

Guitarist

Issue 485

JUNE 2022

INTERVIEWS

BILL FRISSELL
DEF LEPPARD
KRIS BARRAS
CHRIS BUCK
& MORE

60TH Marshall

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MARSHALL
PLEXI



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Les Paul Goldtop

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PLUS

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GIBSON'S 'LOST' ELECTRIC
LINE 6 DL4 MKII

FUTURE



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Stealing The Scene



Reading through this month's cover feature on the 60th anniversary of Marshall amps, I was struck by something that sometimes gets overlooked when we think about how guitar gear evolves. Jim Marshall's shop on Uxbridge Road – and his later premises a few doors down – may have been modest at the start, but think about who came through its doors to talk about amps: Pete Townshend, Ritchie Blackmore, Jimi Hendrix... the list goes on. Jim Marshall gave them the tools to create some of the greatest music ever committed to vinyl. But Jim's amps wouldn't have sounded so good without the input of those players, either, especially Pete Townshend.

The little scene that sprung up around Jim's early stores was a hothouse of musical progress. And that buzz, that feeling of throwing open the doors to a new era of music, arose because of people dropping by, chatting, sharing ideas, building excitement. Looking back across the intervening six decades, it's hard not to think we've lost many of those local 'scenes' that gave birth to incredible music – along with the instrument makers and repairers serving them. From the blues clubs of 60s London to the reggae bands of Birmingham in the 80s, the excitement of local scenes has given us so much. And yet the decline of grassroots music venues across the country and the decline of the pub itself as a place for music fans to meet has had a deadening effect on those precious breeding grounds for new sounds.

Do you have a favourite local venue that's keeping the flame alive? Or some pioneering ideas on how we could serve our local scenes better? Send them in and we may start a campaign. Enjoy the issue and here's to another 60 years of majestic Marshall tone.

Jamie Dickson **Editor-in-chief**

Editor's Highlights



The 'Lost' Gibson

It isn't every day that an unseen Ted McCarty electric guitar design comes to light. We check out the Theodore model on **p110**



Bill Frisell

One of the most eclectic (and enigmatic) players in the world, Bill Frisell has some deep thoughts to offer about guitar **p48**



Def Leppard

We join Phil Collen and Vivian Campbell of Sheffield's finest to talk about the sounds behind their sweeping, anthemic new album **p74**

Guitarist

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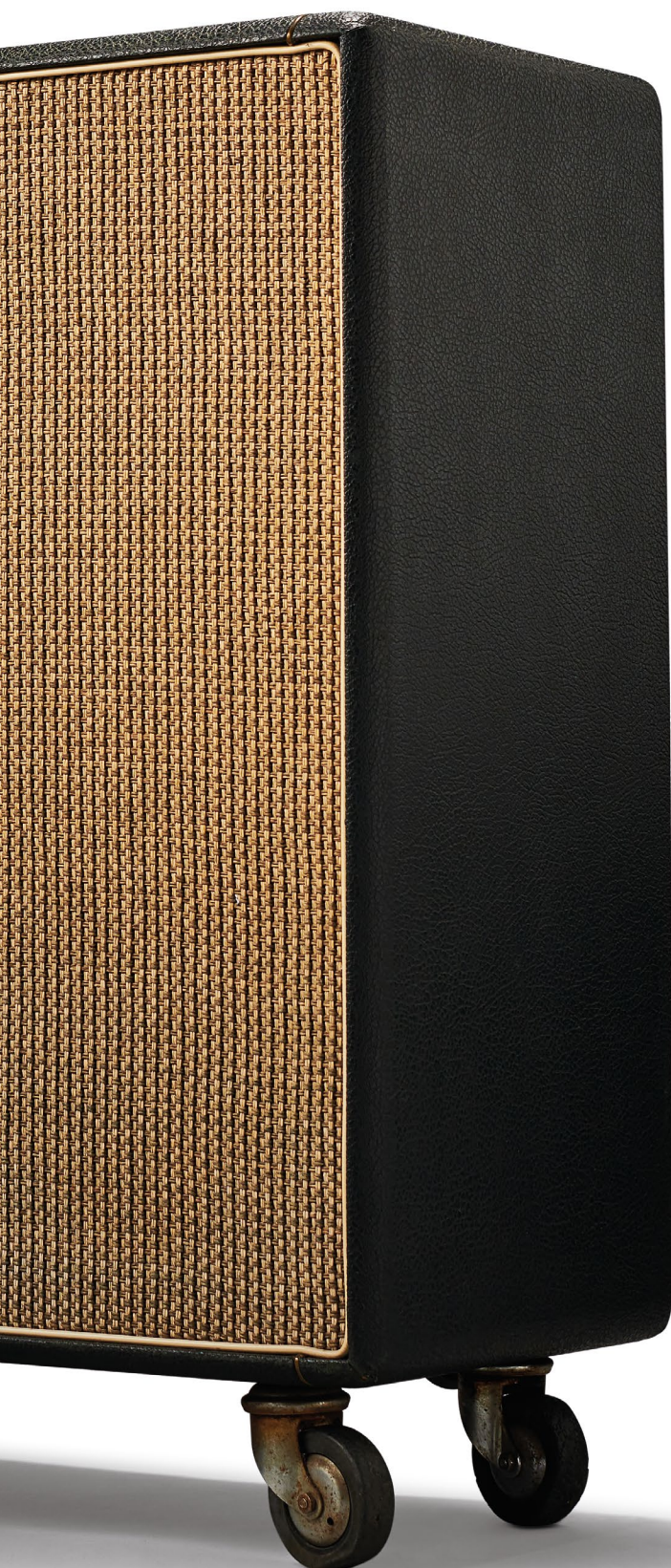
COVER PHOTOGRAPHY BY
Olly Curtis

COVER FEATURE

60 YEARS OF MARSHALL

54 As Jim Marshall's company celebrates its diamond anniversary, we trace the amp brand's historic journey from its humble origins in Uxbridge Road to becoming the defining sound of rock





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TRACK #1

THERAPY?
Callow
(*CLEAVE*)



TRACK #2

D_DRIVE
Attraction 4D
(*Maximum Impact*)



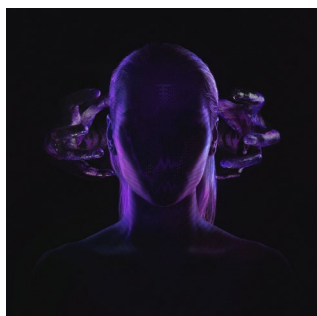
TRACK #3

BAD TOUCH
Kiss The Sky
(*Kiss The Sky*)



TRACK #4

REWS
Today We're Warriors
(*Warriors*)



TRACK #5

THOUSAND THOUGHTS
Control
(*Control*)



TRACK #6

PRESS TO MECO
Gold
(*Transmute*)



TRACK #7

KING CREATURE
Wisdom Told
(*Set The World On Fire*)



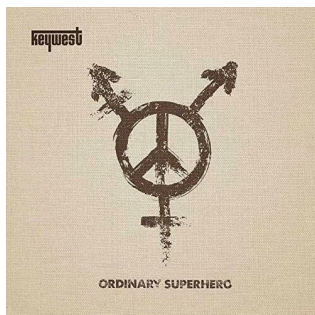
TRACK #8

REIGNING DAYS
Empire
(*Eclipse*)



TRACK #9

GRAND SLAM
Gone Are The Days
(*Hit The Ground*)



TRACK #10

KEYWEST
What Are You Waiting For
(*Ordinary Superhero*)

HEAD OVER TO

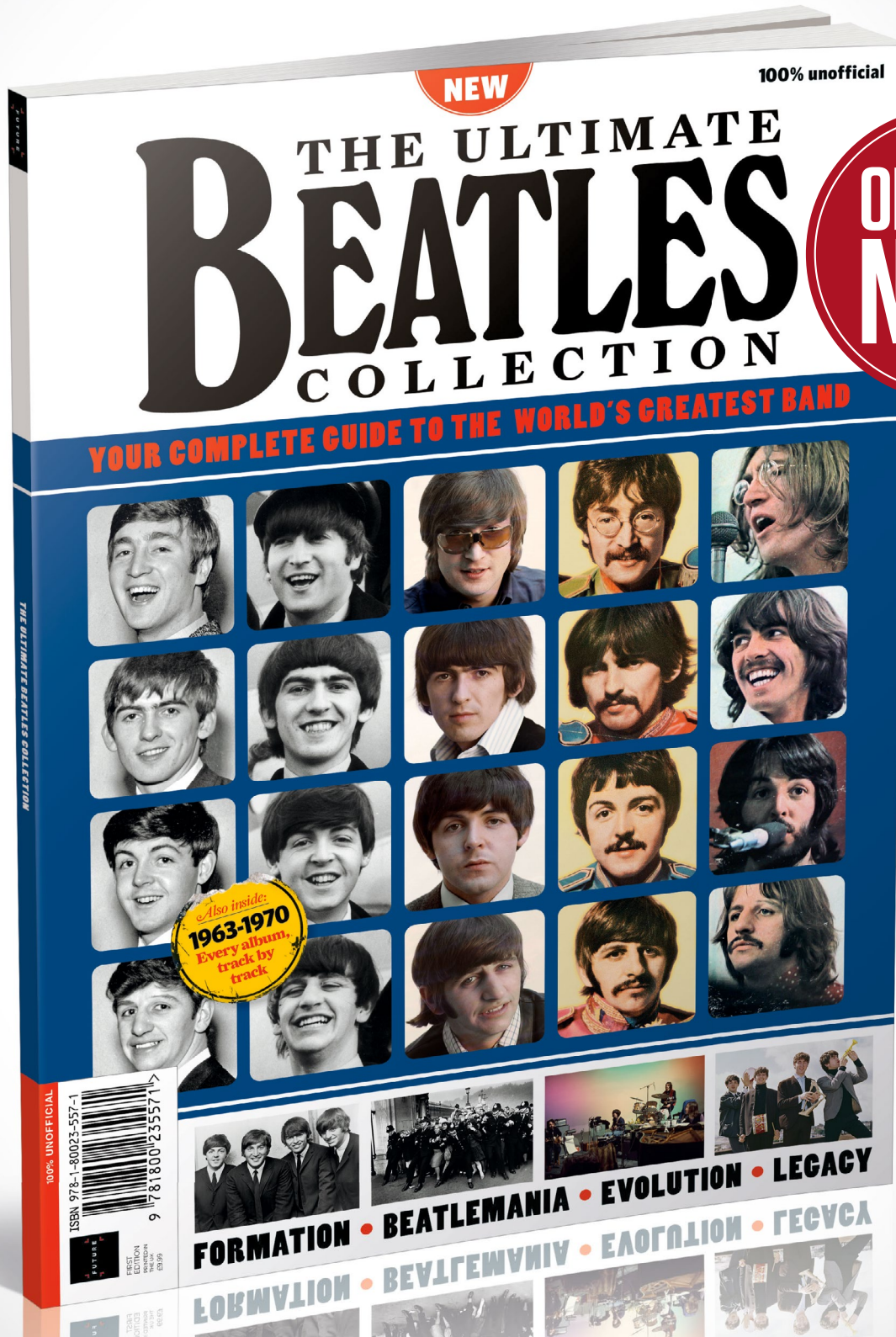
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FIRST PLAY



JET GUITARS JS-800
€469

WHAT IS IT? Chinese-made
bashed-up S-style with roasted
maple neck, basswood body
and hot-rod bridge humbucker.
A lightweight rocker!

Ready For Take-Off

There's no let-up to the tsunami of Fender-inspired clones out there. Here's another from Jet Guitars – but this one has an unusual hot-rod and reliced style

Words Dave Burrluck **Photography** Olly Curtis

During our last issue's Essential Electrics cover feature on workhorses, we asked the question: How low can you go to find a fit-for-purpose guitar? The answer is pretty low indeed if the popularity of Jet Guitars is anything to go by. Who, you ask? "Jet Guitars launched in 2020," explains Peter Shepperson from its distributor, Hal Leonard Europe. "The guitars are made in China, under Jet team supervision. QC is also performed by the Jet team. The brand was founded by Primoz Virant – all the design and specs are made by him. He has had a deep interest in electric guitars for 25 years."

The Jet range centres on S- and T-styles, starting with the JS-300 series at an in-store price of around £159. Fancying something a little different to feature, we selected one of three relics in the range, the JS-800 with a lofty price of £409 (from GAK) that reminded us of Charvel's Henrik Danhage signature, albeit with a hardtail bridge rather than a Floyd Rose and a headstock shape that's inspired by John Suhr.

The basswood body certainly fits the style and looks like it's been over-sprayed with a matt black aerosol can and scraped up a bit. Chuckle away, but one advantage is that







1. There's no shim in the neck pocket and the machining is very crisp, while this rounded heel subtly aids top-fret comfort. Incidentally, the basswood body isn't routed for a middle pickup, just the HS format we have here

2. Clearly inspired by Suhr Guitars' own take on the Fender headstock, this outline gives the JS-800 a more contemporary vibe. The vintage tuners are okay and the bone nut is nicely cut

3. There's no messing with a fast drive like this. The large Alpha 'Made in Korea' volume pot measures 496kohms and there's no treble bleed circuit. The three-way toggle is of a good quality, too – not always the case at this price

4. Under that battered-looking cover is a well-made vintage-style single coil with a DCR of 6.13kohms measured at output. Both neck and fingerboard are roasted maple

the finish is really thin. It's quite heavily radiused, even for the style, on its edges and there are some neat touches, such as the rounded heel. There's no neck plate, and the screws sit in recessed washers.

Nicely on-trend, the neck and separate fingerboard are made from Canadian roasted maple. It's standard slab-sawn stock, with low-contrast abalone-like position dots and pretty big jumbo frets that sit on a 241mm (9.5-inch) radius 'board. The nut is quoted as bone and it's nicely nut. Bells and whistles? Not really. The tuners are basic vintage types but work perfectly well, and the hardtail walled bridge features steel block saddles. Like the rest of the hardware it's aged. To be honest, a little over aged: all the screws are very rusty, the dished jack plate appears heavily corroded, while the amount of rust on the strap

buttons suggests it might have doubled as a garden decoration at some point.

Back to the hot-rod style, we get a double-cream DiMarzio-style humbucker at the bridge paired with a lonely-looking single coil at the neck with vintage-stagger poles with a very rounded and worn cream cover. Controls? You get a volume, again with a rounded worn knob, and a three-way toggle selector where the tone control should be. Basic? That's fine by us.

Feel & Sounds

Okay, it might look rather, err, rudimentary and in need of a clean, but if you're a fan of lighter weight guitars, then you'll enjoy this. The neck feels rather good, too, a deep-ish C with fairly robust shoulders – 21.6mm deep at the 1st fret, 22.9mm by the 12th – and after a quick truss rod tweak it really plays rather



We're told that the pickups are made in Korea, but there's no ID on either one. There's no doubt of the inspiration here at bridge; this over-wound monster has a DCR of 15.78kohms

well. Yes, the jumbo frets could do with a final polish and a little work to round the ends, but we've seen (and owned) worse. The hardtail bridge means tuning is rock solid and it has a really lively response.

The bridge pickup style suggests an overwound beast and that's what we get here, taking this writer back to the late 70s when 'Frankenstein' self-modding was the only way for the wannabe guitar hero. The contrast between bridge and neck, of

It might look in need of a clean, but if you're a fan of lighter weight guitars, then you'll enjoy this

course, is huge, the single coil sounding thin and bright after the bridge's bomb blast. It is a little polite sounding, certainly when compared with our PRS SE Silver Sky reference, while the three-way toggle switch feels like a gear shift stick – light canter to full-on gallop. There's a rock 'n' roll/punk-era rawness here that's very hard not to like.

Verdict

A rusty, beat-up and far-from-authentic-looking relic won't be for everyone. Yes, a little more fret fettling wouldn't go amiss (at the moment it feels like a refret that isn't quite finished), but the overall light weight, good playability and generous dollop of overwound filth from the bridge pickup is pretty entertaining. You want a workhorse? Well, here you go. **G**



JET GUITARS JS-800

PRICE: €469 (c. £409 in store)

ORIGIN: China

TYPE: Double-cutaway solidbody electric

BODY: Basswood

NECK: Canadian roasted maple, bolt-on

SCALE LENGTH: 648mm (25.5")

NUT/WIDTH: Bone/41.89mm

FINGERBOARD: Roasted maple, abalone-like dot markers, 241mm (9.5") radius

FRETS: 22, jumbo

HARDWARE: Walled 6-saddle bridge with through-body stringing, Kluson-style vintage tuners – aged chrome/nickel-plated

STRING SPACING, BRIDGE: 52.5mm

ELECTRICS: Double-cream open coiled humbucker (bridge), vintage stagger single coil (neck), 3-position toggle pickup selector switch, master volume

WEIGHT (kg/lb): 3.01/6.62

RANGE OPTIONS: Plenty of choice that starts with the JS-300 (€169). Other relic'd models include the JS-350 T-style (€449) and the HSS S-style JS-400 (€359)

LEFT-HANDERS: No

FINISHES: Black Relic

Hal Leonard Europe Ltd

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8/10

PROS Competent build; good neck shape; refretted hot-rod feel; contrasting pickup voices; rock-solid tuning stability

CONS Needs a little more TLC on the frets; hardware ageing is a bit overdone; relicing is far from authentic

FIRST PLAY



**FENDER PLAYER PLUS
METEORA HH**
£999

WHAT IS IT? Original and modernist offset design goes mainstream in Fender's Player Plus guise

Shooting Star

First seen in 2018, the Meteora isn't just a re-run or mash-up of past Fender designs. It's a radical new 'shape' with maximum offset style. Would you rock one?

Words Dave Burrluck **Photography** Olly Curtis

Originally conceived by Fender designer Josh Hurst, the Meteora model first appeared in the initial Parallel Universe range and was released late in 2018. That release featured the body we see here but with more Tele-style pickups and appointments. According to Fender, Josh "wanted to make something that was revolutionary while also recalling Fender's rich history". "To introduce something so unique to Fender," Josh commented at the time, "you have to introduce it in a familiar package."

The following year things had changed and the Meteora HH made a return in the lower-cost Alternate Reality Series. This time around it featured a less heritage-style design with twin (Player Series) humbuckers, a tune-o-matic bridge and through-body stringing. Now, for 2022, it's back as a regular model in the upmarket Player Plus range.

Fender's original offset, the Jazzmaster, has had a significant influence on guitar makers large and small over the years. A common theme is to downsize that elongated body – which helps to keep weight in check – and simplify the feature set to a pair, or three, of more common pickup designs. The Meteora







1 The three-way toggle pickup selector is more Gibson in style than Fender, particularly with its shoulder placement. And although regular in size, the covered humbuckers recall Seth Lover's 'Wide Range' in style

2 A little unusual for a twin-pickup humbucker guitar, there's a master volume and a tone control for each pickup. To activate the simultaneous coil-splits you just push down on the switch at the top of the volume knob



is no different. Yes, the body shape is out-there, a radical offset, but the actual construction – alder body, bolt-on maple neck, vibrato – is thoroughly Fender. And while this mainstream debut features dual humbuckers, they're in Fender style with the three-plus-three polepiece design that harks back to Seth Lover's original 'Wide Range' design. The two-post vibrato, a first for the Meteora, follows the specification of the Player Plus Stratocaster rather than the offset's original two-piece design.

The Meteora's appearance in Fender's Player Plus series is significant, too. Launched in 2021, the series could easily be seen as the most modern-style Mexican-made range, mirroring more the style of the USA Ultra at a much lower price point. Like other Player Plus models, the Meteora HH comes in some pretty bold colours: our metallic green Cosmic Jade and a Belair Blue fade, both with pau ferro 'boards, while the black-to-grey Silverbust comes with a maple 'board along with and a good ol' traditional 3-Color Sunburst.

Aside from its shape, the Meteora also introduces the new Fireball humbucking pickups (see Under The Hood opposite), which are selected by a Gibson-style three-way toggle switch. Each pickup can be simultaneously split, voicing the outer-facing coils of each humbucker, via the S-1 push-switch within the master volume control's knob. We also get a tone control for each pickup.

Feel & Sounds

It might not look like one, but the Meteora certainly feels like a Fender. It's a standard weight at 3.86kg (8.49lb), slightly heavier than both the Player Plus Strat and Tele we reviewed back in issue 478. The 'modern C' neck has a satin back with a 305mm (12-inch) fingerboard radius and nicely rounded edges. In depth, it's mainstream: 21.2mm at the 1st fret and 22.5mm by the 12th. Again, that pau ferro fingerboard doesn't capture the deep brown of classic

If you like lower-output 'buckers, then you'll be at home with these Fireballs

Indian rosewood, but it's a perfectly good fingerboard material, although the position dots are a little low in contrast to the pau ferro – maybe brighter solid white or even more opaque 'clay' dots would be better?

In terms of feel, it's much more normal than it might appear. Strapped on, you might well forget what you're playing, and it's actually little different sitting down. Clearly, this is a well-considered design, though obviously you can't lean it against your amp and you'll need to consider what stand you can use.

Now, giving a pickup a name like Fireball suggests plenty of poke, but that's not what

UNDER THE HOOD

Does the Meteora's modernist outline reflect what's going on inside? Let's take a look...

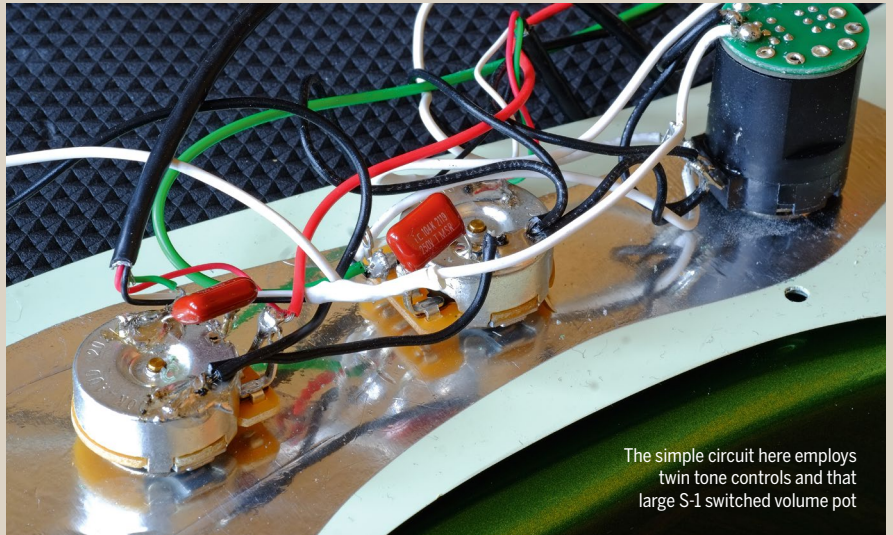
There's a very simple circuit under the large scratchplate that uses a pair of CTS 500k audio taper pots (both measured slightly under their nominal value) for the twin tone controls; both tone caps are 0.1 microfarads (104k code). The easy-to-identify S-1 volume pot has no value indicator (we're presuming 500k) and there's no treble bleed circuit, either. "We tried it both ways and liked the roll-off without the treble bleed," Fender tells us. "Some pickups – and players – like the natural roll-off better." And why go for a master volume and twin tone setup, rather than individual pickup volumes and a master tone? "We tested both configurations. We went with this layout because it keeps control of the volume close to your hand – like a Strat."

One intriguing aspect is that after removing the scratchplate we notice the body is routed for a middle single coil. Yup, there's a Meteora HSH on the cards... or maybe an HSS! And the rout cut under the three-way toggle switch will easily fit a five-way lever switch. It also seems, then, that it's ready for us modders, but rather like that Am Pro Shawbucker Deluxe with its large scratchplate and loads of screws, removing and refixing the 11-screw 'plate here takes a while. Unlike that Deluxe, the pickups are mounted in their own rings, not on the scratchplate.

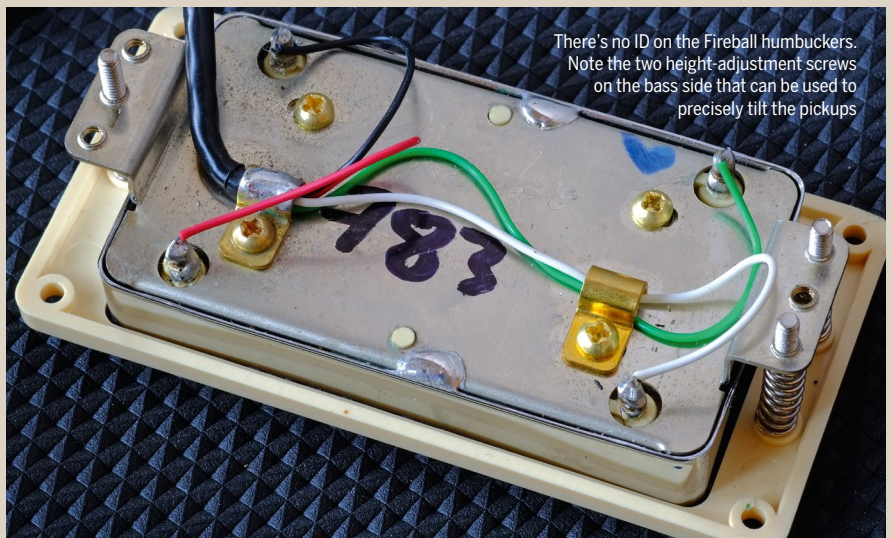
As to the Fireballs, "we tried every humbucking pickup we could find, including the Double Tap sets in American Pro II, the American Ultra Luxe Double Tap sets, even some one-offs from limited editions – and probably a couple of Shawbuckers at some point – all to get a sense of which ones resonated with the body and necks," Fender tells us. "We ended up with this new set we really love that serves sparkling clean players, big gain players and in between as well. There are some similarities to Shawbuckers, but there are key differences... the Fireball humbucking pickups are potted and have no gasket, plus we added turns in a unique way that opens up the top-end, which worked really well with the Meteora."

Neither pickup has any ID on its baseplate, though we have the four visible solder terminals to which the four-conductor wire is hooked up. Both pickups have similar DCRs: 7.48kohms (bridge) and 7.43k (neck). "By design, the bridge pickup has more turns and output than the neck pickup. The bridge pickup with the added turns has a slightly different response that works well with the neck pickup – the middle switch position liked the subtle difference as well."

Under those covers, the coils are wound with 42 AWG wire and both use Alnico II magnets. The coils in each "feature all screw bobbins, and all the screws are facing upward," says Fender, unlike the original 'Wide Range' design.



The simple circuit here employs twin tone controls and that large S-1 switched volume pot



There's no ID on the Fireball humbuckers. Note the two height-adjustment screws on the bass side that can be used to precisely tilt the pickups



The body is routed for a middle single coil, indicating a future Meteora model



Both pickups are mounted in rings – not on the scratchplate as it's not big enough! Speaking of size, Fender uses its two-post Strat vibrato design, rather than the classic Jazzmaster style

we hear here. In fact, these humbuckers seem like quite close cousins to the identical-looking Shawbucker pickups we tested on the American Professional Telecaster Deluxe Shawbucker back in 2017. They 'clonk' like an unpotted pickup when you hit the cover, although Fender tells us that the team "went with a double potting method, so both the coils and cover are potted".

So, fire-breathing metal they are not. Both pickups measure in the mid 7kohms range and, not dissimilar to an early Gibson T-Top, they combine clarity with enough power for light classic crunch on a cleaner amp. These are nothing like 15k 'hot' pickups. It means the coil-splits, which voice the outer coils of each pickup, however, do sound rather thin – not least when you compare them with real single coils – but they certainly work as a thinner option. But it's the humbucking mode that gets more play time here. If you like lower-output 'buckers, especially designs from Gretsch or Guild, then you'll be at home.

Although the DCR measurements of the pickups are pretty much the same, they're actually well balanced between

It might look a bit out-there, but it feels surprisingly normal and the sounds we hear have plenty of appeal

the bridge and neck positions, while the master volume and two-tone setup is rather Stratocaster-like. Mind you, we couldn't help thinking that lower-profile knobs might work better – these Tele-style knurled knobs do seem a little high.

Verdict

While plenty of us obsess about vintage-accurate details, the Player Plus guitars released so far have impressed us as very fit-for-purpose instruments. The addition of this Meteora to the range doesn't change that one bit: it might look a bit out-there, but it feels surprisingly normal and the sounds we hear have plenty of appeal. A slightly beefier but far-from-hot Fender that's very pedalboard friendly indeed. Perhaps not one for the blues jammers, but, then again, why not? 



FENDER PLAYER PLUS METEORA HH

PRICE: £999 (inc gigbag)

ORIGIN: Mexico

TYPE: Original offset solidbody electric

BODY: Alder

NECK: Maple, Modern 'C' profile, bolt-on

SCALE LENGTH: 648mm (25.5")

NUT/WIDTH: Synthetic bone/42.78mm

FINGERBOARD: Maple, black dot markers, 305mm (12") radius

FRETS: 22, medium jumbo

HARDWARE: Fender 2-Point Synchronized vibrato with Brushed Steel Block Saddles, 'F' logo rear lock tuners

STRING SPACING, BRIDGE: 52.5mm

ELECTRICS: 2x Fender Fireball covered humbuckers, 3-position lever pickup selector switch, master volume (with S-1 switch for coil splits), tone 1 (neck), tone 2 (bridge) with knurled knobs

WEIGHT (kg/lb): 3.86/8.49

OPTIONS: Bass version at £1,149

RANGE OPTIONS: Player Plus Strat and Tele (£939), Strat HSS and Telecaster Nashville (both £979)

LEFT-HANDERS: No

FINISHES: Cosmic Jade (as reviewed), 3-Color Sunburst, Belair Blue and Silverburst – gloss polyester body with satin neck back

Fender Musical Instruments EMEA
01342 331700

www.fender.com



PROS Surprisingly comfortable shape; neck, 'board and fretwork; weight; vibrato setup; excellent low-output humbucking sounds

CONS A divisive shape – you'd need a special stand, too; coil-splits are on the thin side

A man with short dark hair, wearing a dark grey long-sleeved shirt, is seated and playing a white PRS Fiore electric guitar. He is looking down at the guitar with a focused expression. The guitar has a white finish, a maple neck, and a rosewood fretboard. The background is dark and out of focus.

Fiore



PLAY IN FULL BLOOM

MARK LETTIERI SIGNATURE MODEL

"All guitarists have a sound in their head – a sound that evolves and grows as they progress, discovering all of the beautiful idiosyncrasies that define their individual voice. To facilitate this process, players need a vibrant, dynamic guitar that becomes a free space in which their personality can unfold. PRS and I designed Fiore to be this guitar."

- Mark Lettieri

FIRST PLAY



**CARL MARTIN AMPSTER
AMP/SPEAKER SIM DI**
£239

.....
WHAT IS IT? An all-analogue valve-based amp/speaker simulator with a quality DI output for connecting to studio or live consoles

1



Direct Line

This valve-driven DI box from Carl Martin could be the missing link for pedalboard users

Words Nick Guppy Photography Phil Barker

1 The familiar amp-like controls need no introduction. Elsewhere, the left button switches between 4x12 closed-back and 2x12 open-back cabinet emulations, while the right button operates a mute function. The LED glows green or red depending which cab emulation is in use, and usefully flash in mute mode to help avoid those panicky 'where's my sound gone?' moments

2. The Ampster's quality DI features a useful ground lift switch. There's also a series effects loop and a remote jack if you want to house the Ampster in a rack setup

3. Behind the silver grille is a hand-selected ECC83 from TAD, providing high-quality tones and that indefinable extra 'something' that comes from using real valves

Based in Denmark, analogue specialist East Sound Research has been turning out clever products for guitar and bass under the Carl Martin brand for nearly 30 years and has an enviable artist roster that includes Joe Bonamassa, Pete Thorn and Kid Andersen. Added to an already diverse range that includes pedals, amps and switching solutions, the Ampster is a valve-based DI box that's poised to be popular for anyone who uses pedals.

The Ampster is intended to sit at the end of a pedal chain and adds direct-out flexibility, with a quality balanced output on XLR for connection to audio interfaces, and studio or live consoles. There's a familiar set of amp-like controls including Gain and Master volume, together with Bass, Middle, Treble and Presence. Two footswitches sit either side of a small silver-vent grille, behind which lurks a single TAD ECC83 twin triode valve. One of these buttons functions as a mute, while the other switches between a choice of 4x12 closed-back or 2x12 open-back cabinet emulations. A single LED glows red or green depending which emulation is active and flashes when the Ampster is in mute mode.

On the rear panel there's a single 6mm jack input and a jack marked 'Link' for direct connection to an amp. The balanced DI output features a useful ground lift switch and there's also a three-position voicing switch that progressively trims low-end frequencies to taste. The Ampster also boasts a series effects loop and a useful remote switch if you want to house it in a rack. Power comes from an external adaptor that isn't included: the Ampster needs a good one amp of current so if you're using an existing power supply, make sure it can handle this, or alternatively use Carl Martin's own Power Jack PSU.

We tried the Ampster out with drive and delay pedals into a small mixing console and were impressed by the convincing cab emulations and warm, amp-like tones. The simple controls are quick to dial in and fun to use, and it's also impressively free of noise, making it a great choice for studios.

With more and more players using pedalboards to get their sound, the Ampster could turn out to be the vital missing link, adding a quality console connection so you can run your guitar into an amp, a desk or both and mix the signal for the best overall result. **G**



CARL MARTIN AMPSTER AMP/ SPEAKER SIM DI

PRICE: £239

ORIGIN: Denmark

TYPE: Valve-based analog amp/cabinet simulator and DI

VALVES: 1x ECC83

DIMENSIONS: 145 (w) x 125 (d) x 70mm (h)

WEIGHT (kg/lb): 0.5/1

CASE: Alloy

CHANNELS: 1

CONTROLS: Gain, bass, middle, treble, presence, master volume

FOOTSWITCH: Cab sim select, mute

CONNECTIONS: Input, Link, DI out, Effects send/return, remote, all on 6.5mm jack

POWER: 9V DC (adaptor not supplied), 1,000mA minimum

OPTIONS: None

RANGE OPTIONS: None

Selectron Distribution

01795 419460

www.carlmartin.com



8/10

PROS Adds valve warmth and balanced DI connectivity to any pedalboard; all the functions you need to dial in a great sound

CONS Niche product but indispensable for 'board users; needs a solid 1A of DC power, which might mean upgrading an existing PSU or using an extra one



Gas Supply

Our pick of the month's most delectable and wallet-bothering new gear

Boss RE-2 & RE-202 Space Echo €249 & €399

CONTACT **Roland UK** PHONE 01792 702701 WEB www.boss.info

JARGON CRUNCHING

Tape Echo

As well as the foundation of the delays being produced by the naturally rounder, warmer and sometimes compressed sound of tape, tape echo degrades with each repeat unlike a digital delay. This allows your repeats to fade naturally and with a character like no other. As with so many things, we have Les Paul to thank for some of its earliest development.

Isn't Space Echo just a delay?

Yeah, and Eddie Van Halen was 'just a guitar player'. So, no, it's not just a delay because the Space Echo refers to a family of Roland products including the RE-100, RE-200, RE-101 and the RE-201. There were also the RE-301 and RE-501, but these were branded the Chorus Echo. The RE-201 is the most commonly modelled and emulated, and it also offered reverb as well as delay.

Delay and reverb? Wow!

Less sarcasm, please. First launched in 1974, the RE-201 Space Echo pre-dates massive digital delays, generating the delay by using a quarter-inch tape loop, a record head to sample your signal, and three playback heads to create the repeats. And, as well as this, it contained a spring

reverb tank and could take an input from multiple sources. Its knack for creating lush repeats and 'verb combined with its ability to warp into self-oscillation has made it a hit with guitar players from all genres.

These new pedals are real tape echoes, then?

No. What we have here are new digital recreations of the Space Echo. There's the RE-202, which seeks to faithfully recreate the RE-201's controls and sound, and the RE-2, a regular Boss compact-size pedal that contains the same sonic DNA but in a smaller format with fewer controls.

What do all the knobs do?

We'll start in the middle. The original RE-201 created its delays using three playback heads. These were spaced

TAPE-STYLE SOUND

There are heaps of controls for enhancing the 'tape-ness' of the RE-202 including selectable tape age, Saturation, Wow & Flutter and more

DIGITAL FLEXIBILITY

These pedals are digital, and, as such, feature double the delay times of the original RE-201, while the RE-202 has five selectable reverb modes

COMPACT OR DUAL

The RE-202 faithfully recreates and expands upon the RE-201's original settings in a dual-size pedal design. The RE-2 offers the Space Echo sound in a Boss compact pedal





CONTROL

As well as modern features such as tap tempo and user memories, both pedals can be controlled via external footswitches or an expression pedal. The RE-202 also includes full MIDI control

to create the actual time delay in conjunction with the speed of the tape, and more heads give more repeats. The 12-position selector governs the echo/echo and reverb/reverb only modes, with different combinations of each play head dialled in to create the delay sound.

There are EQ controls, level controls for the echo and reverb sounds, while Repeat Rate is essentially your 'rate' control, which governed the tape speed on the original, and Intensity works like the feedback control you're probably used to. The RE-201 also features an additional fourth virtual play head compared with the original.

There are a few other knobs and switches...

Yes, these relate more to the character of the delay. There's a Saturation control that emulates driving the

The RE-202 digitally recreates the RE-201's sound, while the RE-2 has the same sonic DNA but in a smaller format

tape into distortion and compression. Wow & Flutter recreates the modulation and artifacts imparted by mechanical moving tape. You can also choose whether you're using New or Aged tape. By holding down the two outer On/Off or Tap footswitches, you can bring in the Warp or Twist effects respectively. The former gives you stronger reverberations, while the latter calls up the oscillations for an instant swamp of delay.

