to something more hard-edged and stuttery, but never brutal and always sounding musical.

Connecting the outputs to two amps for stereo operation certainly results in a bigger sound. Of course, that would be the case using two amps instead of one regardless of the tremolo but the

effect tends to unify the sound into something bigger than the sum of its parts. Kick in the pan button and the sound ping-pongs from one amp to the other at the set tremolo speed. With high depth and a square wave shape the 'one amp on, one amp off' effect is more obvious and a bit gimmicky, but perhaps cool for a special effect somewhere in a set. At higher tremolo speeds you get an altogether more spacious effect where the sound appears to be chorused with a lovely shimmer more akin to a Univibe or rotary speaker. Just as when used in mono, careful juxtaposition of all three knobs yields plenty of variations on this sound.

### Vintage 1974 Phase 90

Since its introduction in early seventies, the MXR Phase 90 has always been regarded as one of the classics and there are current reissues in various forms by the present Jim Dunlop-owned brand. This Vintage 1974 model is a custom shop job and ought to satisfy demand from purists seeking an unadulterated clone of the very first version – the one with the script logo produced from 1974 to 1977. What the company did was to basically reverse engineer an original pedal that had been purchased in 1974 by Bob Cedro, a Dunlop engineer.

The result is a hand-wired circuit board with original specification 1974 components, including select resistors paired with hand-matched FETs that aim to exactly recreate the original sound. The pedal is

finished in a similar dull orange shade as a vintage pedal, printed with the MXR script logo and featuring high quality Switchcraft input and output jacks as well as a Carling bypass switch. No modern tweaks have been added which means no status LED and battery power only – accessed by removing four screws and taking the pedal's base off. Inside, the circuitry is protected and separated from the PP3 battery by a layer of foam – something that has inevitably deteriorated in most vintage units. The only control available is a single speed knob that comes with a removable rubber cap for easier adjustment by foot.

### Sounds - Phase 90

Eddie Van Halen apparently liked the treble boost quality of his Phase 90 for solos, and a slight tonal shift in that direction as part of the effect is apparent when kicking the pedal in, but it's the


**Phase 90 with rubber capped speed knob**

## The Rivals

### Analogue Delay

The **Ibanez AD-9** (£149) is a reissue of an earlier pedal from the 1980s and offers up to 300ms of delay. **E-H Deluxe Memory Man** (£135) is another classic vintage design with 550ms of delay and the option of adding chorus/vibrato modulation to the repeats. The **Toneczar Echoczar** (\$795) is a completely analogue delay with two time-delay settings (100ms to over a second), footswitchable feedback, controllable pitch-shifting between channels, stereo output and separate pedal jacks for delay time and repeats.

### Tremolo

There are plenty of mono tremolos around but if we are comparing like for like it has to be stereo. The **Demeter Tremulator** has set a standard for vintage-style trem and there's now a stereo version in the **STRM-1** (\$309). The **Line 6 Tonecore Tap Tremolo** (£91) will give you stereo tremolo on a tighter budget. The **Gig-FX Pro Chop** (£229) is different from all the other tremolo stompboxes around in that it has a treadle to control the modulation rate. It offers square and triangle waves that can be used separately or combined for radical rhythmic pulses.

### Phaser

**MXR** makes other variations on the Phase 90, a standard 'block' logo model costs £112, plus there are two other 'script' versions for £115 either with or without status LED. The **Phase 100** (£159) offers a broader range of sounds. The **E-H Small Stone** (£39) was also a big hit in the seventies and provides a different flavour of phasing to the Phase 90. For a different angle on phasing there's the **Pigtronix EP-1 Envelope Phaser** (£199) that has touch sensitive effects plus provision for connecting an expression pedal for speed control.

silky quality of the phasing that is the real deal here. From the slowly shifting tonality at one extreme to the fast bubbling at the other, this is organic phasing that seems an integral part of the guitar sound rather than something slapped on top of it. The original Phase 90 always had a mellow quality that just worked with guitar and this reissue is the same. In an A/B test with our own original vintage 1974 model the sound wasn't identical – there was a slightly different tonality – but not so much that we could say that one sounded better than the other, which means that MXR has achieved its aim.

