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IRON MAIDEN

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ON THEIR EPIC
NEW ALBUM

THE KILLERS

EFFECTS MASTER
DAVE KEUNING

PENTATONIC POWER!
10 WAYS TO
USE THIS
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BORN TO PLAY

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Welcome...



The effect pedal market has grown immeasurably in recent years. Now, not only is there almost guaranteed to be a pedal to suit your needs, there are probably *dozens!* Many stone cold classics are available (like the Ibanez Tube Screamer, the MXR Phase 90), but there's also a thriving market for 'clone' pedals (often with near-identical circuitry) and

also effects taking a broader inspiration from those originals. Alternatively, if you prefer to seek out new, more experimental sounds, well, the world's your oyster as many companies continue to innovate. The one downside of this situation, if you can call it such, is that it makes it hard to know where to start. Whether you're building a pedalboard from scratch or if you're looking to swap out one or two pedals in an existing 'board, the agony of choice is real!

And that's where TG comes in. This month, we've made it our mission to help you choose the right pedals for you, guiding you through the best examples currently on sale and giving you expert advice to help you add to your pedalboard. We're also taking a look at the 50 greatest effects songs of all time as voted for by the readers of GuitarWorld.com. We'll run you through the gear used by the stars and give you tips on dialing in some classic sounds.

Of course, we have all our usual songs and reviews, plus interviews with The Killers' Dave Keuning, Iron Maiden's Adrian Smith and Janick Gers, Ida Mae's Chris Turpin, and much more. Enjoy the issue and I'll see you next month!

Chris

Chris Bird Editor

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Download your audio files at
bit.ly/tg350audio



Words: Amit Sharma Photo: Jeff Kravitz / Getty Images

RADIOHEAD'S 'LOST' SONGS REVEALED

It's been 21 years since Radiohead stunned the world with their fourth studio album *Kid A* – a deep-dive into the electronic unknown that saw Thom Yorke, Jonny Greenwood and Ed O'Brien's guitars taking more of a background role in their psychedelic lullabies. Its successor, *Amnesiac*, released the following year, was also recorded during the same 1999–2000 sessions, documenting yet more bold experimentations. And now, as both albums are reissued, there is a companion album, *Kid Amnesiac*, comprised of previously unreleased tracks from that period.

The first taste of these unheard rarities arrived in September, originally penned under the working title of *C-Minor Song* before the group later settled on *If You Say The Word*. At the very heart of the track is an acoustic fingerpicked part which almost evaporates underneath the electric guitar motif, effected with the kind of warm glitch you would get by pairing a pitch-shifter with warbly modulation and dialling in more lower mid frequencies through your instrument or amp. Unsurprisingly, given its working title, the track is in the key of C minor and its opening melody plays off the minor third, perfect fifth and minor seventh intervals before sitting on the root. The inclusion of a minor sixth on its third cycle is what cements that sense of melancholy, pointing specifically to the C Aeolian scale, which would be the sixth mode of E flat major. These few choice notes are held and fade out for the verses, the electric guitars returning for the chorus and then disappearing for the Ondes Martenot-led bridge sections.

Overall, however, the six-strings feel more prominent than what we'd have expected from the band during this era of their career and perhaps more evocative of 2003's *Hail To The Thief* or their most recent album, *A Moon Shaped Pool*. Produced by the band and Nigel Godrich, there's plenty of space in the mix afforded to long reverb trails, most notably on Thom Yorke's moody vocals, which is what gives it that sense of airy dreaminess and contemplation – key fundamentals of the Radiohead sound from these years through to the present day.

SCENE

YOUR NEWS IN GUITARS

Words: Stuart Williams, Ellie Rogers



GUITAR

THE GUITAR THAT SHOOK THE WORLD!

BLACK SABBATH LEGEND TONY IOMMI'S SIGNATURE SG REBORN

N

ot only did Tony Iommi invent down-tuned heavy metal as guitarist for Black Sabbath, but while he was at it, he

also became an icon of the Gibson SG. Tony's famed Monkey SG was replicated in the finest of details by the Gibson Custom Shop in 2020, but as the sun begins to set on 2021 – the 60th anniversary year of Gibson's longest-standing electric guitar – Gibson has announced the release of a USA production version of Tony's SG.

In an interview with *Guitarist* in 2020, Tony recalled how he first acquired a left-handed SG in his early days with Sabbath: "I had a right-handed SG, upside-down, which I strung left-handed," he said. "But I heard of this guy who'd got a left-handed SG – he was right-handed and he played his upside-down. I didn't know him from Adam, but we arranged to meet in a carpark. It looked a bit dodgy, but I finally got a left-handed SG.

"I had a Strat, which I played mainly, and I wanted another guitar as a spare. But when we came to record the first album [1970's *Black Sabbath*], I played the very first song, *Wicked World*, with the Strat, and the pickup went, which is weird. In those days you couldn't just go to the shop and get a pickup, and we only had two days in the studio. So I thought, 'I've got to use this SG,' and I ended up playing several albums on it."

Tony's original 'Monkey' (which now resides in the Hard Rock Cafe, New York)

underwent a number of modifications to improve its sonic performance, but also to help the playability of the guitar after an injury to Tony's right hand to retire him from playing altogether. The original Tune-o-Matic was swapped for a wraparound model to accommodate Tony's lighter string gauges, and he enlisted Birmingham luthier John Birch to wind and fit new pickups, reduce the fret height and even lacquer the rosewood fretboard in order to make playing easier on Tony's fingers. But most famously, Tony's SG Special is identified by the sticker of a Monkey playing the violin.

"I had this jacket that I bought from Take 6 in London," he says. "I just barely afforded it and I wore it all the time. I wanted to make it a bit different for on stage, so I started putting metal stars and things on it. Then I found these monkeys and I thought, I'll put a couple of them on, and I'll put one on the guitar as well. So I put one on the guitar and it became known as the 'Monkey' guitar."

While the Custom Shop Monkey replicated these details to a tee (including the lacquered 'board, original bridge holes in the body and meticulous wear to finish), the USA version captures the essence of the Monkey. You get that essential mahogany body – finished in Vintage Cherry – rounded mahogany neck, a pair of P90 pickups (covered with chrome housings), the wraparound bridge and a hardcase. To the back of the headstock is Tony's signature. Of course, you also get the sticker that gives the guitar its name. The Tony Iommi SG Special is available for £2149.

MODELLER

WHAT A RUSH!

Nope, it's not a sports car. The MX5 from Headrush distills the DNA of its Pedalboard and Gigboard modellers into a more compact, yet still mighty format. On board you get 50 guitar and bass amp models, 66 effects, 15 speaker cabs, 10 mic emulations and a whopping 300 impulse responses. It's all controlled by an intuitive 4" LED touchscreen which allows for drag-and-drop selection of amps, effects and cabinet simulations into your chain. Meanwhile, there's a whole heap of functionality bundled-in, including an expression pedal, IR loader, dual-amp signal path per-patch, stereo FX loop and a USB interface. It's available now for £429 and TG's full review will be coming soon!



AMPLIFIER

BRILLIANT ORANGE

Orange's Crush and Crush Pro have long delivered our favourite citrus flavour in affordable, solid-state packages, but now the UK legend has launched the Super Crush: an entirely new design that includes many improvements across the board. First off, it's an entirely analogue signal path featuring a single-ended, two-channel JFET preamp, combined with a 100-watt Class A/B power section, aimed at mimicking the response and power of Orange's Rockerverb. The clean channel is voiced to be bright, with plenty of headroom while the dirty channel offers four stages of gain, ranging from clean to "punishingly heavy", plus a three-band EQ gives you plenty of tone-shaping options. Orange has also fitted its CabSim balanced XLR output, built-in reverb and a buffered FX loop. The Orange Super Crush is available as a head or combo, with matching 4x12" or 2x12" cabs.



EFFECTS

SET PHASER TO STRUM!

You know and love Strymon for its lush reverbs and delays, and analogue-inspired processors. Well now, as the old saying goes, the US pedal brand is setting its phaser to strum, with the Zelzah Multidimensional Phaser. As with other Strymon pedals, the Zelzah is actually two pedals in one. To the left side there's a four-stage phaser, offering Classic, Barber and Env modes (the latter reacts to your picking dynamics), as well as Speed, Depth and Mix controls. On the right side, you get a six-stage phaser you get an additional resonance circuit offering Mild/Strong options, or switched out altogether. But key to this part of the pedal is the Voice control, which Strymon says is a "groundbreaking new phaser algorithm", simultaneously controlling over 30 parameters. The Strymon Zelzah is available now, priced £329.



ALBUM

“THE GUITAR IS BULGARIAN – AND REALLY CHEAP!”

BLUES MASTER ERIC BIBB DISCUSSES HIS NEW ALBUM *DEAR AMERICA* – AND THE “GROOVY” EUROPEAN GUITAR PICTURED ON ITS COVER

You’ve described *Dear America* as a love letter, but it feels more complex than that...

I call it a love letter because, at the end of the day, I have a lot of love for my home country. America, as the world knows, is a unique experiment, with a bloody history and lots of challenges. We’re trying to overcome ancient tendencies towards violent tribalism and suspicion and fear. Love is the antidote, love is the solution. What I really hope to do with this album is reach a lot of people and stimulate a conversation that’s truly uncomfortable and truly essential if we’re going to get past all of these conflicts.

There’s an interesting looking guitar on the album cover – could you tell us about that?

It’s featured on *Whole Lotta Lovin’* and is the main instrument on *Emmett’s Ghost*. The guitar is a Bulgarian instrument, and was

really cheap! It was made in Sofia probably in the 60s. It’s basically a plywood top – it’s really an inexpensive guitar. It’s got two sound holes, and what’s groovy about that is the sound comes out at slightly different moments, so there’s a kind of chorus/phase effect. It’s subtle, but it’s audible and I find it very fascinating.

***Whole Lotta Lovin’* references lots of musical genres. It’s as if you’re summing up your own sound.**

It certainly is! I feel like the music that moves me and the music that I’m into composing and performing is really a gumbo of all of the things I’ve ever heard and loved. That means work songs from old field recordings to The Beatles, to Motown, to some of the most beautiful classical music. So all of that – calypso, doo-wop, jazz, blues – is in the mix. I also wanted to let people know that I don’t separate those ingredients to the

degree that is usual. I think that musical segregation is a reflection of our tendency to want to categorise, and I think it’s time to talk about how connected everything is.

And the album has a guest spot from Eric Gales...

I met him on a Joe Bonamassa Blues Cruise. I’d known about him and read about him but hadn’t really gotten into his music until I heard him live. I was completely flabbergasted by his amazing specialness and technique. He’s the guy for the moment who’s really integrated all the beautiful old-school blues guys with a real modern sensibility and adventurousness that I just found totally irresistible. After his gig, I went right up to him and said, “Listen, man, I’m in the middle of a record – would you consider guesting with me if I made the right moves?” And he said, “Man, it’s going to happen!”

MONITOR

PEOPLE ★ NEWS ★ NOISE





Words Stuart Williams Photography Dilly Curtis

HEADLESS PICKIN'

Harley Benton offers 80s style on a budget

N

o, we haven't cropped that photo. What you can see here is the Dullahan-FT 24: part of the latest electric lines from Harley Benton. Borrowing its name from

Irish folklore, not only does this headless horseman come galloping out of the stable with some very specific 80s character, but it can be yours for a steal.

The Dullahan comes in two versions: AT or FT, the former fitted with a mahogany body, flamed maple veneer top, maple neck and ebony fingerboard. Meanwhile the FT features an alder body, roasted maple neck and roasted maple fingerboard.

Beyond the wood, both share identical features. First up is that Steinberger-inspired headless design, and moving down from there we get a Graph Tech TUSQ XL nut, pearled offset dot inlays, 24 stainless steel jumbo frets, Roswell HAF Alnico 5 humbuckers and an Apollo mono bridge.

The humbuckers are controlled by a five-way switch, allowing for some versatile switching options.

The Dullahan AT is available in Tiger Black Burst or Purple Black Burst, while the FT is finished in the more retro Shell Pink [pictured] or Daphne Blue. Both include a padded gig bag, and cost £426 (FT models) and £383 (AT models).

UP CLOSE



Pickups

Both Dullahan versions include Harley Benton's Roswell HAF Alnico 5 humbuckers, with a five-way switch offering individual, split and parallel switching options.



Roasted maple

The FT line features a roasted maple neck, as well as a roasted maple fingerboard to match.



Hardware

Harley Benton has fitted an Apollo mono bridge, and since there's no headstock, the guitar is tuned from this end, too.

WHAT YOU WILL LEARN

- ✓ Drop C# tuning
- ✓ C# Phrygian mode riffing
- ✓ 16th-note phrasing

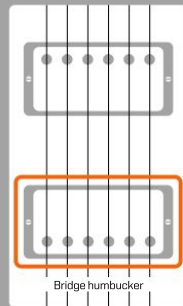


RIFF OF THE MONTH

VIDEO ON YOUR CD

GET THE TONE

CHANNEL DISTORTION



This is a modern high-gain saturated sound provided by an EVH 5150 amp, with the front end boosted by a Tube Screamer type pedal. Matt has recently been spied playing *Feast Of Fire* on his active EMG-loaded signature Epiphone 'Sn0fall' Les Paul Custom Outfit (the six-string variant), while Corey opts for his Jackson King V (also a six-string). It's humbuckers and high gain all the way!

TRIVIUM

Feast Of Fire

Trivium's twin-axe attack of Matt Heafy and Corey Beaulieu have cemented their playing partnership over 18 years, with tight double-tracked rhythms, guitar harmonies and shred solos delivered like a well-oiled machine.

Feast Of Fire's riff is played by both guitarists, whose parts are panned left and right to create a wide stereo sound. It's played with constant

16th notes throughout – which means there are four even notes per downbeat. In true thrash style, every note is played with a downstroke for consistent tone and attack. When playing the riff up to speed, ensure your picking hand and arm is warmed up and focus on moving your hand from the wrist in a loose, relaxed fashion.

The main part of the riff is a repeating melody on the 10th, 12th and 13th frets (played with the first, third and fourth fingers for easy reach),

with an ending which moves down to the 7th and 8th frets. Watch the video on your CD to see it played slowly.

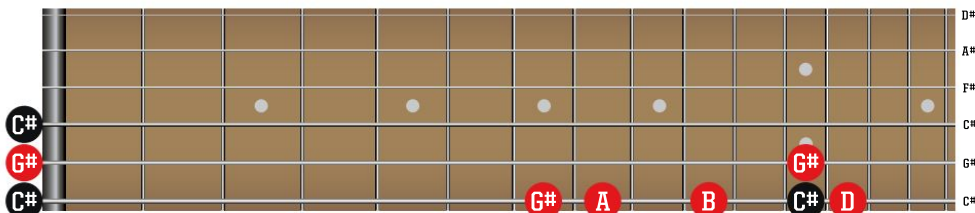
CHEAT SHEET...

Appears at 0:16–0:27

Tempo 90bpm

Key/scale C# Phrygian mode

Techniques Open-string pedal, down-picking, pull-offs



The notes all exist within the C# Phrygian mode (C# D E F# G# A B), with the main part of the riff using C#, D, G# and B. The 2nd interval (C# and D) is the signature

sound of the Phrygian mode, giving the riff a dark, ominous flavour. Place your third finger on the 12th fret and use one finger per fret to play the notes where

possible. For the ultimate challenge, aim to play the riff without looking at your fingers. Finally, note that you'll need to tune to drop C# (C# G# C# F# A# D#).

ANGEL VIVALDI

ARTIST SIGNATURE



**SAVAGE
ELEGANCE**
PRO-MOD
DK24-6 NOVA



charvel.com

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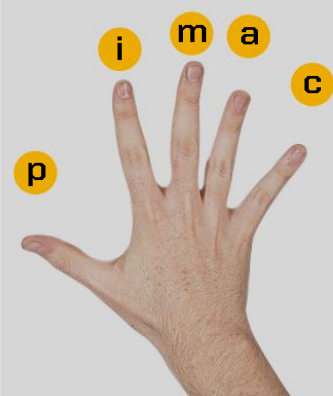
GETTING STARTED WITH...

FINGER PICKING

No pick? No problem!
Improve your versatility
and create intricate rhythm
parts with fingerstyle

FINGERS AND THUMBS!

In music notation, abbreviations are used to tell you which finger to pick with. Use the image below as a reference guide to relate each finger to a letter!



Switching from pick to fingers is one of the most dramatic changes you can make to your guitar tone, and it costs nothing. Mark Knopfler, Jeff Beck, Chet Atkins and Joni Mitchell show the world of different tones you can get when you ditch the pick.

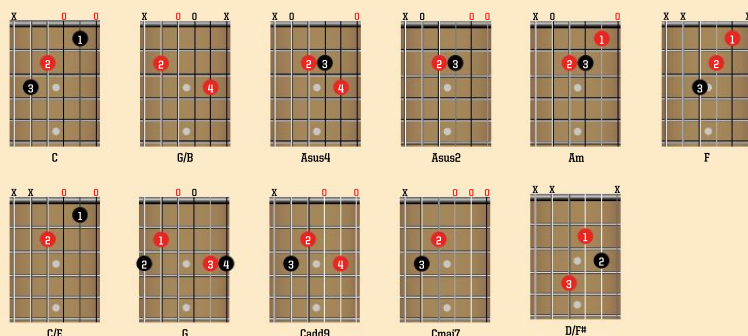
The basic rule for fingerpicking is that your thumb plucks the three bass strings (E, A, and D) while your fingers take care of the rest. If this is your very first time

fingerpicking, we'd suggest starting with just thumb and one finger. If you've had some experience, try using your index finger for the G string, middle for the B, and ring finger for the high E – ultimately the more versatile approach.

We've written a short piece of music for you to hone your skills with. It's chord-based, so just hold down the relevant shapes and focus on fingerpicking the right strings.

CHORDS

These are the chords you'll need to know to play this month's track. It's a fair number of shapes, so approach the tab with a longer term perspective and spend a few days or even weeks practising shorter sections before building up to playing it in full. Even just playing through the first couple of bars of music is a big achievement if you're just starting out.



TECHNIQUE CHECK...

Get your fingers in prime position to make those fingerstyle passages easier



1 FINGER POSITION

Angle your hand with your thumb pointing to the fretboard and your fingers closer to the bridge, so they won't collide with each other as you pluck the strings.



2 FINGER PICKING CHORDS

To play chords, use a 'pinching' motion (your thumb moves downwards; your fingers go up) with one finger on each string, plucking all the notes at once.

FINGERSTYLE STUDY PIECE

TRACK 07

♩ = 60

let ring throughout

Chords: C, G/B, Asus⁴, Asus², Am, F, C/E, F, G, Am, G/B, Cadd⁹, C, Cmaj⁷, D/F[#], F, G, C

Tab notation (T, A, B strings):

1 p i m i cont. sim. m i m i m i m

13 m i p p p m i p i m a

The notes should sound smooth and connected in our track, ringing out over each other, so avoid touching the strings except at the exact moment you intend to strike the note. Note that you'll mainly follow a thumb-index-middle-index picking pattern (p-i-m-i), with some easy variations in bars 4, 12 to 14, and 17.



Words Amit Sharma Portrait John McMurtrie

“SOMETIMES YOU MIGHT SEE GUITARISTS HIDING AWAY BEHIND THEIR AMPS, WAITING FOR THE OTHERS TO TAKE UP THE GAUNTLET AND LEARN THESE SUPER-COMPLICATED PARTS!”

The new album from heavy metal legends **Iron Maiden** is a mighty epic, but as guitarists **Adrian Smith** and **Janick Gers** admit: “It wasn’t easy to make.” In a track-by-track guide, they explain how to master complex songs and tricky time changes - and why you don’t need a £3000 guitar to sound like a pro...



They are in one of the biggest bands in the world, but when Adrian Smith and Janick Gers talk about guitars, there's not a trace of arrogance. Quite the opposite. Speaking to TG from their homes – Adrian in Buckinghamshire, Janick in the North East – they're in buoyant mood about the new Iron Maiden album *Senjutsu*, the 17th studio set of the band's storied career, and the sixth to feature the three-guitar line-up of Adrian, Janick and Dave Murray. But before they get into the fine detail of *Senjutsu* (the title loosely meaning 'the art of war' in Japanese), they both offer sound advice for less experienced players.