What about the RE-2?

The RE-2 features many of the same features, but obviously it's smaller so we do lose some controls. It doesn't feature the fourth virtual playhead, and with only 11 modes there's no dedicated reverb-only setting (although you can turn the echo off using the level control). There are still a lot of features, but it has the vibe of a Space Echo rather than a faithful recreation.

Anything else?

Both pedals offer external control via footswitches or an expression pedal, as well as onboard tap tempo and stereo operation. There are a few different bypass settings including carry-over, plus you can choose whether your bypassed signal runs through the preamp emulation or not. [SW]

ALSO OUT NOW...



HUGHES & KETTNER STOMPMAN €199

Hughes & Kettner has applied its Spirit technology, as found in its AmpMan series of pedalboard preamps, to the StompMan – its brand-new 50-watt power amp-equipped pedalboard amp. As well as offering Tone, Gain, Master, Presence and Resonance controls, the StompMan features the Sagging dial, which governs the amount of power amp saturation that's applied. It also offers up to 6dB of volume boost via the Solo circuit. On the back, there's an effects loop that can also be used as a line out via the send socket. And, being a powered pedal, a dedicated speaker output can drive a cab.

www.hughes-and-kettner.com



VINTAGE HISTORIC & MAHOGANY ELECTRO-ACOUSTICS FROM £179

Vintage has launched two new ranges of very affordable electro-acoustics, totalling nine new guitars. The Historic line-up features mahogany back/sides and necks alongside spruce tops, finished in an old-school Vintage Sunburst. They're offered in acoustic (£179) and electro-acoustic (£229) Dreadnought, Folk, Parlour and Orchestra sizes, with Vintage electronics on the electro models. Meanwhile, the all-mahogany Mahogany range features the same shapes, but the Orchestra model is replaced with a Grand Auditorium with a cutaway and there is an additional small-bodied Travel model. The Mahogany Series (£189) is available as electro-only and its Travel model comes equipped with a Vintage-badged gigbag.

www.vintageguitarsrus.com



Fretbuzz

A monthly look at must-hear artists from all corners of the guitar world, from the roots of their sound to the tracks that matter most

Artist: Katie Spencer

Album: *The Edge Of The Land* (Lightship Records)



The Edge Of The Land is out on 6 May on Lightship Records
www.katiespencer.net

The beautiful and stark flatlands of East Yorkshire inform the precise and spacious approach to Katie Spencer's guitar playing, as she demonstrates on this year's *The Edge Of The Land* album, the follow-up to her 2019 debut, *Weather Beaten*. Her articulate picking, with suggestions of folk and jazz, frames intelligently written songs and is the backbone to her music.

Looking To The Greats

"I think my playing style is quite intuitive because I'm largely self-taught," Katie begins. "Initially, I took inspiration from the late 60s and early 70s folk revival scene. I found it an incredibly immersive world and loved people like Jackson C Frank and Bert Jansch, who had that intricate playing style. I suppose there's often not an awful lot going on, but I've always been struck by how beautiful it is."

Jackson C Frank's music, in particular, has had an important impact on Katie's playing and her approach to crafting songs. "I think he was also an intuitive player," she says. "He had that style of imitating the vocal melody with the guitar that I always found interesting and it was my in-road to fingerstyle guitar. I remember challenging myself to learn *Blues Run The Game* when I first started and I have also used songwriting as a tool to learn how to play."

Melody First

There is method to Katie's creative process, with the instrumental part at the forefront, underpinning the vocal. "I like getting a riff or a melody and seeing where it takes me," she says. "I often sing a lot of nonsense verse over the top of the guitar part and see what atmosphere I can create. The sounds of words and how you can use your voice as an instrument, rather than just a narrative tool, is interesting."

Finding A Flow

When it comes to guitar-playing characteristics, although Katie is quick to mention influences, she also finds the idea of creating a singular sound on the instrument important. "I love sitting with the guitar and following my intuition and just letting it happen," she says. "I like an open and spacious sound; it's what comes fairly naturally to me nowadays, and I enjoy indulging that. It's about having belief in the simplicity of what I'm playing and being economical, leaving things hanging and choosing when to play. I spent a lot of time thinking about where my honest voice is – what music I want to make and what feels natural to me. I hope to be exploring that for the rest of my life, but just asking myself those questions is really exciting and recently I've been able to answer them a little bit more."

Jewel In The Crown

Chances are, if you see Katie playing live, she will have a certain acoustic strapped to her that has become a key part of her sound. "I was lucky to stumble across the guitar I still use very early on," she says. "I have a Taylor Jewel Kilcher model, which is gorgeous and I don't know why my friend was selling it, but I'm grateful that he was. The size of it really works for me and it feels very versatile and almost like it was made for me. I've played quite a few Taylors, and they've felt quite bright, but mine is very mellow," she continues. "It's 20-something years old now and it's warm and natural sounding and very even. It feels great in my hands and is exactly what I want from a guitar. It's brought me a lot of songs and ideas over the years, so I'm grateful and consider it a treasure." **[GK]**

Standout track: *Silence On The Hillside*

For fans of: Jackson C Frank, Laura Marling, Bert Jansch

Katie Spencer channels Bert Jansch and Jackson C Frank but transmutes those influences into her own distinct style

PHOTOS BY T. ARRAN





CHANGING TUNING

Katie experiments with moods via various tunings

"On *The Edge Of The Land* there are some songs on there in DADEAD, which I've just discovered; it's not major or minor, but just seems to be in that very deceptive zone. I also use a lot of open D minor [DADFAD] – *Sweet And Gentle* is a sketch of me diving into that tuning for the first time. It's naturally really dark and I love being quiet with that tuning."



Albums

The month's best guitar music – a hand-picked selection of the finest fretwork on wax



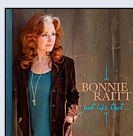
Bonnie Raitt takes us on a journey through genres and styles

Bonnie Raitt

Just Like That

Redwing Records (release date: 22 April)

9/10



Soulful return for the first lady of blues rock

"On this record, I wanted to stretch," says Bonnie Raitt of this, her first album for six years. "I always want to find songs that excite me, and what's different this time is that I've tried some styles and topics I haven't touched on before."

A few years ago, Bonnie was on tour with James Taylor and legend has it that the tour was so popular that it kept getting extended into different territories. But then the whole planet shut down and the world as we knew it would never be quite the same. She kept a presence, as many artists did, online and was vocal in environmental and political issues, but the promise of a relaxation of the worldwide lockdown meant that plans were instantly forged for a new album. It gave her the opportunity to move into new areas, covering songs such as *Made Up Mind* by Bros. Landreth and *Here Comes Love* by the California Honeydrops.

Stylistically, *Just Like That* takes us on a fairground ride of different genres and styles here but all bound together by Bonnie's remarkable vocal power and range, not forgetting her considerable aplomb on slide, acoustic and electric guitars. The title track pulls the listener in with its sheer emotionalism and subtle lyrical depth. *When We Say Goodnight* is an instant classic, with its gradual build to some seriously moody slide guitar. If it's funk you want, look no further than *Waitin' For You To Blow*, an absolute masterclass with a serious message – about 'the devil on your shoulder during recovery'. It's a real grower. **[DM]**

Standout track: *Just Like That*

For fans of: Tedeschi Trucks, John Prine, Jackson Browne

Robin Trower

No More Worlds To Conquer

Provogue Records (release date: 29 April)

8/10



Blues-rock legend still producing the goods

Robin is one of the greatest blues-rock guitarists of all time, not least because his playing and music has inspired countless musicians over the decades (six, in fact!). The iconic *Bridge Of Sighs* is from a long time ago – 1974, actually – but the living legend is still producing great music as this new 11-track album testifies. Opener, *Ball Of Fire*, boasts a funky groove and brims with gorgeous Strat into Marshall tones that sit around Richard Watt's vocals. *Deadly Kiss* has great-sounding guitar work, enhanced by tremolo and wah effects. The soloing on *Birdsong* is so intimate and dynamic, you feel like you're in the studio with him. The Motown-esque *Waiting For The Rain To Fall* is fresh sounding and shows a new side to the British blueser. And if you hanker for some drama, the closing *I Will Always Be Your Shelter* has some of the most gorgeous guitar playing and tones on the album. **[JS]**

Standout track: *I Will Always Be Your Shelter*

For fans of: Hendrix, Procol Harum, Leslie West

Andy Timmons

Electric Truth

Timstone Music (available now)

10/10



Chops aplenty from rock virtuoso

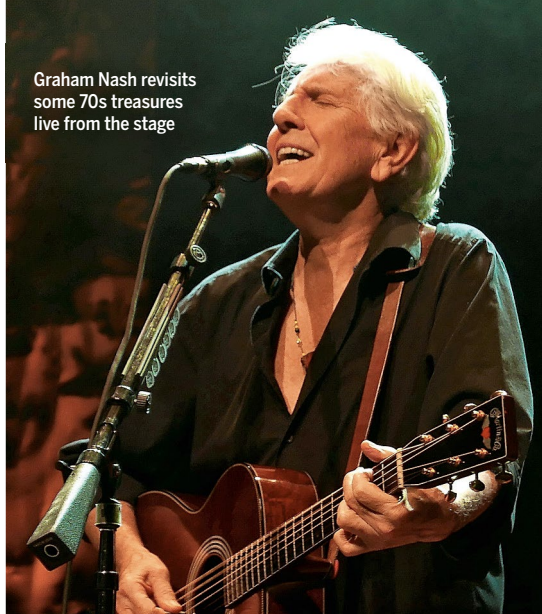
For this album Andy opted to work with Tele-titan Josh Smith and a bespoke studio band that included bassist Travis Carlton. The result is a vibrant mix of rock rifiers, funk groovers and emotive ballads with a huge amount of Andy's core musical DNA. Opener, *EWf*, is a tribute to Earth Wind and Fire guitarist Al McKay; a great sultry feel underpins a tight rhythm section and Andy's clean, driven guitar. Gears shift for *Apocryphal*, which balances melody with dynamic phrasing. *Johnnie T* sees Josh join him in a funky soul-stomper that's graced by Andy's trademark bridge humbucker tone. There are two songs on the largely instrumental album – *Say What You Want* and closer *Take Me With You* – that show just how tasteful and savvy Andy is when he's in song-scenario mode, too. Wonderful. **[JS]**

Standout track: *Johnnie T*

For fans of: Steve Vai, Josh Smith

Graham Nash revisits
some 70s treasures
live from the stage

PHOTO BY RALPH LOUIS



Graham Nash

Songs For Beginners/Wild Tales

Proper Records (release date: 6 May)

9/10



A heartfelt look back at early solo years

A new album from one of the quartet that defined the early 1970s singer-songwriter era is always big news for many. A live album that outlines two of that artist's first solo albums makes it somehow an altogether special event. Such is the case here as Graham Nash, one of the founders of Crosby, Stills, Nash & Young, is recorded in concert performing his albums *Songs For Beginners* (1971) and *Wild Tales* (1974) in their entirety. "I've been trying to figure out why *Songs For Beginners* and *Wild Tales* were so popular and I think it's that intimacy and that immediacy of my emotions..." notes Nash. Songs such as *Wounded Bird* and *Military Madness* are straight from the heart and as relevant today as they were five decades ago. A sublime listening experience. [DM]

Standout track: *I Used To Be A King*
For fans of: CSN&Y, Peter Dinklage

John Scofield

John Scofield

ECM (release date: 6 May)

8/10



Leftfield solo outing from jazz legend

The word 'eclectic' is probably overused when it comes down to describing boundary-defying jazz musicians, but even the office thesaurus is at a loss when it comes to an alternative word to describe John Scofield's latest release. With just a looper for company, Sco takes us on a journey through music's outback, somehow marrying together solo renditions of songs as diverse as jazz standard *It Could Happen To You* with Buddy Holly's *Not Fade Away*, the evergreen Danny Boy and Hank Williams' *You Win Again* in his own style. Needless to say, the result offers an intimate insight to Sco's skills as both guitarist and arranger. It's a late-night album – quiet, introspective and really quite beautiful, too, with Sco's musical soul laid bare before us. See what we mean about eclectic? [DM]

Standout track: *Elder Dance*
For fans of: Chick Corea, Keith Jarrett



Flattley
Boutique Effects Pedals



Guitarist
GEAR
OF THE
YEAR

"Chunky, detailed
and as hot as you'd
ever need for classic
rock and more"

Guitarist Magazine - 2022

*The award winning Flattley Revolution
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pedals hand built in England by
Flattley Boutique Effects Pedals.
For more information, demo videos
& stockists visit*

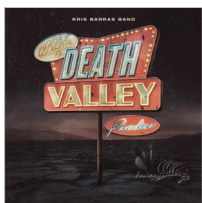
www.flattleyguitarpedals.com

Tones Behind The Tracks

Heavy rocker **Kris Barras** takes us inside his new album and the gear it takes to power his juggernaut band

Artist: Kris Barras

Album: *Death Valley Paradise* (Mascot)



UK guitarist Kris Barras and his band produced 11 tracks of heavy, anthemic rock for new album, *Death Valley Paradise*

If I could take anything positive out of the lockdown experience, it was the fact it actually gave me time to spend time on songwriting,” Kris Barras tell us. “The thing is, I’ve toured so much over the past few years I would always have to squeeze the songwriting in. But lockdown meant it was literally the only thing I had to do. So it meant I could really hone in on the songs and hone in on the sound. There are some tunes on the album that we rewrote five or six times. And while sometimes that can be detrimental because you can overthink things, actually, in this instance, it was always making the songs better. I’m pleased it’s over, but if I had to try and think positively about it, it enabled me to write probably my best album.”

You use a Kemper when you play live, but did you use amps in the studio when you were recording this album?

“Yeah, I’m a big fan of the Kemper Profiler live – and in the studio, I mean, for demo tracks and stuff like that. But I think sound is a bit easier with amps. You can get lost in a million different sounds, a million different profiles with the Kemper. So we used two main amps for the rhythm stuff when we recorded this album: a Cornford Richie Kotzen RK100 – it’s an amazing amp – and then we used an Audio Kitchen [amp] and that was always fried, it would be on its max. We’d use that for a bit more of a fuzzy kind of tone and we’d also load it up with fuzz pedals as well. And that was a staple tone for the album, really. We’d have the Cornford on one side and the Audio Kitchen with some kind of fuzziness on the other side. Then for solos I used a Diezel VH4, and those were the three main amps for the album.”

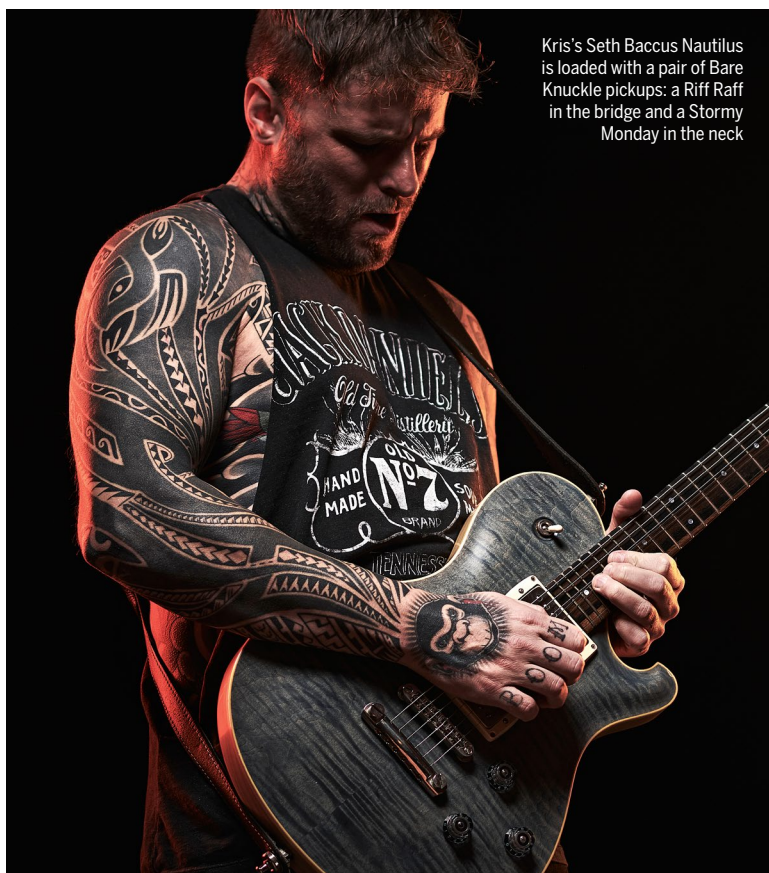
Do you use a Cornford amp profile in the Kemper for live work?

“Yeah, we profiled the Cornford and that’s what I use on the Kemper now. I love the Kemper live for a couple of reasons: the stability and the consistency. When you’re playing on bigger stages you’re not really hearing the backline and you’re not relying on whoever’s mic’ing the amps up and having mics falling over or whatever. So when we play live, we don’t go for any cabs, we’ll go straight to front-of-house – and I just love it. I love the consistency and I just know that I’ve always got the same sound. It’s not like, ‘Oh, it’s better than having a real amp.’ But I don’t think it’s any worse.

“We profiled the sounds from the Richie Kotzen Cornford amp, did a blind test [between the real amp and the Kemper profile] in the studio – and we all got it wrong. We picked the one that we thought sounded better and it was super close, but everyone always got it wrong.”

What about guitars? Last time we spoke you were using a Telecaster, but you have now switched over to using Seth Baccas guitars.

“The Baccus guitars were custom-made for me to my specifications. And I think when you get something that special that’s built by a master luthier – a



Kris’s Seth Baccus Nautilus is loaded with a pair of Bare Knuckle pickups: a Riff Raff in the bridge and a Stormy Monday in the neck

"I'm pleased
[lockdown is] over,
but it enabled me to
write probably my
best album"





"A Cornford Richie Kotzen
RK100 and an Audio Kitchen
[amp] were a staple [rhythm]
tone for the album"



one-man work of art – it's hard to go back to anything else, really. I love the sound, I love the feel, everything about them. I've known Seth by sight for years, he used to work in Mansons guitar shop, my local big guitar shop, and so he would have seen me there over the years. Then he got in touch and said, 'I'd like to work with you, is there something we could do?' And he basically came round to my house and he must have brought about 10 guitars.

"I don't get too caught up on [the specific detail of] things, like I couldn't tell you what the radius of the fretboards are or anything. If I play something and I like it, that's cool. I just tried loads of models and said, 'I like the neck on that, I like this on that one and that on another...' Then we just pieced together my dream guitar and that was my Nautilus. It's got an ash body that's been chambered, a maple top, mahogany neck with a streaky ebony fingerboard with super jumbo frets. The pickups are Bare Knuckle: we've got a Riff Raff in the bridge, kind of a classic 70s rock 'n' roll sound, and then a Stormy Monday in the neck. It's coil-tapped as well, which is something that I was really keen on having."

You also use a Seth Baccus baritone...

"Yeah, I started writing a lot more songs on a baritone guitar. I had the PRS SE 277 baritone and then I spoke to Seth about him building me a baritone. We kept a lot of specs the same [as the Nautilus custom build], but it's a slightly different guitar – it's not a chambered body, the body is slightly different. It's not got a carved top, but it's the same pickups and obviously a longer neck, being a baritone. I have that tuned to C standard and sometimes drop down to drop B_♭. I have my Nautilus tuned to D standard and then we drop down to drop C as well."



The Nautilus has a chambered ash body with a maple cap



Needless to say, you must be keen to get back on the road...

"Yeah, for me, playing live is the reason I do this. The reason I started the band in the first place was that I just wanted to play my own songs to people that wanted to hear them. And I just can't wait to get back out there. We had a support tour last September with Black Stone Cherry, and that was amazing. There were 15 dates throughout the UK and we got to play the Royal Albert Hall, which was mindblowing. But with a headline tour, it's different. People have spent their hard-earned money to come and watch you and it's your name that's on the ticket. It's not like you have to win people over, they've come to see you and they already know you and like what you do."

"When you get something that special that's built by a master luthier – a one-man work of art – it's hard to go back to anything else"

Have you got to the stage where the audience sings along with some of the songs you play?

"Yeah, a couple of songs did fairly well on radio and stuff like *Hail Mary* has always had people singing, so that's been great. There's a new song on the album called *My Parade*. We played that live at the Steelhouse Festival last summer and it was the first time anyone would have heard it and it's got a big singalong chorus. I wrote the chorus first on a plane. I wanted a big chorus and I came up with the melody line. I didn't have any lyrics yet, but I had a melody and I was humming it into my phone. When we landed at Bristol, I was about two roundabouts out of the airport and the main lyric came to me and I pulled over and I sang it into my phone. And that's how the song started – November 2019, pre-pandemic.

"When we finished playing it at Steelhouse the crowd carried on singing. It was amazing. It was the first time anyone had ever heard it, and everyone just carried on singing. It was a really special moment." [DM]



Death Valley Paradise, the Kris Barras Band's new album, is out now on the Mascot label

www.krisbarrasband.com

The mighty Seth Baccus Baritone is tuned to C standard and occasionally drop-tuned to B_♭



Learn more about Kris's songwriting process and hear those Seth Baccus guitars in action in our exclusive videos at www.bit.ly/guitaristextra



In Unison

Adam Goldsmith takes part in ITV's *Concert For Ukraine* with the help of a specially built new T-style guitar

Recently, a very special (and unusual) event occurred in the form of the *Concert For Ukraine*, recorded in Birmingham's Resorts World Arena. This was broadcast on ITV, and the money raised went towards the Disasters Emergency Committee's Ukraine Humanitarian Appeal. The line-up of artists, interspersed with clips and interviews, included Ed Sheeran, Camila Cabello, Gregory Porter, Nile Rodgers and Chic, Becky Hill, Paloma Faith and Emeli Sandé, among others. I was lucky enough to be asked to play in the house band, which, in addition to a large string and brass section, featured Ian Thomas on drums, Jerry Meehan on bass, Pete Murray on keys and Phil Palmer on the other guitar chair. The whole event was MD'd by my friend Steve Sidwell, who I've been working with forever (or, more specifically, since a Katherine Jenkins tour in my mid-20s). Over the years, we've played with Robbie Williams, done many adverts and jingles, and been part of *The Voice* house band.

What made the *Concert For Ukraine* unusual was that everyone – from crew and band, camera operators and catering, to producers and directors – was doing it for free to raise money for this particular cause. Even the hotel rooms and train tickets were provided free of charge by various companies. I've never experienced anything like this before. Usually, timings and various rules are quite strict with these productions in order to keep budgets on course, but this imbued the whole experience with a really fun and special atmosphere (despite the reason for the concert). It also featured some Ukrainian artists and various video clips highlighting the plight of the victims of the conflict.

I've always been intrigued by the idea of having one guitar to do everything, and my latest attempt to achieve this was having a guitar built for me. It's essentially a Shoreline Gold mildly relic'd T-style, with



the body and neck by finish expert Scott Cameron from Golden Era Aged Guitars. The various parts were sourced, fitted and assembled by my long-time friend and tech Stu Monks. I wanted something that looked a bit unusual, which was originally inspired by the idea of Brent Mason's main studio Telecaster, originally a 1967 model, now heavily modified to feature a mini-humbucker, a Strat middle pickup and a more traditional Tele bridge pickup.

Made To Measure

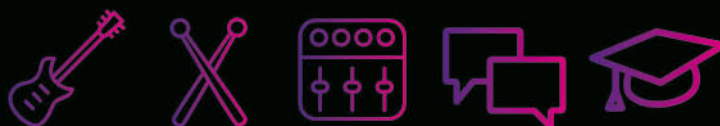
Stu ordered custom-wound humbucking pickups from Bare Knuckle to a spec that we came up with based on Robben Ford's choice of Pearly Gates pickups from Seymour Duncan. We then added the ability to split them via a push-push switch on the tone control, thus achieving single-coil-style sounds. According to Stu, these feature Alnico V magnets, short leg with four-conductor wiring and Fender pole spacing on the bridge pickup. I have zero idea what any of this means... but they really sound great, with a punchy yet vintage-style sound. The tone and volume knobs are black Gibson-style 'witch hat' knobs.

In my experience you can never really predict if partscasters are going to work when they're finally assembled, so this was all a bit of a risk. However, via some weird magic, all the disparate elements seemed to gel really well and I used the guitar for the whole gig, happily. The only exception was Camila Cabello's cover of Coldplay's *Fix You*, for which I had a Gibson Murphy Lab '59 Les Paul (incredible workmanship on that guitar as well, although you really do pay for it), pre-tuned to work with a capo on the 1st fret as she had moved the key from up to F from its original E♭ to accommodate her vocal range. It's quite a risk using a brand-new untested guitar on a big gig such as this, but thanks to the superb work of both Scott and Stu it worked out very well – and will be a mainstay of any gig I'm required to do in the future. **G**

Above right: Adam with fellow guitarist Phil Palmer (left) at the *Concert For Ukraine* charity event

Below: Adam primed for action with his bespoke partscaster guitar amid a sea of blue and yellow





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Chairman Of The 'Board

Neville Marten on his new effects setup, selected and built with the help of Mick Taylor and Daniel Steinhardt of *That Pedal Show*

I know I've touched on the subject in a previous article, but this issue details the fruition of my pedalboard. I've never been a pedal fiend; I've either used my amp's in-built gain and reverb, and so on, or slung together a basic 'board to suit my needs. For years my favourite drive pedal has been the Fulltone OCD, and I've had a Keeley-modded Boss DD-3 delay as my main source of echo. A couple of years ago I acquired an Analog Man King Of Tone in a trade, and grabbed a Providence Anadime chorus from a mate.

When I mistakenly believed my Line 6 Helix was playing up (it was actually a damaged transmitter cable), I knee-jerked into getting a new pedalboard amp and added some other effects to replace it. Mick and

Broadcast EQ/boost/fuzz, so that was added, too. Ambience and modulation would come courtesy of my Anadime chorus, a Strymon Flint reverb/tremolo, and a Strymon Volante simulated tape echo. My ever-faithful TC Electronic PolyTune handled tuning duties.

A while back, I described how Mick had made me a temporary setup on a loaned Schmidt Array 'board, so I could try everything. It worked great, and, after a bit of twiddling, I had something that sounded amazing. Funnily enough, in Marty Wilde's band we now have a new 23-year-old bassist. Peter noticed my 'board at soundcheck and came over to suss it out. "What's this?" he asked. "Oh, I nipped down to see Mick Taylor and he's put this together until Dan Steinhardt can build my proper one." His eyes widened... "You know the guys from *That Pedal Show*?!" "Yes, I've been mates with Mick for 25 years." We forget that our old friends are now YouTube superstars.

Once my own Schmidt Array 450 had arrived, I took the temporary one back to Dan, and we did another AB test using my Fender Deluxe Reverb and Matchless Lightning 15. The new setup sounded awesome through the Deluxe and we agreed that would be it. We only tried the Matchless as it was there, but boy I'm glad we did. It was a revelation: better than something that already sounded fantastic. They filmed the whole thing, too, so if you're interested head to *TPS* and check it out.

On a related note, Mick has had my Tom Murphy aged Les Paul True Historic Goldtop for a while, and has fallen in love with it – as have many *TPS* viewers. Having promised Mick first refusal should I ever sell it, that guitar now has a new home. I finally realised I'm not a Les Paul guy, so I'm going to pimp my '63 reissue ES-335 with new pickups, bridge and tailpiece – I'm sure you'll hear about it in a future article... See you next month. **G**

"After several hours of AB testing we narrowed it down to my King Of Tone and OCD, plus an Ibanez Tube Screamer. Three very different drives..."

Dan suggested helping me select the components and then put the whole shebang together, too. Once I'd discovered the Helix was actually fine, I decided the 'board would be used on occasions where I need a live amp and not a DI'd sound. The pedalboard amp (a DSM & Humboldt Simplifier) would be kept aside with a tuner, drive and delay for tour emergencies, and the like.

I took the short trip down to *That Pedal Show* HQ and spent the afternoon with Mick running through what's available – as you'd imagine, they have virtually every pedal there is. After several hours of AB testing we narrowed it down to my King Of Tone and OCD, plus an Ibanez Tube Screamer that was a gift from Robbie Gladwell. So, three very different drives. On top of that, I'd recently fallen for the charms of the Hudson

GAS OF THE MONTH

Not So Junior

What? Fender Blues Junior IV **Where seen?** www.reidys.com **Price?** £548

The Blues Junior is one of my favourite amps. I have a 90s USA-made one and a Mexican 'Woody' Blues Junior III with an ash cab. Both sound great in different ways, but Fender has recently upgraded the BJ again. The aesthetics have improved, with ivory chickenhead knobs, textured control panel and steel reinforced strap. Inside, too, the preamp has been upgraded to sound fatter, with smoother

reverb, and there's also an improved Celestion speaker. Sonically, the BJ has it all. It doesn't sound specifically 'Fender', but if you want chiming cleans they're there – what I love is you can set up your perfect driving lead tone, then turn down to clean things up. A Tele into one is sonic nirvana! Most dealers have them, and there are some cool finishes out there, but this was the best price I could find for now.





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Electric Avenue

Alex Bishop steps away from his usual acoustic domain and delves into the world of boutique electric guitar building...

Shimmering Pelham Blue lacquer layered over carved mahogany body contours. The sleek mercury-like undulations of a polished Bigsby vibrato. The gloss-black reflections of a pickguard hiding a nest of snaking electronics and alien gadgetry. I am in the domain of electric guitar building, and it feels a universe away from my usual world of acoustic lutherie.

I could have been forgiven for thinking that building an electric guitar would be a relatively easy affair. After all, how hard could it be to screw together two planks of wood and add six strings? Not so straightforward at all, as it turns out. Over the past few months I've once again learned that it is easy to get overconfident as a guitar maker...

"I could be forgiven for thinking building an electric would be easy – how hard could it be to screw together two planks and add six strings?"

To my mind, the main challenge with building an electric guitar is that they are, in essence, production instruments. Unlike acoustic guitars – which were developed in the artisan workshops of the 19th century – electric guitars are a 20th century phenomenon, born of mass production methods and computer-controlled precision. Bringing these principles back into a small workshop is not straightforward.

For my own electric guitar, I wanted to design an instrument that played on ideas borrowed from my

favourite instruments. A bolt-on neck seemed like a sensible idea, with the potential to calibrate the angle of the neck to work with different kinds of hardware. I opted for an angled headstock, too, challenging my build with a bit of extra woodworking and ensuring the strings would be seated firmly against the nut without the need for string trees. One of the bigger challenges is working out a satisfactory layout of the control cavities. In this case, I went for a design that kept the back of the guitar clean, instead routing space for the wiring, knobs and pickups from the front, Strat-style. This requires a pickguard onto which the controls are mounted, and I wanted this to play a role in the overall look of the guitar, marking a boundary between the neck and bridge pickups.

The sound you get from an acoustic guitar will be a direct result of the maker's craftsmanship: build it better and it will sound better. While this is also somewhat true of electric guitars, at the heart of the sound of an electric guitar is the pickup winding and design. Realising I have too many tools and not enough space, I decided to draw a line under making my own pickups and instead deferred to my talented luthier pal Dave Fliski and his company Heavy Air Pickups. Dave no longer makes these pickups, but among my dwindling stock I went for the contrasting sounds of a P-90 'Chunk' in the neck alongside the grit of 'Brainstormer' humbucker in the bridge position. The varying outputs have to be balanced by adjusting the heights of the pickups, with two separate volume controls for extra tweaking. Just a single master tone control gives the option of exploring a few more sounds, keeping the control panel fairly simple.

Finishing is probably the topic that most luthiers will agree can be an agonising struggle, and yet for electric guitars, it's the flashy paintwork that really makes the instrument stand out. As someone who has only really dabbled with spraying lacquer finishes (with sometimes unpredictable results), I wanted to explore a process that would work well in a small workshop. After sealing the wood with shellac and thoroughly grain-filling the pores of the mahogany with epoxy, I went for a sprayed nitrocellulose colour and French-polished over the top.

Although this sort of finish doesn't hold up like the armour plating of some factory finishes, the tactile nature of the French-polished surface on the neck is glorious. I'm sure that, in time, this instrument's finish will wear in a desirable way, too. I can't say that I've redefined the electric guitar, but I really enjoyed putting this one together. Who knows, maybe my next acoustic guitar will come out with a splash of colour, too. Candy Apple Red Jumbo, anyone? **G**

No mean feat, Alex's handmade Pelham Blue electric guitar features a Bigsby and P-90 'Chunk' and 'Brainstormer' 'bucker



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A Question Of Capacitance

Could a new cable help you achieve perfect tone every time?
Jamie Dickson explores the ins and outs of the situation...

Buzzwords come and go in the world of guitar gear. A few years ago it was 'true bypass' circuitry in pedals and, around the same time, the term 'low-capacitance' became a selling point for instrument cables. But, as with all things, it's important to understand why those terms came to be thought of as 'tone enhancing'. Because the reality behind them is a little more complex...

Here's the basics: the longer your cable, the more capacitance it generates – and the quality of the signal-conducting core of the cable also contributes. Why is this important? Crudely put, the more capacitance a cable has, the more treble frequencies you lose. That's why players have embraced low-capacitance cables as a way to retain detail and sparkle in their sound. For reference, an ultra-low capacitance cable might be rated at 29 picofarads (pf) per metre, though 55pf would be more normal for a low-capacitance instrument cable. By contrast, a high-capacitance cable would weigh in around 150pf to 200pf and some hoary old vintage cables measure out at 400pf. But, although it's sometimes assumed that modern low-capacitance cable is 'best', you'll often find high-end cables are sold in medium- and even high-capacitance versions, too. Why is that?

The versatile and innovative Super Cable is made by British brand Axe Custom Cables

Hendrix Tone

I have to admit, the answer dawned on me slowly. Four years ago, Nev Marten, Mick Taylor of *That Pedal Show* and I were invited to play a series of shows for the Bristol Jazz and Blues Festival covering classic Hendrix albums. Keen to look the part on stage standing in front of a nice old 100-watt Plexi, I bought a long curly cable of the kind that got used a lot in the late 60s. Long curly cables generally have much higher capacitance than short, straight ones – and that means you lose a bit of top-end, which is normally thought of as a bad thing.

However, when I started playing through that Plexi-and-Strat rig, I discovered I actually liked the result – the cable smoothed off a bit of spiky high-end and had a kind of 'sound' to it that I just really liked and I've kept using the cable ever since. An innovative cable made by a British company called Axe Custom Cables goes some way towards explaining why, for the company's Super Cable has a very interesting trick up its sleeve: a four-position rotary selector that lets you alter the cable's capacitance to personal taste. "Each setting rolls off a little more high-end and changes the resonant frequency of the cable," the company's website says. "Make your single coils sound like a humbucker for a 'semi' vibe. Remove unwanted high-end when needed and then instantly switch back when you want to 'burn'..."

Intrigued, I called Axe Custom Cables' founder Stuart Dixon, who explained that this capacitance selector is more than just a standard tone control. "The settings on the plug are these. In the fully anti-clockwise position – the 'off' position – it's basically a bypass. So you're getting the full range of the cable, you're getting all the top-end, all of the openness of the cable. But with each click onwards, it basically replicates a longer cable, or a higher-capacitance cable. And as the capacitance increases, the resonant frequency of the cable lowers. So it's not just a case of cutting off high-end; you're actually changing the resonant frequency of the cable".

In other words, altering the capacitance setting on the cable subtly accentuates a different segment of the frequency spectrum with each click.

All Things Bright

This means the Super Cable is a really useful way to dial a guitar in to gel with the rest of your rig. I mostly play single-coil guitars and I have a Strat, Tele and P-90 equipped Yamaha lying around at home, so I gave them a try plugged into the Super Cable and a Dr Z Jaz 20/40 combo to see how the cable performed. The results were interesting. The Strat I used in the test was a bright-sounding, ash-bodied guitar – so bright that I've been thinking about changing the pickups to something a bit darker. Using the Super Cable, I found I liked positions 2 and 4, in other words the second-brightest setting and





the darkest setting respectively. The latter reminded me of those gloriously grainy, molten amp tones on Hendrix's first album, *Are You Experienced*. Switching to my Lollar-loaded '52 Tele reissue, I found the second brightest setting again to be a winner – a little bit of sharp high-end was shelved off and mids seemed a touch more prominent. Switching again to the P-90 Yamaha, I liked the 'bypass' setting best, the cable's lowest-capacitance setting.

The Super Cable has a rotary selector on its Neutrik jack unit that lets you alter its capacitance

"You might have a cool-sounding fuzz pedal that sounds great with a cheap cable but not with an expensive lower-capacitance cable"

All this experimentation took a matter of moments to do, using the cable's rotary control, and I was left feeling that the cable would make a great studio tool for getting guitars to sit in the mix perfectly. But I found it was equally enjoyable as a tone-tweaking tool for recreational playing because the dial is right at your fingertips, being plugged into the guitar. If asked to summarise the function of the dial, I'd call it a 'just right' control. Because that's what it does.

"Different settings [on the Super Cable] work on different instruments and amps in different ways," Stuart reflects. "You might have a really cool-sounding, gnarly fuzz pedal that sounds great when you use it with a cheap cable but doesn't sound nice when used with an expensive lower-capacitance cable or which doesn't sound good with a certain guitar or amp."

"This cable is a way to get round that quickly," Stuart concludes, "but it works equally well if you just want a super expressive, crystal-clear, clean sound." 

www.axecustomcables.com

THREE TO GET READY

Three quality guitar cables to plug into



Axe Custom Cables Super Cable from £75

As described on the page opposite, the Super Cable allows you to alter your cable's capacitance to fine-tune it to suit different rigs. Built with 56pf Van Damme cable at its heart, the four-way rotary selector is a Neutrik 'Ultimate' jack unit inside which the magic happens. You can spec it in either three-metre or six-metre lengths and you can specify optional 'silent' connectors, for mute unplugging and plugging in, for a little extra.



