



BOSS, TC ELECTRONIC, EVENTIDE & DAMAGE CONTROL DELAY EFFECTS ~~£152~~ ~~£399~~
EFFECTS

Delay effects

BOSS RE-20 Space Echo ~~£152~~

TC Electronic ND-1 Nova Delay ~~£182~~

Eventide Timefactor ~~£299~~

Damage Control Timeline ~~£399~~

There hasn't been a vast choice of new delay pedals for guitarists of late, but now, just like that number 7 bus, four of them have come along at once...

by Trev Curwen

Whether it be Hank Marvin's echo-drenched instrumental leads with The Shadows or The Edge's rhythmic repeats, we have all heard delay in action and many of us use delay as part of our set-up. Ever since the Butts

Echosonic put tape echo into an amplifier in the 1950s, guitarists have had access to portable delay units be they the electro-mechanical tape or magnetic disc based units, electronic 'bucket brigade' analogue delays, digital delays or the latest modelling units.



What, though, do guitarists want from their delay units these days? If the answer lies somewhere between the extremities of a little delay for extra ambience to wrap around solos and the full palette of all that digital delay-based technology has to offer as found in a studio processor then it will likely be found in one of the four up-to-the-minute floor-based delay units that we have on test here – each seemingly offering, in a single stompbox, a collection of sounds that you might only have

The Rivals

Another recent highly-specified pedal is the **Pigtronix Echolution** (£349), a dual delay with independent tap tempo and modulation modes for switching between different sounds on the fly. Among many interesting features are multi-tap toggle switches which introduce combinations of five additional echoes at musical fractions of the delay time. Older but still extremely popular is the **Line 6 DL-4 Delay Modeler** (£269) which uses digital modelling to recreate many different delay types and offers instant footswitch access to three programmable presets. If you prefer a smaller footprint in your pedals but still want versatility, the **DigiTech XDD DigiDelay** (£89) offers seven different delay types plus tap tempo.

previously found in a rack or tabletop unit.

Each of these units is different in the set of facilities it provides and the way that they are implemented, but all have some features in common like the fact that they can all be used in a standard in-line mono in/mono out situation between guitar and amp and also be used in stereo from either a mono or stereo source. All also have a tap tempo control which seems an essential part of the set-up these days so that delays that suit a particular song (or a section of it) can be called up on the fly.

Another common feature is the ability to recreate the traditional sounding echoes from an older generation of machines. At its simplest, the role of a delay unit is to make a copy of what you play and repeat it as an echo (or multiple echoes) of the original – digital technology can create an identical clone of the original signal but the way that the subsequent repeats from tape and electronic analogue delays dissipated and degenerated allowed them to blend with the guitar signal in a very naturally pleasing way. All four of these units have their own take on emulating that sound and creating something a little softer than a mere digital clone.

Those basic echo functions, coupled with the means to set them up and control them, might be all that most guitarists are looking for in a pedal but delay can mean more than just audible timed repeats of the source signal

– modulation effects like chorus and flanging are all created from very short delays and two of the pedals on test are capable of creating those. Those two also have a looping facility for recording a segment of your music and playing it back for you to play over.

While delay pedals have always been available it's probably fair to say that, over the last few years, the choice has been somewhat limited and perhaps a little predictable – but that has all changed with these new releases.

BOSS RE-20 Space Echo

The RE-201 Space Echo was probably the most iconic of Roland's range of tape delays produced from the mid-seventies to the mid-eighties and this new pedal uses the company's COSM modelling to reproduce its sounds. The RE-20 even copies the original's front panel with controls for bass, treble, reverb volume, repeat rate, intensity and echo volume.

The original 201 featured a spring reverb and three playback heads that could be selected either

A no-brainer to set up and use, the RE-20 does a great job of recreating the less-than-pristine sound of tape delay



With 12 mode settings the Space Echo RE-20 is a versatile pedal

The Nova is a pure digital pedal with pristine sounding repeats



on their own or in combination via a rotary switch that is reproduced here along with the same 12 settings – four that are just delay, seven with delay and reverb, and a reverb only setting.

One hefty footswitch turns the effect on and off while the other is a tap tempo switch that can also be held down to create the 'twist' effect which simulates simultaneously turning up the intensity control and repeat rate, setting off wild runaway oscillation. It's a neat trick but is better controlled by plugging in an Expression pedal which can also be set to turn up echo level, repeat rate and intensity separately.