Janick has a tip for those on a modest budget, having played an Epiphone Les Paul Custom, instead of his usual Strats, when Maiden performed the song *If Eternity Should Fail* on their last tour. "I wanted to do that because if you're a kid watching Iron Maiden, I don't want you thinking you've got to spend three grand to sound good," he says. "So many guitar players think expensive guitars sound better, but the reality is people rarely can tell the difference. Decent guitars are out there and everyone can afford them. The difference is very slight – if there was only one guitarist in the band, you might be able to hear the difference between something costing three grand or £500. But there's three of us, and I couldn't hear the difference. It tells kids: 'You can do this, get a guitar, put a band together and get playing! You don't need to be rich to do this.' So that's why I chose to use that guitar."

And what Adrian says about technique is both instructional and remarkably self-deprecating. This is a man who has written some of Iron Maiden's greatest songs, notably the 80s anthems *Flight Of Icarus* and *2 Minutes To Midnight*. But in the 90s, when he and singer Bruce Dickinson were out of the band and working together, Adrian had a rude awakening from Roy Z, the other guitarist in Bruce's band.

"I've never really studied technique," he admits, "because there wasn't much information around when I was younger. But when I was playing with Roy Z, he actually called me out on it and said, 'Your technique's not very good!' At first I thought, 'Hang on a minute, mate!' But he was right. He showed me some alternate picking exercises and I worked on them for hours and hours because

I had to keep up with him. It really improved my playing and helped me use my fingers in the right way, as well as strengthening them."

Both of them describe *Senjutsu* as a challenging album to make, not least due to the complex material provided by the band's founder and leader, bassist Steve Harris. Recorded at Studio Guillaume Tell in Paris with producer Kevin Shirley, the album was actually completed in 2019, before the global pandemic. And across a range of styles and moods, from straight-up heavy metal to more progressive and folk-influenced textures, there is some truly stunning guitar work.

"There's so much creativity in this band," Janick says. "We're always trying to expand and come up with new things, and on this album, we have such a mixture of sounds and huge choruses too. It's a double album, and on vinyl it's a triple! Back in the old days, an album would be forty minutes max. Well, this is three times that! And that's what validates this band."

In every sense, this is a heavyweight album. And in the following track-by-track guide, Adrian and Janick reveal the secrets of its creation – weird tunings, odd time changes and a super-sized solo included!

IRON MAIDEN

主なる神に
ささげし
戦術



SENJUTSU

A dramatic opener that uses Phrygian ideas to hammer home the album's Eastern themes

Adrian: The title track was inspired by Japanese drums. We put my demo up on Pro Tools and Nicko [McBrain, drummer] played along to it. Then we took the digital drums out and added guitars. We got the drum and guitar track ready to go first. I had a couple of melodies and because of the Eastern nature of it, Steve [Harris, bassist] suggested a battle scene – an army trying to scale the walls of a city. Full-on drama!

STRATEGO

One of the more succinct offerings, using the same power chord to minor sixth shifts heard on some of the group's classic 80s material

Janick: I wrote a lot of the music for this one and Steve brought his melodies

in. It's a basic rock 'n' roll track with some extra creativity thrown in.

Adrian: That power chord to minor sixth shift is very dark-sounding and always very effective. It sets up a mood and away you go! It defines the sound of the song, with that element of discordance to it.

THE WRITING ON THE WALL

The lead single that goes from cowboy to Celtic in just 30 seconds

Adrian: This was one of my songs so I gave myself a nice long solo! It's always been 16 bars with Maiden – every solo is that length. I'd never done 32, so I thought I'd give myself double this time. And that was actually quite a challenge, trying to build it up into something interesting. So I did the big melodic solo, then Dave plays one too and Janick plays the outro stuff. But we

ABOVE

The Senjutsu album art, created by Martin Wilkinson

had a lot of trouble with that main simple riff in the D position. When three guitars play it, because of intonation, it never sounded right to me. Two guitars sounded right but three sounded a bit off. So Janick tracked the higher one and I played the lower one. And that part almost sounds like a horn line.

Janick: There's definitely a Celtic feel to this one. When we bring songs in, anything goes. Nothing is sacred. That's what gives this band so much depth. There's that cowboy feel at the beginning, too. It all goes together really well and still sounds like Iron Maiden.

LOST IN A LOST WORLD

An experimental 10-minuter, with some head-turning time shifts and mirrored vocal melodies

Adrian: Steve has a very different take on things, which for the most part is a real strength – because it makes us sound different to anything else. He's got a knack for these time changes, and sometimes they're hard to get your head around, but having worked with him for many years, I can almost anticipate where he's going to go. I think we all can. That's the beauty of having a band that have played together all these years.

Janick: We're not scared to head off in different directions in the middle of a song. It doesn't matter how long the song ends up being – if it feels right, be prepared to go there. As for guitar tracks mirroring the vocals, sometimes we might put them down before Bruce and other times we'll add them after. It's different each time. It gives the guitars a higher octave and takes the sound to a different place, adding to the vocal line.

DAYS OF FUTURE PAST

An up-tempo, Smith/Dickinson-penned modern metal rager

Adrian: It's got quite a modern feel in places and it's only four minutes, so it's the shortest track on the record. The riff that comes in at thirty seconds feels

"WHEN WE BRING SONGS IN, ANYTHING GOES. NOTHING IS SACRED. THAT'S WHAT GIVES THIS BAND DEPTH" JANICK GERS



very fresh and youthful. It uses the E position on the seventh fret and then you use one finger to play a C bass note, then down to the A. It's almost a Spanish flamenco thing if you play it on acoustic with a bossa nova rhythm, but then you plug into a Marshall and play it differently, it sounds like a rock song! I like that E chord with the movement underneath.

THE TIME MACHINE

The sound of Gers and Harris penning their own prog rock opera

Janick: This is the one with the weird tunings for all the extra colour at the beginning. It was actually all done on the Strat. To be honest, I was going to redo it on acoustic, but the Strat had such a weird sound that the acoustic wouldn't have gotten. I threw everything into the works for this one. We've always loved longer, more drawn-out tracks and even though we're considered heavy metal we can also be folk, edgy, progressive and also very soft in places. In some respects, our way of looking at an album is everything's possible! All you need, really, is a powerful chorus. Then you layer the guitars, it's our job to make

a tapestry underneath that enhances Bruce's vocals rather than getting in the way. We have a natural way of playing. We don't work it out much, it's just there.

DARKEST HOUR

A brooding neoclassical ballad with some extra depth from Smith's double neck

Adrian: For this I used my double-neck Jackson, with a six and a 12. It weighs about three quarters of a ton! But it sounded really good in the studio, especially for a ballad-y kind of song.

DEATH OF THE CELTS

The first of the album's three Harris-penned closing tracks – with some surprise shifts from minor to major

Adrian: It's funny – Steve will have these ideas and then look at me, Dave or Janick. The ideas are usually quite complicated, so sometimes you might see guitarists hiding away behind their amps, waiting for the others to take up the gauntlet and learn these super-complicated parts! But we all do our bit. It takes a lot of concentration to play Steve's stuff. Honestly, it can

THE POWER OF THREE

Iron Maiden's triple-axe attack. Left to right: Dave Murray, Adrian Smith, Janick Gers

be quite a challenge.

Janick: We made this album very differently. Normally, we get a studio to rehearse in and then get seven or eight songs ready as a live band first before we record. But this time it was all done in the studio. We went in and actually learned things there, putting them down soon after and then moving on to the next. So it got quite confusing, especially with the longer songs. There were so many melodies and riffs floating around in the studio. Songs like *Death Of The Celts* were done in parts. Sometimes we'd be playing three-part harmonies together. And there were a lot of tempo changes. Steve would have a riff and melody for us to memorise, then there would be a tempo change, then we'd be back to the melody but a different tempo! It wasn't an easy album to make.

THE PARCHMENT

A moody mixture of Phrygian and Phrygian Dominant tonalities on arguably the album's darkest track

Janick: This one has that Egyptian feel to it. With Maiden, we love the imagery that comes through the music. We can take people places, and that's the great thing about music and playing guitar. You think about what you're playing and how you can transport the listener. That's something magical.

HELL ON EARTH

A fittingly epic conclusion to the album, with mellowed clean tones before the heavy metal thunder arrives...

Adrian: On those Marshall JVMs, you've got two clean channels and two dirty channels, and each one has three different modes. There are a lot of different tonal options there. With clean sounds, compression is very important – well, compression is important in general for recording because it keeps everything tight and punchy-sounding. Maiden have always been known for putting lighter shades in songs. Dynamics are very important to us.

Janick: This is such a thematic end to the album, with so much power. It's very cinematic and I love how all the guitars interact with each other. It's heavy but it has so much soul to it. It's an album we can be proud of. I can't sit here and tell you this is the best album we've ever done. That would be stupid. But I'm very proud of it – as proud as I am of any Maiden album.

Photo: Getty Images



MARSHALL LAW!

Adrian and Janick on the gear used for the *Senjutsu* sessions

Adrian: It was just a Marshall, really! When we're tracking we don't tend to use any effects. So it was just the Marshall, I think it was a Mode Four, and a Tube Screamer in front. I used my black Les Paul Standard on some of it and also my green Jackson - my main number one has a distressed neck and everything on it. Those were the main two guitars, plus the double neck on *Darkest Hour*.

Janick: It was just Marshalls for me too. I always use Marshall stuff. There's this prototype thing I got years ago that I still use in the studio. We might change amps a little bit, or try different sounds, but I like to keep it straight. I like the guitar going straight into the amp with little in between. Sometimes there might be a graphic equalizer, but that's about it.

It's always a simple set up. I don't like using pedals. They can sound amazing in the studio but live they can make your sound a bit processed to my ears. I like to hear the actual amp being overdriven, that always works best 'me. A pedal in between seems to lose some of the edge. Some people might think that direct sound can be a bit raggedy, but I like that... It's the valve sound I'm after, not a pretend stomptbox. I'm not big on extra boosts or adding chorus. I might have a little reverb or echo for some leads, but quite often not. I like to do it all with my fingers. Rory Gallagher had that attitude, he just seemed to pull things out with just his fingers. For guitars, I just stuck with my Strats, really. There was my main black one, the white one and another spare. If we were

doing different tunes and I had one set up, I just kept using it and didn't muck about. There's some acoustic stuff on there, so I'd bring one in depending on what we had lying around... Mainly Taylors, maybe a Martin. We like to use acoustics for colour and there's a lot of colour in some of those longer Maiden songs. We might also change the tuning slightly, whether that's tuning down to D or trying something in DADGAD. It just gives a different flavour to the song. *The Time Machine* has some interesting tunings, some are in standard and some not quite standard for very subtle differences in texture. It's not about completely changing the concept, it's about adding a little more feel and power to the guitars you're hearing. I like doing that for different vibes.

"MY DOUBLE-NECK JACKSON WEIGHS ABOUT THREE QUARTERS OF A TON! BUT IT SOUNDED REALLY GOOD IN THE STUDIO" ADRIAN SMITH

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Words Jonny Scaramanga Portraits Rob Loud

"HOW MANY PEDALS CAN I POSSIBLY USE?"

The Killers' guitarist **Dave Keuning** is a master of effects, but on the band's new album he's indulging his newfound love for mandolin and pedal steel, while on his solo album he's shredding...

Dave Keuning has not wasted any of his time away from the road. His debut solo album, *A Mild Case of Everything* arrived in June, with the new album from The Killers, *Pressure Machine*, following it in August.

The two albums showcase different sides of Keuning's talents. *A Mild Case of Everything* is an electric record with echoes of his 80s heroes Depeche Mode and The Cars. It developed from songs he wrote that ultimately didn't work for The Killers. "It's got a lot more shred guitar on it!" he smiles. "The response has been great from the people that have heard it."

Pressure Machine, meanwhile, is The Killers' rootsiest album to date. The pandemic-enforced quietness gave the band space to develop delicate songs that would normally be buried amid the noise of a typical arena gig. It also meant the band's usual collaborative writing process became more individualised. As Dave explains: "A lot of these are songs that Brandon [Flowers, vocalist] had before we started. I would just add acoustic guitar or mandolin or whatever I could to help them out. Then I was able to come in and write a little bit. There were a few songs that we came up with from scratch."



The album is full of acoustic instruments that don't normally get much airtime on Killers records. "It wasn't planned," he says. "It just kind of happened in the studio. It was a great studio that had a lot of different mandolins, ukuleles and 12-string acoustics. There's mandolins and then there are some parts played on the 12-string acoustics. A few of those sound similar. We just started adding little

things and accentuating the parts on mandolin.

From the first time we played mandolin I liked it and wanted it on other stuff."

If you're struggling with mandolins (usually tuned in fifths G D A E), Dave has a useful trick: tune it like a guitar. "I'm not super versed in proper mandolin chords," he admits, "but I know how to play it and get by, especially on single string parts. I know the basics. If you're tuning it properly it's a little bit of a learning curve. I usually leave it in mandolin tuning, but there's no shame in tuning into guitar tuning, especially for recording. It all makes the same melody."

Pressure Machine features vignettes of small town life between songs, and Keuning enhances that Americana feel with his choice of instruments. "I got to play a little bit of pedal steel, which I enjoyed. It's a different beast. The knee pedals take the longest to learn. I can't say I'm super good at it but I'm getting better. Each song had a different approach. There's a lot of just texture added. I'd do two or three takes and then they would cut it up and use little bits of it."

Guitar still forms the bedrock of harmony on *Pressure Machine*, and in addition to his usual favourite Gibsons and Fenders, Dave chose some new axes this time around. "I've been using this new Yamaha Revstar guitar quite a bit. It's a nice choice because I have a lot of great Gibsons and Fenders and this is kind of in the middle. It's got more treble than a Gibson but powerchords sound better than a typical Fender. Yamaha acoustics are all over the place on the new album. It's my new favorite acoustic. I still like Martins and the occasional J-45 but the Yamahas that I've been using for recording and live are probably my favourite acoustic sound right now."

Many of the greatest guitar albums, from Led Zeppelin to U2, feature clean-yet-dirty guitar tones, and Dave has always exploited sounds that are

gritty and clear at the same time. "I like clarity especially. That's why I tend to go a little cleaner just so people can hear the notes of what I'm playing on the chord. I like to use all four of my fingers in my chords. It just feels like if I'm not using a finger then it's being wasted. I enjoy discovering a new chord voicing that gives it a little flavour. If there's a wall of distortion that won't be heard as much. That's something you gotta figure out. There's times when I love to use a Big Muff to put on a wall of distortion, but usually I try to go sort of half-dirty, half-clean. The Fender Hot Rod DeVille does that pretty well and some other amps too, but a lot of amps are either full-on dirty or full-on clean. I tend to like something in the middle."

To create this effect, Dave has taken on the Rockstar trick of using multiple amps. "I usually run two amps. It started out in the very early Killers days. I needed a backup amp. I learned when I started touring that if you don't have a backup amp you'll need it, and if you have a backup you'll never need it. I had a couple of occasions in the early days where my amp broke mid-song and that's a very awkward place to be. If we were playing with another band, I'd basically just plug into their amp and I have to apologize later. Now even for my solo shows I have a backup amp. I have an A/B, one that's pretty clean and one is pretty dirty. I even have a third amp sometimes it's like coming out of the dry output from the pedals."

"My favourite amps for that at the moment are the Hot Rod DeVille and Roland Jazz Chorus, and then I've been using a Fender Mustang, actually. Modelling amps came a long way. Ten years ago they were kind of good but also kind of weird and not near as good as originals. They're getting a lot better and it's so sweet if you want to get a clean tone with chorus or whatever. It's also light, which for my solo shows is great. If you're carrying a Fender Twin Reverb they feel like they weigh 700 pounds. In the studio I use the Hot Rod DeVille and one additional amp. This time it was a HiWatt, or sometimes a Fender Twin or Fender Bassbreaker they had in the studio."

Dave is known for his mastery of effects. "I've been trying to have a little less on my pedalboard just to try to preserve the signal!" But while many guitar legends are identified with one essential pedal—Jimi's wah, EVH's Phase 90—Dave has never settled on a signature sound. "There are pedals coming out





every month that are great. I can't keep up with it! I've been given some over the years and they're good. The same thing happened with guitars as the pedals, and I have a lot of both. In the early days, I only had three or four guitars and five or six pedals, and I was very well versed with each pedal and I made the best of them. Now there are pedals I've only played once, and I like them but I just don't get back to them because I've got so many different drive pedals and so many different delays. I usually settle in on one and kind of don't get back to others that I like. So it's hard for me to say, 'That's a great pedal'. How many gain pedals can I possibly use?"

Nevertheless, there have been a few pedals core to his tone at various points in his career. "I go through phases. I remember in the early days I loved the Big Muff which was a little bit of a carryover just because I love The Smashing Pumpkins. It's got just a wall of distortion and I loved it. Then I got into other stuff. The Boss [DD-3] digital delay pedal was a staple for quite a while, but I'd say now my favourite pedal for leads and distortion is the Strymon Sunset pedal. That's my new staple. I don't think there's one pedal I've had my whole career consistently but I really like the Sunset just for drive. I've also been using the Strymon Blue Sky reverb, maybe not as much with The Killers but for my solo stuff."

For recording, Dave leaves his pedalboard at home, taking only a few favourites. "I added some Strymon pedals this time around that I really like. This new Volante has got a great echo thing on it. The Big Sky is one of my favourite pedals. There's a bunch of different delays with chorus and shimmer. The Iridium is great for just kinda unique distortion. I love the Mel 9 from Electro Harmonix. I don't know how much it made it on the record but I used it a bunch at home. The Synth 9 is also a lot of fun, and that's on *In The Car Outside*. There's a Plasma Coil made by Third Man Records. It's a drive pedal with crazy, crunchy gain sounds. I don't know if it's

ABOVE
Keuning with Killers
vocalist Brandon
Flowers (centre) and
drummer Ronnie
Vannucci Jr.

a gimmick, but it shows the electricity as you're playing. I used it for the solo on *Cody*. I will often use whatever's in the studio, or maybe the producer has some new trick to show me, 'Oh try this, this'll be cool on this part.' So I'll try it out and for the live show we'll figure it out later."

The guitar Dave is most associated with remains the Fender Starcaster, a largely forgotten Fender model until The Killers' *Hot Fuss* made it hot property. "It's crazy. I single-handedly raised the price of them and it made it harder for me and everyone to get one. Not to brag – I couldn't single-handedly raise the price of many other guitars. But there's not that many Starcasters out there. I love Gibson ES-335s – that's probably the guitar I play more than anything. I also love Teles and I love Strats. I actually played my first Starcaster at a friend's house in Vegas. I wasn't even familiar with it, but I loved it. I don't use it on every song. I like it for the same reason why I don't like it: it has a specific sound. For playing other songs sometimes it doesn't sound right."

Every covers band guitarist in the country has been subjected to recreating Dave's legendary

Mr. Brightside intro. This fiendish, hand-stretching riff always signals two things: first, the party is about to kick off, and second, the guitarist is about to screw up. We took the opportunity to thank him for the pain. He agrees it's a bear. "I play the riff over and over again in the song and even I will slip up once or twice, maybe skip a string or something even now."

"I remember fishing around on guitar the day I wrote it and it was just kind of a cool shape up there. The chord has the [major] second on the high E string. Then you've got the octave of that on the B string, so it's not a chord you can do anywhere else because of the open string. I remember playing that shape and thinking that was just kind of a convenient, cool voicing. I played it over and over again, just the first chord, and then I just I got some movement to it down and down the other side and then it became the song. The very first tablature was way off. Maybe they thought they'd just give this dumb new wave band a one-minute transcription and move on. But it's always had an energy from the moment we wrote it. It was fun to play and had a great chorus. There's just something about when it starts..."

"I LIKE TO USE ALL FOUR OF MY FINGERS IN MY CHORDS. IT JUST FEELS LIKE IF I'M NOT USING A FINGER THEN IT'S BEING WASTED"



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Words: Alex Lynham Photo: Adam Gasson

The Ultimate Guide To Pedals

TONEHOUNDS AND GEARHEADS, ASSEMBLE!
LEARN HOW GUITAR EFFECTS WORK, BUILD
YOUR OWN PEDALBOARD AND DISCOVER THE
TONE SECRETS OF THE PROS WITH TG'S GUIDE...