PHOTO BY WWW.EVIDENCEAUDIO.COM

Evidence Audio 'The Melody' £89

Well liked by tone-conscious pros for the reliability and sonic quality of its cables, Evidence Audio makes great kit. In three-metre length with straight connectors (right-angled input version is also available), The Melody is built around "solid IGL core wire wrapped up in a densely braided sleeve. Perfect for minimum colouration and flawless signal transfer", says Evidence of this premium offering. Expect rock-solid build quality but a relatively stiff feel compared with some cables.



PHOTO BY WWW.ANDERSONS.CO.UK

Mogami Ultimate Guitar Cable £48.99

Long known for its 'boutique'-quality guitar cables, this version of Mogami's 'Ultimate' three-metre cable comes with Neutrik black-and-gold straight connectors (one of which is Neutrik's SilentPlug variety that kills hum when not plugged in). Angled connector versions are available, of course, and the price is a little bit easier on the pocket than some while still of top-notch quality.



All At C

Richard Barrett experiments with different voicings of the humble C major chord for interesting and versatile sounds

Chordal harmony is the bedrock of songwriting in all but the most 'niche' musical situations. But while a good song should work with a simple accompaniment, it's also nice to expand our horizons beyond the regular open-position chord shapes. This feature isn't about stringing together complex chords; it's about knowing what your options are when a 'straight' open-position or barre chord doesn't satisfy.

A nice example of this, which is actually integral to the song, is *Don't Dream It's Over* by Crowded House. The unaccompanied guitar intro functions like a hook using variations on a sus2 chord (see below). I've taken C major as our baseline here using different voicings, some of which technically don't require a different name – I've just juggled the notes into different positions for an alternative sound. You'll notice an add9 and a sus2 creeping in elsewhere. It's worth pointing out that sus chords are neither major nor minor, so it's all about the context. **G**

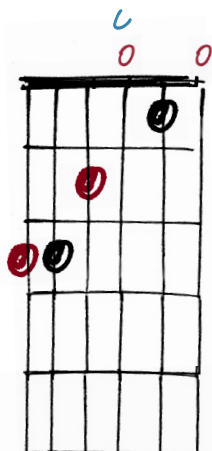
Right: Crowded House's *Don't Dream It's Over* features variations on a Csus2 chord from Neil Finn on guitar



PHOTO BY EBET ROBERTS / GETTY

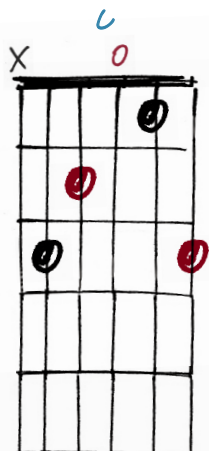
Example 1

This version of C major is straight out of the chord books, apart from the G on the sixth string, which gives it a bit more depth, especially on acoustic guitar. Alternatively, just mute that low E string, and the root on the fifth string becomes our lowest note.



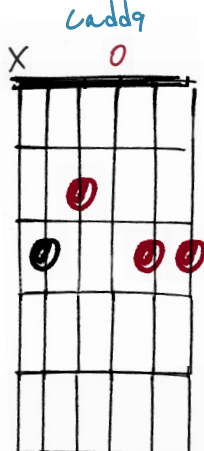
Example 2

Taking the G from the bottom and putting it at the top doesn't change the name but gives a more jangly, detailed sound. You'll hear this kind of voicing in songs by Tom Petty and The Pretenders. Pair this up with G and D chords and you have the basis of a song right there!



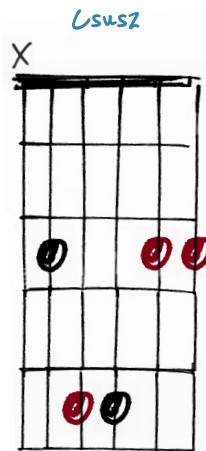
Example 3

Adding a 9th (D) on the second string gives us... Cadd9! You won't always want to stray this far from the 'core' voicing of C, E and G, but this may add a little interest if you're looking for a different twist on a C chord without getting too harmonically complex.



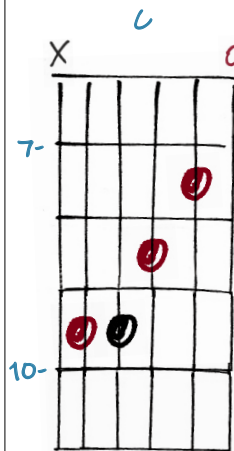
Example 4

This popular Csus2 is movable: shift it up three frets to E♭ and you have the beginnings of *Don't Dream It's Over* by Crowded House. Being neither major nor minor and not harmonically complex-sounding makes this a useful, versatile alternative to a wide variety of chords. It works well with distortion, too.



Example 5

This C major conjures up a Johnny Marr-style texture, with ringing open strings complementing the higher voicing of the chord. This can be a useful alternative when you're playing with another guitarist or just want to avoid a traditional 'block chord' sound. Move this shape around and you'll discover some nice surprises.



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STAR LETTER

STRESS FACTORING

Due to clients' optimistic programme deadlines, my job as a structural engineer, managing construction projects, is very stressful, and routinely involves working long hours, often with little in the way of a break. Pre-Covid, I had a performance review where the topic of stress was raised. Our HR director, who knows I enjoy playing guitar, suggested I try to have a stress-relieving strum each lunchtime. The next day I went into my local guitar store and purchased an Ibanez G10 for £130, a great practice guitar for the money. Following which, whenever possible, I would have a lunchtime play in a spare office, playing along to backing tracks using a Boss Micro BR and a set of headphones. I found this break a great de-stress and I believe it improved my afternoon's concentration at work.

Then Covid and home-working kicked in and, if anything, I found myself working even longer hours, with increased stress levels due to the added uncertainty of continued employment. During this time, I got into a routine whereby I would finish work for the day, have some family time, then play acoustic guitar for half an hour or so before dinner. I found this to be a great switch-off and wind-down from the rigours of work. It has also brought my playing to an improved level. As we come out of the Covid cloud I have continued with this routine.

I currently play an entry-level Taylor 210e and a Taylor GS Mini Koa. I explained to my wife that the amount of stress relief I get from playing guitar is directly proportionate to the quality of the instrument that I play, and on that basis, I have my eyes on a new Taylor 712e. Unfortunately, she's having none of it!

Dave Morrissey, via email

Admit it, Dave, all this is an elaborate ruse to buy more guitars! Seriously, though, we couldn't agree more. There's something about playing guitar that really does dissolve stress. It's cathartic and, at the same time, engages those parts of ourselves that are so easy to neglect in times of anxiety: our delight in creativity, our pride in getting better at something we love. The world is more stressful and on edge than it has been for decades right now – we strongly commend picking up a guitar when you need to find some respite.



KORG

Each issue's Star Letter wins a Korg Pitchblack Custom – a smart pedal tuner with ultra-high ± 0.1 precision for sharp visibility and pinpoint accuracy right at your feet. www.korg.co.uk

BUILD, BUILD, BUILD...

Greetings from Finland. When I turned 50, I bought my first guitar. The plan was to learn to play it, but that didn't work out. What next? I love guitars and those who can play them; Gary Moore is the greatest of all. And then I found your magazine at a local grocery store and fell in love with it. All those guitars and players and interesting stories about guitar makers. *Guitarist* magazine is the Holy Grail for guitar lovers. So, if my fingers don't learn to play, should I try to build a guitar? The answer was 'yes'.

I think a Les Paul is a great guitar, so that was the starting point. Peter Green's – and later Gary Moore's – 'Greeny' inspired me. I work in an advertising agency as an art director and so I redrew the guitar. The body is a bit shorter, so it's easier to reach the upper frets, the headstock is also my own design. Then there's the wraparound bridge, simpler layout with two knobs and toggle switch on the 'burst top. Everything except final lacquering and fretboard slots are made by me.

Ari Rantala, via email

Great to hear from you, Ari – and we're proud and happy to learn there are devoted Finnish fans of the mag. Your guitar is a thing of beauty. The lines are great, subtly different but classic, and the workmanship looks top-notch. We'd bet money that it sounds as good as it looks, too. And now you've got the perfect excuse to take another run at learning to play, if the mood takes you. Hats off to you, this is a stunning instrument.

NO PAIN, NO GAIN

After nearly 60 years of caressing the six strings of my guitars, my fingertips seem to have remained leathery no matter how often I pick up the guitar. At the start of my guitar journey I recall trying out old remedies such as soaking cotton wool in alcohol three to four times a day and rubbing it over my fingertips, or trying to harden skin with salt water, soaking fingers in apple cider vinegar, or using surgical/methylated spirits to harden the fingertips. The outcome was hard and toughened-up calluses, and strange-smelling fingers that were sore as hell.

We've probably all gone through the same journey making the same mistakes and trying to press too hard on each string. Of course, pain is perhaps not such a bad thing, as over time it teaches you not to apply too much pressure than necessary to make the note. The trick is to trust your brain and let your 'finger memory' adapt over time to the 'minimum pressure required'; all it takes is perseverance.



Ari's 'Precious Parisienne' is a beautiful build that he hopes will help him reach his goal of learning to play

It's no good if your strings are so high that you could use your guitar as a cheese slicer. Or, if your nails are like a werewolf's or your strings are the cheapest and roughest you can find, or you like playing the guitar after a bath or with wet fingers... And, also, remember to steer clear of moisturiser.

Take regular breaks to nurse any tender, wounded digits; practise for short periods; create and maintain better guitar fingers by learning and playing on an acoustic guitar to toughen up your skin; and try to practise on the instrument every day if you can. To avoid repeated blunt trauma, don't repeat the same chords, styles and songs, over and over. Variations will allow your finger tendons to automatically move fluidly over the fretboard on your guitar.

Giuliano Carosi, via email

Thanks, Giuliano. Your words mirror those of Mark Knopfler when we talked to him a few years back. He advised to make sure you don't tense up too much while playing and stay as relaxed as possible, preventing strain and allowing your playing to flow. Your point about nails is important, too, especially on the fretting hand – scuffing or catching strings with long nails is a pain and you just can't fret notes as cleanly. Also, give in-between gauge strings such as 9.5s a try if you find 10s a shade too demanding on the fingers, but want a bit more tonal authority than plain old nines can offer.

BACK IN BLACK

Neville Marten's GAS Of The Month in issue 481 [Fender's FSR Tribute Stratocaster] caught my eye. I'd been wondering about the feasibility of putting together a David Gilmour tribute guitar, but time is always an issue. Here was the answer. I ummed and aahed for a few days, but decided to investigate further. I logged on to the Guitar Guitar website and they had not sold out. There were two options available in black or red. Deposit paid, I awaited for confirmation of the delivery date as stock was awaiting. I duly paid the balance and it arrived at the beginning of March.

It is a 'Made In Mexico' Player Series. Very well presented with an excellent setup, and has all the expected tones. It is a quality instrument at a very reasonable price. Thanks to Nev, I now have another Strat in my collection and am comfortably strumming!

Dave Whitlam, via email



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Reader Dave Whitlam is more than chuffed with his Mexico-made Fender Player Series Strat – a purchase influenced by our very own Nev Marten



Thanks Dave – and nice Strat. We passed your letter on to Nev who was pleased to hear his column inspired your own Gilmour doppelganger guitar. We have to admit, we've long harboured a plan to buy an 80s-vintage reissue Strat in Candy Apple Red and equip it with EMGs for a kind of later-era Gilmour vibe. Have any other readers attempted to build a faithful replica of famous player's guitar? And how close to it did you get? Send your stories and pics in and we'll print the best.

TWO FOR THE SHOW

We gig as a two-piece – solo guitar and voice – covering a large mix of material from Eurythmics to *Gangsta's Paradise*, all with just a Takamine Santa Fe as the main backing. I need the big percussive sound of an acoustic to provide pseudo percussion as well as melody breaks. So my idea for the various different sounds required involves two EHX Switchblades, a Boss LS-2 and a four-channel micro mixer into two channels of a Marshall AS50D.

The guitar output runs from the wireless kit into Switchblade one to EHX C9 and B9 organ pedals, and split again into a Boss SY-1, phase and graphic EQ. The next Switchblade goes to a clean acoustic sound, with split two into an EHX Freeze pedal.

Finally, all outputs (bar the acoustic) go out through the mixer to one line out for Channel 2 of the amp, with volume levels for each. It all works great with the Freeze providing a drone for solos and the backing for riffs like *Echo Beach*. If I get some thumbs-up here, I might be able to justify my tap-dancing to the singer...

Des O'Callaghan, via email

Des, we do question your sanity slightly! But if it gets results, why not? We do wonder if you might be able to streamline things while gaining even more sonic flexibility by buying a switching unit like The GigRig's G3. This could run all your effects pedals in isolated loops and can be programmed to engage them in preset groups, with levels set for each preset. But, then again, as the saying goes, if it ain't broke...

IN THE NEWS

FLOYD REFORMS FOR UKRAINE

A Floyd reunion wasn't previously on the cards, but the terrible and continuing war that began with Russia's invasion of Ukraine on 24 February has moved the band to release *Hey Hey Rise Up* in protest. The track, which features vocals by Ukrainian singer Andriy Khlyvnyuk who returned from touring in the US to fight in defence of Ukraine, was performed by David Gilmour, Nick Mason and bassist Guy Pratt, with Nitin Sawhney on keyboards. The band said *Hey Hey Rise Up* was released in "anger at a superpower invading a peaceful nation... a crazy, unjust attack". The vocal refrain at the heart of the song is a version of *Oh, The Red Viburnum In The Meadow*, a song written during World War I, which has become a symbol of national resistance in Ukraine in the present day. Song proceeds will fund humanitarian relief in Ukraine.

FRUSCIANTE SAYS BEST YET TO COME

During a recent interview with our sibling mag *Total Guitar*, Red Hot Chili Peppers guitarist John Frusciante admitted that the band entered sessions for their recently released album, *Unlimited Love*, with a motherlode of 45 tracks written. The album, the first in 16 years to feature the classic Peppers line-up of Frusciante, Anthony Kiedis, Flea and Chad Smith, is the 12th studio outing for the band – but Frusciante added that the exceptionally high volume of material recorded during the sessions means that strong material for another one isn't lacking. "I definitely feel like we saved a lot of some of the best stuff for the potential next album, so I'm excited about putting that into a shape," he told Michael Astley-Brown, writing for *Total Guitar*.

FENDER CUSTOM JOINS THE CLUB



Fender Custom Shop has paid tribute to one of the most historic rock venues in the world, the El Mocambo club in Toronto, with new Strat and Tele models built from reclaimed timbers from the club itself. El Mocambo was the scene of classic live recordings by The Stones and Stevie Ray Vaughan among many others, and the two models, which are sold as a matched pair, were crafted by master builder Ron Thorn. The guitars' bodies are built of eastern white pine body wood sourced from a 2014 renovation at El Mocambo and feature hot-output pickups wound by Josefina Campos and '59 profile maple necks. Each pair will cost a salty £11,650.

Your letters to the *Guitarist* editor. Drop us a line at guitarist@futurenet.com

”

Guess who just got back today?

Them wild-eyed boys that'd been away
Haven't changed, had much to say
But man, I still think them cats are crazy

- Sir Phil Lynott

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BILL FRISSELL

Guitarist, composer and all-round esotericist, Bill Frisell is difficult to pin down to any one musical style. A brand-new biography, *Beautiful Dreamer: The Guitarist Who Changed The Sound Of American Music*, is a treatise on his life and career that endeavours to set the record straight

Words Jamie Dickson & David Mead Portraits Monica Frisell

“There were things in there I didn’t even know about, myself,” Frisell jokes when we say how much we enjoyed reading our advance copy of *Beautiful Dreamer*. Despite his work with artists as diverse as Ginger Baker, Suzanne Vega, Brian Eno and Loudon Wainwright III, many would describe Bill as a jazz guitarist. But, as the new book reveals, this would be a mere thumbnail sketch of a man whose work as a composer and performer spans a far wider musical terrain. In fact, he has been described in some quarters as ‘the Clark Kent of the guitar’. We decided it was time to talk to the man himself and our conversation began with the recent tome...

How much of a peculiar experience was it to have your life and career examined in such detail?

“I spent a lot of time with Philip [Watson, the biography’s author], but I had no idea, until I finally saw it, what he was actually doing or how it would come out. He was very careful about making sure everything was accurate. I had to read the whole thing from beginning to end to make sure there were no obvious mistakes, so it was wild. It’s hard to describe what it felt like, going through my whole life like that, just emotional and strange. Also, I’m not that fast a reader, so, oh my God, 700 pages...”

Going back to the beginning, which childhood musical experiences left the deepest impressions on you?

“I can’t remember exactly how old I was when I got a little transistor radio. I think that’s where I remember hearing music and being so enthralled. This is before I played an instrument or anything. It was just this sound that was calling out to me. I would be listening to it all the time, and have it under my pillow when I was sleeping at night and all that.

“When I was in the fourth grade, when they started the music programme in the public schools, that’s when I actually picked up an instrument and started trying to mess around with trying to make some sound myself. I was taking music lessons playing the clarinet. Then electric guitars were coming out, like Fender guitars in all these crazy colours. I remember looking at album covers of all these surf bands and thinking, ‘Wow, look at those guitars. They look so cool.’ That’s when I started wanting to get a guitar.”

Did the early grounding in the clarinet give you a perspective on music that you carried forward to playing guitar or was it just a stepping stone?

“I had this very strict teacher. You had to tap your foot this way and follow all these rules – almost military training. I played in marching bands and band orchestras, but just playing with other people, you’re hearing this whole sound happening around you. You’re trying to blend in with it and play at the right volume, and play in tune, and put things in the right place – all these basic things are huge.

“Later on, as I got better, I would play in smaller chamber groups, like a woodwind quintet or something. There, you’re super-sensitive about the intonation, and how loud you’re playing, and just being in harmony with the other instruments and making a blend all together. That kind of stuff has really stuck with me to this day. I can remember it, and also playing a wind instrument, where you’re breathing into it, you play a phrase and it lasts as long as you can breathe. There’s a whole element of how the breath is related to the musical statement that you’re making, so I can feel that when I’m playing guitar now, even though I’m not, technically, blowing air into the thing, I am still breathing with what I’m playing.”



1

1. Bill's formative training on clarinet – and his subsequent stints in marching bands and orchestras and more intimate settings such as chamber groups – equipped him with a sensitivity to intonation, harmony and the importance of letting the instrument breathe, which he's carried with him throughout his career on guitar

2. The guitar is a tool with “an extreme range of expression”, says Bill. And he's eschewing boundaries as he sets about his own explorations of the instrument

What kind of things did you learn from Jim Hall and the other jazz guitarists of the 60s?

“With Jim, it was the timing, the space, the rhythm and the way he was interacting with the groups that he played in. He was really coming from the inside of the music out. It wasn't about him trying to show you something, show off about something that he knew or playing something fancy. Everything he played was in service to the whole musical situation. I think that's what inspired me the most. The groups, like him playing with Sonny Rollins or him playing with Art Farmer, or those duets with Ron Carter or with Bill Evans, or any situation he was in, he lifted the whole thing up but from the inside out.

“Before Jim Hall, I heard Wes Montgomery for the first time, and that was the big ‘Eureka!’ moment for me. Prior to Wes Montgomery, I hadn't really heard much.”

Both Hendrix and SRV stated they were fans of Wes – he seemed to reach across musical boundaries...

“Wes Montgomery was playing music that was popular at that moment. It was like he was the Pied Piper or something. He was like, ‘Listen to this, but look where it's possible to take it...’ Also his connection with blues. Right at the heart of all this music, blues was

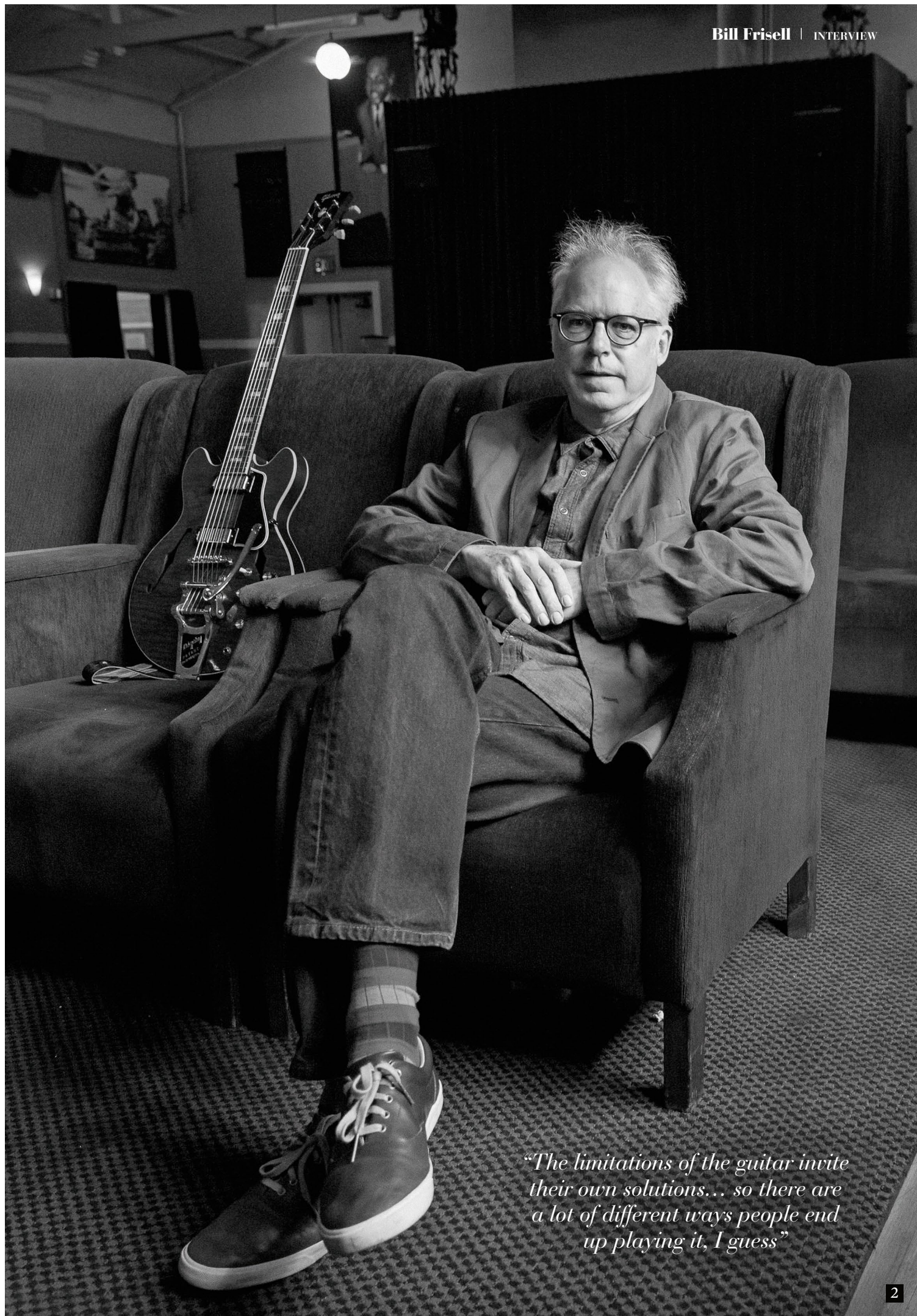
in there. It'd be so down-to-earth, but then he would show you this way up into outer space. He'd take you from down here on the ground and go as far as your imagination could go.

“Also my age when I heard him – I guess I was 16 years old – it was just the right time in my life and where I was at with my understanding of music and what I was trying to do. The timing couldn't have been more perfect. It led me to wanting to find a guitar teacher. I'd been trying to figure it out on my own, mostly. I had a couple of teachers, or I would learn from my friends or whatever, but that was the moment when I thought, ‘I've got to get a serious teacher and try to figure out what's going on with this music.’ This is in Denver, Colorado, which is not exactly the jazz capital of the world, but I was lucky to find my teacher there, Dale Bruning. He was the guy who introduced me to Jim's music and introduced me to Jim in person, too.”

On to a broader question – what do you take to be the purpose of what people think of as jazz guitar, certainly in its classical period of the 50s, 60s and 70s?

“Oh, man. It is broad, because when you say ‘jazz,’ it means so many things to so many people. Some of the greatest jazz musicians reject the word itself, like Duke Ellington. For me, when I think of jazz, it's like, ‘This is a place where anything is possible.’ For me, it's music you can't pin down. Okay, you could say there's Howard Roberts, or Jim Hall, or Wes Montgomery, or Kenny Burrell, or Joe Pass, or John McLaughlin, or Derek Bailey, Jimmy Raney and Grant Green... it goes

“Jim Hall was coming from the inside of the music out. Everything he played was in service to the whole musical situation”



"The limitations of the guitar invite their own solutions... so there are a lot of different ways people end up playing it, I guess"

3. With jazz guitar, says Bill, “anything is possible” – a sentiment that he found to be true in the music of influences such as Jim Hall and Wes Montgomery

on, and on, and on. To me, when I hear all those names, it’s like I hear a sound in my head. It’s not just one thing. Each one of them is a complete, unique world unto themselves. I can’t think of any other instrument that has such an extreme range of expression. It’s pretty wild, right?”

The guitar is an idiosyncratic instrument. What do you regard as its best qualities and its worst?

“There are limitations. On a piano, everything is laid out in front of you. Visually, you see the whole thing. On the guitar, there’s a lot of deciphering that you have to go through. You have to figure out where things are, and you can play the same note in different places. When I played the clarinet, basically you push this button down and it makes that note. That’s where you play that note. On the guitar, it’s a bit more mysterious. You can play an A – an open A – or you can play an A on the E string, or you can play it on a different string. It’s scattered around. Just the way it’s organised is quite a bit different than some other instruments, so you have to sort all that out.

“I think, whatever the limitations are, they push you into finding ways around them. So there’s a lot of opportunity for different people to find their own way. I never really thought about it quite like this, but maybe

“I love music and I don’t want to be hemmed in, in any way. I’m just following what I love and it’s never-ending”

the limitations of the guitar invite their own solutions. There are a lot of different ways to get to those solutions, so there are a lot of different ways people end up playing it, I guess.”

In your career, you’ve played many makes and styles of guitar. What do you look for in a guitar these days?

“Oh, boy, that’s just never-ending. I have a lot of guitars and if I get another guitar, there’ll be something – it could be a subtle thing, like the way the overtones ring – that leads your fingers into some other place, or leads your ear, pulls you in a certain way. It’s like each guitar will tell you something, it’s like a teacher. Then when you go back to another guitar that you were playing before, you’ll realise there was something in there that you didn’t know was there before. If I play an acoustic guitar for a long time and then go to my electric guitar, it’ll show me things on the electric guitar I hadn’t thought of before.”

You’ve made this wonderful virtue of eclecticism in your music. What are the challenges of being broad-ranging in one’s playing, as opposed to purist?

“To me, that shows I love music and I don’t want to be hemmed in, in any way. I’m just following what I love and it’s never-ending. It’s like, ‘Wow, how am I going to do this?’ That’s the challenge all the time. You go chasing after it and try to understand it. It’s not consciously trying to be eclectic or anything. It’s just that I like music and I’m trying to figure it out.”

We guess sometimes it can be easy to forget you’re there just to create, really...

“When I was first in a band, we were in one of these ‘Battle of the Band’ contests. People were saying, ‘You have to move around more. You need to dance around.’ I was just standing there playing. In my mind, the music was dancing around, but they wanted me to move my body. I never felt comfortable with all that stuff.”

The biography is the reason we are speaking, but what, more broadly, are you up to musically at the moment?

“There’s a lot of going on right now. I just finished recording a new album a couple of weeks ago. I’ll be mixing that in a couple of days, and then I’m travelling to San Francisco to play with Ambrose Akinmusire. Then I go to England for the release of the book. I’m going to play one solo concert there [in London’s Jazz Cafe in November]. It’s just one thing after another. It’s crazy. Then I go to Germany to play with John Zorn, and then come back to the States. I’m travelling pretty much non-stop these days.” 



PHOTO CARLO D'INVERNO



Bill Frisell: *Beautiful Dreamer – The Guitarist Who Changed The Sound Of American Music* by Philip Watson is out now via Faber & Faber

www.billfrisell.com

Acoustic Guitars



22679- Adam Black O-3- Left Hand
22680- Adam Black S-2- Natural Left Hand
20599- Art & Lutherie Roadhouse Parlour, D. Blue
23012- Atkin D37 Dreadnought Acoustic Sunburst
18341- Atkin Essential D Dreadnought Acoustic
23183- Atkin Essential D Dreadnought Secondhand
23184- Atkin Historic Series The White Rose
18703- Atkin OM37 Pelic Handmade Acoustic
18340- Atkin The Forty-Three J43, Aged Finish
23025- Blueridge BR160A Dreadnought Acoustic
22873- Blueridge Dreadnought (GR52201)
21716- Blueridge 000 Acoustic Guitar (GR52202)
21922- Brunswick BFL200 Left Handed Natural
13906- Cort AD81 0-OPAD Series Acoustic Guitar
23114- Cort AD81 0E AD Black
22106- The Cort AF510M Mahogany
23279- Downa Master Series Custom Made, Used
12332- Faith FKM Mercury
23127- Faith FKM Mercury, Pre-Owned
19662- Faith FKNCD- Naked Neptune
23293- Faith FS Natural Satin Dreadnought
19265- Fender CD-60 Dread V3 DS
21535- Fender Redondo Player Electro, Bronze
18950- Yairi YBF2 Baritone Acoustic Guitar
21494- Lariève C-03R-TE Tommy Emmanuel
23092- Lariève C-03R-TE Tommy Emmanuel
23186- Levin LA45F Acoustic Folk Guitar
23188- Levin LA65D Acoustic Dreadnought Guitar
16829- Maestro Vera K-CSB-A-14-Fret 00, Used
13064- Martin D18 Dreadnought
16760- Martin D28
22749- Martin D28L Left-handed Acoustic Guitar
6008- Martin D35 Dreadnought, Natural
5013- Martin D41 Dreadnought, Natural
23203- Martin D42 Acoustic Guitar
21788- Martin D45
7115- Martin LX1 Little Martin
6007- Martin OM21 Orchestra, Natural
19126- Martin OM28 Reimagined
15310- Martin 00015M Mahogany Acoustic
6009- Martin 00018 standard Series Acoustic
13824- Martin 00028EC Eric Clapton, Natural
10230- Seagull S6 Original
18418- Seagull S6 Original QIT
15480- Tanglewood Crossroads TWCR O
17054- Tanglewood DBT SFCE BW Discovery Exotic
13291- Tanglewood TPEFLS
22894- Tanglewood TW OT 2 Super Folk Acoustic
15784- Tanglewood Crossroads TWCR D Acoustic
13290- Tanglewood TW JDS Dreadnought Acoustic
19462- Tanglewood TW JPS Parlour Acoustic Guitar
4329- Taylor 310 Acoustic Guitar in Natural
23167- Taylor Academy 12 Left-Handed Secondhand
23057- Terada Acoustic Guitar, Secondhand

Electro Acoustic Guitars



21838- Faith PJE Legacy/Earth Cut/Electro FG1 HCE
19573- Fender Am. Acoustasonic Strat, Sunburst
23107- Fender FSR Malibu Player, Surf Green
23108- Fender FSR Malibu Player, Shell Pink
23073- Fender Newporter Player, Champagne
23053- Fender Newporter Player, Pink
19259- Fender Newporter Player, Ice Blue Satin
21122- Fender Nylon Competition Stripe Strap Silver
21535- Fender Redondo Player Electro, Bronze
23247- Godin A6 Ultra A6 Cognac Burst, Used
18939- Godin A6 Ultra A6 Natural SG
22914- Godin Multic Nylon Encore Natural SG
15966- Gretsch G5024E Pancher™ Dreadnought
23036- Guild M-240E Concert Shaped Electro, Nat
22761- Guild OM-140 LCE Natural Left Handed
23037- Guild OM-240E Orchestra Electro, Nat
23027- Guild OM-260CE Deluxe Built Electro
19801- Yairi BM65CE Electro Acoustic Guitar
19069- Kios F_DAE Deluxe Electro Acoustic
19065- Kios T_AE Electro Acoustic Travel
19064- Kios F_AE Electro Acoustic
22027- LAG T118 ASCE BROWN SHADOW
19691- Lariève D03 Electro Acoustic
22969- Lariève L03 Mahogany Recording Series
23094- Lariève OM40 Koa Special Legacy Ltd
22937- Lariève OMV-40R Legacy Series
22987- Lariève OMV03-MHM Recording Series
23093- Lariève P03E Electro Acoustic Parlour
23185- Levin LA25TE Junior Jumbo with Fishman
23187- Levin LA45FCE Electro Acoustic
23189- Levin LA65DCE Electro Acoustic
23191- Levin LA85DCE Electro Acoustic Guitar
23190- Levin LA85FCE Electro Acoustic Guitar
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22752- Martin 000CJR10EL Left-handed
22477- Martin 000-X2E Electro Acoustic Guitar
23200- Martin 00X2E Electro Acoustic Guitar
16261- Martin DJR Dreadnought Junior
22577- Martin D12E Koa Dreadnought Electro
23115- Martin D12E Sapele Dreadnought Electro
21553- Martin D-13E Electro Acoustic Guitar
22745- Martin D16E Mahogany Electro Acoustic
22746- Martin D16E Ovalhollow Electro Acoustic
22748- Martin D18E Electro Acoustic w/ Fishman
21587- Martin DC-X2E Rosewood Guitar
22742- Martin D-X1E Mahogany Guitar
19050- Martin GPC11E Electro Acoustic
19717- Martin GPC-X2E Mahogany Guitar
7320- Martin LX1E Electro Acoustic Guitar
18517- Martin OMCI 5ME Electro-Acoustic Guitar
22751- Martin 00012EL Koa Electro Acoustic Lefty
22857- Martin 00015M Mahogany Acoustic electro
22747- Martin 00017E Whiskey Sunset Electro
23134- Martin SC10E Electro Acoustic Guitar
19804- Martin SC-13E Guitar
23197- Martin SC-13E Guitar Special Burst
23196- Martin SC-13E Guitar Special
21974- Northwood M70 14 Fret 000 Electro Acoustic
18167- Northwood M80 OMV Outaway Acoustic
17418- Northwood Auditorium Electro Acoustic Guitar
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23079- Parker P8EN Electro Acoustic Guitar Used
14914- PJ Eggle Linville Electro Acoustic
20163- Daddario Planet Waves 10FT Guitar Lead
19554- RainSong APSE
20594- RainSong BH-DR1000N2 Black Ice Series
10094- RainSong BH-OM1000N2 Black Ice Graphite
10038- RainSong BH-WS1000N2 Black Ice Graphite
17659- RainSong CO-DR1000N2 Concert Series
9821- RainSong CO-JM1000N2
9819- RainSong CO-OM1000N2
9818- RainSong CO-WS1000N2
19557- RainSong Co-WS1005Nsm, Secondhand
21560- RainSong CO-WS3000 12-String
19555- RainSong N-JM1000N2X
4812- RainSong OM1000N1 Electro Acoustic Used
10092- RainSong P14 Parlour, Green, Secondhand
21564- RainSong V-DR3000X 12-String, Natural
7974- RainSong WS1000N2 Graphite Guitar
21562- RainSong V-WS1000N2X Vintage Series
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22934- Seagull Coastline Spruce QIT, Used
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18789- Vintage LVEC601N Dreadnought, Satin Nat.
18790- Vintage VGE800N Gemini P. Brett Baritone
21936- Yairi YFL55 CE BVS
23169- Yamaha CPX700 II 12-String Electro Used
19602- Yamaha LLTATX Acoustic Vintage Tint
19165- Yamaha SLG200NW Silent Guitar, Nylon
15619- Yamaha SLG200S Steel Silent Guitar Nat

Classical Guitars



4985- Asturias Standard Model Classical Guitar
21769- Breedlove Solo Concert Nylon CE
0000- Cordoba - 4 Models In Stock Now
21880- Fender ESC80 Classical Guitar
17847- Hiscox LA-GCL-L-B/S Arist Large Classical
17846- Hiscox LA-GCL-M-B/S Medium Hard Case
7365- Jose Ferrer 3/4 Size Classical
18946- Yairi CE1 Electro Classical Guitar
18947- Yairi YC61NS Classical Guitar
23306- Lag OC88CE Ocolania Classical Outaway
21034- Martin 000C12-16E Nylon Guitar
0000- Mendieta - 27 Models In Stock Now
22738- Raimundo 146 Classical Guitar
22754- Raimundo 660E Electro Acoustic Classical
19942- Ramirez 135 Anniv. Del Tiempo Cedar Top
22062- Ramirez 135 Anniv. Del Tiempo Spruce Top
15239- Ramirez 2NCOVE Classical Guitar
18906- Ramirez 2NE Classical Guitar
6914- Ramirez Estudio 1 Classical Guitar
22060- Ramirez Estudio 2 Classical Guitar
22061- Ramirez Estudio 3 Classical Guitar
12760- Ramirez FL1 Flamenco Guitar
22063- Ramirez SPFI Classical Guitar with Case
15290- Stagg C430 3/4 Classical Guitar, Black
15289- Stagg C430 3/4 Size Classical Guitar
15292- Stagg C430 3/4 Size Classical Guitar Red
17106- Stagg C440M Classical Guitar
17109- Stagg C440M Classical Guitar
19470- Stagg SCL50 3/4IN Pack, Natural
22785- Traveler Guitars Ultra Light Nylon
14755- Yamaha SLG200N Silent Guitar, Nylon
19165- Yamaha SLG200NW Silent Guitar, Nylon