A no-brainer to set up and use, from single repeats based on one head to ambient multitaps, the RE-20 does a great job of recreating the less-than-pristine sound of a tape delay with repeats that fade organically away and meld nicely into the overall sound, albeit with more homogeneity than the sometimes random sound of real tape. The delay times available ape those of the original tape machine but the RE-20 can be set to 'Long Mode', which doubles the delay times available up to a maximum of six seconds.

TC Electronic ND-1 Nova Delay

The most compact of the bunch here, the Nova has quite an array of controls and readouts with five knobs and five buttons besides the two footswitches. Based on TC's classic 2290 rackmount studio delay, the Nova is a pure digital delay with pristine sounding

repeats if you want them but with the option of making them sound like older analogue or tape delays with a 'color' knob that progressively removes that digital sheen. Light, medium or heavy pitch modulation can also be dialled in to help the blend. Six different delay types are available from a straight delay line through dynamic delays that become more prominent when you stop playing, ping-pong and panned delays, reverse and slapback. Tempos can be set manually in milliseconds (ms) or BPM, or with a tap tempo button that has two modes – hold it down and you can input the tempo by hitting your strings twice. Whatever master tempo is set, you have a choice of standard quarter note repeats, dotted eighth notes or eighth note triplets so you can set up a nice rhythmic delay and get the timing exactly right onstage with the handy tap tempo switch.

Although the Nova may seem complicated at first glance, once you get the hang of what all the knobs and buttons do it's easy to dial in the sounds, although with all the parameters available you may not want to be doing that onstage between songs which is where the nine onboard presets will come in very handy. And you can even scroll through them during a song if your tap dancing skills are up to hitting both footswitches in quick succession.

Eventide Timefactor

Eventide, renowned for classy studio effects boxes, has successfully crammed the



A variety of delay styles are available on the TC Electronic Nova Delay

versatility of a rack processor into a pedal with the Timefactor. It's the company's first foray into stompbox territory and places two independent three-second digital delay lines together in one box with 11 front panel knobs and three footswitches. An expression pedal can be added, as can more footswitches, and the unit is upgradeable via USB.

The two delay lines have independent delay time and feedback knobs and can be blended together in proportion. The Xnob, depth, speed and filter knobs have different functions depending on the category of delay effect that is chosen from the 10 on offer – Xnob, for instance, adds simulated tape hiss when Tape Delay is selected. Turning any knob puts the details of the parameter it is adjusting into the display alongside the numerical parameter value.

You can choose from nine types of delay or a looper. The delay

categories are digital, vintage, tape, mod, ducked, band, filterpong, multitap and reverse and between them cover all the variations of delay that you are likely to need, with the traditional nestling alongside more esoteric options that will encourage experimentation: the filtering of the repeats in the band delay setting and parameters that can be altered on the fly with an expression pedal.

The footswitches provide the usual bypass and tap tempo functions as well as an 'infinite repeat' that freezes the repeats and keeps them running, but in another mode they can access the 20 onboard programmable presets stored in 10 banks of two – ideal for those who know exactly what their effects should sound like.

Damage Control Timeline

The Timeline has the usual





Valves add character to the Damage Control Timeline's sounds

Damage Control solid curvy casing holding a couple of valves that add a nice character to the sound. This pedal offers just about all the traditional options that a digital delay can with a rotary switch that selects slapback, long, dotted eighth, ping pong, multi and reverse delays, modulation or looping. That switch can also access one of the four banks of two footswitch-accessed presets that the Timeline is capable of storing.

There are no digital readouts here, just colour-coded signals from the central 'Magic Eye' and the two valve windows to let you know what you have selected. Control is hands-on via four rubber coated dual concentric knobs, the first of which sets delay time and repeats while the second sets modulation depth and speed or the relative positions of two extra virtual tape heads in multi

mode. With the remaining knobs you get control over the wet/dry mix and the character of the delay with 'grit' adding in a bit of dirt, 'filter' changing the EQ of the notes to sound like an older style tape or analogue unit and 'smear' softening the attack of the repeats for blending purposes.

Although you can't directly set the delay time in ms or BPM the Timefactor will sync to MIDI for precision if you need it, but the tap tempo is well implemented and includes the trick of holding down the button and hitting the strings like in the TC. Getting sounds is all about juxtaposition of the knobs and there is an incredible range of excellent sounding modulation and echo effects on offer here.

Final thoughts

The easiest pedal to use among

those on test is the BOSS, which can immerse your sound in a warm bath of echoes and reverb. Compared with the other pedals here, it might be viewed as a one-trick pony but it is an excellent trick. It's not just for nostalgics and vintage freaks either, because it has been updated with a couple of thoughtful touches to make it more amenable to modern-minded players.