Whether you've just decided to put your first pedalboard together or you need some advice on integrating a pedal or two in an existing 'board, there's sure to be something for you this month. Yes, we've made it our mission to help you choose the right pedals for you, guiding you through the best examples currently on sale and giving you expert advice to help you add to your pedalboard.

Our tip for getting started is to think of your pedals in groups – a handy way of

narrowing down the thousands of effects currently available to buy. There are only really a handful of categories: first, pedals that boost and clip (like overdrive, distortion and fuzz); then modulation effects (phasers, flangers, choruses and so on); next up are echoes (delay and reverb); and finally, utility pedals such as compressors, gates, volume and EQs. Besides these categories there are also all-in-one multi-effects of various types, as well as amp modellers but we'll cover these another time. Here, we're talking about pedals that fit into one effect category.

So plug in your guitar and amp, grab a handful of patch cables and let's rock our way through TG's opinionated rundown of the big hitters in the world of pedals.



01 Overdrive

Overdrives add dirt and volume to your signal, generally from 'soft clipping' diodes in the feedback path of an op-amp. Ignoring the technicalities, the idea is that soft-clipping is more 'amp-like', with less gain than distortion or fuzz pedals. In front of a decent tube amp, this quality of pushing the amp into saturation is the most prized feature of an overdrive pedal.

TG RECOMMENDS

SMALLSOUND/BIGSOUND MINI

This delightful drive is a streamlined version of the larger F*ck Overdrive. At its core, it's a gorgeous JFET overdrive with a straightforward two-band EQ, plus drive and level controls. Where it differs from a conventional drive is its bias control, which allows for messier, almost fuzz-like tones at the one extreme, and high-fidelity treble chime at the other.

BEST FOR Guitars, keyboards and bass too!

MXR TIMMY

The MXR Timmy is a mass-produced, licensed version of Paul Cochrane's legendary Timmy. Despite its popularity, the Timmy had always been tricky to get hold of. It's a simple op-amp drive with a flat EQ curve and great gain range, taking it from light dirt to roaring overdrive. It's also fantastic at kicking a tube amp into rich saturation.

BEST FOR Versatility. It has three different clipping modes.

ALSO TRY

Wampler Tumnus Mini

Wampler's Tumnus was one of the first transparent overdrive Klon 'clones', and remains one of the best.

Ibanez Tubescreamer Mini

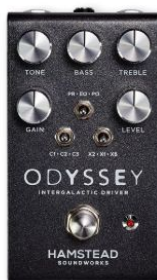
The original overdrive, with its distinctive 'mid bump', now available in a compact form.

Nobels ODR-1 Mini

An oft-overlooked gem of the original generation of overdrives, now also in a mini format.

02 Distortion

Where overdrives use soft-clipping, distortions employ 'hard clipping', after an op-amp – delivering more dirt in the process. The idea of distortions is to mimic a cranked amp stack in a single unit, and they tend to work best when run into an amp's clean channel. Many distortions can be dialled back to a gritty drive, and some high-end units have multiple clipping modes for greater versatility.



TG RECOMMENDS

HAMSTEAD ODYSSEY

The Hamstead Odyssey is what happens when you get an amp builder to create a general-purpose gain stage. With a plethora of clipping options and amp-like EQ on tap, it's a flexible pedal that'll go from boost, to dirt, to searing, hot-rodded gain. Though it works as an overdrive, it sings on gnarly settings, with biting distortion and enough level to kick your amp hard.

BEST FOR When you need one pedal to do it all



PROCO RAT

The ProCo RAT was arguably the first distortion pedal. It holds a secret though – part of its unique tone was the result of op-amp clipping in its LM308 chip. You can get clones with this very chip, but the square-wave chunk of the modern RAT is not to be underestimated. Like the Odyssey, it also has enough level gain to push an amp into extra saturation.

BEST FOR Classic tones from a classic pedal

ALSO TRY

Amptweaker Tight Rock

From the designer of the Peavey 5150, so you know this is good!

BOSS MT-2 Metal Zone

A misunderstood powerhouse, for those that tame it, this is a workhorse.

KMA Audio Machines Wurm

A reimagined Boss HM-2 chainsaw with added options and wicked artwork.



03 Fuzz

The oldest of the clipping types, fuzzes drive transistors beyond their tolerances and into clipping. In the 50s and early 60s, guitarists were desperately seeking distortion sounds. To get it, they slashed the speaker cones of their amp stacks – so the screaming sound of fuzz was life-changing. Fuzz sounds pretty wild, so there are few wrong answers, but generally think of it as a retro-style distortion.



TG RECOMMENDS EHX BIG MUFF OP-AMP

The Op-Amp Big Muff was a top-to-bottom redesign of the topology of the original Big Muff. As the name implies, rather than two transistor gain stages, it used an op-amp instead, radically changing the character of the pedal. Most famously, Billy Corgan of Smashing Pumpkins used one to record *Siamese Dream*.

BEST FOR Modern retro fuzz tones



Z-VEX FUZZ FACTORY VEXTER

One of the first true boutique pedals, the Z-Vex Fuzz Factory is a modern classic. Essentially a reimagined Fuzz Face with controls placed at bias points, it offers unpredictable, sometimes unhinged sounds for the user to explore. It put Z-Vex on the map, and set the tone for their wild experimentation to come.

BEST FOR Unpredictable sounds and sonic experimentation

ALSO TRY Dunlop Fuzz Face Mini Germanium

The original, as used by Hendrix, now in a pedalboard-friendly micro size.

Way Huge Russian Pickle

The Russian Big Muff, in a deluxe package with soft-switching.

Walrus Audio Janus

A modded and hot-rodded Big Muff circuit, paired with a tremolo, with joysticks. Could it be cooler?

04 Clean Boost

Boost pedals are not dissimilar to the humble overdrive pedal. They usually contain just an amplification stage, without the clipping diodes you'd expect for an overdrive – so there's less colouration from the pedal itself. Some include tone-shaping EQs, while others are a one-knob affair. Like overdrives, they're often used to drive a valve amp into greater distortion.

TG RECOMMENDS WALRUS EMISSARY

The Walrus Emissary is two boosts in one, blended before the output to create a unique voice. The 'mid' channel is an op-amp boost centered around 800Hz or 1kHz, while the 'bright' channel is a JFET boost. The resulting combination is punchy and characterful, with more than enough gain to also push a tube amp into overdrive.

BEST FOR Clean, but characterful boost

TC ELECTRONIC SPARK MINI

Though the larger Spark has additional EQ and gain controls, the Spark Mini is elegant in its simplicity. It has a single level control, 20dB of boost, and more than enough level to make a tube amp overdrive. As a solo booster after other drives, it's clean but punchy, while stacked in front of other gain pedals it will generate more saturation without colouring the sound.

BEST FOR Set it and forget it simplicity

ALSO TRY MXR Micro Amp

Simple and effective. The solo booster of choice for players like Billy Corgan.

Z-Vex Super Hard On Vexter

Bright, crackly, loads of volume on tap. The SHOV is a stone-cold classic for a reason.

Xotic EP Booster

Based on the preamp of the EP-3 Echoplex, the EP Booster is an 'always on' marvel.





05 Pitch Shifter

Digital pitch shifters came of age with the game-changing Digitech Whammy. A pitch shifter, drop-tuner, chorus and harmoniser in one, it remains the gold standard for pitch-shifting – but demands a lot of pedalboard real-estate. Though Digitech have continued to expand its feature set, it's no longer the only game in town...

TG RECOMMENDS DIGITECH WHAMMY V

The Digitech Whammy V is the king of the castle when it comes to pitch-shifters. It has harmony modes, chorus, drop-tune and dive bomb features, as well as +/- 2 octave pitch shifting. Not only that, but it comes with a new mode for polyphonic tracking. Its only downside is its size.

BEST FOR Industry standard dynamic pitch-shifter

EHX PITCH FORK

Should you need even more octaves to play with, the EHX Pitch Fork allows for +/- 3 octaves in pitch shift mode. If you don't want to use an expression pedal, it has a smaller footprint than the Whammy. Besides momentary and latching modes, it also has harmony intervals and a blend knob for extra flexibility.

BEST FOR If you don't need a treadle

ALSO TRY DIGITECH WHAMMY RICOCHET

A compact whammy with no expression, substituting the rocker for cool ballistic modes.

BOSS PS-6 Harmoniser

Harmonising, ballistics, and expression control. The PS-6 can do it all.

Digitech Drop

If you need to drop-tune your guitar with no latency, look no further.

06 Octaver / Harmoniser

The first analogue octavers appeared in the 1960s. You'll have heard the distinctive squeal of the Octavia on Hendrix solos, but it's far from a clean, clear sound. Octave-down effects were more successful, but hampered by slow tracking. Modern digital harmonisers, meanwhile, have shaped everything from Steve Vai's legato leads, to the rumbling bass of two-piece bands like cult heroes Giraffes? Giraffes! and Royal Blood's stadium-rock riffage.

TG RECOMMENDS EHX POG NANO

The Nano POG is the smallest version available of EHX's POG line. The POG2 is the best, granted, but it's large and complex. Most players only need the excellent tracking of the POG, plus one octave above or below. That's the feature set that made the Micro POG a success. The Nano streamlines this even more, retaining its dedicated dry and effect outputs.

BEST FOR Excellent tracking speed in any octave

BOSS OC-5 OCTAVE

While the Boss OC octaver line started as analogue octave down pedals, they've moved with the times to now be POG challengers. The latest iteration, the OC-5, has two modes. The first is a faithful recreation of the original OC-2 tone, albeit with better tracking. The second is a modern polyphonic mode that also sports octave-up and sub-octave harmonies.

BEST FOR Plentiful feature set.

ALSO TRY TC Electronic Sub n' Up Mini

Straightforward sub and upper octave harmonising, at an affordable price-point.

Earthquaker Tentacle

A classic green ringer-style analogue octave up, for splatty Hendrix-like solos.

EHX POG2

Every octave and harmonising feature you could ever need, plus a few more.





PEDAL ORDER

Signal flow best practice

There are no hard and fast rules for signal order, only rough rules of thumb. However, you'll notice that many players set up their 'boards in roughly similar ways, breaking the standard signal order only to achieve specific results.

The clipping, or drive block should come first. Then the delay and reverb block, then the modulation block (though many players prefer modulation in front of reverb and delay). Utility pedals have varied positions depending on their function. For example, wahs, volume pedals, EQs and noise gates generally come first, before the clipping block, as do compressors. Pitch shifters are typically seen either right at the start of a chain, or just after the clipping block.

A common subversion of these rules is to place a reverb in front of the drive block, resulting in a huge, distorted bloom of compressed reverb when engaged – a gnarly sound adored by Steven Wilson of Porcupine Tree.

Another trick is to place the wah pedal after the drive so that it can be used as a parked or variable filter. The dramatic, overcooked sound of fuzz into a wah is a dream for psychedelic players looking for an attention-grabbing solo tone.

Finally, experimental guitarists place loopers pitch shifters at the end of the chain, allowing them to loop the whole signal, including effects, or pitch shift it up and down on demand.

07 Wah and Auto-wah

Though it comes in and out of fashion, there's a reason the wah pedal has endured. Its ability to lend the guitar a dynamic, vocal quality is useful for solo and rhythm parts alike. Parked, it's a dramatic filter (think *Money For Nothing*); slowly swept, it's a modulation-like variable filter, controlled by the user. The fact that it's controlled by a rocker treadle results in endless creative potential, just from the number of ways it can be moved.

TG RECOMMENDS Z-VEX WAH PROBE VEXTER

The Z-Vex Wah Probe is unlike any other wah on the market. Using a proximity-sensing radio transmitter, it allows for rapid changes in filter position that aren't possible with a normal wah. It even has a built-in Z-Vex Super Hard On boost for level control. The newer versions also have range and mix options, allowing for even more control over its voicing.

BEST FOR Uniqueness. Create new sounds!

DUNLOP CRY BABY

The Dunlop Cry Baby may not be exactly the same as the original pedal that bore the name, but it's the most common wah. As a result, it's featured on countless classic records, and chances are, your favourite guitarist owns one. Unsure where to start with wah? Here's your answer!

BEST FOR Wherever you need a workhorse do-it-all wah

ALSO TRY Morley 20-20 MT Mini

The bombproof Morley optical wah, now in a compact format.

Vox Wah Pedal

Despite its tangled history, the vintage-voiced Vox sounds unique.

BOSS AW-3 Dynamic Wah

For auto-wah action, the AW-3 is a feature rich, yet straightforward option.



08 Analogue Synth Pedals

Since the 1970s, players and builders alike have experimented with ways of creating guitar synthesis. Various analogue filters, synth voices and hybrid fuzzes have been built over the years, with varying levels of success. It can be hard to integrate an analogue guitar synth into your rig, but in the right position, and for the right part, they can be the sprinkle of magic dust a song needs.

TG RECOMMENDS EHX MICRO SYNTH

Even for EHX, the Micro Synth was a weird addition to their line. It's a stripped-down synth voice that, like many analogue guitar synths, sounds more like a fuzz than a true synth. Its filter section is what sets it apart, offering fine-grained control over the filter sweep and LFO. If you remove the dry signal, it can sound more synth-like than most.

BEST FOR Classic vintage synth sounds

WAY HUGE ATREIDES ANALOGUE WEIRDING MODULE

The Atreides takes its inspiration from the Electro-Harmonix Mini Synthesiser, a short-lived EHX keyboard synth. The result is not unlike an EHX Micro Synth, though some of the design choices lead it towards a thicker, more aggressive sound. Another bonus is that it's more compact on the pedalboard.

BEST FOR Contemporary aggressive tones

ALSO TRY Seymour Duncan Fooz

A feature-rich analogue synth by way of fuzz, filter and LFO.

Keeley Synth-1

A simple fuzzy monosynth at an attractive price point.

Pigtronix Space Rip

Rich analogue synth sounds in a tiny package, with plenty of options across its two blended voices.

09 Digital Synth Pedals

Digital synthesis drove several breakthroughs in guitar processing: polyphony, better tracking, and sounds sampled from other instruments. However, this came with mammoth price tags, and usually, the need for a dedicated hex pickup. Such cost and complexity drove most to instead switch to real keyboards when needed. Today, there are not only better high-end, hex-requiring options, but also a range of excellent synth pedals that require neither dedicated hardware nor megabucks budget.

TG RECOMMENDS EHX MONO SYNTH

The EHX Mono Synth is a digital recreation of a monosynth, as the name implies. Even without any dedicated hardware, it nails the sweep and rumble of those synths. It's limited in the sense that it has little control over parameters and only a handful of presets. However, if you only need monosynth sounds a few times in your set, it's convincing enough to leave the keyboard at home.

BEST FOR Keeping it simple

BOSS SY-1000 GUITAR SYNTHESIZER

The Boss SY-1000 is Roland's current flagship guitar synth. While it can be run without its GK-series hex pickup, that limits it to the feature set of the smaller SY-300. To access all the sophisticated processing unlocked by individual string inputs and full MIDI control over parameters, you'll need that hex pickup.

BEST FOR When you just have to have the daddy of all guitar synths!

ALSO TRY Meris Enzo

An intuitive dual oscillator synth, with more functions than you can shake a stick at.

BOSS SY-1 Synthesiser

A straightforward and decent-sounding unit for simple synth tones.

Empress Zoia

More of a programmable everything engine than a synth. For adventurous players, there's nothing else like it.



10 Chorus

Chorus is one of several effects that works by blending your direct signal with a delayed version modulated by an LFO (Low Frequency Oscillator). The distinctive chime of chorus dominated both mainstream 80s rock and the psychedelic underground of shoegaze and dream-pop that blossomed at the start of the 90s. It's a great way of adding character to a guitar part, though it's easy to overdo it.

TG RECOMMENDS BOSS DC-2W DIMENSION C

The DC-2W is a unique sounding dual-BBD stereo chorus. The complexity of the circuit, and the richness of the resulting tone made it closer to rack or studio quality than a pedal. That's appropriate, because this Waza reissue also contains a mode that recreates the legendary SDD-320 rack. It also eliminates the unity volume issues of the original.

BEST FOR Premium quality, studio grade sounds

TC ELECTRONIC JUNE 60 V2

Despite costing a fraction of the DC-2W, the June 60 is a stereo BBD chorus with vintage looks and killer sounds. Emulating the chorus effect from the Roland Juno 60 synth, it is most at home with synths but does work well on guitar. Version two brings new modes to the table, expanding its original two modes and speeds to four, using internal DIP switches.

BEST FOR High quality effect for those on a budget

ALSO TRY EHX Small Clone

A classic, simple BBD chorus, as used by Kurt Cobain on some recordings you might have heard.

Walrus Audio Julia

Probably the most hyped and sought-after modern chorus/vibrato pedal.

Chase Bliss Warped Vinyl Hi-Fi

The original Warped Vinyl launched Chase Bliss as a company. Their latest Hi-Fi version is another masterpiece.



PUTTING IT ALL TOGETHER

Cable management, velcro, pedal position

When it comes to cable management, a pragmatic view is that pros need perfect routing and cable ties – but tying down everything makes day-to-day tinkering and changing out pedals a pain. Instead, focus on keeping things tidy enough that when you pick up and move the 'board, things won't snag or get damaged. Velcroing pedals in place, and gaffa-taping the main cable runs under the 'board also works, but you can use zip-ties if you want to commit. Bear in mind with zip-ties that if a cable dies live, you'll need to cut the ties to debug it.

Where you place your pedals is a matter of personal taste, but put the pedals you

use the most along the bottom row. Anything you need to reach for dramatic moments, especially live when there's a dark stage, should be in a foolproof place. For example, you might place a looper, drive, fuzz and pitch shifter on the bottom row to avoid live mistakes. Effects that have tails are more forgiving of errors when turning them off, so delay and reverb are fine on the second row.



11 Phaser

A phaser is a series of all-pass filters moved by an LFO. Each filter is a 'stage', and there's usually also feedback to the input. The most classic phasers, the MXR Phase 90 and EHX Small Stone are both fixed four-stage phasers. It's possible to roll back the depth of a phaser for subtle movement in your guitar sound. However, phasers work best for dramatic, psychedelic passages, head-turning riffs and bombastic, jet plane chords.

TG RECOMMENDS EHX SMALL STONE

It's hard to make the EHX Small Stone sound bad. On guitar, on drums, on keys, there's always a way of making a sound more interesting. Its coolest sound is the rich, psychedelic howl it generates when placed after a Big Muff. It may only have two modes and a single knob, but there's a great deal of inspiration to be found here.

BEST FOR Jonny Greenwood and Billy Corgan impressions

MXR PHASE 95 MINI

The Phase 95 crams a huge amount into its diminutive form. Effectively, it's four phasers in one: there's a switch to take it between the Phase 45 and Phase 90 modes, plus a second switch changes between the 'script' and 'block-letter' versions of both. When in doubt, do as EVH did and use the Phase 90 – but it's nice to have the option of the more subtle 45, too.

BEST FOR Van Halen tones and much more

ALSO TRY BOSS PH-3 Phase Shifter

Good core sounds, with the addition of a barber-pole 'endless rise' mode.

KMA Audio Machines Horizont

A phasing workstation, from the creators of the excellent Astropurt phaser.

Old Blood Noise Endeavors Dweller

Not so much a phaser as a twisted mashup of delay/looper and phaser, the Dweller needs to be heard to be believed.

12 Flanger

Flangers are also the result of an LFO manipulating a delayed signal. Originally, the effect was created in the studio with two tape machines. An engineer would slow one, or place a finger on the tape, to create the warped 'whoosh'. Most flangers have a feedback control, and a max delay time of 25ms – their main distinction from chorus. You'll have heard them on Van Halen's *Ain't Talkin' 'Bout Love*, and The Police's *Walking On The Moon* – though many mistake the latter for a chorus.

TG RECOMMENDS STRYMON DECO

The Strymon Deco is a tape machine emulator rather than a dedicated flanger. This means the flanging sounds it makes are more subtle than most. It doesn't have a dedicated feedback or resonance control, meaning you can't get 'jet plane' flange. However, for 60s and 70s studio flanging and subtle, glassy sounds, it's fantastic. It's also a very useful unit for everything from tape saturation to slapback delay.