Ukuleles



19899- Aloha Concert with Engraved Soundhole
19901- Aloha Shiny Model Concert in Mahogany
20532- Ashbury AU-15B Baritone Uke (GR35048B)
20533- Ashbury AUJ-10 Concert Resonator Ukulele
19887- Austin Naupaka All Mahogany Soprano
19972- Austin Naupaka Soprano Ukulele With Bag
19675- B & M UBJ2 Baritone Uke Open Back
16227- Baton Rouge UR4S Soprano Ukulele
18052- Baton Rouge UR51S Soprano Ukulele
22887- Baton Rouge VK1B8 Eight String Baritone
18975- Breedlove Lutah Concert Nat Shadow E Uke
19915- Elvis Hanauma Mahogany Soprano
19913- Elvis Hawaii Student Soprano Ukulele
23292- Enya Nova U Pro Tenor Ukulele, Black
23294- Enya Nova U Pro Tenor Ukulele, White
19873- Factory Prototype Concert Ukulele
19881- Factory Prototype Concert Ukulele
19894- Factory Prototype Concert Ukulele
19917- Factory Prototype Funky Top Concert
19897- Factory Prototype Reverse Headstock Concert
20278- Fender Fullerton Tele® Uke Black
20438- Fishman AGOUKE Passive Ukulele (Narrow)
19869- Giannini Custom Concert Ukulele Spruce Top
20218- Gold Tone Little Gem Uke Baritone in Amethyst
16458- Iberica SC Classic Sop Uke, Solid Acacia
19306- Kai KS110 10 Series Soprano Ukulele, Mahog
16794- Kala KA-15S-S Satin Spruce Soprano
18524- Kiwaya KSU11 Long Neck Soprano Uke
22721- Kiwaya KTU11 Mahogany Student Tenor Uke
19071- KLOS Acoustic Ukulele (UKE_A)
19073- KLOS Deluxe Acoustic Ukulele (UKE_DAE)
19072- KLOS Acoustic Ukulele (UKE_AE)
22456- Kios Full Carbon Electro Acoustic Uke
22310- Kios Full Carbon Uke
0000- Levin - 29 Models In Stock Now
16835- Maestro Island Series Concert Ukulele
22386- Maestro Island Tenor Ukulele UT-KO-CSB-K
13084- Magic Fluke M80 Maple Uke Baritone, Hwood
14867- Magic Fluke Timber Electric Bass
23248- Mahalo MR1 Soprano Ukulele, Red
19885- Malibu 21s Soprano Ukulele With Bag
12224- Martin C1K Koa Concert Ukulele
10909- Martin OXK Soprano Ukulele
19884- Martin Romas MRD1F Soprano Ukulele
19896- Martin Romas MRD2F Concert Ukulele
8128- Martin S1 Soprano Ukulele with Gig Bag
23195- Martin T1 Uke Street Master Tenor Uke
15593- Martin T1K Tenor Ukulele
19892- No Name Concert Ukulele in Mahogany
13679- Nukulele "Abbots Dig" Bottle Ukulele
13684- Nukulele Autumn Gold Bottle Ukulele
23202- Octopus Academy Soprano Uke UK205-GR
0000- Huge Stock - Ohana, Flisa & Tanglewood

12 Strings



18730- Cort Natural Glossy MR710F, 12-String
22845- Eko Ranger XII VR EQ Natural 12
22846- Eko Ranger XII VR Honey Burst
18916- Faith FKV12 Naked Venus 12-String
23151- Gretsch G5422G-12 Electromatic
19715- Martin D-X2E 12 String Guitar
21559- RainSong BI-WS3000 12-String
21560- RainSong CO-WS3000 12-String
21564- RainSong V-DR3000X 12-String, Natural
23169- Yamaha CPX700 II 12-Str. Electro Used

Acoustic Amplification



5712- AER Alpha - 40W, 1x8"
5193- AER Alpha Plus - 50W, 1x8"
18514- AER Compact 60 Mk4
5710- AER Compact 60 Mk2 Hardwood - 60W, 1x8
15913- AER Tommy Emmanuel Sig. Compact 60
5707- AER Compact Classic Pro - 60W, 1x8"
5708- AER Compact 60 Mk2 Mobile - 60W, 1x8
22776- AER Compact Slope 60 4
4945- AER Compact XL - 200W, 2x8"
9028- AER Domino 3 200w Watt Acoustic Amp
22788- Acus One For Strings 5T
22871- Acus One For Strings 8
15917- Boss Acoustic Singer Live Acoustic Amp
22851- Boss Acoustic Singer Live LT Acoustic Amp
21540- Fender Acoustasonic 15 Acoustic Amp
16480- Fender Acoustic 100 Acoustic Amp Combo
21579- Fender Acoustic Junior GO, Dark Brown
13956- Marshall AS50D - 50W, 2x8"
19481- Orange Crush Acoustic 30
4976- Roland AC33 30W - 1x5"
9358- Roland AC33, Rosewood
13029- Roland Cube Street EX Stereo Amplifier
14371- MOBILEAC Acoustic Chorus, Portable Amp
5618- Roland Mobile Cube (2.5W+2.5W, 4x2)
13831- Udo Roesner Da Capo 75
10937- Yamaha THF5A Acoustic Amp

Electro Acoustic Guitars



19299- Ashbury Gezouki, Guitar Body, GR33024
18425- Auden Chester 000 Spruce Outaway
21766- Breedlove Arista Concert Nat Shadow CE
21765- Breedlove Organic Series Sign Concertina
21850- Breedlove Organic Series Wildwood Concert
21763- Breedlove Pursuit Companion CE Travel
15886- Breedlove Stage Black Magic Concert Used
13911- Cort AF51 0EOP Electro Acoustic Guitar
23263- Cort G-AMY Bevel Electro Acoustic Guitar
23262- Cort SFX-Myrtlewood Brown Gloss
23261- Cort SFX-Myrtlewood Natural
19448- Eastman AC508CE Electro Acoustic, Used
22850- Eko Ranger VI VR Acoustic 6-String, Nat
22848- Eko Ranger VI VR Eq Electro Acoustic
22849- Eko Ranger VI VR Eq Electro Acoustic
22733- Faith FECLM Eclipse Venus Electro Lefty
12358- Faith FKV Venus Concert Outaway/Electro
22507- Faith FNCEBMB Blood Moon Neptune
19136- Faith FPNECG Nexus Neptune Electro Cognac
22728- Faith FPVCG Nexus Venus Cut/E Cognac
22726- Faith FPVQKL Nexus Venus Cop Black Lefty
21881- Faith FVBLM Blue Moon Venus Outaway
16783- Faith FVMBB Blood Moon Venus Outaway
18278- Faith FVMBB Blood Moon Venus, Used

Travel Guitars



21763- Breedlove Pursuit Companion CE Travel
19066- Kios T_DAE Deluxe Electro Acoustic
19065- Kios T_AE Electro Acoustic Travel
22025- LAG Travel KAE Travel Guitar
16261- Martin DJR Dreadnought Junior
7115- Martin LX1 Little Martin
7320- Martin LX1E Electro Travel Guitar
18366- Tanglewood TW E Mini Koa
19165- Yamaha SLG200NW Silent Guitar, Nylon

Tenor & Baritone Guitars



20534- Ashbury AT-14 Tenor Guitar, Spruce Top
8851- Ashbury AT24 Tenor Guitar
20688- D'Addario EJ66 Tenor Guitar Strings
18950- Yairi YBF2 Baritone Acoustic Guitar
18790- Vintage VGE800N Gemini P. Brett Baritone



BLACK GOLD

Big, brutally loud and British, Marshall amps' impact on the mid-60s music scene was as forceful as Pete Townshend swinging a Rickenbacker into a Plexi. Six decades on, we examine Jim's legacy...

Words Jamie Dickson Photography Olly Curtis

The year is 1962. *Return To Sender* by Elvis Presley is at the top of the charts, the astronaut John Glenn orbits the Earth and the first ever Bond film is set to hit cinemas. Tucked away in a quiet suburb of West London, Jim Marshall's unassuming music shop must have seemed an unlikely venue for history being made. And yet the sounds that were born in his workshop have, arguably, shaped our world as much as Glenn's orbit or 007 ever did. Perhaps more so. The dark, lava-thick scream of Hendrix's cranked Marshalls on a Woodstock stage just seven years later heralded a new era in music – one where power, adrenaline and art all combined in one glorious purple haze of sound. Six decades on, we're still feeling the tremors of this musical earthquake and we still have much to be grateful to Marshall for.

With that in mind, we chose to mark the diamond anniversary with a look back at the technical – and human – history of how those unforgettable sounds

were created. We hope, too, to show there's surprising breadth in Marshall's heritage as an amp maker. We all love the cliché of Marshall stacks kicking out lethal decibel levels – the 'going to 11' that Nigel Tufnel of Spinal Tap famously boasted of. But many of Marshall's most inspiring tones are surprisingly clean, and that warm but electrifyingly jagged tone you hear on AC/DC records isn't a sound you can make without having a really great clean tone inside your amp before you crank it past the point of break-up.

Marshall has also been at the forefront of tech-rich amps, too, from the then-pioneering triple-channel heads of the 90s to the modelling amps of the past 10 years. Just as a good whisky brand can be identified from the first sip, somehow they all 'taste' like Marshalls to the ear, though. So join us as we examine the sonic heritage of Marshall – a history lit by the glow of EL34 valves being pushed beyond reasonable limits by artists who knew none at all.

Guitarist would like to give a big thank you to the good people at Vintage 'n' Rare Guitars in Bath, a premier retailer of historic instruments, for supplying the stunning vintage Strats and Les Pauls that grace the pages of this feature (www.vintageandrareguitars.com). If you want to hear them in all their glory, head to the accompanying video with none other than spellbinding Welsh guitarist Chris Buck, who plays these landmark amps and guitars at full tilt and shares his thoughts on Jim Marshall's musical legacy in an exclusive video interview that you can access here:



<http://bit.ly/guitaristextra>



1968 **MARSHALL** JMP50 & 1954 **GIBSON** LES PAUL GOLDTOP

A M P N U M B E R O N E

From wartime crooner and big band drummer to legendary shop owner, Jim Marshall led a life that was shaped by music. And in 1962, alongside a crack team in their garden sheds, Jim would bring the first Marshall JTM45 to life – a Holy Grail of rock guitar

Words Nick Guppy

As time draws on, the story of the creation of 'Amp Number One', the very first Marshall JTM45, is turning into legend, with truth and myth sometimes interwoven depending on which version you read. When this writer was privileged to meet and spend a day with Jim Marshall back in early 2001, he was still working 12-hour days at the Bletchley factory – usually the first to arrive and often the last to leave. Jim's own version of events, which at that time had taken place four decades earlier, was well rehearsed as he'd obviously recited it countless times to journalists from all over the world.

Jim Marshall suffered from ill health as a child and he was exempted from military service in World War II because of it. He became a popular singer on the London club circuit and doubled up on drums to earn extra money, as civilian musicians were in short supply during the war. With petrol rationed, he rode a bicycle to gigs, carrying a homemade PA system in a cart so he

could make himself heard. Despite his success as a vocalist, drumming became Jim's main focus and, like many other young drummers of that era, his idol was the American Gene Krupa, whose electrifying performances and good looks earned him frequent cameo appearances in Hollywood musical films, making him an international star.

After the war, Jim took lessons from Max Abrams, who was the top teacher in the UK at that time. Jim practised hard and swiftly became good enough to teach drums to others. By the 1950s he was working as a full-time professional musician and teacher, earning enough money to open his own music shop in Uxbridge Road, Hanwell, in 1960. The local music scene was buzzing and it was a time of tumultuous change as rock 'n' roll replaced the pop crooners. Established stars such as Jim Reeves, Perry Como and Frank Sinatra were being ousted from the charts by brash young artists including Eddie Cochran, Gene Vincent, Buddy Holly and Elvis Presley – who all played guitar. Jim

Marshall's drum shop quickly adapted to the changing trend and branched out into guitars; the drummers Jim taught would often bring in their guitarists and the shop quickly became a focal point and melting pot for local musicians.

RIGHT PLACE, RIGHT TIME

The West London location of the shop was a classic example of being in the right place at the right time. Jim's customers in the early years included Pete Townshend, Ritchie Blackmore, Big Jim Sullivan and later on a young Eric Clapton, while among his drum students were Keith Moon and Mitch

Jim's shop was less than two miles from the legendary Ealing Blues Club, the epicentre of the electric R&B scene



A 1965 'Block Logo' JTM45 MKII, still close to its Fender roots but forging a new tone

Mitchell, who would go on to play with Jimi Hendrix. The shop was also less than two miles from the legendary Ealing Blues Club, which was opened in March 1962 by Alexis Korner and Cyril Davies and instantly became the epicentre of the British electric rhythm and blues scene, hosting Pete Townshend's High Numbers (which became The Who), The Rolling Stones (who met each other at the club), Cream, Manfred Mann, The Yardbirds, John Mayall and Fleetwood Mac, to name just a few.

Back then it wasn't easy to import the American guitars and amps that Jim's customers craved. Clearly, there was room for a homegrown competitor, and repair tech Ken Bran suggested they try building their own, following numerous requests from local musicians. Jim was always careful to listen to what his



1964 MARSHALL JTM45 ANATOMY

A look under the hood at valves and circuitry used in the JTM45's early history

The JTM45 shares much of its DNA with Fender's Bassman 4x10 combo, in particular the 5F6-A circuit. This was the last 'tweed' update, introduced around 1958 and phased out in 1960. The Bassman was originally intended to complement Fender's new Precision bass guitar, although as it evolved from a 1x15 TV-fronted combo to the more recognisable narrow-panel 4x10 open-backed design, many guitarists discovered it was also a formidable partner for the six-string instrument. It was this amp that Ken Bran and Dudley Craven used as the basis for the JTM45, and the Marshall's circuitry is more or less identical, with the same 'long-tailed pair' phase inverter.

However, there were a few important differences. The first valve in the JTM45 preamp was changed from a 12AY7 to a 12AX7, which has around double the gain. Fender used the 12AY7 to maximise clean headroom, while Marshall was chasing a hotter sound so the 12AX7 was a logical substitution. Negative feedback was increased to tighten up the speaker response and add extra highs. There were many other small

changes as Marshall would tweak the circuit for individual clients, or vary it depending on component availability – some amps had a second 'bright' capacitor on the high treble channel, others didn't. It's quite possible that no two heads were identical in those early days.

Possibly the most famous custom order was the Gold Lion KT66-powered open-back 2x12 combo version built for Eric Clapton, who requested a Vox-sized combo that would fit into the boot of his car. This was the amp that became the Model 1962, which Clapton turned up to 11 to record the famous 1966 'Beano' album with John Mayall's Bluesbreakers, bringing the Ealing Marshall sound to an international audience and profoundly changing the electric guitar's place in popular music.

Other significant changes were mostly down to geography and economics as Marshall used British suppliers for parts, while Fender's components were sourced in the USA. The Bassman's 5881 valves were made by Tung-Sol Lamp Works of Newark, New Jersey, who also invented the 6550. The 5881 was a high-spec

military version of the 6L6GB, with a maximum plate dissipation of 23 watts compared with the 30 watts of the later 6L6GC, and a lower maximum plate voltage. They were neither easy nor cheap to import back in the early 1960s and after trying 6L6s on some amps, Marshall replaced the 5881 with the KT66, a high-quality British version of the 6L6 designed and made by Marconi-Osram Valve (M-OV).

The KT66 valves sounded superb but were expensive, prompting a change to the cheaper, more plentiful EL34 around 1966. This altered the amp's sonic character as it became more powerful, with uprated transformers and silicon diodes later replacing the GZ34. This led to the rare 'Black Flag' JTM50 'transition' model.

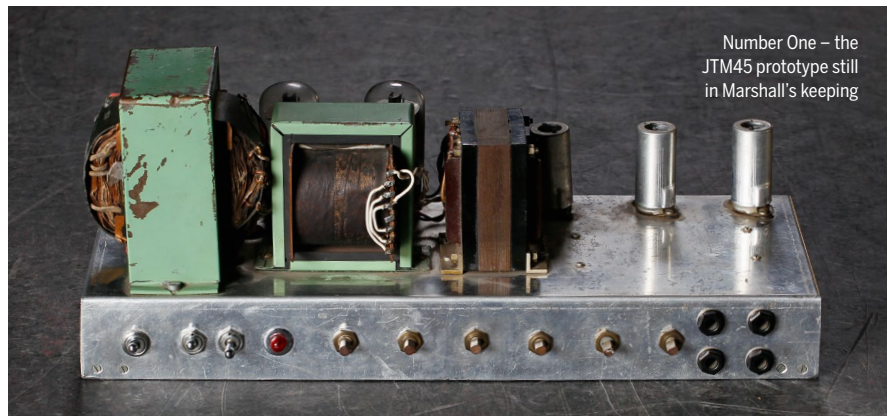
Loudspeakers and cabinets were another significant difference. The Bassman used four 10-inch Jensen speakers in an open-backed combo cabinet, while Marshall chose to make a separate head for the amplifier and combine it with a closed-back cabinet loaded with four Celestion G12s – the first step on the way to the universally recognised Marshall stack.

customers wanted and, having already built several PA and bass guitar cabinets, agreed to the project.

One of the most coveted American amplifiers in the UK at the time was Fender's tweed 4x10 Bassman combo, and according to some stories an example was acquired and reverse-engineered to understand how it was put together. Bran co-opted two other electronics wizards into the project: a brilliant teenager called Dudley Craven and Ken Underwood, who were both apprentices at EMI, while Ken Bran had worked on radio equipment for Pan Am at Heathrow. All three were amateur radio enthusiasts and knew each other through the local ham radio network, meeting weekly at Greenford Radio Club and often going on to a local Wimpy bar in Ealing afterwards.

RADIO GAGA

Amateur radio and audio are closely linked, and for us there's no doubt that all three had the necessary technical chops and inventiveness to create something that went beyond the Bassman circuit. They shared out the work between them, with Jim fabricating the chassis and cabinet, Ken Bran producing the tag boards, Dudley Craven doing the wiring and Ken Underwood joining later on final assembly. Because of a lack of space at Jim's music shop, most of the fabrication was carried out in their garden sheds. Dudley is thought to have experimented with 6V6s at first, before discounting them and returning



Number One – the JTM45 prototype still in Marshall's keeping

PHOTO BY MATT YORK / MARSHALL

to the 5881 used in the 5F6-A Bassman circuit. In total, six prototypes were made and it was number six, with a separate closed-back cabinet loaded with four 12-inch Celestion speakers, that made Jim Marshall exclaim, "That's it! That's the sound."

According to legend, on a Sunday in September 1962, a band was assembled at the Ealing Club to try out the new 'loud sound' that Pete Townshend and others had been asking Marshall to build, featuring Mitch Mitchell on drums, who was by now working for Jim, and Jim's son Terry on saxophone. Christened the JTM45, for James and Terry Marshall, combined with the amplifier's nominal output power of 45 watts, the new amp immediately appeared in Jim's shop and pulled in nearly 30 orders after its first day on display. Almost overnight, the JTM45 became the amp of choice for the Ealing-based rhythm and blues

movement and Jim rode on the wave of its success, opening a second shop in March 1963 at number 93 Uxbridge Road.

However, the manufacturing operation quickly outgrew the new premises, leading Marshall to open the first dedicated factory in Silverdale Road, Hayes, in June 1964. Even after Jim's departure from retail into full-time manufacturing, the JTM influence that made Hanwell and Ealing such an important focal point for British

Six prototypes were made and it was number six that made Jim exclaim, "That's it! That's the sound"



Jim Marshall in later years with two descendants of that original Number One JTM45

musicians continued for decades, with three other famous shops opening in the area: Tempo Music, which later became Flying Pig Music, was a next-door neighbour at 72-74 Uxbridge Road, while Peter Cook's Guitar World, owned by the famous luthier and managed by Trevor Newman, was a short walk away at 69 Station Road.

Visitors to the area today can find two blue plaques, one commemorating the sale of the very first Marshall amp in 1962 at 76 Uxbridge Road, and another a short walk down the road at 42A The Broadway, marking the place where the Ealing Club was founded. While there's nothing on the plaques to link them, there's no doubt both events contributed to each other's success, changing the world in the process. Meanwhile, Amp Number One – one of the Holy Grails of rock guitar – was reacquired by Marshall several years ago and now occupies pride of place in the Marshall museum at the company's Bletchley factory. **G**

LIVING LARGE

Hooked from the moment he heard one, Marshall devotee **Joe Satriani** tells us why only giants could take on this mighty amplifier and how his signature amp finally “understood” him

Interview Henry Yates

The first time I ever heard a Marshall amp, I was a teenager and a friend brought me over to watch this older guitar player in Queens. So we're in this guy's basement, and he's got a Les Paul and Marshall stack. He turns it all the way up and I'm like, 'Oh my God.' I just remember that sound.

“Later, I remember going to see Chicago at a small theatre, playing in the round, with Terry Kath on guitar. They were squished on this little circular stage and Terry was standing right up against his Marshall stack. It sounded so good. I started to go to concerts more and more, and I'd see all these players go through Marshall stacks. Steve Miller, Zeppelin at Madison Square Garden – that was just insane. Those amps just never gave up.

“When I think of what my heroes sounded like when they plugged into those things and turned them up, I'm just so impressed. Jimi and Jimmy, right? Hendrix and Page. They sound so totally different, it's unbelievable. That amp is receiving these two geniuses and getting their personalities to come out.

“When I started playing Marshall myself, those amps just seemed to pick up everything. There is no hiding when you plug straight into a Marshall and turn it up. If there was ever an amp that makes you feel self-conscious – and at the same time emboldens you to play like a giant – it's a Marshall. So it's not for the faint of heart. At least, not until

“If there was ever an amp that makes you feel self-conscious – yet emboldens you to play like a giant – it's a Marshall”

the 800 came out, or any of the master volume ones. Then mere mortals could start to relate to the amp. Up until then, only giants could somehow make it work.

“It was a real moment when I got my own Marshall JS signature amp. I was in Chickenfoot and also had my

own band, so I had to come up with an amp that made sense for the gigs I had. That meant an amp with lots of gain for melodies and solos. But it had to be super fat so my high notes wouldn't screech. That's cool if you're a lead player who just takes 16 bars and shaves everybody's head off for a few moments – but that's a whole different gig! Me, I walk out on stage and, for two hours, I have to play beautiful melodies all the way up the neck, so I can't have the amp be that nasty up there.

“Santiago Alvarez – the Marshall engineer who designed the JS amp with me – understood what I was trying to do. So we created this beast. We removed a lot of compression, took down the gain a little and made everything super fat so it held together from the lowest to highest notes. And, boy, it really freed me up when I started to tour with those amps. I just found I could play so much more because the amp was helping me achieve all these different things, especially switching from legato to picking. It was like the amp understood me, y'know?” 

Messrs Hendrix and Page, plus Terry Kath and Steve Miller, drew Joe towards the Marshall sound



PHOTO BY BRIAN BASIC/GETTY IMAGES



The JS amp was designed with engineer Santiago Alvarez and was optimised to handle Satriani's fretboard-scaling style

MARSHALL BY NUMBERS

Here we explore milestone moments in Marshall's 60-year quest for bigger, badder tone through 20 significant numbers

[1] A DO-IT-ALL VALVE PREAMP FOR THE 90S

The JMP-1 valve preamp, launched in 1992, was a child of the rackmount era. It featured four channels, two clean and two dirty, and was (natch) MIDI programmable. A pair of 12AX7 valves provided the tonal authority, but the JMP-1 also featured OD1 and OD2 modes – which offered vintage and tight, modern drive voices respectively – plus a stereo effects loop, speaker emulation and a Bass Shift function that altered the low-end voicing. It was a bestseller, and stadium giants Def Leppard and Billy Gibbons, who routed one or more JMP-1s into a Marshall 120/120 Valvestate power amp, were among the well-known players who racked up hits with the JMP-1, which could be combined with Marshall's EL84-based 20/20 single-rack unit power amp (which provided 20+20 watts of stereo output) for an ultra-compact, all-valve rack rig.

[3] THE NUMBER OF MARSHALL STACKS HENDRIX FIRST BOUGHT

Jimi Hendrix was only just finding his feet as the rising star of the London scene in 1966. Author Rich Maloof notes in his excellent reference book *Jim Marshall: The Father Of Loud* that Hendrix was chagrined to discover he couldn't bring the Fender amp he ordinarily used because the space was already taken up by multiple Marshall head-and-cab rigs used by other guitarists on the bill. So Mitch Mitchell duly brought Jimi down to Jim Marshall's shop where he bought "three stacks", according to Jim's recollections, which were intended to be shipped to different continents so Jimi had one on hand at all times when touring. Jim added that one of Jimi's roadies was subsequently trained by Ken Bran and Dudley Craven to be able to repair Hendrix's hard-pushed amps on tour – launching Hendrix's long and iconic relationship with the brand.

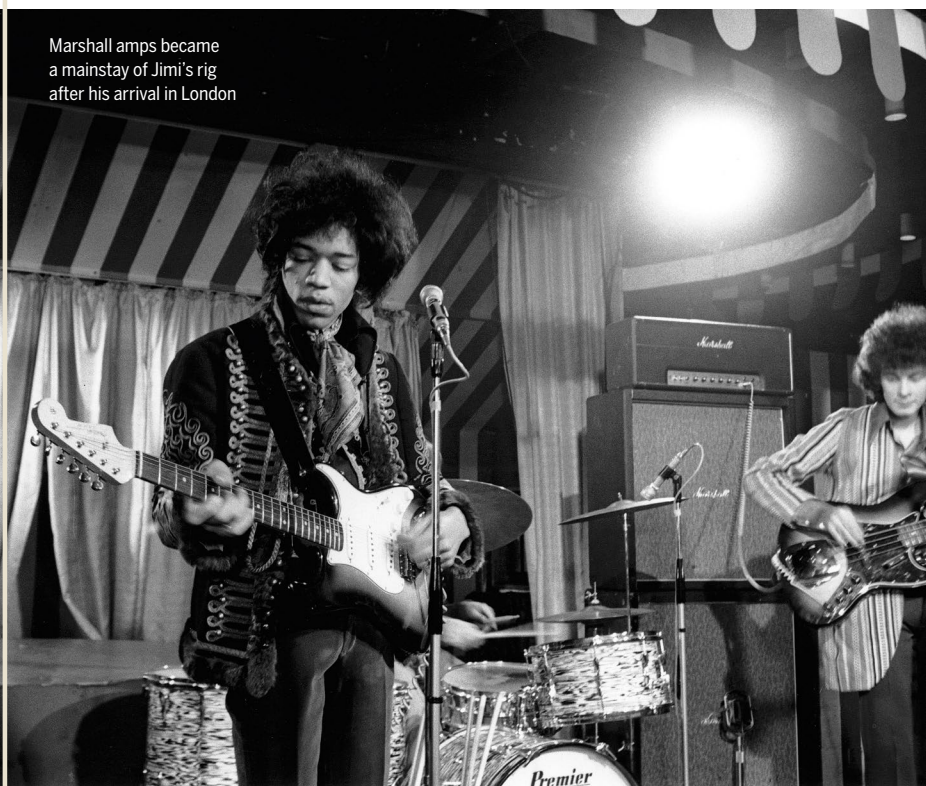
[4] MARSHALL'S 350-WATT HYBRID

Marshall's Mode Four amp, which was launched in 2003, was designed to meet the needs of contemporary metal players. A two-amps-in-one design, it utilised a 350-watt solid-state power stage to deliver tightly defined high-gain tone, though its two independent preamp channels featured an ECC83 triode valve. The Mode Four's party trick was that the power amp could run in two modes – named Amp 1 (Plexi style) or Amp 2 (optimised for down-tuned guitars). Both Amps could be operated in two further sub-modes called Clean and Crunch on Amp 1 and two overdrive types on Amp 2, hence the Mode 4 name – as four distinct voices resulted. While Marshall's Mode Four hybrid wasn't embraced by the purists, it was adopted by respectable numbers of pro players, such as Dave Navarro of Jane's Addiction.

[8] THE NUMBER OF SPEAKERS PETE TOWNSHEND WANTED

As a customer since Marshall's earliest days, The Who guitarist's needs shaped mid-60s prototype amp designs. By 1966, Townshend had already taken delivery of a more powerful 50-watt version of the JTM45 head (realistically producing nearer 30 watts) called the Model 1987. However, a request for a 100-watt head was not long in coming. Marshall duly made three prototypes, after which Townshend requested a behemoth 8x12 cab. Jim Marshall warned him it would be punishingly heavy for The Who's roadies to lift, to which Townshend allegedly replied, "Sod 'em, they get paid!" However, since a 1960A 4x12 cab weighs around 38kg (84lb), the massive 8x12 probably weighed over 70kg (154lb), so Marshall designed the now-iconic two-piece stack with a straight-fronted 4x12 cab on the bottom and an angled 4x12 on top. The latter was designed to slope back towards the head to make the overall look less blocky – though Jim claimed it also projected sound towards the back of auditoriums better.

Marshall amps became a mainstay of Jimi's rig after his arrival in London





MARSHALL JCM800 & 1960 GIBSON LES PAUL STANDARD

This reissue head is paired here with the famous 'Grainger' Burst and a Model 1960A cabinet

[11] NIGEL TUFNEL'S MAXIMUM VOLUME SETTING

The infamous 'one louder' that the volume controls of Nigel Tufnel of Spinal Tap's Marshall head could be set to, as compared with the maximum of 10 that ordinary Marshalls of the era went up to. Spoof documentary maker Marty DiBergi's bafflement at this ("Why don't you just make 10 be the top number and make that a little louder?") is now legendary and, to their credit, Marshall soon made the joke official. When the JCM900 was launched in 1990, six years after *This Is Spinal Tap*, it featured a Sensitivity or Lead Gain dial (depending on variant) that went up to 20 or "nine louder" as Tufnel helpfully pointed out in promotional ads of the time. When *Guitarist* visited the Marshall studio to photograph rare amps for this issue, we were shown the last word on this loudness arms race – a custom head built for Tufnel on which a channel volume dial went up to... infinity (see pic, right).

[18] THE WATTAGE OF MARSHALL'S SMALL-BUT-JUICY 60s COMBOS

While towering stacks are the iconic image of Marshall amplification, some of their most toneful amps of the 60s were much smaller. It's easy to forget that Marshall was in pretty heated competition with Vox in the mid-60s with Jim Marshall declaring he was "going into battle" with Vox's Tom Jennings after the latter made ill-tempered phone calls to Jim warning him to stay off Vox's commercial turf.

Vox's star products were its AC15 and AC30 combos, so in 1965 Marshall duly launched three 18-watt combos: the Model 1974 (1x12), the Model 1973 (2x12) and the Model 1958 (2x10). Powered by EL84 output valves operated at a low plate voltage and featuring three ECC83 (12AX7) preamp valves, it was easy to unlock the full rich, compressed voice of these amps at studio volume levels – which made them highly sought after in subsequent years, with Gary Moore featuring one of the cover of his *Still Got The Blues* album in 1990. An optional reverb also, incidentally, made them the first Marshalls to feature the effect.



PHOTO BY JIM STEINFELD/MICHAEL OCHS ARCHIVES/GETTY IMAGES

None more Marshall: Nigel Tufnel of Spinal Tap goes all the way to '11' on stage

Ultimate overdrive: an 'infinite volume' dial on a custom-built head made for the Spinal Tap guitarist

**[30] THE ANNIVERSARY THAT LAUNCHED TRIPLE-CHANNEL AMPS**

By 1992 Marshall amps had been in business for three decades and the company decided to mark the occasion by introducing a feature-laden series of 30th Anniversary amps that promised to deliver a motherlode of historic Marshall tones from past and present. The result was a highly configurable triple-channel amp with seven preamp valves that was a tone-tweaker's delight. For example, Channel 2 had a Mode A/B/C selector that allowed the player to switch between the voices of Super Lead Plexis, 70s Master Volume heads and high-gain JCM900 amps – or as near to each as a single amp could get, at least. Other progressive features included a damping switch that tuned the amp to deliver crisp, detailed cleans or loose but aggressive midrange.

The amps that were made in the first year of production were clad in commemorative blue Tolex, while a further 1,300 limited-edition 'LE' models featured brass plating on their metal chassis components plus a solid brass Marshall logo.

[76] THE STREET NUMBER OF JIM'S FIRST SHOP

Jim Marshall & Son opened up for business in 1960 at 76 Uxbridge Road in Hanwell, and though it was primarily a drum shop at first, its early customers included Ritchie Blackmore and Pete Townshend. By 1961, the guitar side of the business was growing – American guitars including Fender and



Small but potent: a vintage Model 1974 18-watt combo

PHOTO BY WATT YORK/MARSHALL



1963 MARSHALL JTM45 & 1956 FENDER STRATOCASTER

This 'coffin logo' JTM45 is one of the earliest heads in Marshall's keeping and shows how different pre-Plexi styling was

Rickenbacker were stocked – and Jim noticed Fender's Bassman amp was admired by young British guitarists, inspiring the creation of Number One (see page 56 for more) in 1962.

When the new JTM45 amps proved a hit, Marshall expanded into a larger shop down the road at 93 Uxbridge Road in March 1963. However, even this site wasn't big enough to house both an amp-making workshop and a music retail store. So in June 1964, Marshall amp

production moved into its first dedicated factory in Hayes, Middlesex, where 15 people were employed to make around 20 amps per week.

[175] THE NUMBER OF CABS ON STAGE FOR MARSHALL'S 35TH

The phrase 'a wall of Marshalls' has entered into rock 'n' roll cliché, but the term was probably aptly used, for once, to describe the 175-strong line of

cabinets assembled for Marshall's 35th Anniversary event at the Hammersmith Odeon in 1997. As author Rich Maloof notes in *Jim Marshall: The Father Of Loud*, a few artists came fairly close to this achievement on stage at the height of their pomp, with KISS using up to 44 Marshall cabs in their stage rig and Slayer touring with a mere 24. Van Halen also gets an honourable mention for posing for a photoshoot in front of 80 Marshall cabs.

[200] THE WATTAGE OF THE LOUDEST PLEXIS OF ALL

In the late 60s, before PA systems were widespread, volume was king. Top guitarists wanted frightening amounts of output from their amps and even a 100-watt Super Lead was felt to be insufficiently loud by some – leading to the development of the 200-watt Marshall 200, which was launched in 1967, powered by potent KT88 output valves. In late 1968 the model's tone controls were revised and the head was renamed the Marshall Major. Fans of these 200-watt Marshalls included Deep Purple guitarist Ritchie Blackmore, who had been a customer at Marshall's shop since 1961. In 1970, the year *Deep Purple In Rock* was released, Blackmore made the switch from using Vox AC30s to Marshall 200-watt heads that he claimed were boosted, following modifications by his techs, to 300-400 watts.

[900] A FACTORY-MODDED MARSHALL FOR THE 90s

The JCM900 series of amps, which launched in 1990, aimed to beat Marshall modders at their own game by offering amps that came fitted with hot-rod performance straight off the production

line. The JCM900 models were fitted with three ECC83 (12AX7) preamp valves for extra gain, though later SL-X (Super Lead eXtended) variants had a fourth ECC83, yielding yet more dirt. JCM900 amps were all made in one of two types: single-channel Master Volume MK III, tracing its ancestry to the 2203 and 2204 models of 1975, or the twin-channel Hi Gain Dual Reverb type. All models, however, featured a series effects loop, two line outputs and a High/Low switch that halved the amp's output for bedroom use.

[1965] THE YEAR PARK AMPS SPUN OFF FROM MARSHALL

In 1965, Jim Marshall signed a 15-year contract with the Rose Morris Agency, an international instrument distributor. Although it opened up new markets, the contract meant Rose Morris got 55 per cent of the proceeds of Marshall amps sold in the US, as well as a healthy slice of the profits of amps sold in the UK. In order to keep Marshall amps competitively priced in stores, Jim was forced to reduce the margin Marshall itself received and later said that signing the Rose Morris deal was one of his

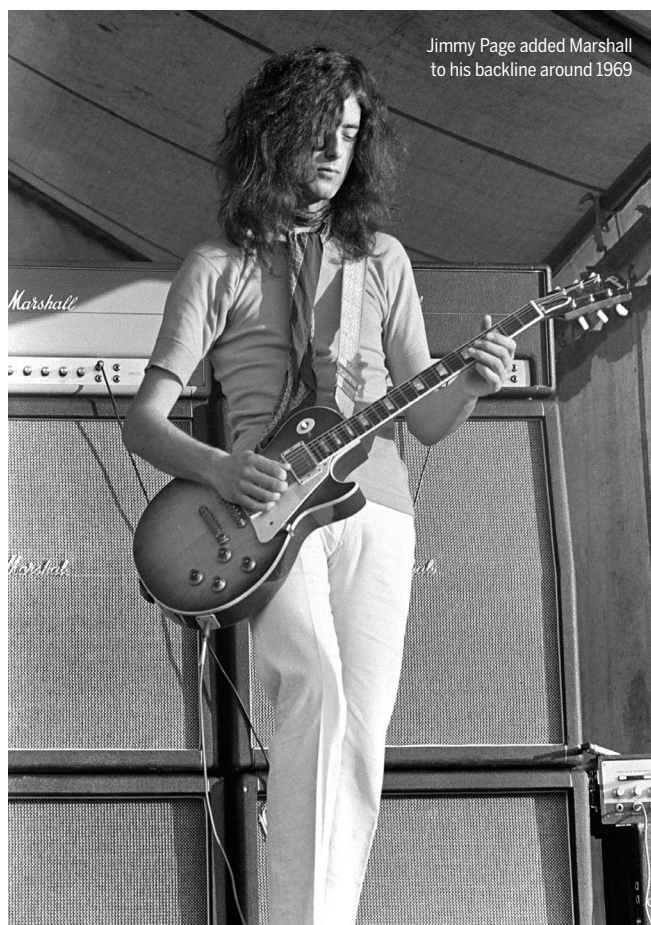
few regrets. Keen to claw back this loss of profit elsewhere, Jim started a wholesale business called Cleartone Musical Instruments (CMI). The Rose Morris deal prevented Marshall amps being sold via distributors Jim had previously worked with, including John Jones. However, Jim decided he could continue selling amps to Jones via CMI, provided he didn't badge them as Marshalls. Thus the 'Park' line of amplifiers was born, the moniker deriving from John Jones's wife's maiden name.