The compact-sized TC is a good option for the pedalboard of anyone needing a versatile variety of delays of different tempos during a set. It's dead easy to use as a straight delay with plenty of useful attributes for tweaking the effect to your exact liking.

Spending more money won't necessarily get you better sound quality but it will get you more facilities. Versatility is the name of the game for both the Eventide and Damage Control with looping, delay-based modulation effects, (flanging, chorus, rotary speaker etc), and all shades of delay including widely adjustable multi-taps. These two are indeed the do-everything pedals as far as delay-based effects are concerned and their pricing reflects that.

Of the two, the Damage Control is perhaps the more intuitive to use and is stage-friendly with instant results from simple knob turning and the green, amber and orange glows in the window instantly showing your status. The Eventide with the dual delay lines and more in the way of less conventional sounds needs a little more attention in the setting up

but it has its own advantages in a digital readout for every single parameter and the ability to exactly set the delay time in ms and BPM without recourse to MIDI, plus 20 programmable presets that can be stepped through in a set.

This is not a shoot-out at the Echo Corral so there are no winners and losers – each of these does a fine job of the basic delay tasks but each takes its versatility in a slightly different direction. It's really down to just what you need your delay pedal to do for you at a price that seems reasonable. **G**

The bottom line

BOSS RE-20 Space Echo

We like: Realistic recreation of the RE-201 sound; ease of use; updates added without changing the original character

We dislike: Power adaptor, not supplied

Guitarist says: An analogue classic revived in digital form.

TC Electronic ND-1 Nova Delay

We like: Compact size; ease of use

We dislike: Preset recall by foot a little awkward

Guitarist says: A great set of facilities for the price while taking up a modest amount of pedalboard space.

Eventide Timefactor

We like: Huge sound creation potential; future-proofed by USB upgrade capability

We dislike: Complexity doesn't lend itself to onstage tweaking

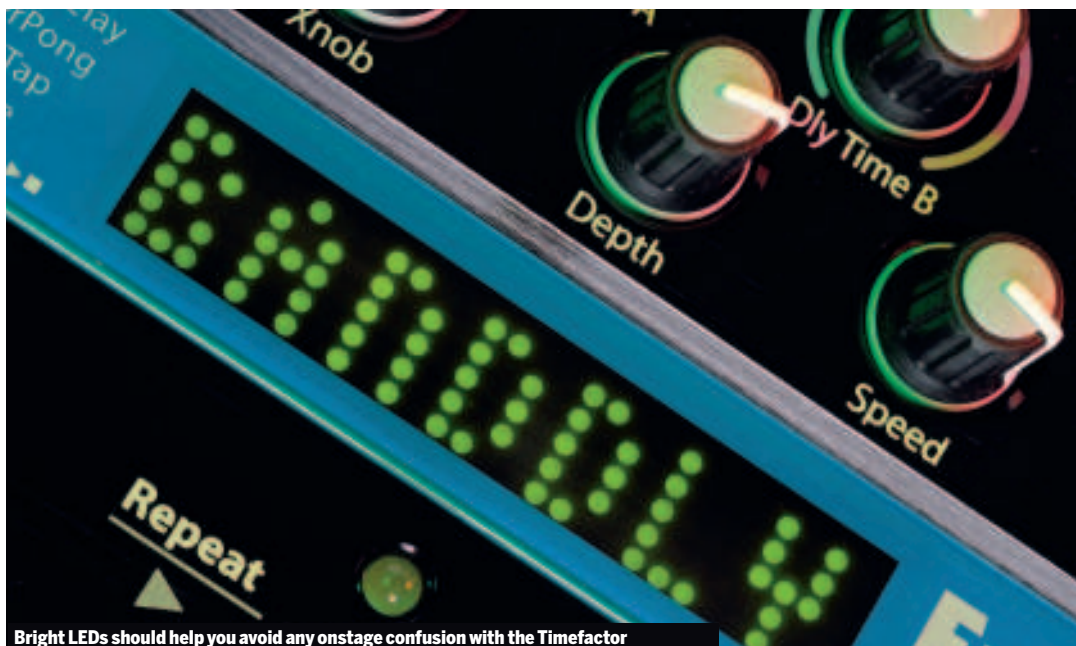
Guitarist says: Rackmount facilities in a stompbox-attention to detail creates a real versatility for stage or studio use.