BEST FOR Sweet sounds that are never in your face

BOSS BF-3 FLANGER

The Boss BF-3 is an underrated unit, offering more flexibility and practical functionality than most boutique boxes. It has controls for centre frequency, feedback, depth and rate. Mode-wise, there's a normal flanger, an extreme, 'ultra' mode, a momentary function and a gate/pan mode, perhaps inspired by the Boss PN-2 Tremolo/Pan. In this final mode, modulated slices of the signal spill out in glorious stereo.

BEST FOR Flexibility and practicality

ALSO TRY Mooer E-Lady

A diminutive clone of the EHX Electric Mistress, the E-Lady can be squeezed onto even the tightest 'board.

Source Audio Mercury

A solid stereo flanger, with an ace through-zero mode.

TC Electronic Vortex Flanger

Option-rich, the Vortex is stereo, expandable via Toneprint, and also has a great tape flange mode.



13 Rotary Speaker Emulators

The most famous rotating speaker, the Leslie, generated a distinctive fluctuation in volume and in pitch. Emulations like the Shin-ei Uni-Vibe were based on a phaser to achieve a similar effect. In fact, the Uni-Vibe's creator Fumio Mieda said its inspiration was not the Leslie, but the sound of radio signals being modulated in the atmosphere. In any case, players regarded it as a workable replacement for the rotating speaker.

TG RECOMMENDS NEO MINI VENT II

The Neo Mini Vent II is spartan almost to a fault. Designed for keyboard players, it only has two controls, bypass and speed. It can be run in mono and stereo, and sounds best in the latter mode. The reason to consider it for your own 'board is simple: it's a convincing replica of a Leslie, with pitch and volume modulation and an elegant simplicity.

BEST FOR Fantastically authentic sounds

STRYMON LEX

The Strymon Lex is every bit as authentic as the Neo, but also gives you control over several parameters. However, while control of mic distance, horn level and the speed of the rotor in 'fast' mode are nice to have, they're not essential once set. The one control that you will definitely use is the preamp drive, for dialling in extra saturation.

BEST FOR Deeper control options

ALSO TRY

TC Electronic Vibraclone

For the price, a decent vintage-voiced, mono digital rotary speaker emulator.

EHX Lester K Rotary Speaker Emulator

A great stereo emulation of the rotary sound, with more controls than most players would need.

Jim Dunlop Rotovibe

Mono Uni-Vibe emulation and expression control, all in the same unit.



14 Tremolo

Tremolo is the sound of increasing and decreasing volume of your guitar's signal at a set speed - Green Day's *Boulevard Of Broken Dreams* is the clearest example we can think of. The simplest tremolos have as little as one or two knobs (for speed and timing), and the most complex can offer MIDI control, sequencing, and rhythmic subdivisions. Some tremolos use feedback or other circuit manipulation to create warped wet sounds, or different wave shapes like square and triangle, for dramatic, choppy sounds.

TG RECOMMENDS RAINER DEEP SPACE PULSAR

The Rainer Deep Space Pulsar is, strictly speaking, a sidechain compressor. However, it will end up getting used more like a dynamic tremolo by most players. It can be controlled via a microphone input, or tapped via the Igor footswitch. The signal ducking can be flipped to a sidechained gate using the 'invert' switch, while a CV input can also be used to control it. It's definitely a power-user pedal, but the possibilities are endless.

BEST FOR Changing the tremolo effect speed on the fly

CHASE BLISS AUDIO GRAVITAS

The Gravitas is exactly what you'd expect from a Chase Bliss tremolo pedal. It contains all the modes you could want, including a harmonic mode, a discrete preamp, MIDI control, and an array of additional options via the top DIP switch array. Pedals like the Z-Vex Seek Trem will make wilder sounds, yes, but no tremolo pedal is as versatile.

BEST FOR We just said it! It's a supremely versatile beast!

ALSO TRY

Mooer Trellicopter

A simple optical tremolo in a micro form-factor.

Earthquaker Devices Night Wire V2

An unusual modulated harmonic tremolo that can still nail classic trem sounds.

EHX Super Pulsar

Every tremolo option you could ever need, plus expression, tap and full stereo.

15 Vibrato

Vibrato is what happens when you take a chorus pedal and increase the dry-wet mix. By including more of the manipulated signal, you end up with a dramatic pitch-shifting effect.

Whether you prefer chorus or vibrato is generally just taste. Ambient players often employ vibrato to manipulate the tails of delays or reverbs, to give movement to sounds with a long decay.

TG RECOMMENDS

Z-VEX INSTANT LO-FI JUNKY

The Instant Lo-Fi Junky was Z-Vex's response to players that loved the timbre of their Lo-Fi Loop Junky, and wanted it applied in real time to their signal, rather than just recorded loops. The result is a strange pedal that treads the line between chorus, vibrato and gritty compressor. It's intuitive, compelling and fun, if you're into modulation.

BEST FOR Scuzzy, gritty, lo-fi warbles

STRYMON OLA

A swiss-army-knife Chorus/Vibrato unit, the Strymon Ola has three modes: chorus, multi-delay studio chorus, and vibrato. It can also be set to ramp, or react with an envelope to your playing. The only downside of the Ola is that you can't run the two modes together, though that would sound pretty messy anyway.

BEST FOR A well-rounded, fully-featured option

ALSO TRY

TC Electronic Viscous Vibe

Underlining the overlap between various modulation effects, the Viscous is an excellent Uni-Vibe/vibrato crossover.

BOSS VB-2W Vibrato

The all-analogue VB-2W brings back to life the rare 80s Boss VB-2, while fixing common complaints with the original.

Earthquaker Devices The Depths V2

An optical vibrato circuit with additional controls to take the effect into novel, weirder territory.



16 Compressors

The premise of a compressor is very simple. Quieter signals are boosted, and louder signals are attenuated, giving a more uniform level that's great for funky 16ths or smoother lead tones. Of course, once you try and control these parameters, there's infinite subtlety. For most pedal compressors though, the average player can find a good sound by intuition, without having to know the technical details.

TG RECOMMENDS

EMPRESS EFFECTS COMPRESSOR MK II

Astonishingly for a pedal this size, with this feature set, the Compressor Mk II is all-analogue. Crammed inside is a studio-grade compressor with attack, release, ratio, makeup gain and sidechaining. Combine all that with input and gain reduction metering and you've got the most sophisticated pedal compressor on the market. Recommended for power users!

BEST FOR Studio compressor-style functionality

ORIGIN EFFECTS CALI76 COMPACT DELUXE

It's not cheap, but the Cali76 is a pedal-format version of the classic 1176 FET studio compressor. Alongside the attack, release, ratio and output controls you'd expect to see, there's also a dry control, as the Cali76 offers parallel compression. Without much by way of legends or explanation, the Cali76 encourages the player to experiment and find a sweet spot.

BEST FOR Another studio-like pedal for those who like to tweak

ALSO TRY

MXR Dyna Comp Mini

A simple two-knob compressor with two pre-set attack times.

TC Electronic Hypergravity Mini

A toneprint-enabled compressor with attack, sustain and level controls.

Fairfield Circuitry The Accountant

Three pre-set ratio options make the Accountant an effective, if opinionated, mini compressor.



17 EQ pedals

EQ pedals generally stick to a template – mostly, they're graphic EQs, which means they have a series of bands of audio, each with a centre frequency. These bands can be independently boosted or attenuated to change the EQ of your guitar signal. Some are parametric, which means the centre frequency and Q can be changed. For most situations however, this is an unnecessary level of complexity.

TG RECOMMENDS BOSS GE-7

The op-amp used in the pedal has slight noise issues, meaning it's not perfect, but the GE-7 is a workhorse. In addition to its compact size and seven bands, it has a master level, for use as a line boost. Pre-2021, non-SMD models can be easily modded with a replacement op-amp, and some builders like Analogman offer this as a service.

BEST FOR Simplicity and ease of use

MXR 6B

The MXR 6B might not have an overall level control or the final 6.4k band, but they aren't essential. Where it differs from the Boss is that the 6B is a 'true bypass' pedal, and doesn't colour the guitar so much when engaged, nor when switched off. As a result, if you don't need the extra bands and aren't interested in modding it, the 6B might be the better call.

BEST FOR Tone-saving true bypass is ideal for tonehounds

ALSO TRY BOSS EQ-200 Graphic Equaliser

A studio-grade EQ pedal with every option under the sun, plus MIDI and software control.

Source Audio EQ2

The same level of control as the larger EQ-200, but in a smaller format.

Fairfield Circuitry Long Life Parametric EQ

A gritty, single band parametric EQ with full control over every parameter. Ideal as a solo boost and filter.



18 Volume

Volume pedals are the simplest utility pedal there is. The majority are a housing for a single potentiometer, allowing you to roll off the amount of signal going to every pedal that follows. Some are active, which means they are powered, and can boost your signal too. The main thing you're paying for with a volume pedal is ruggedness, as it's likely to be used constantly.

TG RECOMMENDS JIM DUNLOP VOLUME X

Even among a lineup of rugged pedals, the Volume X stands out as a tank. It's driven by a band, which is, in theory, more durable than the string loops used on many other pedals. It has an additional expression and tuner out, for dual use as an expression or volume pedal.

BEST FOR Robustness and a surprising number of features

ERNIE BALL 6180 VP JR

The VP JR is one of those pedals you see everywhere on pros' 'boards. It's simple, with just an input, output and tuner out. Ernie Ball offer a number of variations, with different pot values, and even active boosting, should you want it.

BEST FOR Keeping it simple

ALSO TRY Mission SP-25M Pro

An expression pedal with volume capabilities for controlling modern modeling units.

BOSS FV-500

A rugged, tour-grade volume controller with a tuner out and minimum volume control. Both a high and low-impedance version are available.

Lehle Mono

The kings of utility pedals don't disappoint here. The Mono has a hall-effect sensor combined with a bombproof enclosure, second output and optional 10dB boost.

19 Noise Gate

Noise gates are not the most exciting of pedals. Most players won't consider one until they've driven themselves mad with a buzz or noise issue that won't go away. Some sit at the start of a chain, eliminating pickup hum at source, while others do more advanced processing. Many have a send/return loop that allows for complex setups like the 'four cable method'. Here, the amplifier preamp and drive pedals all go in the loop, and then the rest of the pedalboard follows, being returned into the amp's FX return.

TG RECOMMENDS ISP DECIMATOR II

Whether in front of the amp or in the effects loop, the ISP is the gate of choice for the djent crowd - the ones most in need of flawless gate operation. It can be chained with a second unit, which ISP say works better than the 4-cable method. This does add up to an eye-watering price tag, though.

BEST FOR Dual-pedal setups - if your budget will stretch!

TC ELECTRONIC SENTRY

Despite being one of the more cost-effective noise gates on the market, the Sentry is one of the more sophisticated. It can be used at the start of your chain, to isolate problem pedals in its loop, or set up using the four-cable method. Fine-grained control is available via TonePrint, while its three-band mode has each band function independently, removing only problem band frequencies.

BEST FOR Deeper editing with TC's TonePrint technology

ALSO TRY MXR Smart Gate

An effective noise gate for most common problems, with three different band modes.

BOSS NS-2 Noise Suppressor

Not the most feature-rich, but effective when set-up using the four-cable method.

EHX Silencer

Works well at the start of your chain, with a send-return loop allowing for the four-cable method.



20 Analogue Delay

Analogue delay came about from the need for compact units that were more reliable than fault-prone tape delay machines. Employing a bucket-brigade chip, or BBD, these delays used a capacitor array that resulted in dark, warm repeats. As a result, even when more pristine digital delays became available, analogue delays remained popular. Modern, digitally-controlled BBD delays have resulted in sounds and options that would have been impossible in the heyday of analogue delay.

TG RECOMMENDS BOSS DM-2W DELAY

The Boss DM-2 and DM-3 were, along with the EHX Deluxe Memory Man, the classic BBD delays. This Waza reissue expands on the original with an expression input to control the rate, and a new 'custom' mode. In 'custom', the delay times of the original are expanded to 800ms. Like the original, the Waza version can be pushed into runaway auto oscillation, for hours of noisy fun.

BEST FOR It's a premium reissue of a stone cold classic, of course!

MXR CARBON COPY

Beloved of shoegaze and dream-pop players, the darker sounds of the MXR Carbon Copy come into their own when used with its modulation function. Its rich, modulated delays are excellent for chord work or spectral leads. Though the Carbon Copy Bright and Memory Toy are similar, nothing quite captures the same magic as the Carbon Copy.

BEST FOR Dream-pop to epic Gilmour-esque delays

ALSO TRY Chase Bliss Audio Tonal Recall

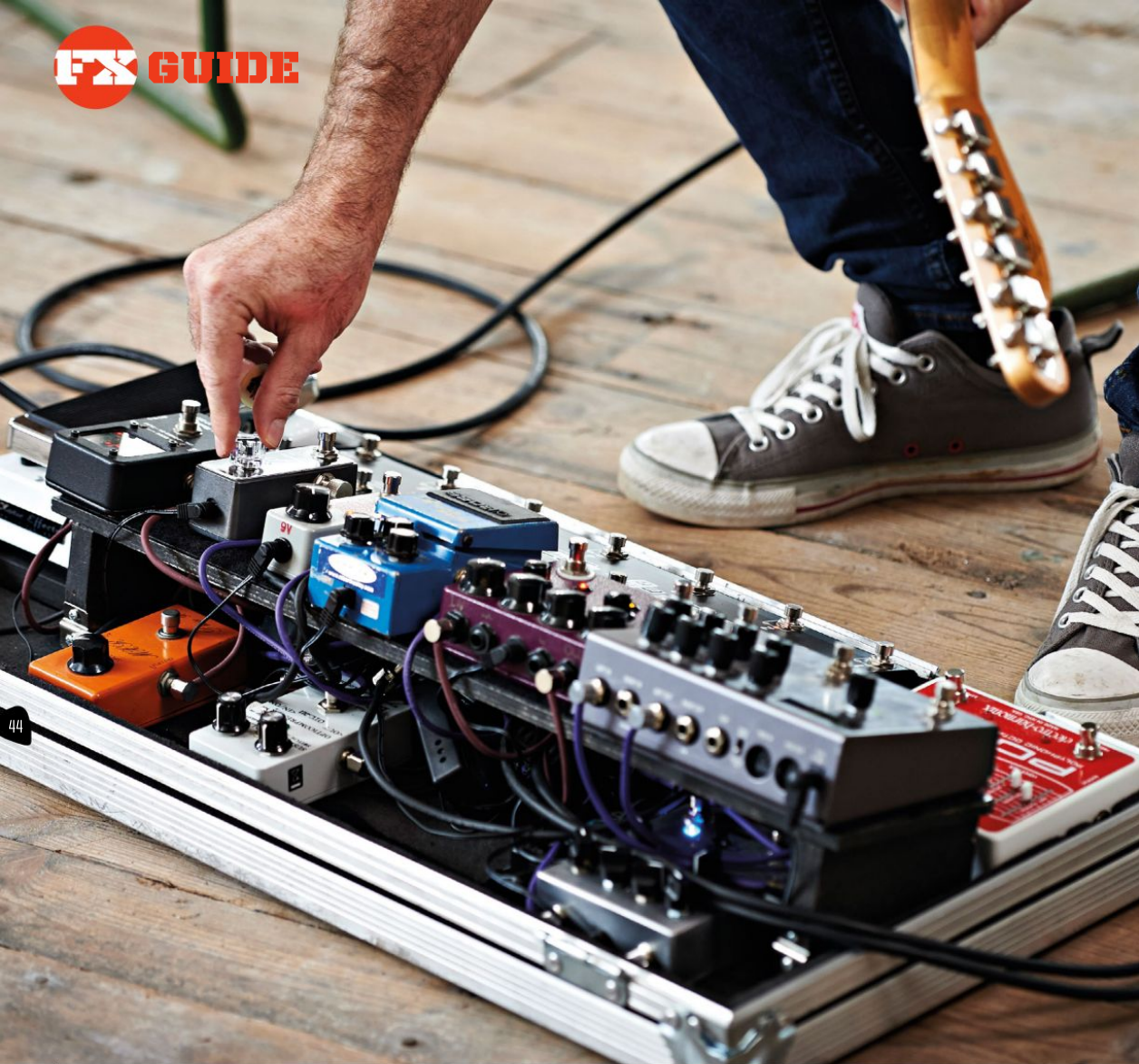
The most feature rich BBD delay ever, the TR also comes in a red knob version with even longer delay times.

T-Rex Replicator D'Luxe

Not strictly a BBD analogue delay, the Replicator uses tape cartridges to achieve a modern compact tape delay.

EHX Deluxe Memory Man

The first classic BBD delay, the modern DMM remains as potent and inspiring as the original unit.



ESSENTIAL ANCILLARIES

Pedalboards, power supplies, patch cables and more

Though there's a certain satisfaction that comes from making a pedalboard out of an old shelf, skateboard or road sign, there comes a point when it's un-ergonomic.

If you have more than a handful of pedals, the weight alone can make transporting them a pain. At this point, it's worth considering an aluminium-rail pedalboard with a case.

Some pedalboards come with hard flight cases, but unless you're a touring pro that's overkill. For most, a shoulder-slung bag with a sturdy handle and plastic inserts to prevent rips is sufficient.

Next, you can choose a power supply. This could be a feature on its own, but in short – save yourself money in the long-term and buy an isolated power supply. It's more reliable, and you won't have noise

issues. It should also come with mounting brackets that will fit your 'board.

Finally, you'll need to patch everything together. You can spend as much as you like on custom cables, expensive brands or any number of features, but we've found little correlation between price and longevity. Buy a few cheap ones, see what lasts a few gigs, then buy more of those.



21 Digital Delay

Digital delays are, in a sense, just special-purpose loopers. They record a small chunk of audio then play it back, resulting in perfectly clean repeats of the dry signal. However, this isn't all they can do. This 'buffer', once recorded, can be manipulated in endless ways. It can be played back faster or slower, pitch-shifted, even reversed. It's no wonder that as soon as boutique builders became able to build their own digital delays, the options available exploded.

TG RECOMMENDS BOSS DD-500 DIGITAL DELAY

The Boss DD-500 stock is a compelling unit. It has good emulations of classic Roland Space Echo, SDE-3000 and DM series. However, with newer firmware, it's even more powerful. You can run two delays in series or parallel, or have three different delays cued up at once in a bank. This is great for live use if you don't need the tap tempo switch.

BEST FOR Dual delays, à la Hank Marvin or The Edge

STRYMON TIMELINE

There's not much to tell apart the most expensive delay motherships, but the Strymon Timeline is an intuitive unit, for all its complexity. It's got 12 delay modes, plus a looper. Included are all the modes that make Strymon pedals like the El Capistan and DIG so compelling, as well as full MIDI control. It's no surprise that many players end their delay journey here.

BEST FOR Clear, intuitive layout

ALSO TRY Catalinbread Csidman

A delay and random skipping generator, the Csidman was inspired by the anti-jog protection on the 90s Sony Discman.

BOSS DD-8 Digital Delay

The modern incarnation of the DD series, as used by everybody from Radiohead to At The Drive-In, to Tool.

Chase Bliss Audio MOOD

A bizarre loop/reverb/delay idea-generation machine, created by a supergroup of boutique builders - Drolo, Old Blood Noise Endeavors, and Chase Bliss Audio.

22 Reverb

Reverb recreates the sound of reflections in a physical space. Early attempts at this were spring and plate delay. Plates were common in studios, while spring reverb tanks were available to your average player. While not modelling a physical space, spring reverb came to define genres like surf rock. Rack and studio gear that could model physical spaces appeared in the 70s and 80s, resulting in 'hall' reverbs. It wasn't long before this became available in pedal form.

TG RECOMMENDS TC ELECTRONIC HALL OF FAME 2

The Hall of Fame 2 is one of the most affordable reverbs on the market. It's feature-rich, with decent hall, shimmer and plate modes as well as fine-grained control over tone and pre-delay. Where the Hall of Fame shines is in its integrated MASH expression footswitch. Though it looks gimmicky and is a little difficult to get the hang of, it's a great feature for the experimental player.

BEST FOR Covering most bases on a reasonable budget

STRYMON BLUESKY

The BlueSky excels not because of out-there design choices, but due to build quality, and studio-grade sounds. Its three reverbs - plate, room and spring - can be set up in a normal, pre-delay, or shimmer mode. These might sound pedestrian, but the BlueSky has a trick up its sleeve. It can stretch out reverb times well beyond, say, a real-world spring, resulting in a rich and unique set of possible reverb sounds.