[1966] THE YEAR THE PLEXI WAS BORN

Few terms in the world of amplifiers are as evocative as 'Plexi'. But the moniker is simply short for Plexiglas, which was a trade name for what is widely known today as Perspex. This material, with screen-printed characters on the front and gold backing, was used to make control plates for Marshall amps from 1966 to 1969, though surplus stocks of Plexiglas plates continued to be used up to 1973. After that point, control plates were fabricated from aluminium instead, being easier to produce. Classic Plexi



Park life: two vintage Park heads form the foundation of this tower of tone in the studio of Guns N' Roses guitarist Richard Fortus



Jimmy Page added Marshall to his backline around 1969

(PHOTO BY CHRIS WALTER/WIREIMAGE/GETTY IMAGES)



1964 **MARSHALL** MODEL 1962 COMBO & 1959 **GIBSON** LES PAUL STANDARD

Pictured above is a quintessential pairing of a 'Bluesbreaker' combo and the 1959 'Preacher' 'Burst from a private collection

Marshalls include the Model 1987 head, which was essentially a JTM45 that had the GZ34 valve rectifier swapped out for a solid-state equivalent, and this used EL34s as standard in the power stage plus a new mains transformer, upping the power to 50 watts. The most famous Plexi of all is, of course, the 100-watt Model 1959 Super Lead, but the toneful little Model 1974 18-watt Plexi combo, introduced in 1966, is also highly sought after.

[1969] THE YEAR JIMMY PAGE STARTED USING MARSHALL

To be fair, Page was quoted in Marshall promotional brochures in 1992 as saying 1970 was the year he began using Marshall amps on stage, but it's known that he used Marshalls at the Festival Of The Blues at Bath Recreation Ground in June 1969 and on *Led Zeppelin II* (released in October '69). Page typically used 100-watt Plexi heads on stage but

boosted their power further through the use of KT88 power valves instead of EL34s, and Page claimed he succeeded in getting closer to 200 watts of output through modification. Like Blackmore, Page had considered, at the start of Led Zep, using multiple AC30s but ended up with 100-watt Marshalls (interestingly set with the volume "at about three" as Page told *Guitar Player* magazine in 1978) to compete with the deafening live sound of John Bonham's kit.



EL34s are a cornerstone of the Marshall sound but became scarce in the 90s

[1981] THE YEAR MARSHALL'S JCM800 BROKE FREE

In 1981 Marshall's ill-fated contract with distributor Rose Morris came to an end. This enabled Jim Marshall to slash export prices of Marshall amps by 25 per cent, opening up the American market – a liberating moment that inspired Marshall to launch the classic JCM800. The JCM800 had its roots in Marshall's first Master Volume amps, the model 2203 (100-watt) and 2204 (50-watt) designed by Steve Grindrod in 1975. These were based on earlier Plexis but featured cascading gain stages and a preamp gain control that enabled players to get overdriven tones at a lower overall volume. The JCM800 was essentially a 2203 with cosmetic updates including a much-enlarged Marshall logo and white piping around the baffle, which was covered with cabinet grille cloth, not vinyl. JCM stood for James Charles Marshall.

[1991] THE YEAR VALVESTATE MADE HYBRID AMPS A HIT

Considering that glowing valves are such an important part of Marshall DNA, the success of the affordable Valvestate line, which featured but a single ECC83 (12AX7) in the preamp, might have come as a surprise. But the blend of decent tone, affordability and gig-ability made these mainly solid-state amps a big-seller. Marshall designed a special "bipolar, high-impedance" circuit to emulate the sound and feel of an all-valve amp and it worked well enough to garner the Valvestates a big following. They hit the market during a shortage of EL34 valves when the Czech Tesla factory that supplied Marshall folded, after which the company's all-valve heads had to switch to Sovtek 5881s for a time. Marshall's tube-frugal Valvestate series was not vulnerable to such problems and was expanded into a sprawling range that included everything from stereo-chorus combos to a 10-watt micro stack.

[2000] THE NUMBER OF THE BEASTLY DUAL SUPER LEAD

Despite its seemingly millennial title, the JCM2000 was in fact launched three years earlier, in 1997. As the Dual Super Lead moniker suggests, its design brief was to bring the chunkiness and warmth of the old Plexi Super Lead's power stage together with the high-gain performance of the JCM900. The first model to launch was the DSL100 head, which featured two channels – Classic Gain and Ultra Gain. These each had two



Marshall's Silver Jubilee amps have unique and versatile gain controls

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PERFECT PAIRING

Our Talking Loud columnist, Zilla Cabs' Paul Gough, explains how Celestion's speakers helped elevate the Marshall sound to its legendary status

With Celestion approaching its 100th birthday, it's clear that it didn't start as a company focused on guitar products – but the brand's ability to innovate and the experience it gained up until the early 60s helped it develop a range of drivers (speakers) designed for the guitarist, and one in particular that would allow Marshall amplification to become 'the sound of rock'.

As with most companies, when Jim Marshall and Ken Bran started making guitar amplifiers in 1962 they found restrictions in the materials that were available to them, especially for speakers. Importing relatively large, heavy items such as 12-inch speakers would have been difficult in post-war Britain, not to mention costly, so turning to a local brand such as Celestion is likely to have been an obvious choice. By 1962, Celestion had already been producing guitar speakers for several companies including Vox, designing the now legendary Alnico Blue specifically for the brand. The Blue would not have been available to Marshall, but Celestion's off-



This G12M Blackback driver from the mid-70s would come alive in Marshall 4x12 formats

the-shelf equivalent, the T652 was. Now, being silver and having no magnet cover at the time, its appearance may have been quite plain, but it sounded great and would be heard – and seen (from the back of combos) – until at least 1965.

For several years before this point, speaker manufacturers were starting to develop ranges of ceramic-magnet

speakers, partly in response to volatile magnet prices. Rather than the costly Alnico magnets (an alloy made of aluminium, nickel and cobalt), ceramic magnets (often called ferrite magnets) are made of the much more cost-efficient strontium carbonate and iron oxide. Luckily, ceramic magnet speakers tend to be slightly more aggressive sounding than their Alnico cousins, lending themselves to the more overdriven guitar tones of the 60s and allowing them to slide into common use around this time. Celestion released its first ceramic-magnet speaker, the T1134, in late 1964, though Marshall didn't adopt them until around late 1965 when the company started using the T1221, more commonly known as 'the Greenback' due to its green plastic magnet cover.

The 50s and 60s saw a drive for ever more powerful amps – and in turn this required more powerful speakers. After blowing multiple 2x12 cabs, Marshall partly addressed the issue with its 4x12, but with the first Greenbacks only being 20 watts, the result was an 80-watt cab. Luckily once more, however, larger magnets can absorb more heat meaning they can also take more power, and in late 1966 we saw the introduction of the G12H (12-inch Guitar speaker with a Heavy magnet). One version, the T1281,



Ceramic-magnet Greenbacks offered a more aggressive-sounding alternative to the costly Alnico versions

Marshall's high-power 4x12s – as seen on the backlines of Clapton and Hendrix – featured the '100' logo and Celestion's T1281 drivers



PHOTO BY MICHAEL PUTLAND/GETTY IMAGES

found itself in Marshall's high-power 4x12s (the ones with the 100 logo in the top-left corner), which were often used for guitar and bass, partly down to the H's lower bass resonance and also, I imagine, because of its higher sensitivity rating making the H sound louder still. Although the 75Hz cone version (T1217) seems to have been used more regularly in the 70s, it is the T1281 that holds a place in many guitarists' hearts for its warm lower mids, as well as being the speaker Jimi Hendrix was often seen to be using.

In 1967, due to developments in voice coil design, the Greenback speakers all increased their power by five watts. This took the G12M (Medium magnet) from 20 watts to its now-familiar 25 watts, and the G12H from 25 to 30 watts, making the standard Marshall 4x12 100 watts and the high-power version 120 watts. It wouldn't be until the

"The 50s and 60s saw a drive for ever more powerful amps – and in turn this required more powerful speakers"

introduction of the G12-65 in 1979 that a 2x12 would surpass the 100-watt mark.

The 70s saw several colour changes of the Greenback's plastic magnet cover, but they were just that, a change in colour – unlike the modern Creambacks, which are high-powered versions of the Greenback models. Up until the introduction of the G12-65 and its leap in power rating, the main change in this period would have been the switch from Pulsonic cones in around '74 to '75,

following a fire at the Pulsonic factory in 1973. Legend has it the secret sauce went up with that fire and some say cones would never be as soft and fluid-sounding again. Once these Pulsonic cones were depleted, we started to see slightly more aggressive-sounding Kurt Mueller cones appearing on a lot of speakers to feature in Marshall cabs, including the 'Blackback' speakers of the late 70s through to the G12-80.

The 1980s saw many changes, but the most significant of all would be the introduction of two of the biggest-selling speakers of all time: Celestion's Vintage 30 and G12T-75. Although speakers have changed through the years, whether due to technical advances or the availability of parts, the story of guitar speakers and their development certainly plays a major part in the musical icon that is the Marshall cab. **G**

MODIFIED MARSHALLS

They say necessity is the mother of invention and so it was that during the late 60s and beyond repair shop engineers began to modify amps to improve reliability and tone. Industry legend Paul Rivera Sr provides an insight into the pioneering years of the hot-rodder's art

Words Nick Guppy

The appeal of early Marshall amps was their sonic transparency and response, not to mention the prodigious power of a 100-watt EL34 head plugged into a 4x12 Celestion-powered cabinet. It was – and still is for many players – the archetypal rock guitar tone, a collision of components and voltages that created a unique voodoo. However, as guitarists grew into the new era of progressive rock powered by the likes of Jimi Hendrix and Cream-era Eric Clapton,

the early Marshalls' simplicity – and the unreliability of circuits pushed to the max – became more of a hindrance for some players, meaning there was a growing demand for modifications as well as repairs.

In the late 1960s and early 70s, the amp-modding industry hadn't properly started, but amplifiers often needed repairing and it was repair shops that pioneered ideas in response to artist demands. Early Marshalls such as the 1959 head were utilitarian clean

powerhouses that only began to distort when turned up loud, at which point overworked power valves began arcing, so unsurprisingly many modifications were about improving reliability, besides adding more gain or controlling output power. Later, as features such as preamp gain controls and master volumes became more common, they eventually filtered back into new factory designs, including the Mk2 and JCM800.

Meanwhile, amp repairers were upping their games, especially in the

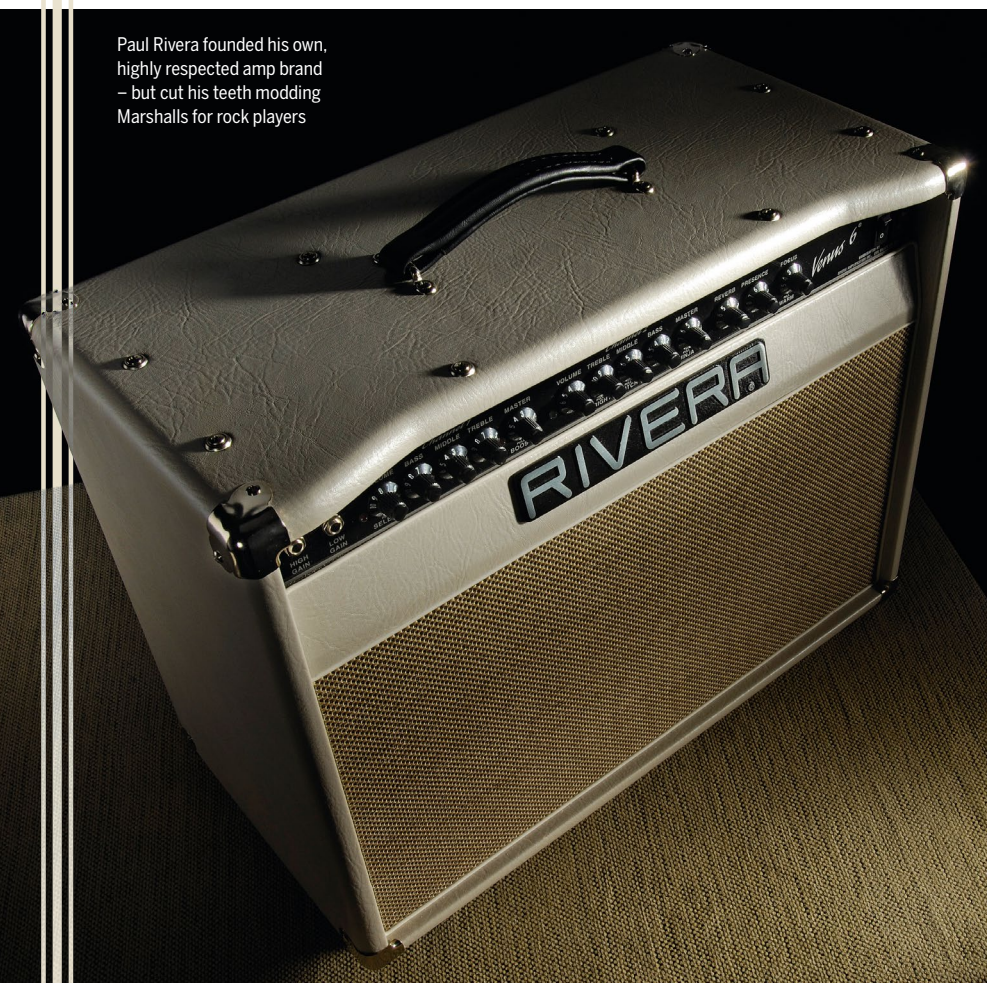
In the late 1960s and early 70s, it was repair shops that pioneered ideas in response to artist demands

USA. One of the original tone gurus and a founder member of an elite club of engineers responsible for kickstarting the amp modification and boutique amp industry is Paul Rivera. Paul is well known for his association with Fender in the early 80s, but during his 70s tenure at the legendary Hollywood shop Valley Arts Guitars, and in the years prior, he worked on many Marshall amps. Paul Sr takes up the story...

MODS & ROCKERS

"I cut my teeth on early Marshall amps at my first shop in NYC in the late 60s," he tells us, "mostly warranty repair work, which gave me an opportunity to learn from the resident eastern European engineer who worked at their NYC distributor. Those early amps were temperamental due to excessively high anode and screen-grid voltages. Also, the output transformers were terribly stressed on peak-to-peak AC voltages

Paul Rivera founded his own, highly respected amp brand – but cut his teeth modding Marshalls for rock players



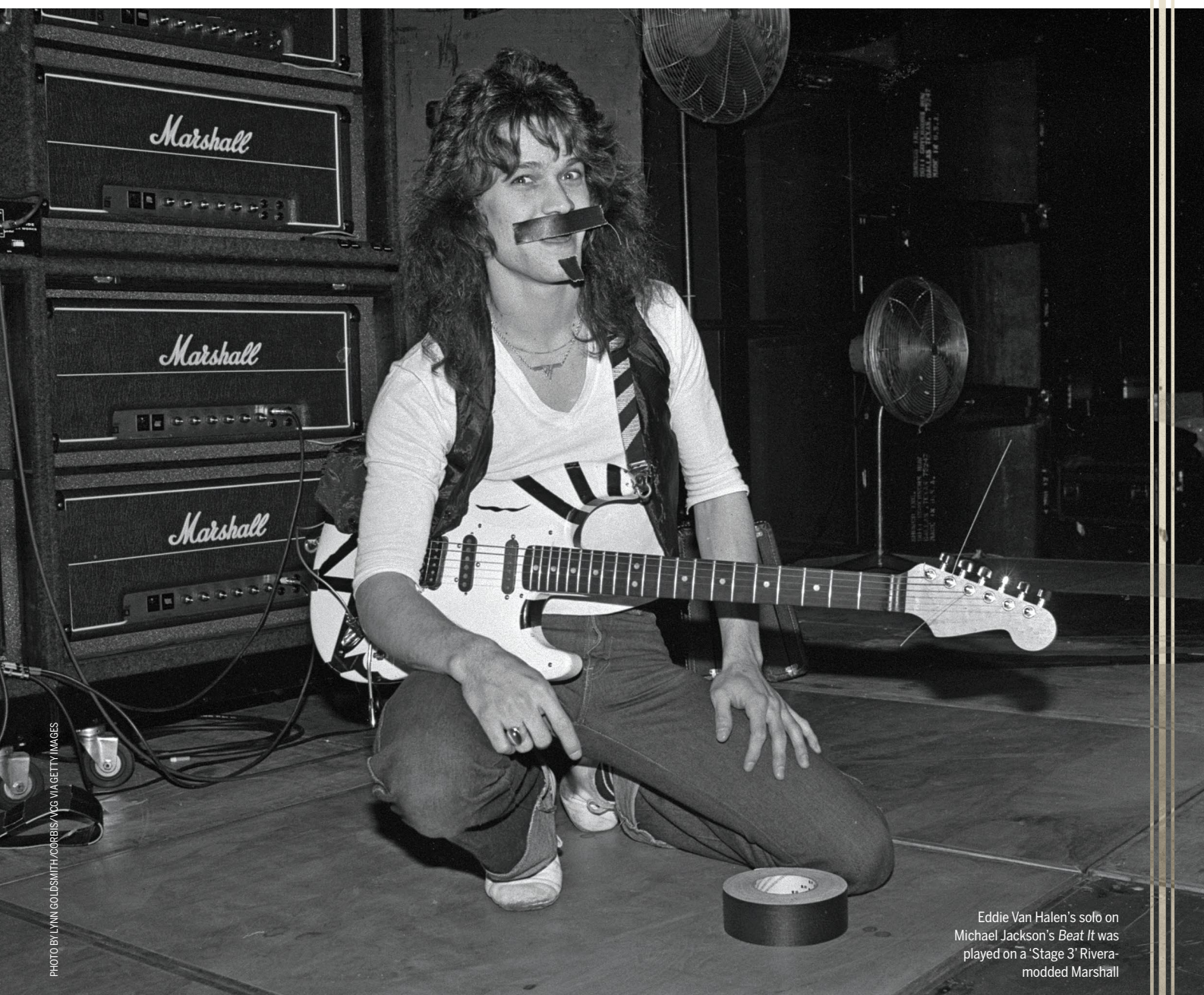


PHOTO BY LYNN GOLDSMITH/CORBIS/VG3 VIA GETTY IMAGES

Eddie Van Halen's solo on Michael Jackson's *Beat It* was played on a 'Stage 3' Rivera-modded Marshall

due to the impedance swings of their speaker loads. Lots of blown output transformers and arced octal sockets!

"A conversation in 1968 with a transformer engineer at Dynaco gave me hope that we'd found a superior output transformer and I started installing Dynaco's A-431 in 50-watt models and the A-451 in 100-watt models. I soon realised that using the ultra-linear screen-grid taps would require a large filter choke to lower the ripple, so I kept the DC stock wiring. In hindsight, if Marshall's Ken Bran had made a split DC supply with the screen grids kept at 50 per cent of the anode DCV, he could have had 600 volts on the anode and greatly increased reliability – based

on using contemporary Mullard or Philips EL34s, of course. Those Dynaco transformers were far more reliable and sounded just magical.

"In 1972 I moved to Southern California, building my contacts in the music scene there. I continued developing Marshall modifications in stages to suit different budgets, helped by input and feedback from the studio engineers, producers and players that I worked with. This was about the same time that Marshall's Mk2 amps arrived on the market, with substantially reduced DC voltages and greatly improved stability. As 6KV+ diodes became available in the 1970s, we were able to use them as 'flyback' diodes on

the anodes, which effectively controlled the arcing and blown transformer issues.

"Most Marshall players loved the cranked tone but needed master volumes to make their amps useful in smaller venues. With a master volume, you could add extra gain without fear of deafening the first row of your audience – so that was Stage 1. Playing with the mids and bass frequencies, and creating a rotary switch to do all this, was part and parcel of the first Stage 2 mods. Master volume, switchable gain boost, a fat switch, an output stage rewire with flyback diodes (replacing the octal sockets if needed), and beefing up filter caps to reduce ripple and hum, all became Stage 2. Stage 3 added an additional preamp tube



Friedman's BE Mini offers cranked Plexi tone in a tiny box

and associated circuitry along with all of the Stage 2 mods. An active effects loop was another option as time progressed. Stage 4 was full channel switching with two completely independent channels on a Marshall 1959 model, requiring dual-concentric potentiometers and stacked knobs to retain the stock appearance, additional preamp tubes, a bespoke motherboard PCB with Vactec (silent optical) switching, and a multi-function footswitch to control the effects loop bypass and channel switching.

"If you listen to Eddie Van Halen on Michael Jackson's *Beat It*, that was a Stage 3 I did for a journalist who lent it to Eddie for the session. Most of Steve Lukather's tracks on the first four Toto albums were done using my modified Marshalls. Many other tracks by various musicians, including Eric Johnson, add to the legacy of those modified Marshalls I developed. So that was really the zenith. Post-Fender, by the time I started production of my own amps in late 1985, I had less time and desire to continue modifying other amp brands."

A LEAGUE OF THEIR OWN

Nearly five decades later, Paul Rivera is still as active as ever, recently completing a restoration on a flood-damaged Marshall Super Bass 100 now touring with Tool. Other well-known Marshall hot-rodders who followed Rivera's lead include Reinhold Bogner, who arrived in LA from Germany in 1989 and worked on amps for Steve Stevens and Jerry Cantrell before introducing his own

Features such as built-in attenuators and automatic biasing started out on an independent amp designer's desk



Many of Reinhold Bogner's amps are highly evolved offshoots from the modded Marshall concept

designs. Lee Jackson of Metaltronix assisted the tones of Paul Gilbert and Steve Vai, and the late Jose Arredondo and César Díaz were both noted for their work with Stevie Ray Vaughan and Eric Clapton. These highly talented designers helped move the Marshall sound forward and shape the tones used by the next generation of players. Bogner's three-channel Ecstasy made multi-channel heads the norm, while features such as built-in attenuators, automatic biasing and various other refinements all started out on an independent amp designer's desk somewhere.

The USA amp hot-rodding scene in the early to mid-70s provided Rivera, Soldano, THD, Kendrick, Mesa/Boogie's Randall Smith and many others with a platform to eventually manufacture and sell their own designs. Somehow, it never

quite arrived in the UK. While there's no shortage of talent, most UK engineers tended to restrict themselves to servicing and repairs, with some ending up working for top brands including Marshall, while others such as Victory's Martin Kidd and 633 Engineering's Cliff Brown made the leap into manufacturing their own designs.

It's an occupation that's challenging for large and small manufacturers alike; sourcing components and subcontractors has become particularly difficult, with normally plentiful products such as diodes and capacitors now stretching out to 60-week-plus lead times. Nevertheless, Marshall continues to evolve, with the current JVM flagships incorporating many features we now take for granted, often thanks to the past pioneering work of an army of hot-rodders. **G**

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DEF LEPPARD

As the Sheffield rockers toast their 45th anniversary with the glam-influenced new album they say is the “best thing we’ve ever done”, we ask Phil Collen and Viv Campbell about conquering technophobia, messing with classic solos and stepping up at G3

Words Henry Yates Photography Will Ireland

There’s a case that Def Leppard function best with their backs to the wall. Consider the hellish sessions for 1987’s *Hysteria*, when the Sheffield band reeled from creative strife, plunging debt and the nightmare car crash that cost drummer Rick Allen his left arm. Then revisit the resultant multi-platinum album, whose joyous anthems punched their ticket to the stadium league.

Now, 35 years later, some of that same blitz spirit runs through *Diamond Star Halos*, the 12th album, forged when Covid turned out the lights, nixed Leppard’s Stadium Tour with Mötley Crüe and scattered each band member to the gleaming ghost ship of his own guitar room. From stasis and isolation grew ambition, a fierce remote work ethic and, finally, 15 shout-it-back songs so big they should bring the world out of hiding.

“I honestly think *Diamond Star Halos* is the best thing we’ve ever done,” says Phil Collen, the likeable aitch-dropping gunslinger who joined in 1982. His wingman Viv Campbell, a wry Northern Irishman whose presence since 1992 has always made Leppard a few notches cooler, gives a nod: “And we didn’t even have to look at each other while we did it...”

How badly do you think people need anthemic rock ‘n’ roll right now?

Phil Collen: “I think we all need it. It’s been so crap. And right now, I can’t believe the shit that’s going on in Ukraine. It’s horrific. I just watched a Ken Burns documentary on the history of jazz, and it’s amazing how during the Great Depression, and coming out of slavery, this music was all about rejoicing. You need an outlet. For us – as people, let alone musicians – that was absolutely essential. This album is joyous.”

Leppard frontman Joe Elliott says there’s a glam influence on *Diamond Star Halos*. Does that go for your guitar work, too?

Viv Campbell: “Yeah, absolutely. I was thinking about the whole tonality of Mick Ronson. Y’know, note choice, intensity of vibrato and intention in general.”

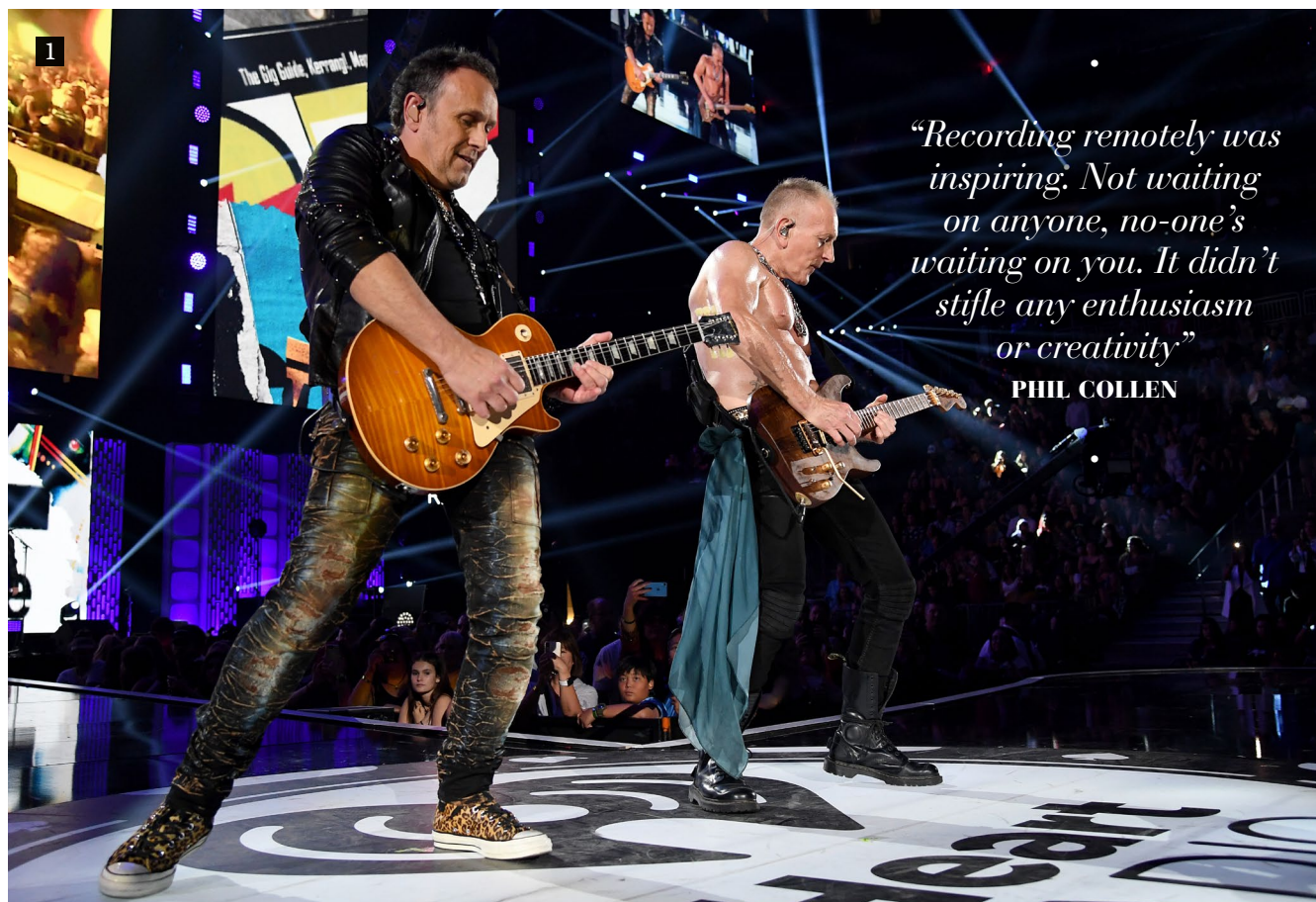
Phil: “There’s a track called *Goodbye For Good This Time*, and I used a Ramirez Spanish guitar because I wanted a tip of the hat to Mick Ronson, the solo he did on *Lady Grinning Soul* from *Aladdin Sane*.”

What are the most striking guitar moments for you?

Phil: “On *Kick*, my guitar is overloaded and it’s kind of peaking, and you can hear this ‘clinking’ noise, which I guess is the noise gate cutting off. Stuff like that is magical. Like at the beginning of *Crazy Train*, where you hear the buzz of the guitar – that’s the shit you want. We didn’t take any of that out. We’ve been criticised – sometimes rightly – for getting things too clean, too perfect. This album is a bit more real. So I’m looking forward to playing the *Kick* and *Fire It Up* solos. But the solo at the end of *From Here To Eternity* is my favourite. It’s a tribute to Ritchie Blackmore and Michael Schenker.”

Viv: “That song has my favourite solo I did on the record, too. I think it was that ‘doing it at home’ thing. There wasn’t that pressure of ‘you’ve got 30 minutes, let’s just bang out a guitar solo’. I took time to structure my solos a bit more. I’ve had a bad habit in the past of not preparing solos. Like, ‘Oh, I’ll just warm up, go in there and something will surface.’ But some days, you’re more inspired than others. *Lifeless*, in particular, is a strange chord sequence under the solo, so it had to be more specific than just winging it, y’know?”





"Recording remotely was inspiring. Not waiting on anyone, no-one's waiting on you. It didn't stifle any enthusiasm or creativity"

PHIL COLLEN

What were the particular pleasures and challenges of recording remotely?

Phil: "No challenges whatsoever. It was the most inspiring way to record. Not waiting on anyone, no-one's waiting on you. It didn't stifle any enthusiasm or creativity. Me and Joe have never had so much fun writing together. Just banging ideas off each other. I wish we'd done this before. We've written songs together before, but it was never like this."

Viv: "For me, it's a double-edged sword. When it came to my guitar parts, it was actually better because I didn't have people looking over my shoulder, which I never enjoyed. The bad part was that I had to be my own engineer. I'm a luddite, so it was a steep learning curve. Every morning, I'd open Dropbox and there'd be another song from Joe, and I'd be like, 'Shit, the workload is piling up, I really need to learn the tech.'"

"So I called Phil and he said, 'Oh, you should get Logic, it's really easy.' So I downloaded Logic that day and I'm thinking, 'That is *not* easy.' Then I got a [Universal Audio] Apollo Twin and I had to call Ronan [McHugh], our clever engineer, to ask how it works. I did a load of vocal stuff first. Then I started to tackle the guitar. Again, I called Phil and he told me he was using [Native Instruments] Guitar Rig. So I got that and an Engl plug-in."

Phil: "This album was all Guitar Rig software. I just plugged the guitar into a cheap Focusrite Scarlett box and used the same preset I've been using since 2011. I've modified a Marshall or something in there. I'd do a fairly ordinary guitar tone – no chorus, delay or anything – then give that to Ronan and he'd put some effects on it."

What tone were you going for on this album?

Viv: "It depended on the song. I'd go into Guitar Rig and there's just a bewildering amount of presets. So I'd find something that was in the ballpark, adjust the EQ or overdrive – and just start doing it. I'd record my tracks and send them to Ronan with that preset. But I'd also send him the 'plinky' version, y'know, where it's just the direct sound, in case he wanted to reamp it. More than anything, I wanted something to play with, just to put the part down. There's so many variables on Guitar Rig that you could spend a week doing it. But I figured, 'Screw this, let's just get a guitar part going.'"

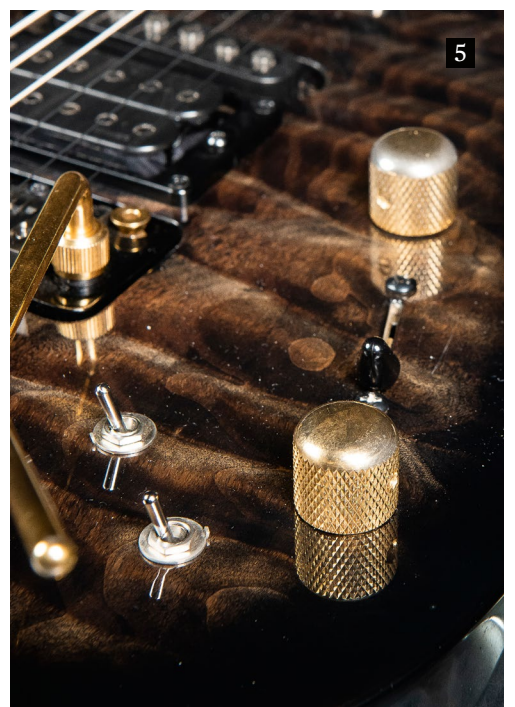
Are you finished with amps, then?

Phil: "For recording, pretty much. When we play live I use Fractal anyway, and that works just amazing. I use these little Atomic cabs – they're powered – so I haven't got a power amp any more. I haven't got an effects unit any more, either. It's just a Fractal straight into these cabinets. We do stadiums with them and they sound amazing. I actually got to play with Chaka Khan last summer in LA and, again, I used these things. Usually, I have in-ear monitors, but for this I didn't and it was the best sound I've ever heard. Usually, when I play clubs, I use Blackstar combos, the Silverline or ID series. They're just awesome. So for different gigs, I use different amps."

Which guitars did you reach for?

Viv: "I recently moved to New Hampshire and I brought a half-dozen guitars with me, but I still have a shitload in storage in the Def Leppard locker in LA."

1. Viv Campbell and Phil Collen's six-string partnership has been going strong for three decades now
2. This model is a hybrid of some of Phil's other guitars and is named Red Sugah. It has a 1996 PC1 trans black Mocha body with 2009 30th Anniversary PC1 splatter neck
3. Note the reverse headstock here, unlike the production-model PC1 guitars
4. Phil's custom model is loaded with a Floyd Rose vibrato with FU-Tone titanium saddle and tungsten block
5. Onto the electronics and the trio of pickups are: DiMarzio Super 3 humbucker (bridge), DiMarzio Custom Sugar Chakra (middle) and Jackson Sustainer/pickup (neck)



6. In hard times, says Phil Collen, “you need an outlet.” And *Diamond Star Halo* is up to the task, he says. “For us – as people, let alone musicians – that was absolutely essential. This album is joyous”

7. Viv has been a Les Paul man since his Dio days. This 2018 model Vivian Campbell Les Paul Custom was from a limited run of several hundred guitars by Gibson, all finished in Antrim Basalt Burst. It features TonePros hardware, with all metal parts finished in satin nickel, and DiMarzio Super 3 and Super Distortion pickups

So I had a pretty limited choice, but my go-to for the solos was my original Dio Les Paul. I bought that new when I was 15. It's a '77 and started life as a Deluxe, but it's been modified in every way possible. I'm very intimate with that guitar and I've been playing that one a lot with Last In Line, my side band. I also had my Gibson Custom Shop model and a '66 Fender Telecaster if I wanted something cleaner. I had a blue Tom Anderson Strat, too, if I wanted something with a bit of a front pickup Stratty sound, or a whangy bar effect.”

Phil, was this album mostly your Jackson PC1?

Phil: “Yeah. For the solos on *From Here To Eternity* and *Open Your Eyes* it was the walnut-top PC1 with the DiMarzio X2N and Sugar Chakra pickups. But on *Gimme A Kiss*, I used a Squier Super-Sonic. And for the solo for *This Guitar*, I used a Squier Telecaster on the neck pickup. I also got this Squier Starcaster during lockdown because I was always curious about a semi-acoustic Fender back in the 70s. They discontinued it – it wasn't popular – but I'm sitting at home, ordered one of these things and it's really delightful. I used it for the opening riff of *This Guitar*.”

In that song, the chorus says, ‘This guitar saved my life.’ Is that how you feel?

Viv: “Oh, totally. Especially growing up in Belfast in the 70s. You could take it quite literally: the guitar saved my life and the lives of many of my friends. It gave us something to do other than get dragged into sectarian nonsense, y'know?”