Damage Control Timeline

We like: Built like a tank; WYSIWYG control; movable virtual tape heads

We dislike: No delay time setting in milliseconds

Guitarist says: Brilliant sounds, stage-friendly but would you want to spend £399 on a delay pedal?



Bright LEDs should help you avoid any onstage confusion with the Timefactor

BOSS, TC ELECTRONIC, EVENTIDE & DAMAGE CONTROL DELAY EFFECTS £152-£399
EFFECTS



BOSS RE-20
Space Echo

PRICE: £152 (inc batteries)
ORIGIN: Taiwan
TYPE: Programmable digital delay pedal
FEATURES: Simulation of Roland RE-201 tape delay, direct switch to turn off dry sound, tap tempo
EFFECTS: Delay, delay with reverb, reverb
PATCHES: 12
MIDI: No
DISPLAY: Simulates speed of moving tape
CONNECTIONS: Input A/mono and B, output A/mono and B, exp pedal jack
POWER: 6 x AA 1.5V batteries or BOSS PSA mains power adaptor (not supplied)
EXT CONTROLLERS: Roland EV-5 Expression pedal
OPTIONS: The Boss Twin pedal range also includes the DD-20 Giga Delay, while in the compact pedal range the DD-3 and DD-6 are available.
Roland UK 01792 702701
www.roland.co.uk

Test results

Build quality	★★★★★
Usability	★★★★★
Sound	★★★★★
Value for money	★★★★★
GUITARIST RATING	★★★★★

TC Electronic
ND-1 Nova Delay

PRICE: £182 (inc power adaptor)
ORIGIN: Thailand
TYPE: Programmable digital delay pedal
FEATURES: Tap tempo
EFFECTS: Six studio quality digital delay types – delay line, dynamic, reverse, ping-pong, pan and slap-back
PATCHES: Nine user programmable presets
MIDI: No
DISPLAY: Four character LED (red)
CONNECTIONS: Input L/mono and R, output L/mono and R
POWER: Supplied mains power adaptor
EXT CONTROLLERS: None
OPTIONS: Companion pedal is the NR-1 Nova Reverb while the D-Two is a comprehensive rackmount delay unit
TC Electronic 0045 8742 7000
www.tcelectronic.com

Test results

Build quality	★★★★★
Usability	★★★★★
Sound	★★★★★
Value for money	★★★★★
GUITARIST RATING	★★★★★

Eventide
Timefactor

PRICE: £299 (inc power adaptor)
ORIGIN: China
TYPE: Programmable digital delay pedal
FEATURES: 12 seconds of mono looping, tap tempo, infinite repeat, amp/line and guitar/line switches
EFFECTS: Digital, vintage, tape, mod, ducked, band, filterpong, multitap and reverse delays
PATCHES: 20 onboard (unlimited through MIDI)
MIDI: MIDI in, out/thru
DISPLAY: Eight character LED (green)
CONNECTIONS: Input 1/mono and 2, output 1/mono and 2, exp pedal jack, aux switch jack, USB (for future upgrades)
POWER: Supplied mains power adaptor
EXT CONTROLLERS: Expression pedal, three extra footswitches, MIDI
OPTIONS: Companion pedal is the Modfactor modulation effects stompbox. The Eclipse is the most compact of the Eventide rackmount units
Source Distribution 020 8962 5080
www.sourcedistribution.co.uk

Test results

Build quality	★★★★★
Usability	★★★★★
Sound	★★★★★
Value for money	★★★★★
GUITARIST RATING	★★★★★

Damage Control
Timeline

PRICE: £399 (inc power adaptor)
ORIGIN: USA
TYPE: Programmable digital delay pedal
FEATURES: two-track looping with 20 seconds per track, tap tempo
EFFECTS: Slapback, long, dotted eighth, ping-pong, multi-head and reverse delays, modulation
PATCHES: Eight onboard (1280 via MIDI)
MIDI: MIDI in/out
DISPLAY: Magic Eye pulses in time with effect
CONNECTIONS: Input 1/mono and 2, output 1/mono and 2
POWER: Supplied mains power adaptor
EXT CONTROLLERS: via MIDI
OPTIONS: Damage Control's Glass Nexus is a multi-FX pedal combining delay with reverb and modulation effects
Peavey UK 01536 461234
www.peavey.co.uk

Test results

Build quality	★★★★★
Usability	★★★★★
Sound	★★★★★
Value for money	★★★★★
GUITARIST RATING	★★★★★