BEST FOR Excellent basic reverbs, plus a few unusual sounds

ALSO TRY Catalinbread Topanga

A fantastic sounding spring reverb, with cool graphics as well.

EHX Holy Grail

Though its flerb setting is hard to tame, the core sounds of the Holy Grail explain its longevity as a hall reverb.

Strymon Flint

The Flint has decent emulations of a spring tank, electronic and hall reverb, as well as three tremolo modes.





23 Exotic Reverb

Ambient players and space cadets alike are rarely satisfied with basic reverbs. If that's you, try a modulated reverb (for a wobble on your signal trails), or pitch-shifted and shimmer reverbs. There are also modelling reverbs that simulate impossible spaces, infinite reverbs, and reverse reverbs. Finally, granular effects create reverbs using some of the techniques from granular synthesis. Phew!

TG RECOMMENDS NEUNABER IMMERSE

The Neunaber is a studio-grade reverb that's as intuitive as they come. Besides an exceptional stereo image, it also brings to the table excellent detuned and shimmer modes, plus control of pre-delay mod or blend, depending on the patch. The Immerse's greatest strength is also its main drawback. Out of the box it sounds great, but it has less control over every parameter than some alternatives.

BEST FOR All-round versatility

RED PANDA PARTICLE

The Red Panda Particle is a granular delay pedal. It takes the idea of slicing up 'grains' of sound from granular synthesis, and applies this to capturing and recombining delay buffers. In the random mode, it can be set to create washes of grains that approximate a unique-sounding multi-tap delay/reverb, with a glitchy, distorted edge.

BEST FOR Tweaking sounds on the fly

ALSO TRY

Gamechanger Audio Light

A gritty spring reverb powered by an actual spring, with cool extra modes and a lightshow as a bonus.

Eventide Blackhole

The Blackhole algorithm is legendary in ambient circles. Here it is as a standalone pedal, with expression control.

Old Blood Noise Endeavors Dark Star

A huge, squalling reverb, with a momentary infinite sustain mode.

24 Loopers

The first loopers were offshoots of digital delay pedals and rack units. Before long, however, manufacturers realised that some guitarists wanted dedicated loop units. The most famous pedal looper is the Line 6 DL-4. Since the era of the DL-4 and Akai Headrush, the options for dedicated loopers have expanded greatly. Whether it's for bedroom jamming or stadium-sized gigs, there's an off-the-shelf pedal up to the task.

TG RECOMMENDS TC ELECTRONIC DITTO X2

The TC Ditto X2 builds on the feature set of the smaller Ditto by adding a dedicated stop button, and stereo I/O. For live use a dedicated stop button is essential. For bedroom or studio use however, the second footswitch can also be used to switch into a reverse or half-speed mode. This unlocks even more creative potential. The only downside is it's a little large.

BEST FOR Balancing ease of use with practical features

RED PANDA TENSOR

The Red Panda Tensor isn't a looper, exactly. It's a delay, looper and sound manipulator inspired by the warp modes on the long-discontinued Digitech XP-300 Space Station. It so happens that the Tensor can do simple looping, but with sound effect loops, reversed, warped artifacts and machine-gun stutter on offer too.

BEST FOR Sonic manipulation and experimentation

ALSO TRY

MXR Clone Looper

A solid core looper, expandable to cover modes from the classic Line 6 DL-4.

TC Electronic Ditto+

The plus sports a new graphic user interface, plus new quantising and stacking modes.

BOSS RC-300 Loop Station

A huge workstation, with multiple channels of independent audio, stacking, quantising and more.

explore the Pedal Fleet

Flex Pedal

Monophonic synth-fuzz pedal created by Mantic Pedals.

Bumble Buzz Pedal

Handmade by Chris Young of Union Tube & Transistor.

Elmore Pedal

Bluetooth foot pedal for controlling videos.

PLASMA Coil Pedal

Created by Gamechanger Audio with innovative High Voltage Distortion technology.

Triplegraph Pedal

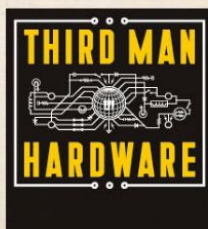
Designed by Coppersound Pedals in collaboration with Jack White.

Holeyboard Pedal Board

Versatile and lightweight board made in Minneapolis, MN.



@thirdmanhardware



thirdmanstore.com

Words: Amit Sharma, Grant Moon, Jonny Scaramanga, Paul Elliott Photos: Getty Images

The 50 Greatest Effects Songs Of All Time...

AS VOTED FOR BY YOU

In our recent poll on *GuitarWorld.com*, *Total Guitar* readers voted in their thousands to decide the greatest effects-featuring song of all time. Your favourites included everything from Pink Floyd's *Run Like Hell* and *Echoes*, illustrating David Gilmour's mastery of delay, to Isaac Hayes' blaxploitation classic *Theme From Shaft*, with its signature wah-wah from Charles 'Skip' Pitts. But in the end, the battle for number one was a straight shoot-out between two of the most brilliant and influential players of them all, Jimi Hendrix and Eddie Van Halen. Read on as we take you through the top 50, complete with tips on how to dial in some classic tones.



50 Queen BRIGHTON ROCK

Effects: Delay, Treble Booster

When it comes to innovation on guitar, Brian May has always been in a class of his own. And he's been doing it since Queen's earliest days – as evidenced by his use of delay on *Brighton Rock*. His lead three and a half minutes into the track uses Echoplex'd repeats as counterpoint melodies, driving his three AC30s to their cosmic limits and turning his guitar into an orchestra that's able to call and respond to itself

unaccompanied. On the recording there's only one original and one echoed guitar, though for live performances he would run one amp unaffected and have two separate AC30s for an additional repeat. To get the sound at home, you'll need a British valve amp tone with a treble booster in front (the Queen guitarist used a Dallas Rangemaster during their early years) and a delay set to loud single repeats at around 800 milliseconds.

AMP SETTINGS CHANNEL: OVERDRIVE



49 Pantera BECOMING

Effect: Whammy

Dimebag Darrell had a few staple pedals over his career, though for many the DigiTech Whammy is always the first that comes to mind. On this *Far Beyond Driven* track, he incorporated a pitch-shifted screech – what him and his bandmates called the 'step on the cat' effect – by setting it to go up two octaves and "produce a sound that was completely f*cked up!"

48 Isaac Hayes THEME FROM SHAFT

Effect: Wah

In all fairness, if someone who didn't play guitar asked you what a wah-wah was, one of the first things you'd go to is the *Theme From Shaft*. The part was played by Charles 'Skip' Pitts, who sadly passed away a decade ago and was widely considered to be one of the pioneers of soul and funk guitar.

47 Metallica WELCOME HOME (SANITARIUM)

Effects: Chorus, Tremolo

With a built-in stereo chorus effect based on Boss' legendary CE-1 pedal, the Roland JC-120 Jazz Chorus amp has played a huge part in Metallica's clean tones over the years. It can be heard during the intro of this *Master Of Puppets* track with the chorus engaged and the same part gets doubled with a tremolo effect when the band come in – adding a great deal of dimension to its melancholy.

46 The Cure

A FOREST

Effect: **Flanger**

This atmospheric intro is drowning in effects, but the flanger is definitive. Robert Smith set his analogue Boss BF-2 like this: Manual (sometimes called delay time) 1 o'clock, Depth 3 o'clock, and Rate and Resonance (sometimes called feedback) both 12 o'clock. There's also reverb and delay (all knobs at noon) to contend with.

45 Pink Floyd

MAROONED

Effect: **Whammy**

Thirty years into his career, *Marooned* found Gilmour innovatively using the Whammy not for its sliding effects, but to extend the range of the guitar. He leaves the pedal in its octave up position for long periods, allowing previously unreachable notes. Watch your treble settings so you don't slice eardrums.



44 Muse

PLUG IN BABY

Effect: **Fuzz**

One of a handful of 21st century riffs to have muscled into the rock canon, *Plug In Baby* is classically influenced without donning a frilly shirt. We're trying not to force specific brands or pedals on you, but this song really is the product of the ZVex Fuzz Factory. Matt Bellamy's is built into his guitar. The squeals that open this track are made by turning the Comp control anticlockwise until it starts to oscillate. Then play with Stab to control the pitch of the squeals. When you're ready to play the riff, turn Comp back up so it stops misbehaving.

ABOVE

Muse's Matt Bellamy plugs in and rocks out

RIGHT

A young Slash (right) with Guns n' Roses singer Axl Rose

43 Robin Trower

BRIDGE OF SIGHS

Effect: **Uni-Vibe**

Trower's Uni-Vibe, a rotating speaker simulator, makes this 70s classic standout. You can get a similar effect with a phaser, but they have a more predictable sweep, while vibratos are more sudden. Set your speed and intensity around 1 o'clock, and turn on the effect before you set your amp EQ.

42 My Bloody Valentine

ONLY SHALLOW

Effects: **Reverse Reverb**

Genuine backwards reverb, created by flipping tapes, precedes the instrument. Since pedals are generally not clairvoyant, they repeat what you just played with reverb tail reversed. Kevin Shields used the Yamaha SPX90, but many pedals will do. This track also features the riff played backwards and forwards simultaneously, recorded through two Fender Bassmans with tremolo speeds.

41 Guns n' Roses

PARADISE CITY

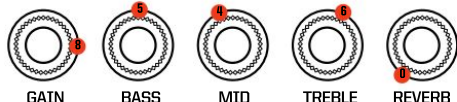
Effect: **Chorus**

Paradise City sounds more organic than most chorus tones of its era. It's shimmery, but you can still hear the wood and valves underneath. History doesn't record what Slash used in the studio, but live he steers clear of digital effects. He currently uses MXR's M234 Analog Chorus. Photos of his pedalboard show different settings at different gigs, so he's not scientific about it. It's always subtle, with level, rate, and depth almost always set between 12 and 1 o'clock. Some people (wrongly) deny there's even a chorus on the recording, so if you've got a warble, dial it back.



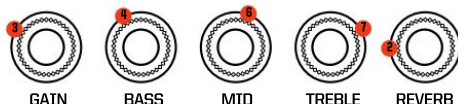
AMP SETTINGS

CHANNEL > **OVERDRIVE**



AMP SETTINGS

CHANNEL > **CLEAN**





40 Metallica

ENTER SANDMAN

Effect: Wah

Let's face it, Kirk Hammett is a man who loves his wah – to the point where they're virtually inseparable. And on the solo for *Enter Sandman*, one of the most important songs in Metallica's career, Kirk's choices clearly paid off. The Cry Baby not only helps distinguish between the two guitar players heard on the track, it also allows his leads to cut through, demanding for the listener's attention at every twist and turn.

ABOVE
Metallica's James Hetfield (left) and Kirk Hammett letting their Flying V's do the talking

39 The Cult

SHE SELLS SANCTUARY

Effects: Delay, Flanger

Billy Duffy describes his Boss pedals as "a big part of the signature sound" on their 1985 hit – specifically the DM-2 delay and BF-2 flanger. "I played the middle section of the song, which was a picked thing with all the Boss pedals on, and that sound just leaped out," he told TG. "The producer went, 'Hold it, hold it, that's great!' And we decided to start the song with that mystical sound."

38 Rush

THE SPIRIT OF RADIO

Effects: Flanger, Chorus, Delay

This 1980 single, cheekily named after a local radio station's slogan, is one of the Canadian trio's most enduring – thanks to some stunning fretwork from Alex Lifeson. "The flanger on that song was an Electro-Harmonix Electric Mistress, which I still have," he explained in 2008. "I used the Boss Chorus Ensemble, and I had graduated to the Roland Space Echo, which replaced my Echoplex."



37 Steve Vai

BAD HORSIE

Effect: Wah

This opening track from the multiple Grammy-winning virtuoso's *Alien Love Secrets* EP features some of the juiciest wah tones of his career in its melee of screaming leads, whammy bar abuse and farmyard noises. And so when Morley released Vai's signature wah the following year, there was only ever one true contender for the name.

36 Red Hot Chilli Peppers

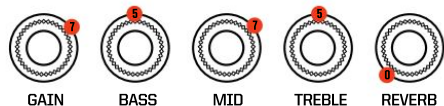
UNDER THE BRIDGE

Effect: Compression

Compression is a great way of making clean guitars sound more rich and full, adding to the overall sonic weight in more subtle ways than boosts or overdrive. For the intro of this 1992 RHCP hit, guitarist John Frusciante was using his 1966 Fender Jaguar through a MXR Dyna Comp to thicken up his tone while still keeping it clean. It's a relatively simple function that any compressor can achieve, though it's worth noting Frusciante kept his sensitivity dial around the halfway point so as not to lose too much in dynamics – any more would have resulted in his signal sounding processed and squashed.

AMP SETTINGS

CHANNEL > CLEAN



35 Black Sabbath

BLACK SABBATH

Effect: Treble Booster

Prior to Black Sabbath, Tony Iommi and Bill Ward had been playing together in Mythology, which is when Iommi first got his hands on a Dallas Arbiter Rangemaster treble booster that was later modified by a friend's brother. "I don't know what he did to it, but it was really good!" he told TG in 2010.

34 Black Sabbath

PARANOID

Effect: Ring Modulator

It would be fair to say Ring Modulator is one of those effects you either love or hate. Even Tony Iommi himself was against the idea of putting the effect on the solo from this 1970 title track, but was forced to succumb to producer Rodger Bain's suggestion. The effected guitar signal, panned to the right, ended up sounding glitchy and robotic, and ultimately more like something you'd hear in a sci-fi movie.



30 Nirvana

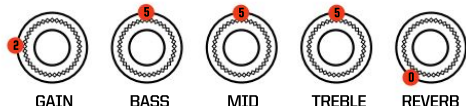
SMELLS LIKE TEEN SPIRIT

Effects: Distortion, Chorus

The song that changed everything and defined a generation relied on just two guitar effects. Kurt Cobain's distorted riff gave way to a chorused two-note motif in the verses, with all hell breaking loose in the chorus and instrumental. Ideally you'll have a Strat-style guitar with a humbucker at the bridge, and a Boss DS-1 and Electro-Harmonix Small Clone chorus pedal or similar. Dial in a good, low-gain setting on your amp for the intro chords (Fsus4/B, /Absus4/D.), whack in the distortion when the drums and bass come in, then turn distortion off and chorus on for the C/F diad in the verse. Keep both effects on for the lead guitar break. Distortion settings: Tone 4, Level 10, Distortion 8. Chorus settings: Rate 5, Depth 7

AMP SETTINGS

CHANNEL > CLEAN



29 Bon Jovi

LIVIN' ON A PRAYER

Effect: Talk Box

If Peter Dinklage and Aerosmith kept the talk box alive in the 1970s, Richie Sambora got his lips around it in the 80s on Bon Jovi's smash hit 1986 single from *Slippery When Wet*. A whole new generation wondered what that cool, strange sound was, and why the guitarist was gurning like that...

ABOVE

The Smashing Pumpkins

BELOW

Bon Jovi's
Richie Sambora

33 The Smashing Pumpkins

CHERUB ROCK

Effect: Fuzz

Fuzz was a major component of the Pumpkins' sound on 1993's *Siamese Dream*. Guitarists Billy Corgan and James Iha used Electro-Harmonix Big Muffs and Marshall JCM-800s to achieve the massive, twin-attack riffs on the likes of *Cherub Rock*. A meaty alternative to distortion, a quality fuzz is a worthy addition to any pedalboard.

32 Joe Satriani

SURFING WITH THE ALIEN

Effect: Wah

For his name-making 1987 piece of melodic shred, Satch's relatively modest rig included his Dunlop Crybaby wah-wah. Here it's used for the standard, Hendrixian wah effect in the verses, with Satch known to kick it up to full treble for the speedily tapped, C# Phrygian part, thus filtering out any extraneous bass frequencies.

31 Jeff Buckley

HALLELUJAH

Effect: Reverb

Buckley's unforgettable take on Leonard Cohen's classic song featured some beautiful guitar arpeggios, wreathed in haunting reverb. Producer Andy Wallace fed Buckley's Telecaster through short, medium and long reverbs, and these were then mixed and EQ'd together, to send this heart-rending performance into an altogether more ethereal, spiritual space.





28 Guns N' Roses

SWEET CHILD O' MINE

Effect: **Wah**

There are many big moments in GN'R's first and only US number one single, but the one where Slash engages his Cry Baby could be the biggest of them all – lifting the track out of its soft rock balladry and into something harder and meaner. We're betting a good portion of the Jim Dunlop wah sales could be down to this 30 seconds of music alone.

27 The Police

WALKING ON THE MOON

Effects: **Compression, Delay, Modulation**

There are a few reasons why Andy Summers' guitar work on *Walking On The Moon* will forever remain among his most memorable. Firstly, that opening Dminor11 chord is a stunning voicing – so much so, the trio let it hang in the air at numerous points throughout the song. And by placing an Electro-Harmonix Electric Mistress and Maestro Echoplex in front of his Twin Reverb, and possibly an MXR Dyna Comp, he found ways to add even more sparkle. "There might be some compression on *Walking On The Moon*, I can't quite remember, he recently told TG. "I've never been fully convinced on compressor pedals, sometimes they sound good and sometimes they don't, so maybe I didn't use one. It was mainly chorus and the Echoplex going through a Twin Reverb."

26 Stevie Ray Vaughan & Double Trouble

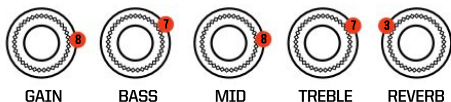
COLD SHOT

Effects: **Overdrive, Rotary Speaker**

This track from the late, great SRV's second album *Couldn't Stand The Weather* has become one of the most famous examples of a Fender Vibratone's lush swirls. Much like the Leslie Model 16 and Model 18 speaker units, the cabinet creates an almost watery sound thanks to the Doppler effect – variations in pitch and amplitude – caused by its single rotor speaker. Nowadays, of course, there is no shortage of rotary pedals to create the effect from your feet – our favourites include The Pinwheel by Fender, which features one Vibratone and two Leslie modes, the Strymon Lex and the Neo Instruments Mini Vent II. Another key aspect of the SRV tone was the Ibanez Tube Screamer he used to drive his amps – having switched from the original TS-808 to the TS9 and TS10 over the course of his storied career.

AMP SETTINGS

CHANNEL > **CLEAN**



25 Van Halen

CATHEDRAL

Effect: **Delay**

Given its organ-like feel, it's hard to think of a more fitting name for this jaw-dropping instrumental found on Van Halen's fifth studio album *Diver Down*. For the bouncing arpeggios after its swirling intro chords Eddie used a delay set to single repeats around 370 milliseconds, turning his volume knob to swell in each hammered-on note and mimic the softer attack of other instruments.

24 Alice In Chains

MAN IN THE BOX

Effect: **Talk Box**

This early hit from the Seattle quartet showcased a much darker side of the talk box – implemented in ways more sinister than anything The Eagles, Peter Frampton and Bon Jovi had conjured before them. It was a Dunlop Heil used by guitarist Jerry Cantrell on the recordings, kicked in for the Hendrix leads mirrored on vocals, as well as the lower 'chugs' that drive the verses.

23 The Smiths

HOW SOON IS NOW

Effects: **Tremolo, Reverb**

Johnny Marr's work on this 1985 single could be the greatest use of tremolo in the history of rock music. Technically speaking, no pedals were involved – instead, Marr and producer John Porter re-amped the rhythm track through four Twin Reverbs set to tremolo speeds of 125bpm and 375bpm to create that pulsating drone, with more ambience and sustain courtesy of the amp reverb tanks.

ABOVE

Eddie Van Halen: a player so good even his singer was impressed



ABOVE

Gary Moore may have been young here, but a quid says he still had the blues

22 Gary Moore STILL GOT THE BLUES (FOR YOU)

Effect: **Overdrive**

This track was pivotal as Moore reinvented himself as a bluesman at the turn of the 90s. The bulk of his tone actually came from his 1959 Les Paul Standard and The Guv'nor – a then newly released Marshall distortion pedal, which drove the front end of his clean Marshall JTM45 and ended up inspiring some of the most powerful blues ever recorded.