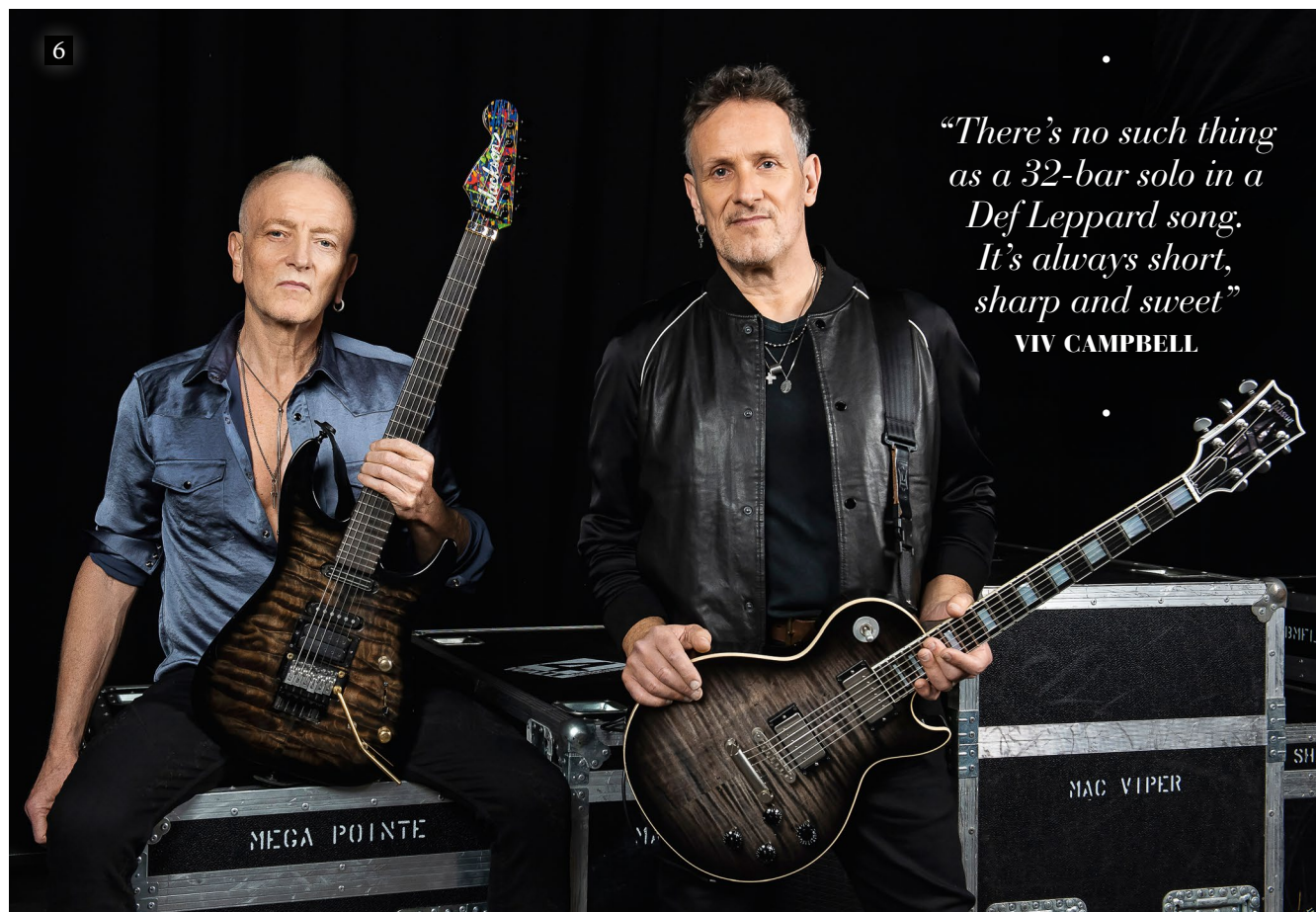
Phil, do you think your work in side project Delta Deep has impacted your playing in Leppard?

Phil: “Oh, absolutely. I always have this thing: as long as I know more today than I did yesterday, then I'm on the right trajectory. Just doing the Chaka Khan thing was incredible. Her band was outrageous. She said, ‘Just stay on and play.’ So I had to work out the songs on the spot. I was thinking, ‘Well, I don't want to fuck this up.’ So I just navigated around her band, didn't get in the way of her vocal. I was playing string parts using the PC1 Sustainer. Me and Slash did a live recording of Jimi Hendrix's *Fire* last year, too, and that was killer. I'd never played with him before and, again, it was all about navigating around each other. Everything you do just adds to your arsenal.”

How about your stint on G3 with John Petrucci and Joe Satriani in 2018?

Phil: “The funniest thing was, we went to our rehearsal session and they said, ‘Okay, let's do *Highway Star* for the section where we all jam together.’ From that moment, I was like, ‘Shit, I'm gonna have to up my game.’ I was literally practising hours in the daytime. But in a good way: it wasn't fear practice, I was inspired.

“So we were doing a three-part harmony on the fast bit and I remember John said, ‘Well, how about if I play this?’ and I had to play another harmony. It was the biggest stretch I've ever had to do on a guitar. But it was like, ‘Okay, I'm not going to let you down.’ So I got it down. That G3 experience made me play so much



“There’s no such thing as a 32-bar solo in a Def Leppard song. It’s always short, sharp and sweet”

VIV CAMPBELL

better. Y'know, the Dorian mode, Phrygian shit... I knew some of the notes, but I couldn't tell you exactly what the scale was. But by the end of that tour, I knew what they were."

This year is Leppard's 45th anniversary. What emotions does that bring up for you?

Viv: "It's not something we dwell upon, to be honest. But when you think about it, it's quite an achievement for any band. You start doing this as a kid. You're sleeping in a van, eating chips every day, living on a shoestring budget. Then all of a sudden, here we are in the Savoy and we're in the Rock & Roll Hall Of Fame... and we're in our 60s!"

Quite a lot of the bands from the New Wave Of British Heavy Metal movement have survived, haven't they?

Viv: "Yeah, and many more didn't. You have to learn to adapt. I guess Leppard's been through the wringer on that, y'know, with Rick's accident and Steve [Clark]'s passing. I mean, Leppard really is a unique band. There's a real sense of cohesiveness. And the one thing we all know is that it's not about any of us. It's about the music, the songs. As guitar players, Phil and I are keenly aware of that fact. There's no such thing as a 32-bar solo in a Def Leppard song. It's always short, sharp and sweet – and definitely not just a bunch of notes."

Do you have to play the classic solos note-for-note or can you go off-piste?

Phil: "I have this thing about licks. You can do what you like, as long as you respect the melody. And you can go crazy for one bar. I say this to drummers as well. You can take liberties – but you've got a bar to do it in. Anything more and it starts affecting the groove and the melody, and then all of a sudden you've lost it."

Viv: "I keep close to the records. When I first joined Leppard, I didn't. I was just kind of making it up as I went along. But within a few months, it occurred to me that the solos are a big part of the song. They're melodic structures and themes in their own right, so I play as close to how Steve played them as possible. But obviously no two players play alike. Y'know, I physically play the guitar different from Steve. I palm-mute and pinch harmonics a lot more. There's a lot more aggression in how I play than how Steve did. So even if I'm playing the same notes, it's gonna sound different."

Do you think Steve gets enough recognition in Top 100 Guitarist polls?

Phil: "No, of course not. He should be in them way more. He was so influential. I still think it's going to happen. I think there's more to come with his legacy."

So what's next for Leppard?

Viv: "The Stadium Tour is going ahead in America this summer and there's this incredible sense of release. Even though Covid is still a major issue in our lives, I think we've got to a stage where we're ready to go out and live with it." 



Def Leppard's new album, *Diamond Star Halos*, is released on 27 May on Universal

www.defleppard.com







Revstar Restart

Seven years after it first appeared, Yamaha's Revstar range gets a thorough makeover without losing any of the original style. The next level? Let's examine the evidence

Words Dave Burrluck Photography Phil Barker



YAMAHA REVSTAR RSE20, RSS20, RSS02T & RSP02T **APPROX £399, £649, £649 & £1,599**

CONTACT **Yamaha** PHONE **01908 366700** WEB <http://uk.yamaha.com>

What You Need To Know

- 1 These look like the old models!**
Well, for starters, the body has been slightly enlarged. The range has also been simplified into the start-up Element and mid-range Standard levels (made in Indonesia), and the made-in-Japan Professional models.
- 2 What else is new?**
The bodies are also now chambered: "Yamaha's Acoustic Design process sculpt[s] tone and increase[s] resonance while reducing weight and optimising balance". Standard and Professional models feature carbon-reinforced necks, while Professional models add carbon reinforcement to the body for "weight relief, vibration transfer, and tone shaping".
- 3 We hear there's a new switch...**
The original Revstars' Dry Switch is retained on Element models, while the upper tiers feature a Focus Switch, "a passive boost that darkens highs while increasing bass and mids for an effect like overwound pickups", and a five-way lever pickup switch.

Combining Yamaha's long and storied history with a dash of motorcycle 'Café Racer' heritage plus a mixture of Japanese craft styles, Revstar originally launched in 2015 after quite a lengthy gestation period. We were among the many involved in evaluating the various prototype stages, which occurred around the world, and the time and expense involved in the process was certainly a rarity in our experience. The final multi-level Revstar range was impressive, although (barring a couple of additional models) it remained rather static. Oddly, too, there were no flag-waving Revstar signature artists, though Yamaha Artist Services (YASLA) in Los Angeles crafted many custom artist models – not for public consumption – that hinted at the many directions in which Revstar could go.

There's little doubt that the new Mk II models are informed by seven years of feedback. It's typical Yamaha: a slow-moving corporation that doesn't act on whim or 'flavour of the month'. Outwardly, the new guitars don't mess with the recipe too much, but, as we explain, pretty much every feature has been evaluated and tweaked and new ones added.

So, what's changed? Let's start with the body. It retains the original Revstar's outline

style – clearly inspired by Yamaha's classic SG outline, with the bass-side pointed horn pulled upwards, along with the lesser known Super Flighter from 1977 – but has been slightly increased in size and is now chambered mahogany throughout the new range. There's a thin maple top (approximately 6mm), as before, on the higher level Standard and Professional models, and the latter level also gets two thin carbon graphite reinforcement strips placed under the maple top, in between the bridge and tailpiece and behind it.

Like the originals, these are slab bodies with Strat-style forearm and rib-cage contours, but they're not bolt-ons and they follow the Gibson protocol in terms of scale length. The glued-in necks on all models slot full-width into the body and extend under the neck pickup. In addition, exclusive to the Standard and Professional models only, are two strips of carbon graphite flanking the two-way adjustable truss rod within the three-piece mahogany necks. A final difference is that the Professional level gets a dose of Yamaha's Initial Response Acceleration (IRA) treatment, "which applies specific vibrations to release stresses in the instrument for a 'played in' tone".

Still with the chassis construction, another major upgrade for some players



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will be the stainless-steel jumbo frets on our Standard and Professional models, while the radius of the rosewood fingerboard on all models slightly changes from the 350mm (13.75 inches) of the previous guitars to 305mm (12 inches). The upper two tiers also have binding around the top edge of the bodies, 'boards and headstocks, with small bar fingerboard inlays; the Element models are unbound with dot fingerboard inlays.

As with the previous models, all the guitars use a tune-o-matic-style bridge, which is paired on the dual-humbucking '20' models with a stud tailpiece, or on the dual-soapbar single-coil '02' models with a distinct custom tailpiece that featured on the similar soapbar-equipped original 502T. Previously, the parts were satin-finished, but here (including that custom tailpiece) they are bright, shiny nickel-plate. The tuners seem identical across the levels, a rather nice enclosed style with slightly green-ish keystone buttons and a smooth positive action.

The actual covered humbuckers are quoted as VH3 neck and bridge on the Element, and VH5 on the Standard and Professional – both sets apparently with Alnico V magnets. The VP5 neck and bridge soapbar single coils feature only in the two upper tiers. As before, the controls are

1. Although our prototype's pickups were off-spec on the Element model RSE20, the correct VH3 humbuckers that the production models will feature are very similar to the VH5 'buckers on the RSS20 – all are made by G&B in Korea to Yamaha's design

2. The Element headstock is unbound; on the Standard and Professional models we get binding on the headstock, fingerboard and top body edge. However, like the other guitars the Element's fascia doesn't feature a Yamaha logo. "From a branding point of view, via the tuning fork logo, it says 'Yamaha' but in a cooler way," explained Julian Ward on the Revstar's launch in 2015



THE RIVALS

Plenty of big names are in competition here, not least Epiphone with its Les Paul Studio (in-store at £399), all mahogany with a maple veneer top and Alnico Classic covered humbuckers. Another guitar in strong competition to the RSS20 is Epiphone's 1961 Les Paul SG Standard (£649, inc case).

PRS's new SE 24-08 Standard (£620) shares an all-mahogany set-neck construction and very neat pickup switching of the humbuckers to true single coil via two mini-toggle switches. We also get a vibrato.

Sitting between the Standard and Professional levels is Reverend's Sensei (£949), which looks like an offset Revstar with plenty of features, including all korina construction and dual Railhammer humbuckers.

Let's not forget Gordon Smith in the UK. Its GS2 can be custom-ordered to similar specs as the RSP02T, excluding the graphite reinforcement but including stainless-steel frets for just over £1,400 including case.

simply master volume and tone, the latter with a pull switch to engage either the Dry Switch on the Element models (a high-pass filter that we saw on the original series) or the Focus Switch on the Standard and Professional models, a new Mk II feature (see Under The Hood, over the page).

These guitars might be made in factories over 3,000 miles apart and span quite a price range, but the actual craft is very similar: in no way does the RSE20 feel 'cheap' compared with the RSP02T. The rear cavity cover on the RSE20 isn't quite as cleanly recessed, the fret ends are left a little sharp unlike the nicely domed ends to the Standard, and the fretwire is slightly wider and lower on the Element model, too. We must say, however, that these are effectively production prototypes. Oh, and another small difference is that the Element's tune-o-matic is a smaller-width ABR-1-style whereas the other tiers use a wider travel Nashville-style unit.

Before Revstar, all of Yamaha's electrics proudly displayed a block-style Yamaha headstock logo. Here, it's replaced by just the brand's tuning fork logo on a raised button-sized disc: the only mention of Yamaha is on a (removable) country of origin sticker on the back of the headstock.

Feel & Sounds

We're seeing quite a shift to lighter guitars in the market, but while these new Revstars might be quite chambered none of our samples are what you'd call feather light. Early original Revstars that we evaluated, such as the RS502T and RS820CR, came in at 3.98kg (8.76lb) and 4kg (8.8lb) respectively, while a quartet of models we reviewed later had a range between 3.83kg (8.4lb) and 4.04kg (8.9lb).

Our four Mk II models today range from the 3.52kg (7.76lb) of the RSE20 to 3.86kg (8.5lb) for the RSP02T, which are a little lighter with a 0.34kg (0.75lb) variance. Aside from the unspecified body enlargement, our four guitars' bodies all measure 347mm (13.6 inches) in width and pretty much 430mm (16.9lb) from the base to the top of the bass-side horn, and 42mm (1.65 inches) in depth, very slightly thinner than the 44mm (1.7-inch) depth of the originals. For reference, a Les Paul is 330mm (13 inches) wide by 438mm (17.2 inches) long with a rim depth of 50mm (2 inches) rising to just over 60mm (2.4 inches) at the peak of its dome top.

In reality, the guitars certainly don't feel 'big' and they don't feel light, or indeed chambered. In fact, whereas with many



sealed semi-solid designs you can tap the body with your fingernails and easily hear the hollow areas, you really hear very little hollowiness here. They feel like mainstream solidbodies – and good ones at that. We can't help thinking that the 'semi' side of this design is used to impart some depth and resonance, akin to good lightweight woods that much higher level guitars might use. These really don't feel like inert lumps, and even the RSE20 feels nice and alive, and is comfortable played seated or strapped on.

More obviously, the neck shape has gone through some changes, too. First, the neck back is now a slinky satin. The nut drops in width and, as ever, there's slight variance here. Yamaha specs 41.9mm, which is pretty much bang on the average measurement for our quartet. Yamaha mistakenly specs the 12th-fret width at 56.8mm (our average measurement is 53mm), which

These guitars are not trying to be 'better' versions of a classic design. They are very much their own thing

is the width at the 22nd fret. In depth, we have on average 20.75mm at the 1st fret and 23.95mm by the 12th, so in lower positions that's similar to the previous model (although that had a slightly wider nut width), while the depth and feel is less big as you move up the neck. Those original Revstar necks, from the 500-level upwards, really had a lot of girth by the 12th fret. And yet the shape here, with its quite full shoulders and a flatter back, feels a little bigger than it actually measures.

Still, as we've seen before, these models are very hard to tell apart in feel, particularly those made in Yamaha's Chinese acoustic factory compared with the higher level Japanese guitars. Swapping from the Element to Standard, let alone the Professional, you really don't get any impression of basic, better, best.

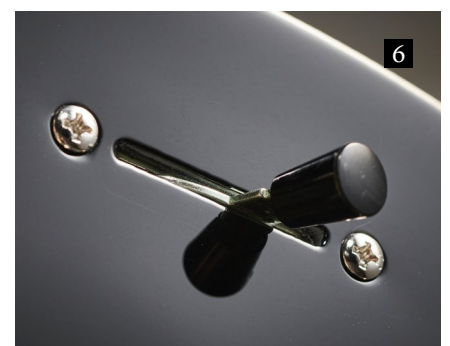
With such consistency across the style you might expect the same in terms of sounds. Starting with the humbucking Standard, we're met with a pretty, well, standard, Gibson-esque not-too-hot humbucking voice. It's a considered voice that's very mainstream, in that the bridge humbucker balances girth and power, with a typically slightly rounded high-end, less sharp than the Burstbucker 2 on our Gibson

3. The Standard and Professional models use stainless-steel jumbo-sized frets, and all the new Revstars share the same neck dimensions and a 305mm (12-inch) fingerboard radius. Both upper levels use small bar-like 'board inlays, too

4. These G&B-made soapbar single coils add a very characterful voice but also have plenty of power. They measure 7.93kohms (bridge) and 8.08k (neck), and we're told the same units feature on the Professional model

5. The RSS20 is loaded with VH5 covered humbuckers that use Alnico V magnets and have a measured DCR of 8.57kohms (bridge) and 8.31k (neck)

6. The Standard and Professional models use a five-way lever switch that offers the usual bridge, both and neck selections, plus slightly out-of-phase sounding combinations in positions 2 and 4





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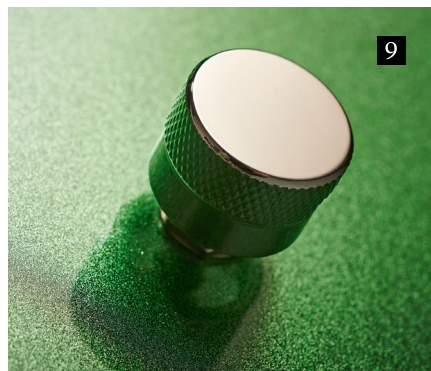
7. These rather elegant non-locking tuners, shown here on the RSS20, are used across the range. Note the Hanko stamp motif from the original Revstars. On the Indonesian models, it means 'Revstar'; on the Japanese-made Pro model, the decal means 'Made in Japan'

8. Like the originals, all the guitars have a nicely shaped neck heel. The full width of the necks slot into the body and continue under the neck pickup

9. The new Standard and Professional models introduce the Focus Switch by pulling up the master tone control. It's a passive boost achieved with a small transformer in the control cavity



8



9

Les Paul Classic reference. Moving to the neck unit, there's an impression of thickness – soupy and vocal, PAF-y but again a little rounded in the highs. The mix is bouncy, just as you'd expect, and in position 2 there's a very similar high-end response but a slightly out-of-phase honky flavour in the lower positions. Position 4 has the same character, just a little thicker and (with both pickups selected) very similar to slightly rolling off just the neck pickup volume on our Les Paul Classic. All the guitars feature an effective treble bleed circuit, and pulling back the volume does have the effect of restoring a little clarity.

Moving to the Standard soapbar and we have a pretty similar power to our RSS20, albeit crossed with a single coil, giving slightly less thickness but plenty of bite. Pulling back the volume produces more 'single coil' and is certainly the place to find some jangle. The Professional version obviously isn't a million miles away, but it does sound noticeably clearer, which is simply down to the guitar's construction if the pickups are actually the same, as is the circuit. Slammed through a low-output gainy amp, you might hear less difference, but it's there. While that custom tailpiece looks like it should make some difference, in our experimenting here, and with the

Introducing the new Focus Switch passive boost, things get fatter and less distinct in the highs

original RS502T, it depends on how you adjust it. As shipped, the four bolts are screwed right down and that produces less effect to our ears. Remove the two bolts closest to the bridge and it definitely sounds a little looser, more like a trapeze. A subtle effect that you can set how you like.

Introducing the Focus Switch on the RSS20, then, things get fatter and less distinct in the highs. Yamaha's claim that it's a passive boost is certainly what you hear, and it slightly lifts everything but the treble: think rolled-off tone control with a slight level boost kicked-in, or even a backed-off wah. It's not bad at getting close to those fat Santana sounds, either. Good for jazz, too? Well, on clean tones, yes, although that lack of clarity won't be for everyone. There is something of a 15kohm hot 'bucker to the sound, but even a DiMarzio Super Distortion has more clarity than this. Where it does score is with a fizzy edged high-gain

UNDER THE HOOD

Let's see what powers these Revstars... is that a transformer?

There's a surprise on opening the control cavities: all the models with a Focus Switch have a small transformer lurking in the corner – something we've never seen in our many years of writing about guitars! The rest of the circuit is simple: small Alpha 500k audio pots for volume and tone, the latter with a pull-push switch that introduces either the Focus Switch or, on Element models, the Dry Switch from the previous series. Both the Dry Switch (which introduces a bass cut) and treble bleed on the volume controls use a simple capacitor and resistor wired in parallel. The Dry Switch uses a .0033 microfarads cap (like the famous Fender Jaguar 'strangle' switch) and a 330k resistor; the treble bleed uses the same resistor with a 561 code cap, which indicates a value of .00056 microfarads (or 560 picofarads).

"We modified the humbuckers to get more high-frequency brilliance and cut-through"

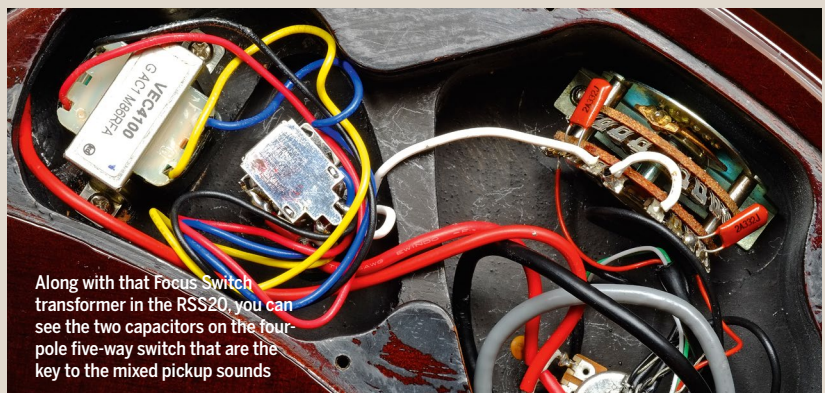
While the actual theory involved in the position 2 and 4 sounds on the five-way selector is complex, it's achieved in a simple fashion. The neck pickup, for example, is voiced in positions 5, 4 and 3, but in position 2 it passes through a capacitor (the same-value .0033 microfarads cap used in the Dry Switch), attenuating the low-end. In position 1, the neck pickup is not voiced. Now, the bridge pickup is the reverse of this: it functions in positions 1, 2 and 3, and in position 4 it passes through another .0033 cap to thin the sound. So while positions 1, 3 and 5 are standard (bridge, both and neck), in position 2 we have the full bridge humbucker with the thinned neck humbucker; in position 4 we have the full neck humbucker with the thinned bridge humbucker.

"The intention of the capacitor is to shift the phase of the pickup slightly (not like the typical out-of-phase sound) and create a taste of a 'half-tone' sound when they're mixed," says Takashi Yamashiro, manager of Guitar Development. "You can get more variety of sound from a two-humbucker guitar."

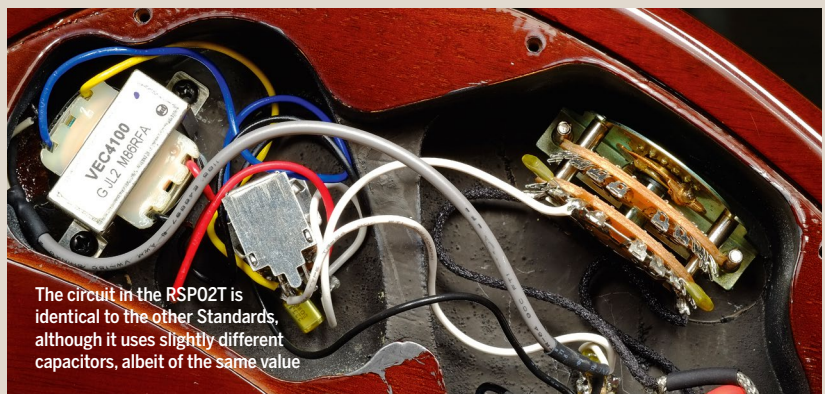
Fender uses a similar concept on the Baja and Vintera '50s Telecaster Modified where a .01 microfarads capacitor, wired to ground, applies a high-frequency roll-off to the neck pickup. This means it produces a less



Not what you'd expect to see in your guitar: a transformer!



Along with that Focus Switch transformer in the RSS20, you can see the two capacitors on the four-pole five-way switch that are the key to the mixed pickup sounds



The circuit in the RSP02T is identical to the other Standards, although it uses slightly different capacitors, albeit of the same value

'strangled' sound when it's mixed in parallel and out-of-phase with the bridge pickup.

What about the Focus switch? "We designed a custom small transformer for it," says Takashi. "By passing [through] a transformer, the signal level could be increased a little without a battery and also shift the frequency range. It could give an effect as if the pickup is overwound. The construction is like a standard transformer, but we tried several types..."

Although the pickup names are the same here as they were on the original Revstars, Takashi explains that "every time we develop a new model, we like to match the pickups

to the new construction as well. This time, we modified the humbuckers to get more high-frequency brilliance and cut-through by changing materials. As of the P-90, however, it's the same one as the original models. We had great feedback from artists and customers on the originals and it matched the new construction very well."

The baseplates of the Element's 'buckers are brass and bear the standard G&B logo. Moving up to the Standard's humbuckers, the baseplates are nickel-silver and state "Yamaha Guitar Development MFG by G&B". They also have an etched YGD logo on the cover's corner, unlike the Element's units.



10. Another feature retained from the original series, this tailpiece reinforces the Café Racer influence of the initial concept. It was designed by Piotr Stolarski: "Originally, the idea was to have the strings anchoring through the body or to attach them to the tailpiece, like a convertible. So, the final design is adjustable – higher or lower – but not string-through," he said

11. Like the original Revstars, on the RSE20 we get a three-way pickup selector switch, master volume and master tone with a pull switch to engage the Dry Switch high-pass filter, as used on the original models

voice. Frankly, the Standard sounds huge, especially when you engage position 2 with that slight honk. That said, it just might be the most Marmite feature on these new guitars, and we're sitting on the fence.

Unfortunately, during our test time it emerged that the RSE20's humbuckers were off-spec – a shame because the guitar itself is really quite superb, not least at the price. If its correct pickups go down the hot vintage vibe of the Standard (which we're told is what they should do) then combined with the Dry Switch, which thins the sound for a more 'Fender' vibe, the RSE20 might well emerge as a serious bargain and a really excellent modding platform.

Verdict

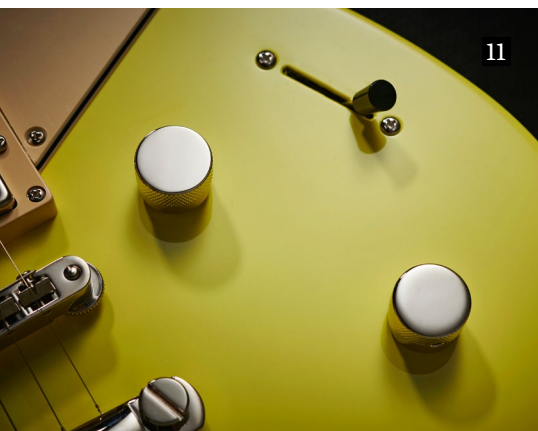
Creating a successful new guitar design on an international level is far from easy and a major reason why so many makers stick closely to designs that, in many cases, are more than five decades old. Revstar might not have changed the guitar landscape, but there's a sense of progression here, certainly not desperation to save a sinking ship.

We don't really buy the new chambered design as a method of substantial weight reduction. None of the guitars are that much lighter than the first iteration, nor are they lightweight; the 'right weight' is closer.

They feel business-like, fit for purpose without being overweight. But even the lowly RSE20 has a lively response, the sort of thing you'd experience on a higher level instrument. The Standard takes that foundation and adds the graphite neck reinforcement (at worst some insurance for the neck staying stable) and stainless-steel frets, and the Pro model simply refines those features for a guitar that easily competes at its price point and higher.

Sounds are well chosen and very mainstream, but the five-way switching is a viable take on the usual offering, and the treble bleed circuits help to retain clarity at lower outputs. Do we miss some true single-coil sounds on the humbucking models? A little. And as fans of the original Dry Switch, we're only just getting our heads around the new Focus Switch. That said, if you wanted to convert Focus to Dry it's easily done with just a couple of very cheap components.

One of the sales slogans of the original Revstars was 'Just Different Enough', and that's not been forgotten on these second-generation models. They're not trying to be 'better' versions of a classic design. Instead, in typical Yamaha style, they are refreshingly very much their own thing, underpinned by excellent build quality with a unique feature set. **G**





YAMAHA REVSTAR RSE20

PRICE: £399 (inc gigbag)
ORIGIN: Indonesia
TYPE: Double-cut, solidbody electric
BODY: Chambered mahogany
NECK: 3-piece mahogany, glued-in
SCALE LENGTH: 629mm (24.75")
NUT/WIDTH: Black synthetic/42mm
FINGERBOARD: Rosewood with pearly dot inlays, 304mm (12") radius
FRETS: 22, jumbo
HARDWARE: Tune-o-matic-style bridge and stud tailpiece, die-cast enclosed tuners – nickel-plated
STRING SPACING, BRIDGE: 52.5mm
ELECTRICS: 2x YGD-designed VH3 covered humbuckers, 3-way lever pickup selector switch, volume and tone (with pull-push Dry Switch high-pass filter)
WEIGHT (kg/lb): 3.52/7.74
OPTIONS: None
RANGE OPTIONS: See RSS20 and RSP20
LEFT-HANDERS: Yes, the RSE20L in Swift Blue and Black (£399)
FINISHES: Neon Yellow (as reviewed), Black, Red Copper, Swift Blue, Vintage White – gloss polyurethane body with satin neck back

NB: The quoted prices are approximate and reflect in-store prices from main UK dealers



PROS Very affordable; Dry Switch; tidy build; excellent resonant design; playability; huge modding potential

CONS Our prototype's pickups are slightly off-spec, but it doesn't ruin the fun; little else to complain about



YAMAHA REVSTAR RSS20

PRICE: £649 (inc gigbag)
ORIGIN: Indonesia
TYPE: Double-cut, solidbody electric
BODY: Chambered mahogany with thin maple cap
NECK: 3-piece mahogany with carbon graphite reinforcement, glued-in
SCALE LENGTH: 629mm (24.75")
NUT/WIDTH: Black synthetic/41.96mm
FINGERBOARD: Single-bound rosewood with pearly bar inlays, 304mm (12") radius
FRETS: 22, jumbo stainless steel
HARDWARE: Tune-o-matic-style bridge and stud tailpiece, die-cast enclosed tuners – chrome-plated
STRING SPACING, BRIDGE: 52.5mm
ELECTRICS: 2x YGD-designed VH5 covered humbuckers, 5-way lever pickup selector switch, volume and tone (with pull-push Focus Switch boost)
WEIGHT (kg/lb): 3.69/8.12
OPTIONS: None
RANGE OPTIONS: See RSE20 and RSP20
LEFT-HANDERS: The RSS20L comes in Swift Blue and Black at £649
FINISHES: Flash Green (as reviewed), Black, Hot Merlot, Sunset Burst, Swift Blue, Vintage White – gloss polyurethane body with satin neck back



PROS Price; tidy build with graphite-reinforced neck; resonant design; playability; mainstream voicing; five-way switching; Focus Switch

CONS Not everyone will get the Focus Switch passive boost



YAMAHA REVSTAR RSS02T

PRICE: £649 (inc gigbag)
ORIGIN: Indonesia
TYPE: Double-cut, solidbody electric
BODY: Chambered mahogany with thin maple cap
NECK: 3-piece mahogany with carbon graphite reinforcement, glued-in
SCALE LENGTH: 629mm (24.75")
NUT/WIDTH: Black synthetic/42.28mm
FINGERBOARD: Single-bound rosewood with pearly bar inlays, 304mm (12") radius
FRETS: 22, jumbo stainless steel
HARDWARE: Tune-o-matic-style bridge and custom tailpiece, die-cast enclosed tuners – nickel-plated
STRING SPACING, BRIDGE: 52.5mm
ELECTRICS: 2x YGD-designed VP5 soapbar single coils, 5-way lever pickup selector switch, volume and tone (with pull-push Focus Switch boost)
WEIGHT (kg/lb): 3.55/7.81
OPTIONS: None
RANGE OPTIONS: See RSP02T
LEFT-HANDERS: Not this model
FINISHES: Black (as reviewed) Hot Merlot, Sunset Burst, Swift Blue – gloss polyurethane body with satin polyurethane neck back



PROS Ditto the RSS20, but soapbars expand the sounds with some input from that custom tailpiece; volume control unleashes its versatility

CONS Not everyone will get the Focus Switch passive boost



YAMAHA REVSTAR RSP02T

PRICE: £1,599 (inc case)
ORIGIN: Japan
TYPE: Double-cut, solidbody electric
BODY: Chambered mahogany with thin maple cap and graphite reinforcement
NECK: 3-piece mahogany with carbon graphite reinforcement, glued-in
SCALE LENGTH: 629mm (24.75")
NUT/WIDTH: Black synthetic/42.1mm
FINGERBOARD: Single-bound rosewood with pearly bar inlays, 304mm (12") radius
FRETS: 22, jumbo stainless steel
HARDWARE: Tune-o-matic-style bridge and custom tailpiece, die-cast enclosed tuners – nickel-plated
STRING SPACING, BRIDGE: 52.5mm
ELECTRICS: 2x YGD-designed VP5 soapbar single coils, 5-way lever pickup selector switch, volume and tone (with pull-push Focus Switch boost)
WEIGHT (kg/lb): 3.86/8.49
OPTIONS: None
RANGE OPTIONS: The other MIJ models (also £1,599) are the twin-humbucking RSP20 in Moonlight Blue, Sunset Burst and Swift Blue, and the RSP20X in Rusty Brass Charcoal
LEFT-HANDERS: No
FINISHES: Swift Blue (as reviewed) Crisp Gold, Sunset Burst, – gloss polyurethane body with satin polyurethane neck back



PROS Subtly more detailed Japanese build; articulate voice and our favourite platform for that Focus Switch boost; hard case

CONS There's a cost rise over the RSS02T, so try before you buy



The very specific chambering of the new guitars is a result of Yamaha's Acoustic Design technology. Note, too, the graphite strips by the bridge

Better by Design

A casual glance at the new Revstar guitars might fool you into thinking little has changed. In fact, Yamaha has completely redesigned its primary electric guitar line. We find out how – and why

Words Dave Burrluck

Modern guitar design is all about evolution, and that's exactly what we see in the new Revstar II range. "Officially, we started the product development process in October 2018," remembers Yamaha's manager of the Guitar Development Group, Takashi Yamashiro. "However, we started to discuss and research after releasing the first series: how we can improve them to meet customers' and artists' feedback? We had a target to get more feel/vibration/ring acoustically, better playability, and also update the sound to meet the needs for modern music."

The key to the new guitars, then, lies not in a lot of fancy new hardware and parts but in the basic structure of the instruments – something you can't see. It all starts with Yamaha's Acoustic Design process. But what on Earth is that?

"Acoustic Design was used on Revstar and the latest version of the FG and FG Red Label guitars," explains Julian Ward, global strategy manager for Yamaha Guitars. "It's a way to objectively understand what makes a great-sounding guitar. Our starting point was to analyse a whole bunch of great-sounding classic guitars and look for similarities, shared things about their sound regardless of individual character. It wasn't about replicating a particular tone; it wasn't an attempt to make a guitar that sounded like another specific guitar. It was about looking for whether there's something that connects a great-sounding Les Paul to a great-sounding Strat to a great-sounding Tele to a great-sounding SG2000, and so on. In the end, we found that there are shared things about how the whole

instrument is vibrating together. Things like, how do the neck and body work and interact? What are the resonant frequencies? Where are the weak and strong spots on the instrument itself? [Things] that were similar irrespective of the specific tone of a guitar.

"The magic happens in the next bit," Julian continues, "which is a proprietary software tool to model how a guitar will resonate, without having to build it – it means we can plug in a design and understand how changes in the shape, size, construction and materials affect the overall vibration characteristics. We don't really know how it will sound until it's built, and the tone is still down to the designer's skill, but we do know whether it will have the essential, fundamental characteristics of a great-sounding guitar."

Either side of the two-way adjustable truss rod are graphite reinforcing rods that Yamaha believes also have a tonal impact on the guitars



Takashi Yamashiro,
manager of Yamaha's
Guitar Development Group



Julian Ward,
global strategy
manager for
Yamaha Guitars

Information is power and using Acoustic Design allows Yamaha to streamline the design process. "Making dozens of prototypes to try different woods, shapes, bracing patterns or chambering configurations is slow and expensive," Julian tells us. "Doing it virtually is significantly more time- and cost-effective, which means we can make a better guitar for less money. This process also helps us to make our guitars the absolute best version of themselves, potentially, for little or no added cost.