**Verdict**

If you want that mid-seventies Phase 90 sound this reissue is as close as you'll get to it without trawling Ebay for a battered original. As a basic tremolo the MXR does the job just fine but really comes into its own in stereo with a truly spacious sound. Pick of the bunch though is the Carbon Copy – as a mass-market analogue delay in a conveniently sized package, there is little around that can touch it. **G**

**The Bottom Line**

**Carbon Copy**

**We like:** Great sound; small footprint; adjustable modulation

**We disliked:** Battery access; internal adjusters are tiny

**Guitarist says:** Great sounds in a compact box – brilliant.

**Stereo Tremolo**

**We like:** Flexible routing options; wide range of sounds

**We disliked:** 18V operation; LED doesn't blink in time with tremolo speed

**Guitarist says:** Versatile tremolo effects in a practical package.

**Vintage 1974 Phase 90**

**We like:** Authentic vintage sound; rubber knob cap for foot control

**We disliked:** Battery access

**Guitarist says:** A classic vintage stompbox re-issued in as close to the original form as possible.



**MXR Carbon Copy**

**PRICE:** £199  
**ORIGIN:** USA  
**TYPE:** Analogue delay pedal  
**CONTROLS:** Regen, mix and delay knobs, modulation switch, effect on/off  
**CONNECTIONS:** Input jack, output jack  
**POWER:** PP3 battery or 9V adaptor (not supplied)  
**JHS 01132 865381**  
**www.jhs.co.uk**

Test results

**Build quality** ★★★★★  
**Features** ★★★★★  
**Sound** ★★★★★  
**Value for money** ★★★★★

**GUITARIST RATING** ★★★★★



**MXR M-159 Stereo Tremolo**

**PRICE:** £219  
**ORIGIN:** USA  
**TYPE:** Tremolo pedal  
**CONTROLS:** Depth, shape and speed knobs, pan on/off, effect on/off  
**CONNECTIONS:** Input jacks (mono, stereo), output jacks (mono, stereo)  
**POWER:** PP3 battery x 2 or 18V adaptor (not supplied)

Test results

**Build quality** ★★★★★  
**Features** ★★★★★  
**Sound** ★★★★★  
**Value for money** ★★★★★

**GUITARIST RATING** ★★★★★



**MXR CSP-026 '74 Vintage Phase 90**

**PRICE:** £159  
**ORIGIN:** USA  
**TYPE:** Phaser pedal  
**CONTROLS:** Speed knob, effect on/off  
**CONNECTIONS:** Input jack, output jack  
**POWER:** PP3 battery

Test results

**Build quality** ★★★★★  
**Features** ★★★★★  
**Sound** ★★★★★  
**Value for money** ★★★★★

**GUITARIST RATING** ★★★★★

**The history of MXR** From seventies chic to modern style

Depending on which side of the pond you came from, MXR was the Rolls Royce or the Cadillac of effects pedals back in the mid-seventies – packaged in compactly solid little boxes and reassuringly expensive. Just about all the well-known guitarists of the era had an MXR or two in their armoury – Jimmy Page, for one, favoured the Phase 90; a pedal that Eddie Van Halen later became associated with alongside his use of the company's Flanger. Founded around 1972 in Rochester, New York by Keith Barr and others, MXR really got into its stride in 1974/5 with its first four pedals – the Phase 90, Dynacomp, Blue Box and

Distortion+. The company soon grew into a large concern, not only increasing its range of analogue pedals but also moving into studio effects, some of which embraced the emerging digital technology. Meltdown for the original company and its US-made products came in 1984 when massive competition from the Far East (most notably BOSS and Ibanez), combined with several other factors, speeded its demise resulting in the original founders going off to form the ART and Alesis companies. Resurrection for the MXR line of pedals came when Jim Dunlop took over the brand and re-issued some old favourites as well as introducing new pedals, including several signature models.



**EVH and Page favoured the Phase 90**