21 Eric Johnson CLIFFS OF DOVER

Effects: **Overdrive, Delay**

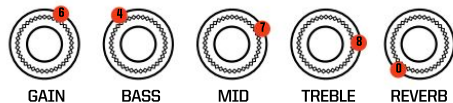
Not many people can say they have that perfect storm of tone, feel and technique in the same way as Eric Johnson – which explains why the Texan virtuoso won a Grammy in 1992 for this instrumental masterpiece. For the recordings, he used an early 60s ES-335 and 1954 Stratocaster, with a Maestro EP-3 Echoplex for delay and a BK Butler Tube Driver for more juice going into his 100-watt Marshall stack.

20 Rage Against The Machine BULLS ON PARADE

Effect: **Wah**

It's always astonishing to think about the levels of heaviness Tom Morello has managed to achieve with relatively little gain, and this lead single from 1996's *Evil Empire* is no exception. On the recording, Morello can be heard playing his custom-built 'Arm The Homeless' guitar through a Cry Baby wah into the overdrive channel of his Marshall JCM800 2205 50-Watt head, feeding his Peavey 4x12 speaker cabinet. Rocking the wah back and forth in time with the beat is a technique more associated with funk players, where guitar scratches and scrapes are used as dead notes to emphasise the pedal sweeping through the frequencies.

AMP SETTINGS CHANNEL > OVERDRIVE



19 Heart BARRACUDA

Effect: **Flanger**

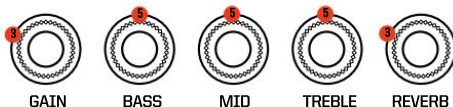
This 1977 single from the Seattle rockers was powered along by galloping rhythms that were heavily effected with flanger. The jet plane whoosh coming from the custom-made pedal heard on the recording is what gives it sonic movement even when you're hearing the same note being repeated.

18 The White Stripes SEVEN NATION ARMY

Effect: **Pitch Shifter**

It's the track that launched The White Stripes' career and turned Jack White into a guitar hero for the modern age. While many initially thought it was a bass at the beginning of the track, it was in fact Jack playing his early 60s Kay K6533 archtop with one single-coil neck pickup through a mid-60s Sears Silvertone 1485 via his DigiTech Whammy, set to one octave down (most pitch shifters should be able to do this with minimal fuss). It's the kind of trick that has inspired bands like Royal Blood in recent years, who use a similar approach from the perspective of bass.

AMP SETTINGS CHANNEL > OVERDRIVE



17 The Police MESSAGE IN A BOTTLE

Effects: **Chorus, Flanger**

As well as being one of the finest riffs of their career, moving arpeggiated powerchords with an added 9th around the neck, this lead single from The Police's *Reggatta De Blanc* also featured some brilliant use of modulation. During these years guitarist Andy Summers was closely associated with the Electro-Harmonix Electric Mistress, which could be used as a flanger or chorus, as well as Boss and Roland gear. "Back then I didn't even have a Pete Cornish pedalboard, so it probably was the Electro-Harmonix or the Boss, as well as an Echoplex," he recently told TG.



16 Soundgarden

BLACK HOLE SUN

Effect: Rotary Speaker

On this 90s grunge anthem, Chris Cornell fed his Gretsch Silverjet through a Marshall and a Mesa Boogie amp into a Fender Vibratone speaker. To get the moody, withered sound of the verse arpeggios, the speaker rotator was set to high, and was then slowed down for that dark, doom-laden chorus.

15 Peter Dinklage

SHOW ME THE WAY

Effect: Talk Box

Thanks to its prominence on his best-known hit, the English rocker became synonymous with this odd effect. Frampton's guitar riff is channelled up a tube into his mouth, with which he shapes the sound to give it that characteristic wah-like effect, and that's captured by his microphone. Effective, if a bit of a mouthful...

14 Cream

WHITE ROOM

Effect: Wah

Up there with *Sunshine Of Your Love* as one of Cream's most recognisable tunes, *White Room* comes from their 1968 must-hear *Wheels Of Fire*, with Eric Clapton's wah work a vital part of the song's tapestry. Clapton was using a Vox wah-wah around this time, but any decent model will do. In the verses featuring Jack Bruce's falsetto (e.g. *I wait in this place where the sun never shines*) Clapton rocks the wah back and forth in fast, B/B time while playing the chords (C/G/B₇/A/C/G/B₇/C/D). For the lead breaks, simply play your tastiest D blues licks while tapping your wah foot in time with the 4/4 beat.

AMP SETTINGS

CHANNEL > OVERDRIVE



GAIN



BASS



MID



TREBLE



REVERB

ABOVE

Soundgarden's late singing guitarist Chris Cornell

BELOW

Pink Floyd's David Gilmour entering a cosmic dimension of delay

13 Prince

PURPLE RAIN

Effect: Chorus

The unmistakable intro to Prince's 1984 signature ballad was actually played by his guitarist Wendy Melvoin. Her first chord - that unusual B₇add9/D - adds identity to the B₇/Gm11/F/E₇add9 progression, but it's that shimmering chorus (the exact model used is lost to time) that imbues the part with tonal depth and quavering poignancy.

12 Led Zeppelin

WHOLE LOTTA LOVE

Effect: Wah

There's so much effects cleverness on this stone-cold rock masterpiece (notably Jimmy Page's 'reverse reverb' technique, clear on Robert Plant's *'Way down inside'* vocals). Guitar-wise, note Page's shrewd use of the wah-wah during the solo: he uses it as a tone filter to find a trebly sweet spot, so his timeless part cuts through clearly.

11 Pink Floyd

ECHOES

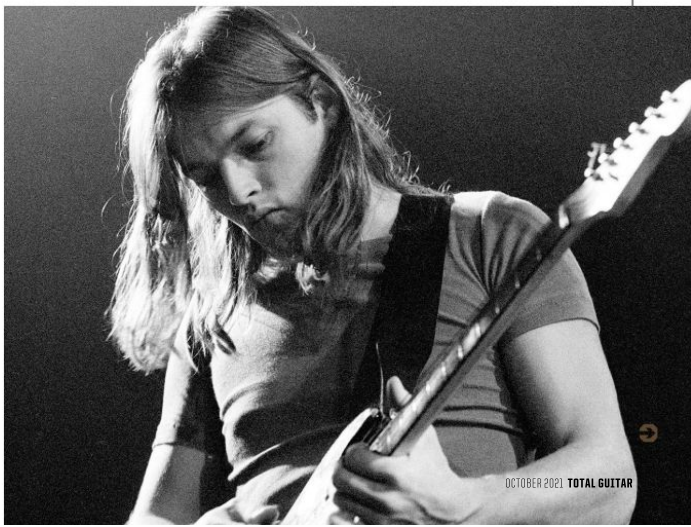
Effect: Delay

10 Pink Floyd

RUN LIKE HELL

Effect: Delay

An effects-savvy man, David Gilmour used an MXR M-113 Digital Delay across Floyd's 1979 double album *The Wall* to add rhythm and texture to his parts. On *Run Like Hell*, the effect is set to around 380ms, giving a dotted eighth note repeat that adds propulsion and movement to both the song's D pedal tone and the riff's main chords (all over D: D/A/G/D/D/G/Dadd9/D). Eight years earlier, Gilmour leaned into Floyd's psychedelic roots in the spacey mid-section of their monolithic 23-minuter *Echoes*. A Binson Echorec unit was used to add a delayed, cosmic dimension to his atmospheric 'shrieking' noise experiments - themselves created through a wah-wah pedal with its input and output reversed.



09 Dire Straits

MONEY FOR NOTHING

Effects: Distortion, Filter

The recording involved a serendipitously misplaced mic, but the core sound is wah pedal in a fixed position. You'll find the sweet spot near the middle of its travel, where it creates a smoky sound with cool overtones. In a pinch, you can get close-ish by backing off your tone control.

08 Nirvana

COME AS YOU ARE

Effect: Chorus

Kurt's favoured EHX Small Clone sounds distinctive, and not every chorus pedal will get close. He always used the depth switch in the up (stronger) position, with the rate around 11 o'clock. It's a strong effect: if you have delay time or mix controls, wind them up.

07 The Rolling Stones

(I CAN'T GET NO) SATISFACTION

Effect: Fuzz

Credited as the first hit single to use a fuzz pedal, Satisfaction's riff was meant for a horn section. The fuzz was only intended for a horn-like tone on Keef's demo. His Maestro FZ-1 had a honky tone, so try boosting mids with an EQ if necessary.

06 Rage Against The Machine

KILLING IN THE NAME

Effect: Whammy

Tom Morello's whammy shifts the pitch up 2 octaves when the pedal is depressed. If you've got a mix control, set it to 100%. From there, he taps his foot in time on the pedal, so the pitch goes up on the beat and returns to normal on the offbeat.

05 The Jimi Hendrix Experience

PURPLE HAZE

Effect: Octave Fuzz

Octavias, and other analogue octave-up pedals, work best when they are hearing fundamental notes from your guitar, not harmonics. To get the clearest sound, use your neck pickup and back the tone off. The octave up will counteract this muddy tone. Digital octavers are cleaner but sound wrong here.



04 U2

WHERE THE STREETS HAVE NO NAME

Effect: Delay

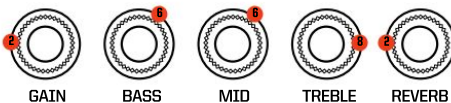
"The biggest difference between me and other players is that I don't use effects to colour my parts. I create guitar parts using effects," The Edge told TG in 2005. Taking Brian May's delay concept to extremes, he created a cascade of notes from simple parts. The core Edge sound is a dotted eighth delay. If your delay has a tap tempo and a dotted eighth mode, select that and tap on the beat. If not, you can set your pedal to 357ms, which will be correct at the studio version's tempo of 126bpm. Add a small amount of modulation to the repeats if possible, set feedback to two repeats, and mix to around 70%. The exact length of Edge's second delay is still controversial. Quarter notes (476ms) are OK, but 9/32nds (536ms) with 50% mix sound closer. Pan the first delay right and this one left.

ABOVE

U2's The Edge, or Dave to his mum

AMP SETTINGS

CHANNEL > OVERDRIVE





03 Van Halen ERUPTION

02 Van Halen AIN'T TALKIN' 'BOUT LOVE

Effects: Flanger, Phaser, Delay

Much ink has been spilled on Eddie Van Halen's paradigm-shifting distortion tone. His use of pedals was just as unique and important to the music. Ed's early board had three effects: MXR MX-117 flanger, MXR Phase 90, and Echoplex EP-3 tape delay (in that order). All three are essential to *Ain't Talkin' 'Bout Love*, a classic track from Van Halen's self-titled first album.

You hear the EP-3 first, as the intro notes bounce off each other. Set your delay to a tape mode with a delay time of about 300ms. Contrary to conventional wisdom that delay should follow distortion, the EP-3 came before the input on Ed's Marshall (so put your delay before any distortion or amp models). The 'echo volume' (mix) control was relatively low, making the repeats sound cleaner than the direct guitar but not much quieter because of amp compression—you can't get this sound with delay in the FX loop. You have to keep the feedback low to avoid a mush; try one or maybe two repeats. The delay plays an integral role in the main riff, creating that 'skip' in chords.

Ed kicked the flanger in and out just to emphasise the C-B-C single notes in the riff. He set the Manual (AKA delay time), Width and Speed knobs to around 11 o'clock, and wound the Regen (aka feedback) up to 2. He repeated this trick of highlighting parts of a riff with the flanger on *Unchained* (from 1981 album *Fair Warning*), that time maxing the Regen control.

All the solos on *Van Halen* got a kick from the Phase 90, a phaser with one knob for rate. Ed set it at between 9 and 10 o'clock. On *Ain't Talkin' 'Bout Love*, the phased solo is doubled with an electric sitar. The Phase 90 sound is hard to replicate with other circuits, but here are things you can try: some phasers let you select the number of 'stages' (notch filters) in the sound. If yours does, set it to 4. Early Phase 90s didn't have much resonance, so set that low, and keep depth/width near the middle.

Most phaser users went for faster, more dramatic settings, and EVH appreciated the subtlety of a Phase 90 set low. *Eruption*—Ed's instrumental showpiece from *Van Halen*—featured numerous rapid-fire licks with Ed playing the same pattern over and over. The phaser gave development to those licks, because its gradual sweep made the sound evolve with each repetition. It's there from the start, but you hear it most clearly in the outro tapping section. The filtering effect is part of why many listeners were fooled into thinking they were hearing a synthesiser. Ed favoured the Phase 90 because it pushed the mid frequencies, providing a slight lift for solos. "I did that in the early days because it would make the solo pop," he told *Guitar World* in 2015. "Suddenly it became a different sound, which helped me stand out in the mix, because in the club days, we usually had lousy P.A. systems and lousy sound guys!"



01 The Jimi Hendrix Experience

VOODOO CHILD (SLIGHT RETURN)

Effect: Wah

It's difficult for listeners born since 1970 to grasp how monumental this was, because we've grown up surrounded by Hendrixisms. Most of us can't pinpoint exactly when we first heard a wah-wah. Hendrix's whammy bar freakout at the end of *Voodoo Child* sounds spectacular now! In 1970 it sounded like the work of someone who could literally chop down mountains with the edge of his hand.

On *Voodoo Child*, Hendrix demonstrated that the wah pedal is not merely a tone modifier, but a musical instrument. Playing guitar-plus-wah is a different skill from playing guitar alone. It requires new co-ordination, and offers new expressive possibilities in return. Like any newly invented instrument, there were no how-to guides available for guitar-plus-wah. Sure, the inventors had an idea of how it would be used, but it was down to musicians to discover and exploit the creative potential. Jimi wasn't the first or only wah pioneer (he bought his wah after watching Frank Zappa), but he mined its possibilities so thoroughly that his playing still provides the manual 50 years later.

There are two principal ways to use the wah: you can rock your foot in time, providing rhythmic emphasis, or you can use the wah expressively, giving each note the right tone quality and emphasis. Jimi mastered both. *Voodoo Child* opens with muted rhythmic strumming, with the wah rocking forward on each beat. Because the guitar riff is syncopated, the last note of the second bar lands when the wah is back, and swells as the pedal travels forward. This scratching inspired Isaac Hayes' *Theme From Shaft* and is central to the funk guitar toolkit.

Jimi used a Vox Clyde McCoy wah but the pedal you use is less important than the expression you put in. As he goes into the solo, Hendrix demonstrates the second type of wah use, making the guitar sing. In particular, he exploited the wah's ability to change the tone of a note after it has been played, recalling the way great vocalists manipulate the resonance of sustained notes. The pedal also allowed him to zero in on the precise frequency to create harmonic feedback, a trick not featured on the studio version but used triumphantly live.

Hendrix also exploded the distinction between the rhythmic and expressive varieties of wah. At 0:42 where he pumps the pedal in a triplet rhythm while gradually releasing a string bend. At 2:22 he repeats this triplet rhythm while mashing a chord, accentuated by Eddie Kramer's mix panning it between the speakers. This was wah for both groove and emotion at the same time.

To nail Hendrix's wah mastery, you'll need to develop your limb independence. First of all, learn to tap a constant quarter note rhythm with your foot, regardless of what rhythm your hands play. It might help to start by vocalising the guitar part so you can work out which notes coincide with your foot taps. Once this is second nature, you can try other rhythms, like Hendrix's triplets. After you've developed that independence, accentuating particular notes for expression should feel relatively easy.

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PENTATONIC POWER

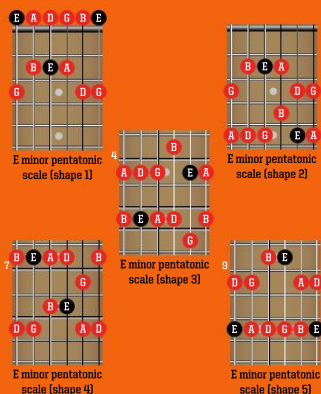
10 ways to take to take the everyday pentatonic scale to new heights

The minor and major pentatonic scales are most guitarists' first step into the world of soloing, but these five-note scales hold more power and possibilities than meets the ear – they're far from just 'beginner's scales'! By looking at these essential shapes from a new perspective, such as playing on a single string, or in pairs or clusters of notes, you can build a more complete understanding of how pentatonic scales work, and help

towards every guitarist's ultimate goal – to create music. Here, we've written 10 musical ideas for you to try out, each demonstrating a more versatile and expanded approach to pentatonic playing. It doesn't even matter whether you master every riff and lick. What's most important is that you identify the pentatonic scale being used and notice how our lick differs from a plain ol' run through of the shape. And if you can rinse through all 10, well, you'll be a pentatonic master in no time at all!

The shapes you need to know

These five shapes link together on the fretboard: the highest note on each string in shape 1 is the lower note on the same string in shape 2; the higher notes in shape 2 are shape 3's lower notes. Keep going to link all five shapes up and map out the E minor pentatonic scale across the fretboard. Move up or down to play in a different key.



1 MORELLO-ISH LOW-STRING RIFFS

TRACK 11

♩ = 100

Em

Play 4 times

This heavy, Tom Morello-meets-Jimmy Page-inspired riff will help you memorise the E minor pentatonic scale (E G A B D) along the sixth string. It's also a really common way to build riffs and you can move it to the other strings if you want to try other key signatures.

2 ONE LICK, THREE OCTAVES

TRACK 12

♩ = 100

A⁷

Play 4 times

This bluesy A minor lick is essentially a five-note phrase in A minor, which you can move around and play in any octave. Start by learning the first five notes, using your first and third fingers to hammer on, then slide up with your third finger. The rest of the lick is the same, just played in different octaves.

3 METALLICA MOVES

TRACK 13

♩ = 100

E⁵ G F⁵

Play 4 times

This Kirk Hammett-style lick combines shapes 1 and 2 of the E minor pentatonic scale up at the 12th fret - giving you three notes to play on each string. It's a stretch, yes, but this approach opens up a whole new world of shreddy phrasing that two-note-per-string playing can't offer. Practise six-note phrases to get used to our lick.

4 SOUL STYLE DIADS

TRACK 14

♩ = 100

A G/A

Play 4 times

This soul lick uses doublestops in the A major pentatonic scale (A B C[♯] E F[♯]). Learning note-pairs on adjacent strings is just as musical an idea as the more traditional pentatonic approach. Top tip! A major pentatonic has the same notes as F[♯] minor pentatonic (F[♯] A B C[♯] E). All pentatonic scales have a relative major/minor option.

5 UP A 5TH

TRACK 15

♩ = 100

Am⁷

Play 4 times

For this jazzy, Steve Lukather-style lick, we're playing an E minor pentatonic lick over an Am chord to create a cool Dorian mode flavour. We are still completely in the key of A minor, so all the notes work nicely, but not typically pentatonic sounding. Simply think 'up a 5th' over a minor chord for this cool trick.

6 LYDIAN MODE TRICK

TRACK 16

♩ = 100

Amaj^{♯11}

Play 4 times

Another cool modal trick is to move a minor pentatonic shape down a semitone over a major chord for those classic Satriani and Vai Lydian flavours: we're playing G[♯] minor pentatonic over an A major chord here. It's a great way to play the mode as it focuses the fingers on the key Lydian intervals while still 'feeling' pentatonic.

7 EVH-STYLE ONE-STRING LICK

TRACK 17

♩=100

C/A G/A D/A C/A

Play 4 times

BU (24)

This Van Halen-style tapping lick is a great way of viewing the A minor pentatonic scale along the first string. Play the 5th and 8th frets with your fret hand and use your tapping finger to move from the 10th fret up through the scale to the 22nd fret. On the final tap, hold the note and bend the string up a tone, with help from your fret hand.

8 WYLDE PHRASING

TRACK 18

♩=120

A⁵ D/F# G⁵ A⁵ D/A

Play 4 times

BU (20)

This lick is in the style of players like Zakk Wylde or Slash and uses a four-note pattern using a third string hammer-on and pull-off, then a single note on the fourth string. Get used to the phrase by repeating the first four notes of the lick, then move up the neck through the scale shapes. The whole lick can be played with two fingers.

9 MAJOR AND MINOR PENTATONIC

TRACK 19

♩=120

A D/A A Am C D/F# G

Play 4 times

BU (15)

This lick shows how one lick can be transposed to both a major and a minor key. In bars 1 and 2, we've played an A major pentatonic lick between the 9th and 12th frets. In bars 3 and 4, exactly the same lick is played three frets higher which, coincidentally, uses the notes of the A minor pentatonic scale.