"Philosophically, this is important to us," he continues. "Our basic principle is to make fundamentally great guitars, rather than okay guitars that are dressed up with great components to paper over the cracks in the basic tone. Any guitar built to any price point, no matter how high, has to compromise somewhere. This helps us to manage that compromise in the way that we think gets the best guitar. Great components are good, but a great-sounding chassis is better."

There are other benefits, too. "As we move into a world where we have to use more and more 'alternative' woods, having a scientific approach for how to get the best out of them, how to make sure they retain the essential characteristics of great tone, seems like it might be pretty useful. Can we make a guitar from nato that sounds like Honduras mahogany? Probably not.

But can we make a nato guitar that sounds awesome? Absolutely. And Acoustic Design is the tool to help us understand how."

Carbon, Focus & Vibrations

The chambering in the new guitars is less about any weight reduction, then, than it is about response. But it's not the only thing at play here. "Both of the carbon rods in the neck and body help to eliminate unwanted boomy bass frequencies," states Takashi. "Even with the chambering, we'd like the

"Great components
are good, but a
great-sounding
chassis is better"

Julian Ward

body to vibrate not as a typical semi-hollow body but more likely as a solid body. With the carbon rods around the bridge [on the Professional models], it stabilises the body vibration, eliminates unwanted bass and elevates the midrange. The neck rods increase the stability, for sure, but with the well-calculated design of the neck and body, the guitar could get a well-coupled vibration between them."

This improved response led directly to the new Focus Switch. "With the new

construction and pickup on Professional and Standard, you could get a clearer and more crisp sound than the original models," adds Takashi. "But we also would like to provide powerful sound from it. The Focus Switch boosts mid to low-end when it's turned on so that you could get mid-focused/boosted sound as another variety. As the Element has more powerful ceramic humbuckers, we continue to use the Dry Switch, as on the original models."

However, some of the technology at play is perhaps a little more esoteric, Yamaha's Initial Response Acceleration (IRA) being a case in point. "IRA is one of those Yamaha processes that's really hard to quantify," admits Julian, "but it consistently showed up as a noticeable improvement in blind tests. It's hard to describe the difference it makes, but when we've tested it there's a clear preference for the guitars that have it. People often describe them as more open-sounding than the untreated version.

"The process involves a machine that physically vibrates the guitar at a certain frequency right at the end of the build – so it's fully assembled, strung and tuned," he explains. "The science is that it releases physical tension between the parts of a guitar and makes everything very slightly freer and therefore more resonant. It sounds a bit made up, but think of a loose screw on a strap button or jack socket. Over time they get looser and looser through



The Professional-level RSP02T (left) and Standard RSS20 pack in a lot of new technology

general use; this is a much smaller version of that where the result of that minute change in looseness is a benefit to the sound rather than something falling out! The same process happens naturally over time. IRA is just our way of speeding it up and making a better-sounding guitar out of the box. Honestly, if it didn't make a difference that people can notice and appreciate, we wouldn't do it – it adds time and cost to the guitars so it has to earn its keep. It's something we can only do in Japan at the moment, so it's on RSP and BBP models, as well as SG1820 and Attitude basses."

Cost Considerations

Despite the technology at play in the Revstar design, all three levels – Element, Standard and Professional – are far from pricey, and Yamaha is a master of making affordable instruments, not least at its factory in Indonesia.

"We now have our own guitar factories in Japan, China, Indonesia and India," begins Julian, "but Yamaha Music Manufacturing Indonesia (YMMI) is by far the biggest Yamaha guitar factory. We make over a million guitars a year there. YMMI makes all our Pacificas, BB basses and the Revstars (apart from Professional models), the TRB and TRBX basses, F-series acoustics, APX and CPX600, C-series nylon-string guitars, and the smaller 'JR' models.

"Hangzhou Yamaha in China makes the FG, L, TransAcoustic, A-Series, higher-level APX and CPX, Storia and CG acoustics. Yamaha Music India is only just coming online, so isn't making guitars for export yet. Yamaha Music Manufacturing Japan (YMMJ) is [making the] flagship FG, A, L, NX, RS and BB models – plus Mike Stern, Nathan East, Billy Sheehan and John Patitucci signatures – and GC classics."

The factory in Indonesia is where our reviewed Professional RSP02T is made, but it seems remarkably cost-effective, we offer. "The bodies and necks are made at YMMI, but assembly, finish and setup are all done in Japan," Julian confirms. "Making the basic wood parts in Indonesia is far more cost-effective than doing it in Japan and has no downside. There's no way we could make a ground-up Japan-built Revstar for anything close to the price of an RSP20. Even if we did, it wouldn't be a better guitar just because the body was cut out in Japan. Both technically and philosophically for us,

the parts of a guitar only become a guitar when a builder brings them all together in harmony, so the Professional models really are made in Japan.

"We've been steadily increasing our production capacity in Japan for a while now," continues Julian. "The original RSP20, launched in 2015, was the start of a bit of a resurgence for Japanese Yamaha electrics, and even though we're increasing production, we still sell everything we can make. It's a good problem to have.

"Japan is our home, so made-in-Japan models have always been the quintessential Yamaha guitars; it's important to us to carry on that tradition," he states. "We don't want made-in-Japan Yamaha guitars to just be 'the most expensive ones in the line-up' – our goal is to make them the perfect embodiment of our guitar design and build philosophy. In recent years that's been about really great sound, quality and design at a relatively accessible price, which has been realised through the hybrid production with some woodwork done in Indonesia or China. We've got some interesting ideas about what the 'perfect' Yamaha guitar might look like in the future that are driving conversations about the future of how we make guitars in Japan. But one thing's for sure, I expect to see more Yamaha guitars coming out of YMMJ in the future, not less." **G**

"The carbon rods help to eliminate unwanted boomy bass frequencies"

Takashi Yamashiro



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Different Strokes

As Takamine celebrates its 60th year, we look at two very different models that cover a lot of musical ground...

Words David Mead Photography Phil Barker



TAKAMINE TC135SC & CRN-TS1 £1,700 & £1,499

CONTACT **Korg UK Ltd** PHONE **01908 304600** WEB **www.takamine.com**

What You Need To Know

1

Is there a certain theme we're missing here?

Not at all, no. Seeing as Takamine is celebrating its 60th anniversary we thought it would be a good idea to select two very different models from the range.

2

Are hybrid nylon-string guitars a new thing?

In a way, yes. When electric or steel-string players first encounter the granddaddy of all acoustics, they balk at the width of the neck and various other features. Hybrid or 'crossover' guitars seek to amend that.

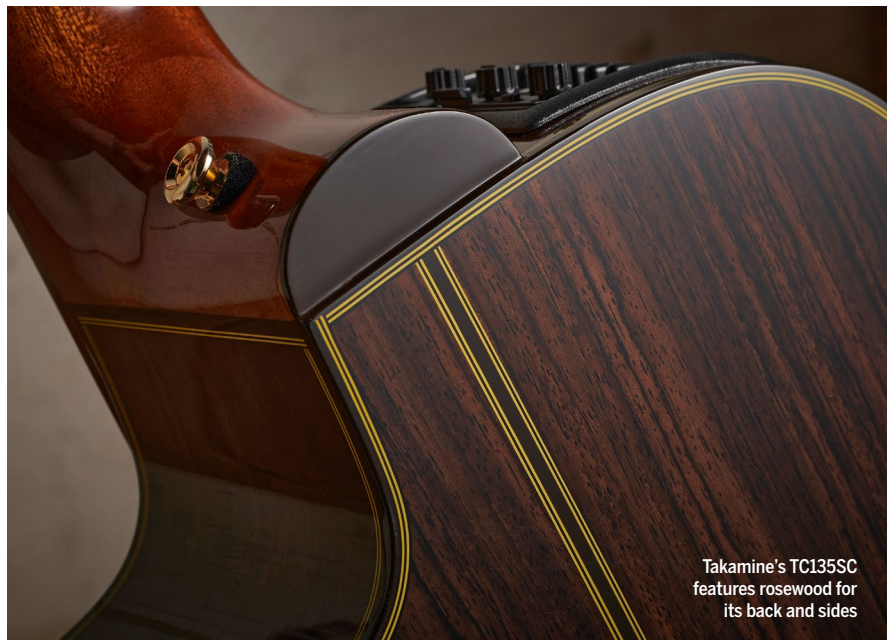
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Why the 12 frets to the body on the dread?

Why not? After all, there was a time when practically every acoustic guitar was a 12-fretter. This is just a peek back at a different time and playing experience.

Another 60th anniversary – albeit an altogether quieter affair in terms of decibel levels – is being celebrated this year by Japanese acoustic maker Takamine. From humble beginnings at the foot of the mountain that lent the company its name, Takamine has established itself as one of the world leaders in the acoustic field.

Here we have a pair of contrasting instruments: the slope-shouldered dreadnought CRN-TS1 and the crossover hybrid nylon-string TC135SC. The former features a thermally treated top. This is in order to produce the sound of an acoustic guitar that is in the process of opening up to its full sonic potential. The latter, meanwhile, forms a line behind a new



Takamine's TC135SC features rosewood for its back and sides



breed in nylon-strings that we began seeing on these shores only a few years ago.

So, what exactly is a 'crossover' or 'hybrid' nylon-string? Well, imagine that you are familiar with the acoustic guitar to the point that you have very little trouble adapting if called upon to play a couple of acoustic numbers in your set – or just a sing-song in the privacy of your own home. The neck feels a little different but familiar enough so your fingers don't feel abandoned in a totally new domain. So all's well. Traditionally, the same cannot be said for a standard classical guitar. First, there's the width of the fingerboard to deal with – the main issue for players who want to delve into recreational Latin, bossa nova or jazz and yearn for the sound created by acolytes of Jobim and his contemporaries. It may sound simple enough, but realistically, that fingerboard width alone is quite a lot to ask a dyed-in-the-wool electric player to deal with.

So what if we did the 'wolf in sheep's clothing' bit and gave the nylon-string guitar as many of the characteristics of a steel-string acoustic as we could? There, in essence at least, is your crossover instrument: a slimmer fingerboard, perhaps a slight camber thrown in for good measure (instead of the flatter radius of a classical guitar), and suddenly the fingers of the happy strummer feel far more comfy and

familiar with their surroundings. A bit of a lengthy explanation, perhaps, but we do like to be thorough.

As this pair are both quite different, we'll take them one at a time and, seeing as we've already said so much about it, let's begin with the nylon-string TC135SC. As we've mentioned, many of the features here will look neighbourly to a steel-string acoustic player, but the lines of a traditional classical guitar remain. In any case, the spec certainly sounds very familiar. We have a spruce top with rosewood back and sides, and whereas you might have been expecting cedar for the former, as many classical guitars use this timber here, it must be said that some flamenco guitars have spruce tops. Unusual, perhaps, but not significantly different. In fact, the most striking departure from the classical norm is the fact the TC135SC's neck joins the body at the 14th fret, as opposed to the more accustomed 12th.

The nut measures in at 47.6mm instead of the 50.8mm found on classical instruments, and although this might not sound like much of a reduction, remember that nylon strings are thicker than steel and require a little more clearance, and so this is probably about as far as you can go before things get a bit crowded at the busy end of the fretboard. It's actually trimmer than our Yamaha Silent nylon-string in any case.

1. The TC135SC's CTP-3 preamp controls are comprehensive enough to allow all the tone-tweaking you can muster – it has a handy built-in tuner, too

2. A slot head with three-a-side tuners is one characteristic from classical guitar tradition retained here

THE RIVALS

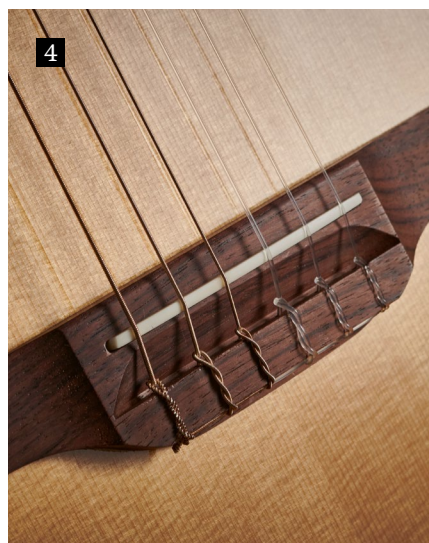
There's a plentiful supply of slope-shouldered dreads on the market, but if we're keeping within the price range of the CRN-TS1, then Eastman's E20SSv-SB (£1,769) seems a good place to start. Martin's DSS-15M (£1,450) is an all-mahogany slope dread if you want to mix your body woods up a little. It's worth looking at Yamaha's catalogue, too, as its A3M (£1,949) offers a round-shouldered dread with a cutaway. Other than that, prowling around Furch's and Auden's backyards will yield results.

Nylon-string hybrid crossovers? Yamaha's NCX electro models were introduced in 2009 and revamped last year; the NCX5 (£1,786) features a narrower 48mm nut and 14-fret camber fingerboard. Furch's GNC 2 (£1,099) delivers on that score, as does Taylor's 214ce-N (around £1,000), or if you hunt about a little, a used Gibson Chet Atkins could be yours for around the £2k mark.



3. The fretboard extends to two octaves on the treble side, giving the guitar some considerable range

4. The TC135SC's nylon strings are tied at the bridge – another classical guitar staple



The Takamine has an extended fretboard that offers a full two octaves on the treble side, stopping two frets shorter on the bass. As you can probably already tell, this is a guitar that is aimed at modern playing styles – and, as we've said, it's probably just the job for the occasional foray into the more gentle side of jazz.

Pickup-wise, there's Takamine's renowned CoolTube under-saddle and preamp combo in the form of a CTP-3 with an onboard tuner and an array of tone-shaping possibilities via sliders for low, variable mids (via a separate rotary) and high frequencies with a notch filter. The CoolTube operates on a 12AU7 dual-triode vacuum tube that runs at very low voltage, and has a separate control that will adjust its character from bright to warm. All in all you have practically everything you need to sculpt your live sound to the *n*th degree.

Moving on to the CRN-TS1, we're in more familiar territory, although there are a few features here that are perhaps slightly unusual. We've covered the thermal treatment of the spruce top, but where you might be expecting either mahogany or rosewood for the guitar's back and sides we have sapele. This is sonically in the same general area as mahogany but is in plentiful

supply, as well as being a non-endangered timber. Another thing that hits the eye immediately is the 12th-fret body join – a once-familiar attribute in acoustic days of yore, which then gave way to the more ubiquitous 14th-fret join of today. The slot-head offers a stylish punctuation point to an already good-looking guitar, and amplification duties are once again performed by a CoolTube variant, this time the CT-4BII with a slightly simpler layout of controls than its stablemate – tuner, low, mids, high and volume – but ample to allow prudent tweaking on the live stage.

Feel & Sounds

Returning to the TC135SC, the general vibe here is of a well-balanced instrument both in terms of physicality and tone. It's not the loudest nylon-string we've heard, acoustically speaking at least, but that's quite probably not the point. This is an instrument built for the stage, after all. But it has a lot of charm, with polite trebles and basses, and our fingers appreciate the more familiar feel of the narrower fretboard. After just a very short time, we felt completely at home in this department. The neck feels good in the hand – more acoustic guitar-like than the somewhat

5. Like its stablemate, the CRN-TS1 features a slot head atop its 12-frets-to-the-body mahogany neck

6. The thermally treated spruce top recreates the sound of a guitar that has opened up a little



The CRN-TS1's back and sides are sapele with attractive cream binding

If your ambitions include a little laid-back bossa, then the TC135SC should be on your list

flatter back of a classical guitar neck, for instance. The 14th-fret body join might trick the eye if you're used to a more traditional nylon-string, but, again, not for long. Recording using the preamp also gave us a very good sound with the absolute minimum of fuss. We hardly had to tweak the controls before we were happy with what we were hearing.

The CRN-TS1 also ticks many of the right boxes. Its generous C-shape neck fits nicely in the hand, although we did find a little roughness to the frets on certain areas of the 'board. Easily put right, but a few more minutes spent with the buffing wheel would not have been a bad idea.

Sound-wise, we heard plenty of shimmer in the trebles but not as much bass as we were expecting from an instrument with a body of this size. This is likely to sort itself out given time because all the



7

body woods begin to sing in unison when the guitar is played on a regular basis. A well-travelled acoustic guitar generally has a different tale to tell than one that's fresh from the luthier's bench. Having said that, it recorded well, delivering the goods without any hassle at all.

7. With 60 years of experience making acoustic instruments, Takamine's build quality is faultless

The CRN-TS1's 12th-fret body join hits the eye – a once-familiar attribute in acoustic days of yore

Verdict

Two very different guitars from Takamine. The nylon-string TC135SC charmed us with its gentle voice and ease of playing and the preamp, with its all-encompassing range of controls, would engender confidence in any live situation. The CRN-TS1 was also a good playing experience, despite that slight dip in bass response, which, it has to be said, was adequately compensated for by the CoolTube pickup system when recording.

With 60 years of experience building acoustic guitars, Takamine is to be congratulated for a catalogue of instruments that fits into practically any playing situation you could choose to dream up. If your ambitions include a little laid-back bossa, then the TC135SC should definitely be on your list of guitars to audition. If a slope-shouldered dread is your ideal stage companion, you should seek out a CRN-TS1, too. We don't think you'll be disappointed. **G**



TAKAMINE TC135SC

PRICE: £1,700 (inc case)
ORIGIN: Japan
TYPE: Cutaway hybrid crossover classical
TOP: Spruce
BACK/SIDES: Rosewood
MAX RIM DEPTH: 103mm
MAX BODY WIDTH: 376mm
NECK: Mahogany
SCALE LENGTH: 650mm
TUNERS: 3-a-side classical style
NUT/WIDTH: 47.6mm
FINGERBOARD: Rosewood
FRETS: 24 on treble side, 22 on bass
BRIDGE/SPACING: Rosewood/59mm
ELECTRICS: CoolTube CTP-3
WEIGHT (kg/lb): 1.97/4.36
OPTIONS: None
RANGE OPTIONS: Crossover nylon-string guitars are less available, but Takamine has a few alternatives in its range, including the thinline TSP148NC NS (£988) – see website for details
LEFT-HANDERS: No
FINISH: Gloss

8/10

PROS A charming crossover nylon-string with a good range of sounds and excellent live potential

CONS Traditionalists may prefer the wider fretboard and 12th-fret join



TAKAMINE CRN-TS1

PRICE: £1,499 (inc case)
ORIGIN: Japan
TYPE: Slope-shouldered dreadnought
TOP: Thermally treated spruce
BACK/SIDES: Sapele
MAX RIM DEPTH: 125mm
MAX BODY WIDTH: 460mm
NECK: Mahogany
SCALE LENGTH: 632mm
TUNERS: 3-a-side classical style
NUT WIDTH: 42.5mm
FINGERBOARD: Ovangkol
FRETS: 20
BRIDGE/SPACING: 54mm
ELECTRICS: Takamine CT-4BII
WEIGHT (kg/lb): 2.09/4.62
OPTIONS: None
RANGE OPTIONS: For thermally treated tops Takamine's EF360SC-TT (£1,544) and EF400SC-TT (£1,497) are both cutaway dreads. There are other dreadnoughts available across various ranges – see website for more
LEFT-HANDERS: No
FINISH: Gloss

8/10

PROS A well-priced Japanese stage-ready acoustic guitar with great build quality

CONS If you like a lot of boom in the bass, then look elsewhere



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DL4 MkII

Line 6 presents a timely revamp of a delay legend

Words Trevor Curwen Photography Olly Curtis

Line 6's original DL4, released in 1999, has been an incredible success story. Many guitarists still have one on their pedalboard despite its age and modern rivals. It's also never been unavailable, remaining on sale while its siblings in the Line 6 Stompbox Modeler series have all been discontinued. Now, though, there's a new Mk II version that stays true to the original at the same time bringing it right up to date.

So, what's new? Well, this is a slightly smaller but sleeker version that keeps the original's same knob and footswitch array. It also retains all of its delay models while adding an extra 15 new ones direct from the HX family of effects. All 30 of the delay models are called up by the same rotary switch, but a small button selects between

new and old – pressing the Legacy button effectively switches between DL4 Mk II and original DL4. Reverb can be incorporated into any of the delays, plus there's an improved looper with both 4-Switch and 1-Switch operation and up to 240 seconds of recording time (half-speed, mono) that can be expanded to several hours with a Micro SD card.

Also new is an XLR microphone input and MIDI capability for real-time parameter control and preset selection, plus an external input that can host an expression pedal or an extra pair of footswitches. The power supply has changed, too; there are no batteries any more, but this can now run from any nine-volt pedalboard distributor that can deliver 500mA of current.

IN USE

Default DL4 Mk II operation is to have three different delays instantly available with a tap tempo footswitch to set the timing. You set up the delay sound you want and assign it as a preset to a chosen footswitch. The pedal, however, supports 128 presets in total that can be accessed via MIDI. What's more, you can globally change the Tap footswitch to operate like a bank selector to give you an extra three accessible presets direct from the pedal.

There are just five knobs to adjust your delay. Time, Repeats and Mix do the same as any delay pedal, while Tweak and Tweez adjust a specific parameter for each of the 30 delay types, such as Rate and Depth for those delays featuring modulation. Want to add reverb to your



01. MODEL SELECTOR

This is where you choose your delay model: new ones are legended in white, the originals in green (these are accessed by engaging the Legacy switch, which will light up green)

02. TIME/SUBDIV KNOB

Turn this to adjust the delay time, or hold down the Alt/Legacy while turning to choose a tap tempo note subdivision value

03. TWEAK & TWEEZ KNOBS

Retained from the original, these controls each adjust a parameter specific to the selected delay type (or reverb type if the Legacy switch is held down)

04. A, B & C FOOTSWITCHES

Now with Helix-style green halo rings, these switch your assigned delay in and out. A press-and-hold (until the LED flashes) assigns your current settings to the footswitch

05. TAP TEMPO FOOTSWITCH

Normally for tap tempo (red halo), among other options you can set this globally to toggle between two sets of presets assigned to the A, B and C footswitches (dim/bright yellow halo)

06. LOOPER LEGENDING

The footswitches offer Record/Overdub, Play/Stop, Play Once and Half/Full Speed (Forward/Reverse with double-press) in Looper mode

Tech Spec

ORIGIN: China

TYPE: Delay pedal

FEATURES: Switchable true, buffered, or DSP bypass, 128 presets (6 available from front panel), 30 delays, 15 reverbs, looper, Micro SD card slot, Trails on/off

CONTROLS: Model Selector, Alt/Legacy button, Time/Subdivision, Repeats, Tweak, Tweez, Mix, A, B and C footswitches, Tap footswitch, Mic level knob

CONNECTIONS: Standard inputs L (mono) and R, standard outputs L (mono) and R, XLR mic. input, MIDI In, MIDI Out/Thru, USB-C, EXP pedal / FS 5/6 input

POWER: 9V DC adaptor (supplied) 500 mA

DIMENSIONS: 235 (w) x 114 (d) x 51mm (h)

Guitarist CHOICE

9/10

delay? You get access to all the options and adjustable parameters by holding down the Alt/Legacy button. There are 15 reverb types, conventional and esoteric, available from the main selector switch, and the reverb can be set to come before or after the delay or in parallel with it.

SOUNDS

The delay types are a mix of models based on vintage gear (Echoplex, Space Echo, Echorec, Deluxe Memory Man) and Line 6 originals covering all the 'fancy' stuff such as reverse, ping-pong, ducking and pitched delays. The original 15 did their job (and still do) but now have a new lease of life via adding reverb for additional ambience.

Of the 15 newer delays, some are based on the same vintage units, but these are

justified as they offer a different take; Adriatic, for example, is a tweaked Boss DM-2 that adds modulation and longer delay time up to 1.8 seconds, while Cosmos is based on Roland's classic Space Echo RE-201, complementing the legacy RE-101 model. Also new and very welcome is ADT, which emulates the automatic double tracking action of two tape machines working together.

All the conventional stuff is adequately covered, then, but there's plenty for the experimentalists, including glitchy, filtered, pitched and harmonised delays – even patterned repeats based on Euclidean rhythm algorithms. Everything works perfectly well in a standard mono signal chain, but those running a stereo rig can take full advantage of the spatial aspects.

VERDICT

Line 6 may have subscribed to the 'if it ain't broke...' ethos for 23 years, but in the light of the various hi-tech rivals now out there, this is a timely and well thought out update – up to date with pertinent features but still familiar. Anyone who's used a DL4 will transition to this new version without dropping a beat, while those who haven't will discover an extremely functional source of a vast range of delay and ambient sounds coupled with a cool looper. **G**

PROS Modern spec; more 'board-friendly'; instant access to multiple delay presets; versatile delays; added reverb; tap tempo; MIDI control; expression pedal capability

CONS Instantly footswitching between the Tap and 'bank select' actions would be good

ROUND-UP

Gurus pedals

A pair of boutique dirtboxes from the Italian amp and pedal maker

Words Trevor Curwen Photography Olly Curtis

Gurus is an Italian brand, founded in 2012 and headed by Chicco Bellini, that counts the likes of Steve Lukather, Joe Walsh and Adrian Belew among its users. The main thrust of the company has been to make new pedals inspired by classic gear such as its Echosex pedals, which replicate the

vintage Italian Binson Echorec echoes. This ethos is seen here with the Double-Decker MkII, based on vintage Marshall amp sounds with the 'Jose Mod'. Supplied with their own 12-volt power adaptors, the pedals are robustly built and have a distinctive black glass surface that is backlit when powered up.



GURUS

Double-Decker MkII £319

Based on a larger, older pedal, the MkII is a valve-driven overdrive featuring two independent channels with Marshall amp flavour that can be used individually or stacked. Jose Arredondo modded amps for EVH, Steve Vai and others, and an aspect of his work is replicated here by each channel having a toggle switch that brings in diode clipping: germanium diodes for Channel 1 and symmetrical LED diodes for the slightly gainier Channel 2. Each channel has its own I/O, allowing them to be used as two separate pedals via a loop switcher or in reversed order (using a patch lead) in a mono chain. In default use, though, Channel 1 feeds into Channel 2.

Both channels sound authentically Marshall-like, with great tones ranging from clean-ish to full-on, all nicely aided by Tone and Presence knobs that complement each other perfectly in tweaking the sound to your taste. Bringing in the clipping diodes adds another element, ushering in more crunchy break-up, and both channels in use together can deliver searing lead tones. **G**

VERDICT An excellent MIAB with a twist of originality and great flexibility through the various channel stacking and clipping options



GURUS

SexyDrive MkII £179

This new iteration of the SexyDrive MkII perhaps should have been labelled as a MkIII because it's lost its battery power capability and has its footswitch in a different position, among other changes. But its core function remains the same – which is to provide transparent amp-like overdrive.

Logically laid out knobs with clear white-on-black graduation markings all around make it easy to dial in tones and recall favourite settings. The top row of knobs offers Bass, Middle and Treble EQ knobs that never get extreme but provide classy tonal options to match the sound to your amp, dial in a little treble or mid-boost, or tighten up the low-end.

There's quite a range of gain available, but what is special here is the Balance knob, which blends dry and driven sounds to mix articulation and pick attack in with the dirt. It's great for enhanced clean tones with just a bit of grit, as well as textures that can give you the sense of playing through two amps at once. This is one of the most practical drive pedals we've seen lately. **G**

VERDICT Simplicity of operation, dynamic response and natural transparent sound with excellent blends from the Balance knob

Tech Spec

ORIGIN: Italy

TYPE: Drive pedal

FEATURES: True bypass

CONTROLS: Volume 1, Gain 1, Presence 1, Tone 1, Jose/Norm switch 1, Volume 2, Gain 2, Presence 2, Tone 2, Jose/Norm switch 2, Bypass footswitch 1, footswitch 2

CONNECTIONS: Standard input, standard input 2, standard output, standard output 1

POWER: Supplied 12V DC adaptor 300mA

DIMENSIONS: 127 (w) x 94 (d) x 50mm (h)



9/10

Tech Spec

ORIGIN: Italy

TYPE: Preamp and drive pedal

FEATURES: True bypass

CONTROLS: Bass, Middle, Treble, Volume, Balance, Gain, Bypass footswitch

CONNECTIONS: Standard input, standard output

POWER: 9V-12V DC adaptor (12V adaptor supplied) 40mA

DIMENSIONS: 130 (w) x 90 (d) x 50mm (h)



9/10



SOURCE AUDIO

ZIO Analog Front End + Boost

This new boost offers up a choice of preamp flavour

Words Trevor Curwen Photography Olly Curtis

Designed by Source Audio to “make everything sound better”, the ZIO, the company’s first all-analogue pedal, is a preamp/boost pedal that’s capable of up to 20dB of boost via a choice of four different preamp circuits to colour the sound. On top of that, it acts as a buffer and has a Tone switch that offers three different levels of capacitance to simulate cable length, allowing you to make your tone brighter or darker.

The pedal has two outputs, the second one being available as a line output or to keep a tuner permanently connected on your pedalboard without being in the main signal chain. The footswitch can be used as a normal bypass or it can be set to mute the main output – which is useful for some silent tuning.

The JFET is the most transparent of the preamp circuits and will retain your core tone but make it louder and more robust. Unity gain on the pedal is at about 10 o’clock, allowing plenty of leeway to dial in a targeted boost. It’s great if you want pure amp distortion without recourse to a drive pedal, and at max will fire up

the cleanest amp. You may wish to use the Low-Cut option, though, because that can keep things really tight, basically rolling off any really low-end from the signal and especially useful on gainier sounds. The Studio option (based on Pultec EQ settings used in studios) is a real tone-sweetener that combines a mild lower-mid scoop to reduce muddiness with a higher boost for clarity and articulation. Finally, the E-Plex setting mimics the old favourite Echoplex preamp and can add a whisper of dirt and a focused midrange with some top rolled off.

The obvious use for the ZIO is at the front end of your signal chain – a job it does admirably – but it also works well as the last pedal before an amp or as a sweetener and an extra push for your drive pedals. Overall, it’s a tiny box with big functionality.

VERDICT

Source Audio’s ZIO has a plethora of classy options just waiting to be exploited, whether you choose to use it as an always-on tone conditioner or as an on/off booster. The absolute practicality



of having one of these on your pedalboard cannot be overstated. **G**

PROS Compact size; massive 20dB boost; four preamp options; adjustable signal brightness; dual outputs

CONS Not a lot

ALSO TRY...



WALRUS AUDIO

EB-10 £199

A preamp, EQ and boost with three onboard presets. The optional boost is fixed at 10dB, but there’s tone sculpting with up to 12dB of boost or cut of low, mid, and high frequencies.



HAMSTEAD SOUNDWORKS

Zenith £299

The Zenith has an all-analogue signal path offering EQ, boost and compression with selectable routing options and digital switching technology to give you a range of options for using them.



ORANGE

Two Stroke £129

Orange’s offering provides up to 12dB of output boost combined with an active dual-parametric EQ. There’s up to 18dB of cut or boost at a selected frequency from each of the high and low EQs.

Tech Spec

ORIGIN: China

TYPE: Preamp and boost pedal

FEATURES: True Bypass

CONTROLS: Output, Circuit switch (JFET, Low Cut, Studio, E-Plex), Tone switch (Bright/Medium/Dark), Bypass/Mute switch, Bypass footswitch

CONNECTIONS: Standard input, standard outputs (Main and Tuner/Line Out)

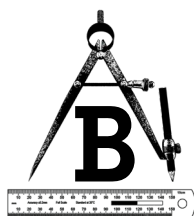
POWER: 9V-18V DC adaptor 20 mA (not supplied)

DIMENSIONS: 66 (w) x 104 (d) x 55mm (h)

**Guitarist
CHOICE**

9/10





« BLUEPRINT »

TEDDY'S BOY

Just when you thought there couldn't possibly be any 'lost' Gibson electrics from the company's late-50s golden era, an overlooked design from Ted McCarty comes to light and gets made into a guitar

Words Jamie Dickson

Gibson electrics form a revered canon of designs about which it was thought nearly everything was known. But Mat Koehler, a self-confessed obsessive about old Gibsons, made an extraordinary discovery while thumbing through blueprints in the company's technical archives. What he found was a design drawing for a previously unseen Gibson double-cut electric dating from 1957 and signed by none other than Ted McCarty – Gibson's visionary president during the celebrated years of the late 50s and early 60s. Excited by his discovery, Mat presented the drawing to the luthiers of Gibson's Custom Shop, who made McCarty's design concept into a living, breathing instrument. Here Mat, Gibson's senior director of product development, talks us through the process behind bringing the Theodore electric to life at last.

What was the backdrop to this guitar's inception, back in 1957?

"So, basically, Gibson was looking at ways to make more modern electric guitars. I think that they were looking at Fender, looking at the industry and the changes that were happening. But what's interesting is that the evidence shows Ted was trying to explore something modern. The reason Gibson

bought up Epiphone in the first place in 1957 was for their upright bass business. To me, it's like there's some conflicting feelings there with Ted McCarty on one hand wanting to stay traditional and on the other hand wanting to go modern. I think [the Theodore design] was a kind of concept initiative, if you will. I don't think Ted was completely sold on the idea of the solidbody electric guitar revolution, but he wanted to get some ideas down in case he was wrong on that. But, really, two years later, he completely changed his tune. And I think what prompted that was the failure of the Epiphone upright bass part of the business and the success of the Epiphone electric guitar part of the business."

How did you come across the original design drawing Ted McCarty made?

"I had access to the engineering archives, which very few people at Gibson had

access to. In fact, very few people at Gibson even knew these archives existed – and there were various reasons why they kept it quiet at that time. But this was the whole reason I wanted to work at Gibson to begin with. It was like, 'Let me look at the secrets. Where are the secrets?' [laughs] So once I had access to that room, I just devoured everything that was in there and started organising and cataloguing it. The deal was as long as it wasn't during work hours, I could spend as much time as I wanted in the archives.

"Every day at five o'clock, I would run upstairs where the engineering archives were. I would pull out concept art, rolled prints and portfolios, I'd bring them back to my desk and then I would take a look at them and [so would] any other co-workers who were around at that time, so I was sharing my findings with them, too. One particular day, I pulled this portfolio and out of it dropped this large folded pencil drawing, and I saw Ted McCarty's signature right away and the date and all the weird specs of the guitar. I was like, 'What is this?' My immediate thought was, 'Somebody is pranking me.' But when I checked it over, it matched his signature on memos, matched his handwriting and matched his design aesthetic on other doodles and things that we had of his.

"I saw Ted McCarty's signature right away and the date and all the weird specs of the guitar..."



Ted McCarty's 'lost' electric, now a reality, in a trio of finishes



A reproduction of the original concept drawing and a faux 50s catalogue page are included

"This was the most fully realised concept drawing from Ted I'd ever seen. We've still got a lot of his sketches and ideas for headstocks and for body shapes and all that stuff. And those are really cool, but this was the only one that was completely fleshed out, with all the relevant specs. All the same, I was always a little sceptical of it until I ran into my co-worker Keith Medley, who is a long-time engineer at Gibson USA. He was like, 'Oh yes, I remember that print. Of course. Yeah, we wanted to do that guitar.' I was like, 'You kidding me? You know about this?' His team wanted to do it back in the 90s and just never got the chance."

Did the drawing specify the materials that Ted wanted to use for the body and neck and so on?

"Yeah, I think that everything we needed to know about how to build the guitar was there [in the drawing]. There are some details that we had to kind of fill in the gaps for, though. One of those is that, on the drawing, it appears that there is a centre strip on the guitar. But the drawing didn't specify which wood to use for the centre

"Sonically, it's kind of like an Epiphone Coronet... it's an aggressive sound, but it feels fantastic"

strip. It did, of course, specify alder for the sides, or wings – and that was probably related to Gibson's search for a quality, light-coloured tonewood, which eventually led them to korina. But they were also looking at poplar, too. I think that's where the alder came from. We chose walnut for the centre strip because we figured it's another American wood that would look nice there and provide that little bit of an aesthetic colourisation, if you will.

"We've had a few other issues with Ted's drawing, and one of them was the switch location. The original drawing stated that it could go on either the top horn or the bottom horn. But the more we looked at it, we're like, 'Well, we'd have to gun-drill [a type of drill that injects coolant to the

cutting face] that thing like six times.' Even then, [the switch] is not very player friendly in either position; your arm's going to be hitting it as you're playing guitar. So those are the types of concessions we had to make. That said, we could have made it just as it was drawn. That definitely went through our minds, but we ultimately wanted to set the stage for a new platform. We wanted [the guitar] to be viable in case there's enough interest in this to where it can be one of the new Gibson shapes."

What were your impressions, as a player, when you first tried the guitar that resulted from the drawing?

"Sonically, what comes to mind is that it's kind of like an Epiphone Coronet... it's an aggressive sound, but it plays and feels fantastic. But those P-90s are pretty raucous. I mean, it's got a bigger neck, so if you're not a fan of a '57 neck profile [it might not be for you]. We obviously wanted to lean into the time that it was drawn, but I think it feels really nice because there's no binding on the fingerboard. It's just a nice neck-feel. It plays fast, even though the neck

"Everything we
needed to know
about how to build
the guitar was there"



The Theodore looks
great in cherry, evoking
the spirit of the late 50s

THE MAESTRO RETURNS

The Theodore electric is not the only concept from Gibson's past that's recently been made into new gear. Here, we join director of engineering Craig Hockenberry to talk about the new range of Maestro effects pedals that launched recently

What information did Gibson have in the archive about the original Maestro effects – and to what extent did you wish to draw on that heritage with the new pedals?