10 BLUESY FUSION LICK

TRACK 20

♩=120

A⁷ A⁹ A⁷ A¹¹

Play 4 times

BU (4)

This fusion lick also combines notes from A major and A minor pentatonic to create a sound in the vein of Steely Dan or Robben Ford – this time in one fretboard position. It begins with a minor 3rd to major 3rd change, which is a very powerful moment of tension and resolution, when played over a major or dominant 7th chord.

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A full-page photograph of the heavy metal band Iron Maiden performing live on stage. The three visible members are in dynamic poses. The guitarist on the left wears a bandana and a vest, playing a white electric guitar. The singer in the center has long hair and is wearing a patterned tank top, singing into a microphone. The guitarist on the right is wearing a leather vest and playing a bright yellow electric guitar. The background features a large, green, gothic-style archway. The overall lighting is dark with green and yellow stage lights.

IRON MAIDEN THE TROOPER

Go forth with the guitar harmonies and galloping rhythms of this classic from Iron Maiden's 1983 *Piece Of Mind* album

From galloping rhythms to harmonised guitar lines and a blistering solo battle between Adrian Smith and Dave Murray, all the signature classic Maiden elements are present here in *The Trooper*.

The song begins with the two guitars riffing in unison before quickly diverging as Murray plays a high harmony line. Now, Judas Priest, Thin Lizzy and Wishbone Ash had all employed this twin-lead technique before, but it's a Maiden trademark too, and well worth digging deeper into.

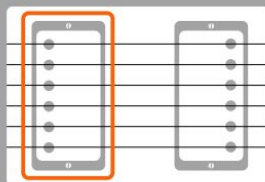
At the heart of the sound is 'diatonic 3rd harmony' – which, despite the jargon, is relatively simple to understand. The two guitars play essentially the same licks, but one stays a fixed number of notes higher than the other so they're always in harmony. We're in E minor (E F# G A B C D) here, so, when one guitar plays E, the other plays G; when one plays F#, the other plays A, and so on. Read on and we'll explain a bit more and you can check out the tab.

GET THE SOUND

Everything you need to know before playing 'The Trooper'

GET THE TONE

CHANNEL OVERDRIVE

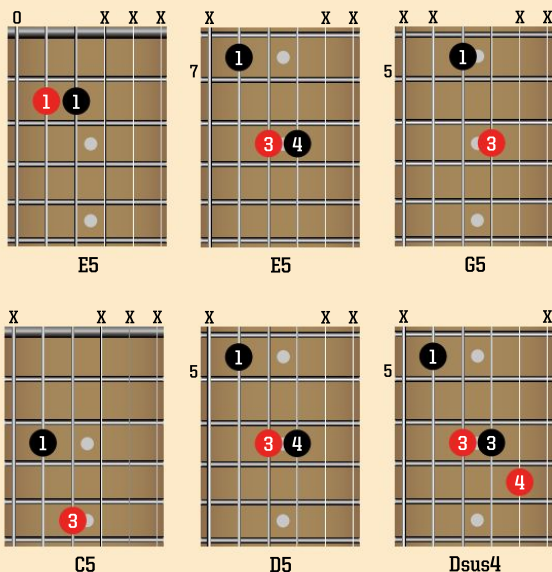


Maiden's dense, heavy guitar sound is all humbuckers. Select a bridge pickup and keep your amp settings fairly bright, with plenty of midrange and treble.

Dave Murray used a '57 Stratocaster fitted with humbuckers – a DiMarzio Super Distortion in the bridge position and a PAF at the neck. Adrian Smith played an Ibanez Destroyer II DT-300. Amp-wise the pair used Marshall JCM800s, boosted with an Ibanez Tubescreamer and an MXR Distortion+ respectively. The ideal tone is a crunchy distortion that has a percussive attack for the palm mutes and a smooth sustain for the lead parts. By today's standards Maiden's distortion setting is only moderate, so resist the urge to dial in too much.

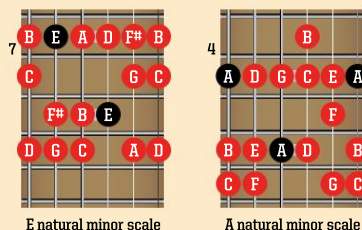
CHORDS

The chords in this song are, for the most part, root–5th powerchords made of just two notes (like G5 and C5 here). These are easy to move around quickly and the same shape can be used on the four bass strings. Use your first and third fingers to form this shape and add the extra fourth–finger octave note (as in E5 and D5) if you like. The only exception is a Dsus4 in the chorus, which has a different fingering.



SCALES

The majority of this track is in the key of E minor, and the riffs, melodies and opening guitar solo are based in the E natural minor scale (E F# G A B C D). In the second solo the song changes key to A minor and the A natural minor scale comes into play (A B C D E F G). The twin-lead licks are all in E minor, harmonised in diatonic 3rds. 'Diatonic' means the notes come from the same key/scale; and '3rds' tells you that the harmonies span three notes in the scale. So, in E minor, if one guitar plays E, then the other plays a G above it (the other note pairs are F# and A, G and B, A and C, B and D, and C and E). Play through the scale shapes shown here to get a feel for the phrasing in the track. Still confused by the harmonies? Take a look at bars 5 to 8 in the intro and play through the tab to see how those twin-guitar lines are built.



IRON MAIDEN

THE TROOPER

THE TROOPER
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IRON MAIDEN THE TROOPER Intro

♩ = 156
Guitars 1 & 2

Em D C Em D C Em

Guitar 1

D C Em D C

Guitar 2

Practise this section in half-bar phrases - you'll see that three out of every four lines are essentially the same, just moved to a different fret position. After four bars, the guitars harmonise in 3rds: Adrian Smith continues the opening line while Dave Murray plays higher.



FULL TRACK + BACKING (TRACKS 21-22)
This song comes with a full demo track and a backing track (minus guitar) on your CD. Simply insert the disc in your player, press play and jam along, guitarists style!

IRON MAIDEN / THE TROOPER

IRON MAIDEN THE TROOPER Lead harmony

Guitar 1 Em

0:12
1:12
2:59

Guitar 2

Play 6 times

D⁵ G⁵ D⁵ E⁵

This iconic harmony line is based in E minor, this time with Dave's higher part harmonising in diatonic 6ths with Adrian's lower line. The parts are almost identical rhythmically, except Dave uses a more trill-like technique on beats 2 and 4; although there are variations throughout the song, the first trill is usually six notes and the second is usually five.

IRON MAIDEN THE TROOPER Verse 1

D⁵ G⁵ D⁵ E⁵

D⁵ G⁵ D⁵ C⁵

D⁵ G⁵ D⁵ E⁵

0:35

IRON MAIDEN THE TROOPER Verse 1 (cont'd)

7

11

14

Keep the pauses between the chords silent by muting the strings with both hands. Coming back in time is your main challenge following each of these breaks. In the second half of the verse, the spaces are filled with a trademark Maiden galloped rhythm, played with two palm-muted downstrokes and an upstroke.

IRON MAIDEN THE TROOPER Chorus

1:00
1:59
3:46

5

The choruses start with a sustained D5 chord which is played on the last eighth note of the preceding verses. Dave keeps this chord sustaining, while Adrian plays an offbeat Dsus4 riff, which we've transcribed here. In the last two bars, both guitars play the low E5 palm-muted galloped rhythm.

[illegible]

13

OCTOBER 2021 **TOTAL GUITAR**

IRON MAIDEN THE TROOPER Solo 2 (Dave Murray)

2:35

A⁵ G⁵ E⁵ F⁵ G⁵

5 8 5 (8 5) 5 (8 5) BU 7 (9) 7 7 6 5 7 6 5 7 6 5 3 5 3

A⁵ G⁵ E⁵

5 (7 5) 5 (7 5) 5 (7 5) [5] 5 (7 5) 7 8 7 8 7 10 BU 7 10 (12) BU 10 (12) 10 (12) [12] BD (10) 8 10

F⁵ G⁵ A⁵ G⁵

[10] 15 12 12 12 15 12 15 12 12 BU 15 (17) 15 13 12 13 12 10 12 10 10 BU 13 (15) [15]

E⁵ F⁵ G⁵ A⁵

w/bar 12 (8) (12) BU 17 (19) 7 17 19 (21) [21] (19) 17 20 (22) [22] (20) 17 20 (22)

G⁵ E⁵ F⁵ G⁵

(8nd) [22] (20) 17 BU 20 (22) [22] (20) 17 BU 20 (22) 20 19 17 BU 20 (22) 19 (18) PB 19 BD (21) (19) 19 21 19 14

Here, the key switches to A minor. Dave often employs the trilling technique, similar to that in the harmonised melody section. To play these trills, aim to fret as lightly as possible to keep your fingers moving quickly. Keep your whammy bar in your palm, or within easy reach, ready for bars 11 and 15.

IRON MAIDEN THE TROOPER Outro

Guitars 1 & 2

Em D C Em

3:58

TAB

[7] 7 7 5 7 5 5 5 3 5 3 3 3 2 3 5 5 5 7

D C Em

TAB

[7] 7 7 5 7 5 5 5 3 5 3 3 3 2 3 5 5 5 7

Guitar 1

D C Em D C D⁵ G⁵ D⁵ E⁵

TAB

5 5 4 7 4 4 4 2 5 2 2 2 0 3 5 5 5 7 5 5 4 7 4 4 4 2 5 2 2 2 0 3 7 5 7 9 7

Guitar 2

TAB

7 7 7 5 7 5 5 5 3 3 3 3 2 5 5 5 7 [7] 7 7 5 7 5 5 5 3 3 3 3 2 7 5 7 9 7

The outro is much the same as the intro, except here the first note is a 'push', played an eighth note before the beat. Also note that the final four notes are played as powerchords instead of single notes here. When moving between D5 and G5 try rolling your fingers across the strings for smoother chord changes.

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JOSÉ GONZÁLEZ HEARTBEATS

Swedish synth-pop gets an introspective makeover. TG and Rockschool take it under 'the knife' with this Grade Six arrangement

Swedish electronic pop duo The Knife deftly revive the 80s synth-pop era in their critically acclaimed cut *Heartbeats*, which was notably covered by José González for his 2003 album *Veneer*. González' re-imagining of this beautiful track shows just how powerful a solo guitar and vocal can be. The song is in the key of D major, and the guitar part features a constant 16th-note figure based in an altered tuning (D A D F# B E).

To play the piece, first ensure your picking hand is stable, relaxed and in position to fingerpick any of the guitar's six strings. Use your thumb for any downbeats and eighth notes, and let your first and second fingers play any notes in between. It's a standard fingerstyle technique – and if you can synchronise your picking with the 16th-note rhythms, your timing should fall into place. It's all laid out in Rockschool's tab.



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HEARTBEATS

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JOSÉ GONZÁLEZ HEARTBEATS

TRACKS 23-24

♩ = 92
D⁵

let ring throughout

TAB

0 4 5 5 0 5 4 5 5 0 5 0 0 0 4 5 5 0 5 4 5 5 0 5 0 0

3

B⁵ B⁵/A Gmaj⁷

TAB

2 2 4 2 2 4 0 2 2 0 0 4 5 5 0 5 0 4 5 5 0 5 0 0

3



FULL TRACK + BACKING (TRACKS 23-24)
This song comes with a full demo track and a backing track (minus guitar) on your CD. Simply insert the disc in your player, press play and jam along, guitarists style!

JOSÉ GONZÁLEZ / HEARTBEATS

JOSÉ GONZÁLEZ HEARTBEATS

TRACKS 23-24

D⁵

TAB: 0 4 5 5 0 5 4 5 5 5 0 0 | 0 4 5 5 0 5 4 5 5 5 0 0

5

B⁵ B⁵/A Gmaj⁷

TAB: 2 2 4 2 2 0 2 2 0 0 4 | 5 5 0 5 5 0 4 5 5 0 5 0 0

7

D⁵

TAB: 0 4 5 5 0 5 4 5 5 0 5 0 0 | 0 4 5 5 0 5 4 5 5 0 5 0 0

9

B⁵ B⁵/A Gmaj⁷

TAB: 2 2 4 2 2 0 2 2 0 0 4 | 5 5 0 5 5 0 4 5 5 0 5 0 0

11

D D⁵

TAB: 4 5 5 0 5 0 0 | 0 4 5 5 0 5 4 5 5 0 5 3 0 0

13

15

B⁵ B⁵/A

17

Gmaj⁷ 1. D⁵

19

2. D⁵

21

B⁵ B⁵/A Gmaj⁷

23

A⁵

Gmaj⁷

25

A⁵

27

Gmaj⁷

29

B⁵

31

D⁵

33

B⁵ **B⁵/A** **Gmaj⁷** **D⁵**

35

In the main you'll be picking with a thumb-finger-thumb-finger approach, but note that the fourth note in bar 1 is played with a fret-hand hammer-on, so your picking hand needs to re-position. Once you're comfortable with the picking and chord positions, gradually aim to make your technique 'automatic' so the notes flow effortlessly.

OPEN-MIC SONGBOOK

FOO FIGHTERS

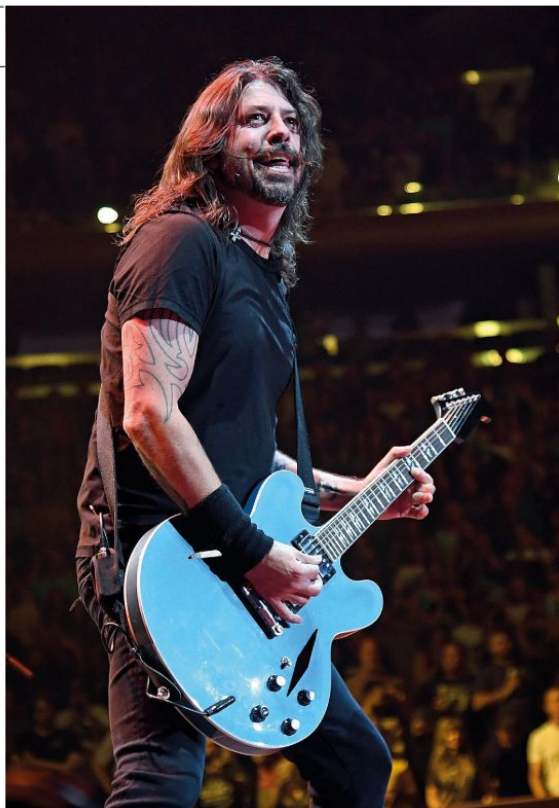
EVERLONG

Grohl and co take a much-loved Foo's rocker and give it the acoustic treatment

Everlong was first released on Foo Fighters' second album *The Colour And The Shape*. However the version we'll be looking at this month is the stripped down acoustic recording from the band's *Greatest Hits* album released in 2009. The song was written by multi-instrumentalist Dave Grohl, who sings and also plays the acoustic six-string.

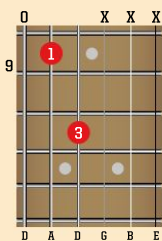
Listen to the original track and you'll notice that it's Grohl's use of dynamics that make the song come

alive. There are two techniques to help you achieve this, the use of downpicking in the main riff and verse, contrasted with conventional down/up, eighth-note strumming in the pre-chorus and chorus sections. Downpicking keeps the main riff tight and focused, while alternate picking gives a more fluid feel during the pre-chorus and choruses. The last repeat of each pre-chorus should be played softly to allow a crescendo into the chorus sections.



CHORDS

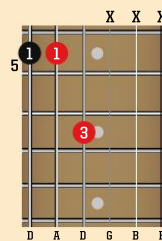
Drop-D tuning makes it easy to play the sus2 shapes (a huge five-fret stretch in standard tuning), while those big, resonant four-string powerchord shapes in the chorus also sit nicely under the fingers. When fretting all of these shapes, aim to keep your first finger gently resting on the idle higher strings to keep them muted out. Finally, take note of the octave shape which is moved around the fretboard to outline a melody in the pre-chorus.



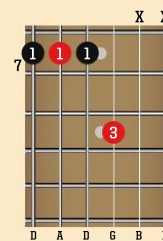
Dmaj7



Bsus2



Gsus2



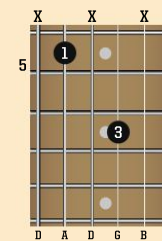
A5



B5



G5



D (octave shape)

EVERLONG

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THE GAS STATION

REAL WORLD REVIEWS OF THE
BEST NEW GEAR

Welcome to the GAS (Gear Acquisition Syndrome*) Station! Every issue, TG scours the market for the hottest new gear and brings you transparent reviews that you can trust. From the smallest of accessories that make your life easier, to big investments, such as brand new guitars, amps and effects pedals – if it's worth your attention, you'll find it here!

HOW WE TEST

CURATION

Our product selection is driven by our love of gear. We select the most exciting products on the market every month to bring you opinions you can trust.

FACE-VALUE REVIEWS

We're not gear snobs here at *Total Guitar*. We judge it on whether it looks good, sounds good and plays well – not by the name on the headstock.

*WHAT IS GAS?

Gear Acquisition Syndrome is the guitar-player's never-ending urge to acquire new gear, irrespective of whether they actually need it. Don't pretend you don't have it – we all do!

NO SNAKE OIL

You won't find us getting hung up on hokey mythology or nonsense marketing speak: we aim to bring you bullsh*t-free opinions on the gear you're interested in.

WE CAN'T BE BOUGHT

TG review scores are a true reflection of our experts' opinion on the product they've been testing. You'll never find a rating in our mag that has been bought and paid for.

REAL WORLD REVIEWS

We test every product under the conditions that were designed for. For example, if an amp is designed to be played loud, rest assured that we'll have tested it at rehearsal/gig volumes!

BEST BUY AWARD

TG Best Buy Awards are reserved for stand-out products that earn a five-star rating. This is the best, most exciting new gear that you need to check out



BEST FOR...

Different guitarists have different needs. This badge highlights a particular strength that a product has in a TG Test or Group Test, so you can choose what's best for you



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EXCELLENT



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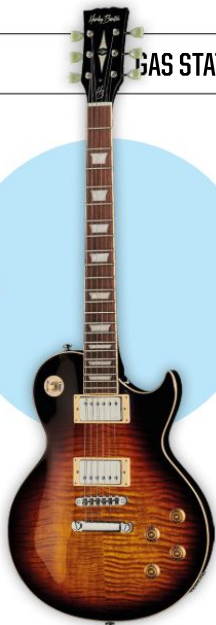
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START ME UP!

Five awesome new products to get your gear engine revving this month...

CORT X500 MENACE

1 It's nice to blur the lines but sometimes a guitar needs to be clear about its intentions; and for the X500 Menace they are very much concerned with metal of a heavy nature. Seymour Duncan Sentient and Nazgul humbuckers, Floyd Rose 1000 and a none-more-black finish. The mahogany body is maple-topped and the neck-through build features a seven-piece maple/purple heart/panga panga sandwich neck with a 12"-16" compound radius ebony fingerboard and 24 frets.

£899

www.cortguitars.com

FRACTAL AUDIO FM9

2 The floor-based modelling arena is becoming lively – especially since Neural entered stage left. Now Fractal is following-up its FM3 with the larger FM9, packing four DSP cores for the company's latest Cygnus modelling technology. Said to be more detailed than Spectrum Rack, especially is the cascaded gain stages of its amp models. "The result," says Fractal, "is truer and more dynamic voicing," remarkable touch sensitivity, and exceptionally satisfying 'chugs'. Amen to that!

£1,599

www.fractalaudio.com

HARLEY BENTON SC-550 II

3 The SC-550 has been hugely popular for Harley Benton and this sequel aims to build on its reputation as a single-cut bargain; stainless steel frets, AAAA and a pair of Tesla Opus-1 pickups are the headline changes here. Like the original 550 TG reviewed last year with a five-star score, there's a weight-relieved mahogany, mahogany neck and finish options including Faded Tobacco Flame, Desert Flame Burst, Black Cherry Flame, Silver Burst and Paradise Amber Flame.

From £229

www.harleybenton.com

REUSS EFFECTS PLASMATRON

4 The words 'Mogwai signature pedal' are enough for us, the great name here is just a bonus. Copenhagen-based Reuss has joined with the Glasgow band's Stuart Braithwaite for this dual circuit fuzz (inspired by the op-amp-driven Big Muff) and distortion (a clone of a 1990s Danelectro Fab Tone) with a mix control to create your own cocktail of drive. The pedal runs the two effects in parallel – hence the single footswitch.

£199.95

www.reusseffects.com

OLD BLOOD NOISE ENDEAVOURS SUNLIGHT DYNAMIC FREEZE REVERB

5 Plate, hall, room... There will always be a place on the pedalboard for these go-to reverbs, but our tonehound snouts are always sniffing the breeze for ambient thrills. And this "envelope triggered multi-mode reverb" promises huge soundscapes with Tape, Pass and Comb modes that all make the Rate and Depth parameters respond differently. For example, in Comb mode, Rate sets the time of the four delays and Depth sets the feedback of the delay section.

£189

www.ldbloodnoise.com





Brian and the Red Special, Jimi and his Strat... some pairings are just meant to be, and while Slash has strayed and played other guitars at various points, he's never very far from his Les Paul. In fact, not many things sum-up rock 'n' roll like the image of the man himself sporting a top hat, Malborough and a low-slung LP.

In 2020, Gibson appointed Slash as its first ever 'Brand Ambassador', a job title which presumably involves some of his already-daily activities: being Slash, playing Gibsons and inspiring generations to play the guitar. As well as this, there's the obvious scope for helping to create some great guitars across the company's product lines. Which brings us to our review of the first Epiphone release since Slash came on-board in his new capacity: the Epiphone Slash Collection.

Words Stuart Williams Photography Phil Barker

EPIPHONE SLASH COLLECTION

Gibson unveils the first affordable fruits of its partnership with our favourite top-hatted guitar legend, in the shape of five Les Pauls and a pair of electro-acoustics. We get our hands on the Epiphone Slash Collection...



APPETITE FOR CONSTRUCTION

Essentially comprising two base models – the Slash Les Paul Standard and Slash J-45 electro-acoustic – the collection is actually a seven-strong line-up. Five finish options are offered on the Les Pauls, and two on the J-45 with the finishes being the only spec changes between models of the same type.

Now, as you might already be aware, this isn't the first time Slash has had a signature Les Paul with Epiphone. In 2010, Epiphone released the Slash AFD Les Paul which featured the same Slash Custom neck profile (patterned from Slash's original). There are a few spec differences here though – the previous AFD guitar included Slash's signature Seymour Duncans and a rosewood fingerboard, while today's model features Gibson Custom Burstbuckers – the same pickups used in his signature USA Gibsons – and Indian laurel 'board. Elsewhere, you get a mahogany body capped with a AAA flame maple top, mahogany neck carved to Slash's custom profile, Graph Tech nut, block pearlloid inlays, top hat (what else!) control knobs, CTS pots and Orange Drop capacitors.

Meanwhile, the J-45 is the first acoustic that Slash has put his name to, and on paper it's an all-rounder. Kicking off with that iconic J-45 body shape, it's designed to give you plenty of punch when strumming chords, while also working for fingerpicking and single-note playing. Slash's take on the J-45 is an all-solid construction, with a sitka spruce top and mahogany back and sides aiming straight down the middle when it comes to the sort of tones we can expect.

But, stepping away from tradition is that same Slash Custom C-shaped neck profile which should mean that – combined with the 24.75" scale length – jumping between an electric and this strummer should feel like strapping on a comfortable pair of old boots. There's electronics on-board, too, with the inclusion of an LR Baggs VTC under-saddle pickup and preamp system. Being Slash signature models, both the Les Paul and J-45 have Slash's 'Skully' logo and signatures printed on the back of the headstock.

WELCOME TO THE JANGLE

If you're the type of player who has reservations about 'affordable' guitars, we'd suggest leaving the snobbery at the door. For a start, neither of these guitars are exactly cheap, and it's backed up by the presentation. The hardcases are of the gig-ready, pink fluff-lined, and shaped variety that definitely mean you won't need to upgrade in a hurry. Both guitars are striking as we open the cases, with the Les Paul's orange tint and 'flat' burst aping the look of a faded '59. There's nothing

worse than a beautifully flamed finish with slight colour blemishes under the lacquer, and we're pleased to say that it's uniform across the front, while the back is finished in a sweet cherry red. The J-45 matches it in a different way – its furniture-like gloss and rich tobacco burst is immaculate and feels expensive straight away. If you couldn't see the headstocks, you'd be forgiven for thinking you were looking at a USA Gibson.

The Les Paul is exactly what you might expect: the medium weight body feels meaty, but sits comfortably on our lap and strap. The neck profile, however, definitely gives this guitar some of its personality. While the 12-inch fingerboard radius is standard, the curve feels flatter and slightly wider than some more recent C-shapes to our hands. Tonally, we're looking to be fulfilled, and if the exclusion of Slash's signature pickups has you worried then don't let it. The neck pickup rings like a bell with the tone rolled back for *that* famous intro, outputting all the nuanced interaction and harmonics between the strings as we go. Pushing the tone back up to full with some overdrive gives us a near perfect bluesy-rock lead sound. Perhaps surprisingly, the neck pickup only starts wooling up a bit under some pretty high gain settings, remaining tight and clear until then – sort of like a bridge pickup with more bass response. Kicking in that bridge humbucker is equally rewarding, particularly when overdriven.

The quality continues once you pick up the acoustic too, with the J-45 packing a solid low-end punch that's well out of the way of muddy frequencies, but also has a high-end sparkle to it. Our first impressions strumming chords is that it has a very studio-like, pre-EQ'd quality to it. There's projection, too, with bigger strums punching their way through with a strong percussive edge. It's impressive considering the average size of the body. It's no coincidence the J-45 has been a perfect all-rounder for so many decades.

Electric players sometimes find swapping to acoustic to be slightly jarring, but we're pleased to say that this is a comfortable ride. The neck profile isn't noticable, until you remind yourself, which is probably about all we can ask for here and our review model came with a very forgiving low action.

Plugged in, that tone transfers nicely. The controls are mounted inside the soundhole which helps to keep everything looking neat, but can also be Marmite to those wanting to make changes mid-song without ham-fistedly muting the strings while doing so. But that's a small gripe, especially as this mounting position is becoming a standard from many brands.





USE YOUR CONCLUSION

Signature guitars potentially present a slightly different proposition to non-squiggle models. But it's a double-edged sword. Go too specific and you risk having a one-trick pony with niche appeal. Too broad and you lose the essence of the artist.

The great news with a player like Slash is that his tones and tastes strike right at the heart of rock and its surrounding genres. The result in this case is some hugely playable guitars that you really aren't going to go wrong with within the wide sweeping margins of rock 'n' roll.

Gibson may have had some turbulent times in recent years, but for Epiphone, the first fruits of Slash's partnership with the brand are a great balance of design, build, value and quality control. As we said before, forget your preconceptions and enjoy some fine guitars!

SLASH J-45

£799



AT A GLANCE

BODY: Mahogany back and sides/Sitka spruce top (all solid)
NECK: Mahogany
SCALE: 24.75"
FINGERBOARD: Indian laurel
FRETS: 20
ELECTRONICS: LR Baggs VTC pickup/preamp
HARDWARE: Chrome
LEFT-HANDED: No
FINISH: November Burst (pictured), Vermillion Burst
CONTACT: Gibson, www.epiphone.com

SUMMARY	FEATURES				
	SOUND QUALITY				
	VALUE FOR MONEY				
	BUILD QUALITY				
	PLAYABILITY				
OVERALL RATING					

SLASH LES PAUL STANDARD

£799



AT A GLANCE

BODY: Mahogany with AAA flame maple top
NECK: Mahogany
SCALE: 24.75"
FINGERBOARD: Indian laurel
FRETS: 22
PICKUPS: Gibson Custom Burstbuckers
CONTROLS: 2x volume, 2x tone, three-way toggle
HARDWARE: Chrome
LEFT-HANDED: No
FINISH: Appetite Burst (pictured), November Burst, Vermillion Burst, Anaconda Burst, Victoria (goldtop)
CONTACT: Gibson, www.epiphone.com

SUMMARY	FEATURES				
	SOUND QUALITY				
	VALUE FOR MONEY				
	BUILD QUALITY				
	PLAYABILITY				
OVERALL RATING					

A companion guide to the
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FABER *ff* MUSIC







SUPRO DELTA KING 12

£569

Long live the King?

The discontinuation of the Blues King last year left heads being scratched in confusion. One of the strongest contenders in the Fender Blues Junior's affordable small valve combo market in years was being phased out. Fear not! Supro had a plan all along, and the Delta King line represents either the successor or a relaunch depending on your perspective. So what's changed, and does this combo still stack

hat and braces for the full look! But we're personally not fans of the vintage-style backwards-facing top controls here; they make little practical sense for most players who will be standing in front of the speaker to change settings, and are here greeted with them being upside down.

That said, the rest of the story here is good news. The Delta King 12 is loud enough for pub gigs with the boost engaged and really throws a physical punch

to sweet blues drive without touching a pedal. Our Junior-style guitar shines in this context.

The amp doesn't include a footswitch (the optional SF4 will enhance the DK 12's potential), but when we tried stacking with a Tube Screamer and Keeley D&M Drive, the DK 12 delivered plenty of defined metallic chunk and huge sustaining leads. However, there's really enough here to go beyond the blues it excels at without external drive pedals. The onboard analogue spring reverb is pleasingly organic and if you want to add your own, the line out and power amp in are effectively your effects loop here.

Tremolo would make this a knockout successor, but would likely force the price higher. As it is, this is a superb combo for smaller gigs, recording and home, though it's not an evolution if you already own the Blues King 12.

Rob Laing

SUMMARY	FEATURES	★★★★★
	SOUND QUALITY	★★★★★
	VALUE FOR MONEY	★★★★★
	BUILD QUALITY	★★★★★
	USABILITY	★★★★★
	OVERALL RATING	★★★★★

1 GAIN AND BOOST

Like the Blues King 12, a FET-driven boost and Pigtronix FAT high-gain mode feature here.

2 SPEAKER

Supro uses a 12-inch custom DK12 speaker.

3 EQ

While the smaller DK 8 and DK 10 offer a two-band EQ with treble and bass, the DK 12 offers three-band EQ with mid.

AT A GLANCE

TYPE: All-valve combo
15-watt combo amp

OUTPUT: 15-watt

VALVES: 12AX7 preamp, Class A 6L6 power amp

CONTROLS: Master volume, Volume, Standby, Power, Boost, Drive, Treble, Mid, Bass,

SOCKETS: Boost/Drive footswitch-in, Line out, Power Amp input

WEIGHT: 13kg

DIMENSIONS: [HxWxD] 410 x 430 x 190mm

FINISH: Tweed with black stripes (as reviewed), Black with cream stripes

ALSO AVAILABLE: SF4 footswitch (£59)

CONTACT:
www.supro.com

“SUPERB FOR SMALLER GIGS AND RECORDING AT HOME”

up as one of the best in its class?

One difference is obvious – the four racing stripes are a knowing throwback to the brand's heritage, but it's a bold look that may divide opinion for those who prefer a lower-key appearance and feel it's too reminiscent of a certain sports brand. We think it's good to see some flair in the often conservative world of combo cab design, and the dark blonde with metallic highlights ups the ante further. You just need a pork pie

that belies its small and portable dimensions. Unboosted, it's a smoother and sweeter clean tone. We tested with a Tele, SG and a LP Junior-style electric with vintage P-90 and 50s wiring. With the gain engaged, the FET-driven overdrive is more flexible than the vintage look may suggest; especially with P-90s and our brighter SG 'buckers. If you're willing to adjust your drive from the guitar's volume (and you should) it can go from harder rock



CHARVEL DK24 HH HT E £779

An uncompromising, no-nonsense shred machine

Strat-style guitars, particularly of the Super variety, are known for floating tremolos. Think of Charvel and you might picture a neon axe wielded by a whammy-happy guitar hero. But hardtail Strats have a dedicated following, who happily forgo divebombs in return for more sustain. This DK24 HT showcases the advantages of a fixed bridge.

Where Charvel's San Dimas and So Cal models recall the earliest hot-rodded Strats, the Pro-Mod DK24 is a more evolved design. It reflects the demands of cutting edge players who need a guitar that never gets in the way. On top of Charvel's always-speedy neck profile, the DK24 gets an all-access neck joint and recessed lower cutaway for unimpeded access to all 24 frets. The smaller body also offers a slightly lighter and more user-friendly experience.

humbuckers at once, but it's relatively straightforward to rewire the switch if your favourite coil selection isn't one of the standard five. The taper on the low-friction EVH volume pot is superbly judged, and both pickups clean up extremely well when backed off. Despite its metal and shred credentials, this Charvel could do a wedding gig with no trouble.

The hand-rubbed urethane finish on Charvel necks is always a joy, and the DK24 doesn't disappoint. It's about as smooth a playing experience as a guitarist can have. The recessed neck joint is really well judged, and all six strings are useable right up to the 24th fret. If there's a lick you can't play on this, it won't be because of the guitar.

When you hit the strings hard on a floating tremolo, there's a brief flutter as the trem moves. The fixed bridge eliminates that, giving a crisper attack and more

1 LOCKING MACHINEHEADS

Combined with the fixed bridge, Charvel's sealed locking tuners provide immovable tuning stability and lightning string changes.

2 PICKUP SELECTOR

5-way switch offers both humbucker and split coil tones on the fly, with no need for mini toggles or push-pulls.

3 OUTPUT JACK

The Guthrie Govan-style hidden jack socket is easy to use and makes it difficult to pull out your cable by accident.

AT A GLANCE

Body: Alder
Neck: Graphite-reinforced maple
Scale: 25.5"
Fingerboard: Ebony
Frets: 24
Pickups: Seymour Duncan Full Shred (bridge) and Alnico Pro II (neck)
Controls: EVH low-friction volume, no-load tone, 5-way pickup selector
Hardware: Charvel hardtail bridge and locking machineheads
Left-handed: No
Finish: Satin black
Contact: Charvel, www.charvel.com



“SLEEK AND BUILT TO ROCK, WITH NO DISTRACTIONS”

Charvel have again chosen a pair of Seymour Duncan pickups, and we're happy it's a change from the JB/59 combo. While those pickups undoubtedly sound classic in Charvels, the Full Shred/Alnico Pro II pairing here are a great update. The Full Shred has a tighter low end and more scooped midrange than the JB, ideal for the metal riffing you expect from a stealth black superstrat. For leads it offers a sharper, more attacking tone. The Alnico Pro II, meanwhile, sounds slightly fuller than the 59. There are no push-pull pots, but the 5-way switch offers split coil tones in positions 2-4. We'd have liked the option for both

in-tune sounding chords. It might be the perfect instrument for recording rock and metal rhythm guitars.

Playing the DK24 is a lot like looking at it: it's sleek, built to rock, and has no unnecessary distractions. It's stylish without restricting you to one genre, making it the ideal canvas for showcasing your own personality.

Jonny Scaramanga

SUMMARY	FEATURES	★★★★★
	SOUND QUALITY	★★★★★
	VALUE FOR MONEY	★★★★★
	BUILD QUALITY	★★★★★
	USABILITY	★★★★★
	OVERALL RATING	★★★★★





PIGTRONIX SPACE RIP £159

Find your electronic pulse

Fact: your guitar doesn't have to sound like a traditional clean or overdriven rock machine, and the gear industry is seemingly on a mission to remind us of this. The latest synth pedal to find its way through our door is the Space Rip from Pigtronix, which offers sawtooth and square wave synth sounds with a twist, thanks to its use of Pulse Width Modulation – an analogue synthesis technique that, as its name suggests, modulates the pulse of the wave shape you're generating. But what does that sound like? Well, the word modulation is the clue here – you get an evolving synth sound as the waves fade and blend into one another, producing a slight chorus-like effect.

The Space Rip is controlled by rate, tune, mix and sub controls.

The rate knob controls the speed of the modulation, with slowest speeds giving the most constant sound, while increasing it creates a more modulated, choppy effect. Tune changes the pitch of the Space Rip's oscillators, at 12 o'clock it's flat, and turning it anti-clockwise decreases the pitch, turning it clockwise increases it. Mix is a blend between your dry signal and the synth sounds, while sub brings in a voice an octave below your guitar's signal. And additional shape control lets you switch the oscillator between sawtooth and square waves, while the octave button shifts the synth side of the pedal down by another octave.

The Space Rip is monophonic, so you'll need to play single-note lines into it in order for it to track your notes – which when played neatly and with a consistent

picking level it does quickly and accurately – but what you have here are the ingredients for a heady sonic cocktail.

Experimentation is key, with thick synth bass, ripping gated fuzz-style riffs, and whining high-pitched leads all on offer. Due to its nature, we found the Space Rip to be a magnet for Mini-Moog funky lines, but there's a lot of room for processing the sound after the fact with delays and a way for filtered synth sounds.

It's a niche pedal, and at £159 is a sturdy investment unless it'll be making a regular appearance in your set, but if you're the type of player who wants less-traditional types of sounds then there's a lot of fun to be had here.

Stuart Williams

AT A GLANCE

TYPE: Analogue pulse width modulation synth pedal

FEATURES: Sawtooth/square wave voices, octave/sub octave

CONTROLS: Rate, mix, tune, sub, shape, octave

CONNECTIONS: Input, output, power

POWER: 9v PSU only (not included)

CONTACT: Pigtronix, www.pigtronix.com

A LOT OF FUN TO BE HAD WITH LESS-TRADITIONAL SOUNDS

SUMMARY	FEATURES	★★★★
	SOUND QUALITY	★★★★
	VALUE FOR MONEY	★★★★
	BUILD QUALITY	★★★★
	USABILITY	★★★★
	OVERALL RATING	★★★★



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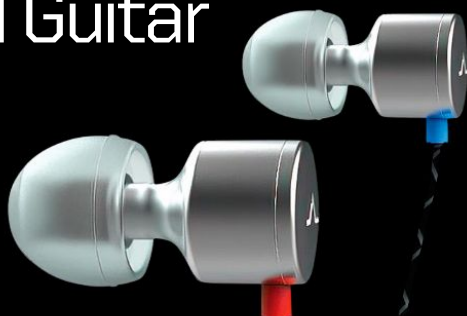


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Words Jonny Scaramanga

IDA MAE

Formed from the breakup of garage-bluesers Kill It Kid, Ida Mae are a duo that combine English folk, Americana, and blues roots. “I was listening to The Black Keys and The White Stripes, and I wanted to follow it back to the source. That’s how I discovered names like Blind Willie McTell, and Rev Gary Davis and Fred McDowell. It was like this epic archaeological dig!” singer/guitarist Chris Turpin says of his guitar journey. “Kill It Kid kind of came to a natural ending point and I wanted to start an acoustic project, so that’s what me and Stephanie [Jean, vocals] did. We didn’t have to hide behind a big, loud rock band anymore. It was just going to be my Martin D-18 and our voices.”

The industry responded instantly, and Ida Mae relocated from Norwich to Nashville for two years of relentless touring alongside Allison Krauss, Greta Van Fleet and Marcus King. Their second album, *Click Click Domino*, was written on those tours. “We wanted to nod our hats to the US and everything that we travelled through, so we picked up a lot of early-1900s American-made instruments.”

There’s electric action, too, including a guitar battle with Marcus King (“Mainly a lot of me trying to keep up with Marcus!” laughs Chris). Marcus borrowed Chris’s Gretsch Duo Jet and Tweed Champ for the occasion. Greta Van Fleet’s Jake Kiszka makes an appearance on *Long Gone & Heartworn*.

The Martin D-18 that started the band is now joined by “a small army” of other instruments, including a banjo-ukulele that opens the album, and Turpin’s favourite purchase: “I used to go and watch Martin Simpson and Bert Jansch at the Norwich Arts Center, and guys started to turn up with resonators. I became a bit besotted with them. When we got our first deal, I bought a National Style O resonator. It kind of became the third member of the band. The mid-range is different, so it can almost sound like three voices if you’re playing higher guitar parts with two singers.”

Covid permitting, Ida Mae will close out 2021 touring with country music legend Willie Nelson, but burgeoning success hasn’t stopped Chris hunting for obscure guitars. “The main one I use live is a 1920s parlour guitar called a Waialae,” he says. “It doesn’t even have a truss rod, but for some reason it’s a complete road dog!”



Ashdown Guitar Magnifiers

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FOR MORE INFO:

WWW.ASHDOWNMUSIC.COM





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Rabea

launch your tone into the ambient-sphere

Photo: Max Taylor-Grant

Bare Knuckle

bareknucklepickups.co.uk