"There wasn't a lot of technical Maestro information that we could find in our archives, we're assuming a lot of that was probably lost in the transition of the company when changing hands from CMI to Norlin to Gibson Brands. We did, however, want to draw on the heritage of the classic Maestro effects with the aesthetics and feel of the pedals, as well as the rich and vibrant effects produced, so we studied and played some of the original pedals to ensure we captured that heritage."

Who was involved in the design and development of the pedals?

"It is difficult to name everyone involved, but these pedals came to life through our creative, product engineering, brand and marketing teams; you know who you are! Honourable mention to all the players that gave us inspiration and feedback along the way."

"Having been the brand that started this craze, Maestro needs to be back in the game"

Who are the new pedals aimed at?

"These are aimed at all players who want more options to help them shape their sound. We entered back into the market with five accessibly priced effects pedals that most players use on their pedalboards."

Why did you think now was the right time to dive back into the effects market with a revived Maestro series of pedals?

"We understand that the effects market is already loaded with many outstanding options, but we feel Maestro, having been the brand that started this craze, needs to be back in the game to offer players a chance to experience the sounds of the original effects company."



The new pedals take styling cues from Maestro's past

In terms of voicing and features of the new pedals, what did you set out to achieve with each model?

"We set out to develop five pedals that would work nicely on any pedalboard and give the player a lot of tonal flexibility, while keeping a clean consistent control layout. These five fundamental pedals look and sound very retro and true to the Maestro brand. The team did a lot of research and analysis of vintage Maestro circuits to ensure we captured that tone and vibe."

"Each of the five pedals in the range are all-analogue with true bypass, they feature a single toggle switch and three very responsive control knobs that really give the players a lot of flexibility to dial in their tone. We blended vintage and modern circuitry to achieve everything from classic tape-like delays to hard-hitting distortions."

Fuzz is what Maestro is best known for – most famously on *Satisfaction* by The Rolling Stones. How did you want the new fuzz FZ-M pedal to relate to the classic fuzzes of Maestro's past?

"The FZ-M Fuzz Tone, of course, needed to capture the essence of the original FZ1, so we included a toggle switch to change between classic and modern fuzz tones. The Classic mode, when dialled in, closely resembles the original FZ1, so we feel like we achieved that goal. What we didn't want to bring forward was the limited tonal possibilities with the original FZ1, since it didn't have a tone control."

"We also wanted to ensure consistent performance from unit to unit and guarantee that our customers could always get their hands on the new FZ-M. So we used readily available silicon transistors instead of the germanium transistors used in the FZ1."

What were your cues for the styling of the new pedals?

"Styling cues were inspired by the Maestro designs of the 60s and 70s. The wedge chassis and geometric-shape graphic styling were both major nods to the products of that era."

Obviously chorus and distortion wouldn't have formed part of the DNA of the original Maestro effects, being mainly post-60s genres of effect. So, how did you begin the design process or the product concept for those models?

"Well, actually Maestro began with a distortion pedal, really. After all, fuzz is a form of distortion, and the Comet Chorus, when used in Orbit mode, resembles the sound of a rotary speaker like the Maestro Rover from the early 70s, so we believe that all ties into the Maestro DNA. With that said, we thought it was important to create effects pedals that are familiar effect types that cover a broad spectrum of musical genres and styles. We covered some of those effects with these first five pedals, and we will expand on those as Maestro continues to help people shape their sound for years to come."

In terms of spec and electronics what were your main priorities?

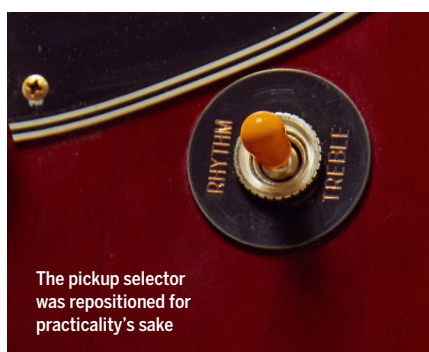
"Durability, all-analogue circuitry with true bypass and tonal variety were some of the priorities. The pedals are housed in an extremely sturdy steel chassis; we only used metal shaft pots with c-ring bushings to make sure the pedal stands up to heavy use. Using analogue circuitry with modern design and manufacturing technology ensures reliability as well. Most of the work and emphasis, however, was on the tonal variety and sound of the pedals."



A stopbar tailpiece was specified in Ted McCarty's concept art



Gibson's luthiers selected walnut for the centre strip



The pickup selector was repositioned for practicality's sake



The Gibson logo perches atop the six-a-side headstock

is big and then those P-90s are just growling, fire-breathing pickups. They're great.

"I think the fact the guitar sounds and plays great is the icing on the cake, but the intention was to shine a light on Ted McCartney's contributions to the guitar world. We've proved this guitar is a viable idea 65 years later, but it was pretty ahead of its time, at the time, as well. Some of the double-cut designs, double-cut Les Paul Juniors and SG Specials... Perhaps this was the genesis of [those guitars]. And then there's the Explorer headstock, too. Ted was taking features from this double-cut model and applying them to other guitars. It's important from a Gibson guitar history standpoint. It's important to share the story of Ted just so that we at Gibson remember where we came from, because so many of our solidbody electric guitar designs were created by Ted or in his regime."

There's potential to take the guitar in different directions, too...

"You know, it was tough to stay on the straight and narrow path that led to this

particular release because everybody looks at that pencil drawing and sees something different. Like, 'Oh man, that would look cool with a Bigsby,' or 'That would be cool with full-size humbuckers or an ABR-1.' I totally understand that. It was important for this [debut] release to stay pretty true to that original drawing.

"It was a very successful release; I think it sold out globally in about 24 hours. That's usually a pretty good indicator to us that there's additional demand in the marketplace, and we would love to be able to offer something [that's based on the Theodore] through Gibson USA or Epiphone. But it wasn't the easiest guitar to manufacture – and one of the reasons is because of that round-over on the edge, making its way up to the cutaway. It flattens out there, so it was not easily achieved, even on our modern-day CNC machines. So those are just some things that we may have to make some concessions on for a more broad production. But I'm excited to dig into that and see where this leads." **G**

Longtermers

A few months' gigging, recording and everything that goes with it – welcome to *Guitarist's* longterm test report

Gretsch
Streamliner
G2622T-P90

with Dave Burrluck



Writer

DAVE BURRLUCK
Guitarist, Gear Reviews Editor

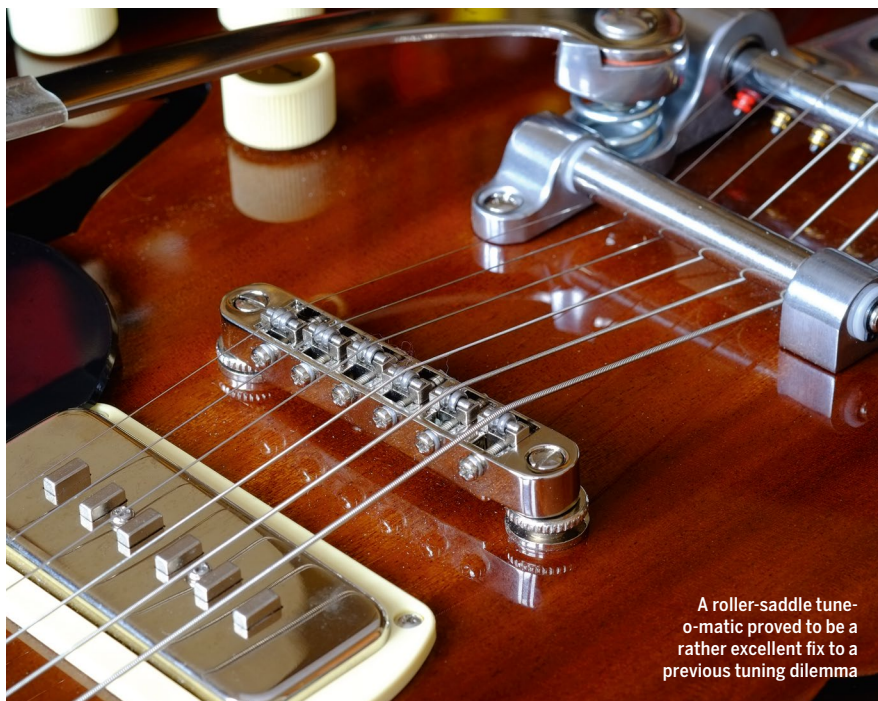


Two different bands, one Gretsch. Just how versatile can this Streamliner be, wonders our gear reviews editor?

"Look at the size of that!" wasn't quite the response I was expecting as I strapped on the Gretsch Streamliner. I'll spare you the other comments, but there's nothing quite like the first time you uncase a new guitar in front of a band. "Mine's bigger," mutters the drummer, loudly thwacking his bass drum.

Our proposed gig was cancelled so we're racked up in a rehearsal room with a dep bass player. "Thank goodness we didn't unleash this loose rabble on an audience," I'm thinking as we kick off a number (that we've played countless times) in seemingly three different keys. It's going to be a long night...

Back to the guitar in question and, yes, the Streamliner is sizable, but it's not just the width – which is actually only a couple of millimetres thinner across its bouts than an ES-335 at 403mm (15.86 inches). As I run through its sounds in the large room, they appear magnified, big and fat, as if I've plugged a good Tele into a studio compressor. Its credible at-home and recorded sound doesn't do the guitar justice: the FidelSonic



A roller-saddle tune-o-matic proved to be a rather excellent fix to a previous tuning dilemma

"I keep throwing this Streamliner in at the deep end and it's consistently steps up"

90s might give a rounded version of 'the Gretsch sound' in terms of the high-end, but, as the band eventually gets going, it sits beautifully in the room. With the other guitarist Strat-ed up and playing pretty clean, I was worried the Streamliner might clash, but it sits rather nicely between that classic Fender voice and a thicker Gibson-style semi.

As much as I'm enjoying the sound, we're only a third of the way through the song when I kick in a solo boost and I'm in that on-the-edge-of-feedback zone that could end in a howling wall of sound. Not exactly what the song needs... but I'm enjoying it nonetheless.

There's little doubt that the mainly hollow centre block is giving a much more hollow sound than my well-gigged Guild Starfire V, a perception that's amplified by the not-inconsiderable volume we're playing at. But while I get used to the different sound and

response, I'm still struggling to maintain my tuning, despite my pre-rehearsal tweaking. As I described in the last issue of *The Mod Squad*, the Gretsch lasted one song, but the subsequent fix – a roller-saddle tune-o-matic – really sorted the issue and along with the softer spring for the Bigsby I'd fitted in the previous instalment of this Longtermers test, I'm beginning to enjoy this guitar considerably, not least that it's pretty much entry-level in Gretsch terms.

Jazzy Vibes

While waiting for my bandmates to find another night we can all get together, I decide to take the Gretsch out for a more intimate test with just a small-kit drummer and bassist to run through some songs, at domestic levels, in a much more jazzier, bluesier style. I just take the Gretsch, a lead, a headstock tuner and an AER Compact 60. Our singer is very impressed. She's no guitar buff, but with many decades of work behind her she's played with plenty of bands on festival stages to small dives. "What a beautiful sound!" Not for the first time, I'm asked what guitar I'm playing and the inevitable, "How much?!"

The Bigsby stays parked for this session and I can't remember touching the tuners after initially tuning up. Funny, we don't think of Gretsches as 'jazz' guitars, but it provides a really enjoyable evening, and while I don't always agree with my singer, in terms of the rich and deep sound I was getting with just enough clarity, this time I do. It's a very comfortable guitar, too, lighter, almost more acoustic-like than my usual Guild, for example, with its quite weighty and solid centre block.

Mind you, using just the master volume – with the other controls full up – as a slight solo boost, somehow that gold pointer disc inset in the top of the knob decides to fly off at the start of a solo. I guess it's not always easy to hide the low-cost origins of guitars such as these.

And yet 'versatile' isn't the experience that many of us have with classic Gretsches. I'll rephrase that: it's not *my* experience. But I keep throwing this Streamliner in at the deep end and it's consistently stepping up. From pretty mangled Neil Young at one extreme to low-level jazzy/blues at the other, it's coming up trumps. **G**

Prices: £609 **Reviewed** 477 **On Test Since** July 2021 **Studio Sessions** At home, yes, lots **Gigged** Almost... **Mods** Yes **www.gretschguitars.com**

Udo Roesner

Da Capo 75

with David Mead

Writer

DAVID MEAD
Guitarist, Deputy Editor



Having experimented with the Da Capo's EQ section, dep ed, David Mead, reports back after using the new acoustic amplifier at a gig in Bath in early March

At the end of my previous report on the Da Capo acoustic amplifier I was still pondering on which gear to take with me to my gig at Bath's Chapel Arts Centre in early March. Accepted wisdom was telling me that using new gear at a reasonably important, nowhere-to-hide solo concert was risky, and right up to the event itself I was unsure about what to do. I kept glancing at my trusty Yamaha AG-Stomp preamp, which has been my companion on many engagements before this one, thinking that perhaps I should walk the safe route and revert to a formula that I know worked. But I had been so impressed with the Da Capo 75 when I reviewed it that I didn't want to back out now. I experimented with a compromise – trying the AG-Stomp before the amp so that I could take advantage of its signature feature, an early microphone modeller that took some of the quack out of my Fylde Falstaff Custom's under-saddle pickup. But although it certainly made a difference, somehow it seemed fanciful to mask the excellent sound I was getting through the Da Capo by putting something else into the signal chain.

"On stage I was able to forget about the technical side of things as the guitar sounded big and beautiful through my monitor"

Deciding finally to let go of my AG comfort blanket I made the decision – pretty much on the day of the gig – that I was going to follow my instinct, keep things as simple as possible and take the absolute minimum gear necessary to get the job done. So into my gigbag went my Boss volume pedal, Peterson StrobeClip HD tuner, Boss OC-3 octaver and, a late addition, the TC Electronic Infinite Sample Sustainer that we had in for review at the *Guitarist* studio. I had watched a demo of the Infinite's lovely ambient 'freeze' function



David's minimalist setup ready for action at Bath's Chapel Arts Centre

on YouTube and thought it was a perfect fit for one of my tunes and so I borrowed it for the occasion. My plan was to daisy chain the three pedals in front of the Da Capo, set the preamp on the amp the way I liked it, give the sound engineer a feed from the XLR line out on the back of the amp and concentrate on playing live for the first time in ages.

I was playing with two other solo acoustic players at the gig that evening – Daryl Kellie and Will McNicol – and we were hoping that our contrasting styles would entertain all those in attendance. I volunteered to go on first so that I could get my set out of the way and enjoy the rest of the evening as a member of the audience.

Once at the venue – a converted chapel where I have seen many acoustic players perform in the past – it was straight on with the soundcheck. The only thing I was still unsure about was that taking the XLR line out of the amplifier meant that I would lose the amp's built-in reverb, a very warm and transparent reverb that I had come to like a lot during my time with the Da Capo. I had the choice of either borrowing or buying a reverb unit for the gig, but I felt that potentially spending a few hundred quid on something

like a Strymon BlueSky for a one-off gig might be a tad extravagant. In the end, Chapel Arts' sound guy said he would put some reverb on from his desk and, taking a listen, I agreed that this was the best plan.

As soundchecks go, this was one of the easiest I've done. Warning the soundman that my Falstaff has a huge bottom-end that had caused me feedback problems in the past, he asked me to play every note on the bass string one at a time and, while doing so, I could hear him using a parametric EQ to fend off any errant howling. It was one of my first totally feedback-free gigs, too.

When it was finally time to step onto the stage I was able to forget about the technical side of things because the guitar sounded big and beautiful through my monitor, and all I had to do was to play the pieces I had reinstated my callouses for by some headline practising during the previous months. The OC-3 and Infinite pedals came into play during the last tune I played; the Boss volume pedal was just there to allow me to tune silently in between numbers.

As is often the case with these events, it was all over in a flash and the rest of the evening went by without a hitch, both Daryl and Will sounding immense through the Chapel Arts PA. The Da Capo played its part in shaping the tone of my Falstaff via its preamp before it went out to the mixer and I'd definitely use it again in this way as it was the perfect accomplice for the evening's musical endeavours. It's a helluva piece of kit!

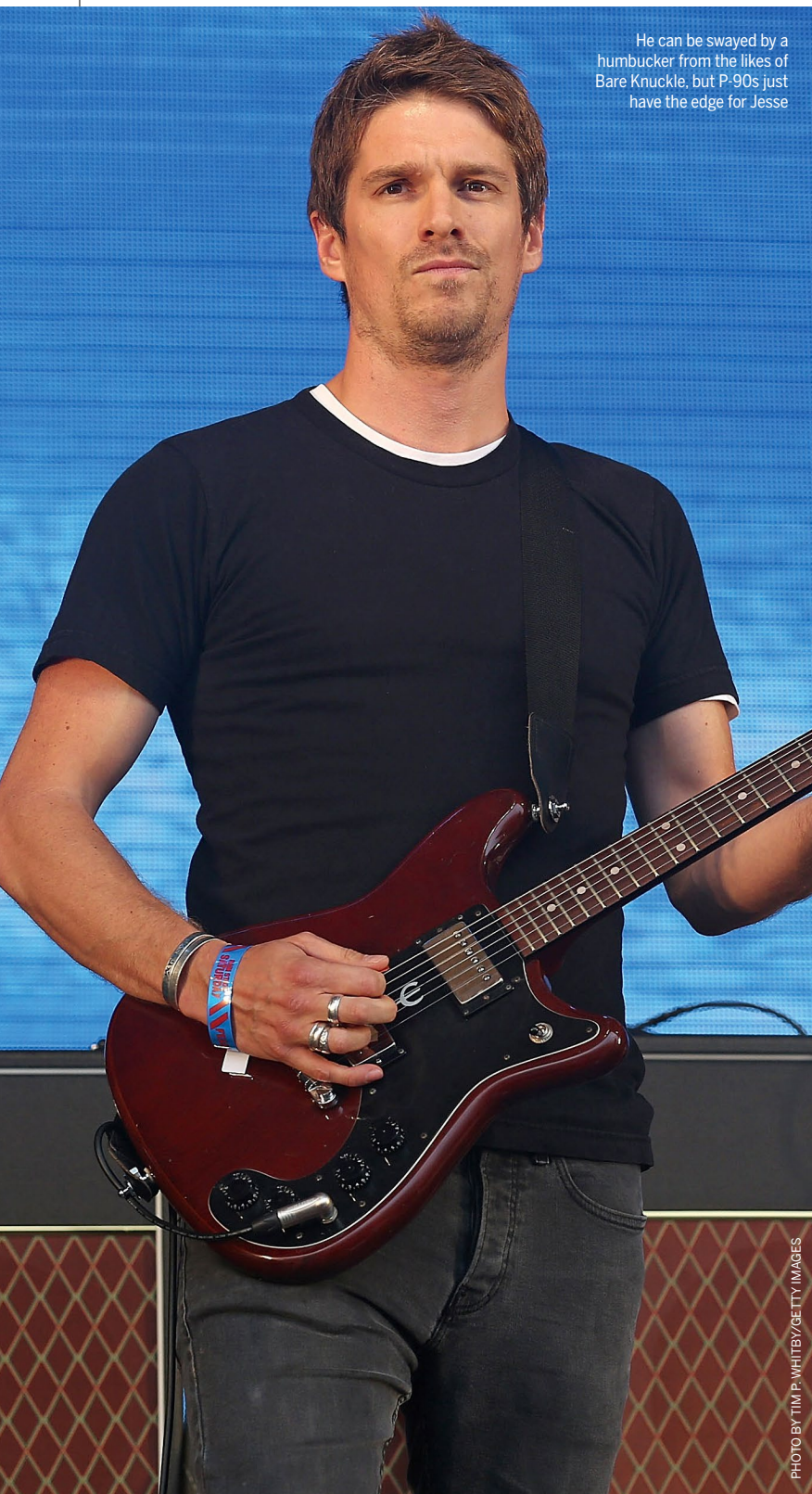
"I was going to follow my
instinct, keep things as
simple as possible and take
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JESSE WOOD

Reef's guitar man sings the praises of the P-90 pickup and eulogises a lost Les Paul



He can be swayed by a humbucker from the likes of Bare Knuckle, but P-90s just have the edge for Jesse

What was the first serious guitar you bought with your own money?

"I was living with my mum and she had spotted a black Les Paul – I think it was a 1971 or '72 – with an Alnico pickup [in the neck] and a P-90 pickup at the bridge. The previous owner had painted over everything, like he was an old rocker or something. I chipped in, but my mum paid a chunk of it and I used some of the money that I had from working in cafes. I had to get rid of it. It's one of my regrets, but hey, someone else has got it. I used it on many gigs; I did my first gig at school, so I must have been 15. We played *Jigsaw Puzzle Blues* by Fleetwood Mac."

What was the last guitar you bought and why?

"The last guitar I bought was a 2009 double-cutaway Les Paul Custom. Cost me 800 quid. I got it online, which is risky I know, but it turned up and it was great. It's got a P-90 in the neck and then at the bridge it's got a humbucker and I can't remember the name of it. I'm not that much of a nerd! But it sounded so good and it's the main guitar I used on our new album, *Shoot Me Your Ace*. Andy Taylor [from Duran Duran who plays guitar on the new Reef album] was playing with his sound and it went well with the two guitars. It's a two-guitar album, sonically, and it went really well with what we were playing and writing at the time. So that's the latest one I've bought. I've resisted since. That was before the madness, before lockdown."

"If it's a good sound without you having to plug it in – if it's twangy – that's always a good sign"

What's the most incredible find or bargain you've ever had when buying guitars?

"I think it's the Epiphone Crestwood that Alan Rogan [the late guitar tech to the stars] sold me. Yeah, it was an Epiphone Crestwood reissue with mini-humbuckers. That was the one I used a lot when I first joined Reef. They're really good, you know, they just get better when we play them. They've got great necks and the pickups are really well made – they use good pieces of wood. I think they've gone up [in price] quite a lot now, you know?"

What's the strongest case of buyer's remorse you've had after buying a guitar?

"A hard question. I've been very lucky, I can't really recall one. I'm always grateful to get a guitar and so I don't have much remorse. Maybe a couple of overdrive pedals; I can't remember the name of the company... but there was a big gold pedal and I thought, 'Oh yeah, that's going to be great.' So I bought it and tried it and... no. That was one."

PHOTO BY TIM P. WHITBY/GETTY IMAGES

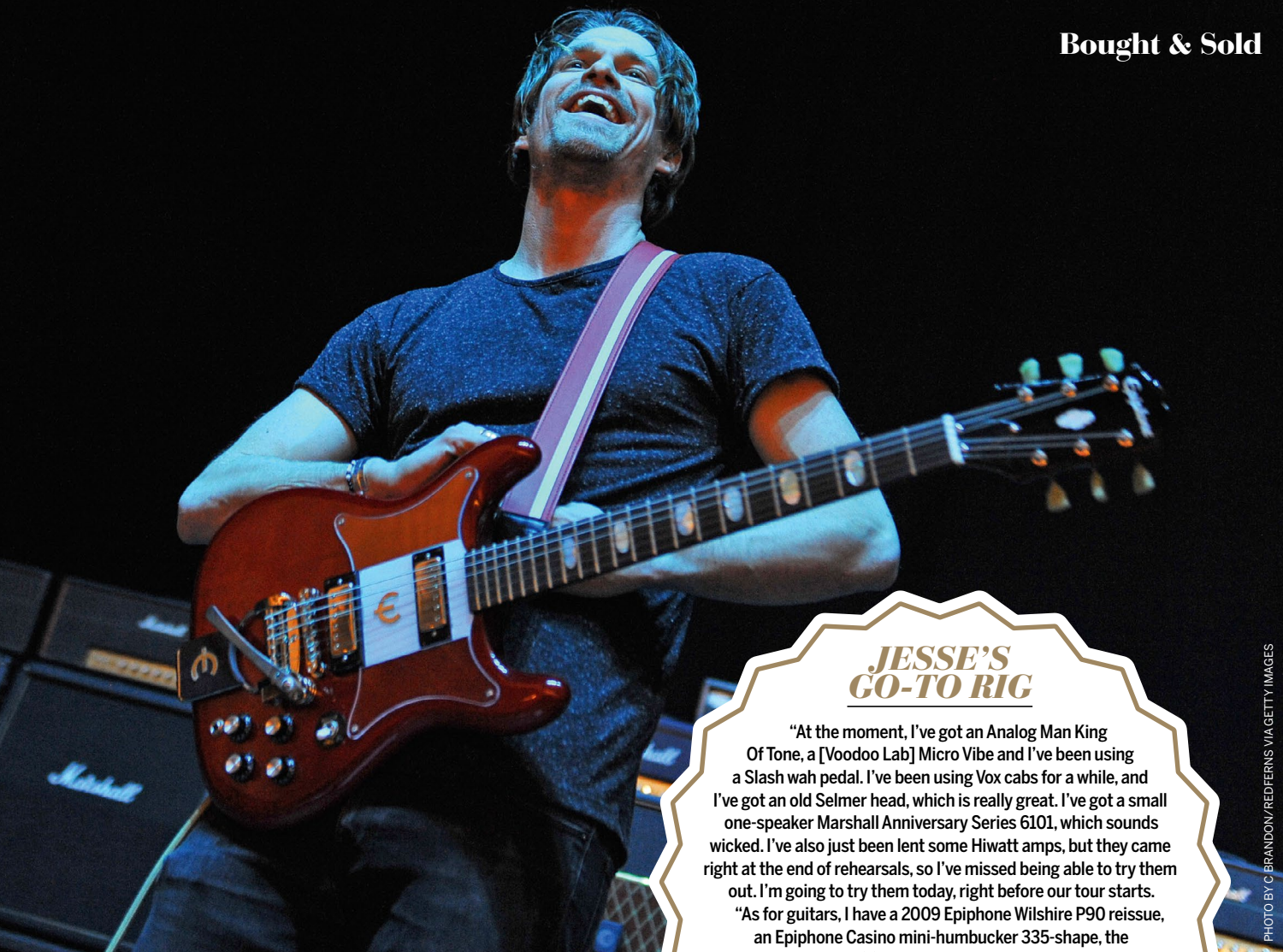


PHOTO BY C BRANDON/REDFERNS VIA GETTY IMAGES

JESSE'S GO-TO RIG

"At the moment, I've got an Analog Man King Of Tone, a [Voodoo Lab] Micro Vibe and I've been using a Slash wah pedal. I've been using Vox cabs for a while, and I've got an old Selmer head, which is really great. I've got a small one-speaker Marshall Anniversary Series 6101, which sounds wicked. I've also just been lent some Hiwatt amps, but they came right at the end of rehearsals, so I've missed being able to try them out. I'm going to try them today, right before our tour starts.

"As for guitars, I have a 2009 Epiphone Wilshire P90 reissue, an Epiphone Casino mini-humbucker 335-shape, the double-cutaway P-90 Les Paul. I've just had the scratchplate fixed on my old 70s Japanese Epi Wilshire, which I've put some Bare Knuckle humbuckers in. I've got a new Les Paul that I tune to drop C for some of the songs – it's just got one P-90 on it. It's a bit of a plank, to be honest, but it sounds great!"

Have you ever sold something that you now intensely regret letting go?

"The Les Paul I just mentioned. That's definitely one. And a 1958 Les Paul TV Special that someone gave me. I was in a bit of a pickle, so I had to sell it. And a mid-90s Vox [AC30] that I had to sell, a beige one, which I'd had modified to have an extension speaker. That's the amp I regret selling. It was with me since I was 16."

What's your best guitar-buying tip?

"If you can touch it and have a quick play of it, definitely that. The feel of it, and if it's a good sound without you having to plug it in – if it's twangy – that's always been a good sign to me. But if it feels right and you've been called to it and it all just goes right, you can't get anything better than that, really, with a guitar. It's the touch and feel for me. If you're buying it online, it's a bit risky. I've done that, as I mentioned before, and you might have to get it set up if you're doing it that way."

When was the last time you stopped to stare in a guitar shop window – or visited online – and what were you looking at?

"Yeah, I was on Reverb, on my little app, looking at old vintage Epiphone Wilshires and old speaker caps – Hiwatt and Marshall speaker cabs. And I was looking at the new TC Electronic Plethora X5 TonePrint multi-effects pedalboard, which looks really cool, but I prefer my old-school pedalboard. I was also looking at some Fender Vibro-Kings as well. My dad [The Rolling Stones' Ronnie Wood] uses those. Oh, and a couple of Roger Mayer's pedals to see if they've gone down in price."

If forced to make a choice, would you rather buy a really good guitar and a cheap amp or a cheap guitar and a top-notch amp?

"I would go for a really good amp and a cheap guitar. Because in my experience, it's kind of the luck of the draw with a cheap guitar. Really, like I said earlier, it goes back to the feel and the whole experience you're having with it. I just find that's the better way round – and you can change the pickup on your guitar quite easily for not too much money."

If you could only use humbuckers or single coils for the rest of your career, which one would you choose and why?

"I'd use P-90s because that is part of my sound. I mean, I do have an Epiphone, which I've put some amazing humbuckers in – Bare Knuckle ones – but I always end up with a P-90 more regularly than a humbucker. I'm happy with both, but P-90s just edge in for me." [DM]

Jesse Wood on stage at London's Roundhouse armed with his faithful Epiphone Crestwood



Reef's new album, *Shoot Me Your Ace*, is out now on Raging Sea Records

www.reeftheband.com

LOW DOWN

With the escalating quality of low-end guitars, buying a new instrument with a view to improving it is becoming a potentially fault-free path for modders of all levels, says Dave Burrluck

We're going to start with a reader's letter this time around. Over to you, Alex: "Reading issue 484 got me thinking – why don't you do reviews on the modding potential of guitars? I suspect some guitars are a lot easier to modify than others. The reason I ask is because I doubt I'll be able to afford a real boutique or custom shop guitar anytime soon so I thought I'd slowly upgrade a new guitar. Is that sensible and, basically, what's the easiest guitar style out there to mod?"

Thanks Alex, and to answer your first question, I think that's a great idea. But let's be serious, the majority of guitar players are more interested in playing their instruments than getting their hands dirty. But that's what The Mod Squad's all about and we like a challenge – or two.

As to which type of guitar is the best modding platform, well, there's a long piece of string... and a perfect pub discussion. It obviously depends on both your skill level and what sort of ongoing mods you have in mind. In many ways, the modular nature of a Stratocaster is the perfect modding guitar if you want to swap out the pickups and electrics, for example: very straightforward. Compare that with a Telecaster and you have to remove the bridge to change the bridge pickup, which adds to the faff. That said, if you want to experiment with the circuit, the Tel's control plate is quick and easy to access without touching the strings. I'd seriously avoid any ES-335-like thinline Gretsches... if you're planning to upgrade the electronics and pickups and would like to keep the hair on your head. Conversely, something based on a Les Paul Standard or Special is pretty easy to work on and you can access the electronics very easily.

For many, though, modding a *new* guitar may seem a little odd. Steve 'Chinner' Winstead, Mike Campbell's long-time tech, has this tip for anyone who wants to get



into modding: "Just get a cheap ol' guitar you really don't care about and rip the damn thing up!" I'm not disagreeing, but the end result might be in the lap of the gods when it comes to the crucial neck, fingerboard and frets. Potentially, it's a good way to spend money on upgrades to hardware and pickups only to be let down, basically, by a guitar that doesn't play very well. And by the time you get the pros in to sort it out, well, you could have bought a better guitar in the first place, to upgrade or not.

What isn't in doubt is that – as we're constantly writing – the quality of low-end and highly affordable guitars is getting better by the day. You want proof? Let's take a Harley Benton electric as our case study.

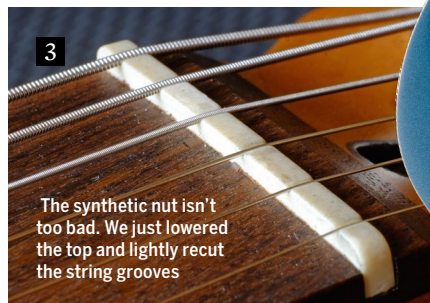
I'm sure there are many readers out there who remember the horrors of yesteryear: terrible lookalikes that were made of plywood with sharp-edged hardware and pickups that were better suited to fridge doors. Yes, some of those guitars had (ahem) character, but good guitars they weren't. How things have changed.

You'll never manage to intonate this bridge correctly. A new bridge is the fundamental mod needed here

Harley Benton's TE-62DB packs a punch at just £133, showing the progression from the bargain basement models of yesteryear



The odd placement of the string tree for the D and G means adjusting the truss rod is harder than it needs to be

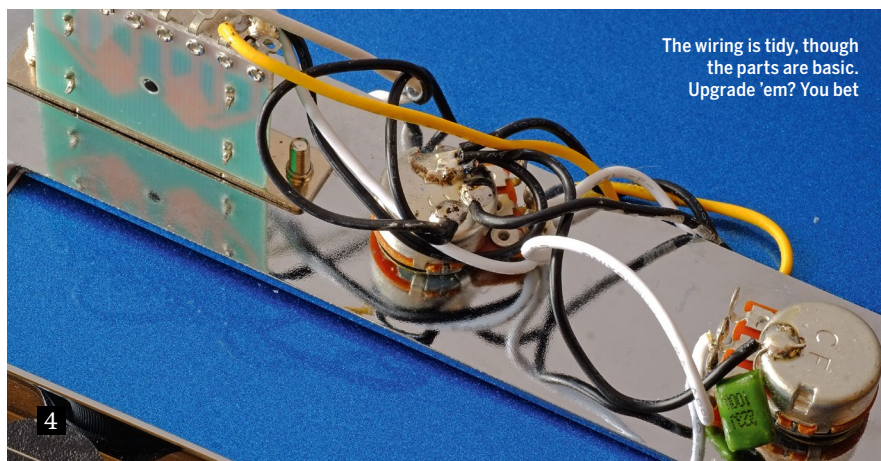


The synthetic nut isn't too bad. We just lowered the top and lightly recut the string grooves

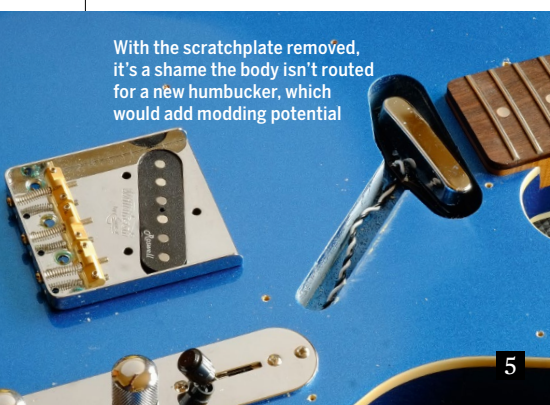




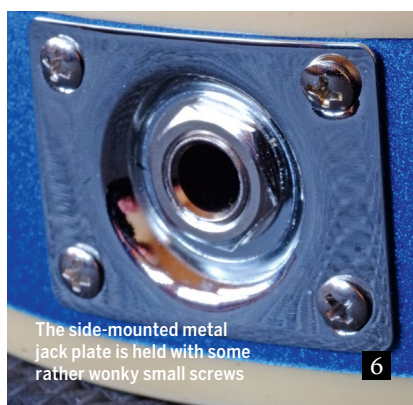
All back together:
the Harley B's
looking and
sounding good



The wiring is tidy, though the parts are basic. Upgrade 'em? You bet



With the scratchplate removed, it's a shame the body isn't routed for a new humbucker, which would add modding potential



The side-mounted metal jack plate is held with some rather wonky small screws

THE PARTS DEPARTMENT

We recycled as much as we could from previous projects and our bitsbox. If buying new, here's the sort of outlay you'd be looking at for the main parts...

- Wilkinson by Sung-il WTB 3-saddle guitar bridge, chrome: £22 to £49, depending on source
- WD Music strap button screws (used to attach the new bridge), chrome (bag of 6): £1.95
- WD Music #4 screws for Fender scratchplates, nickel (bag of 20): £3.95
- Gotoh Tele control plate: £16.95
- Gotoh SD91-05M 6 In Line Vintage Style Tuners For Vintage Fender Guitars (ordered but not yet installed): £45

The Mod Squad would like to thank WD Music UK for supplying all we needed (with the exception of the bridge) and superb next day delivery

Harley Benton TE-62DB

The product code here tells us where this one is aimed and, to be honest, I was expecting a spirited attempt at an early 60s-style double-bound T-style. Harley Benton's reputation, not least for affordability, has been steadily growing, but I was genuinely shocked by how good this apparently Chinese-made guitar appears. And with a price of just £133, I honestly don't know how they do it. But is it an illusion?

The spec sheet here tells us its body is poplar, and it's certainly a good weight at 3.29kg (7.24lb), though we can't see that under the perfectly glossed attempt at a classic Lake Placid Blue – one of three colours the guitar is offered in. What you can see and feel is the neck, and after a quick play test straight from the box I'm impressed. I double-check the price.

But it's going to sound rubbish, right? Okay, the Roswell bridge single coil does veer down the brighter, sort of late 60s/70s-era voicing, while the neck pickup is in stark contrast with an almost low-output humbucker-like smoothness. The mixed pickup voice is arguably the most 'Tele'-sounding selection. But the sounds are all workable and, to be honest, that neck pickup is rather good. I'm beginning to wonder if I'm missing something?

As we've advised before, if a guitar seems to be all working properly, you really need to put in the play time and ask yourself, what's wrong with it? What really needs upgrading? Live with the guitar and you might be surprised. Living with this HB, 'surprised' is an understatement.

Digging Deeper

When I said it really does play perfectly well out of its box, that's not to say it can't be improved. The intonation is not 100 per cent accurate; a quick glance at the chromed steel saddles confirms that [pic 1]. Each saddle is pushed towards the treble side. You can at least slacken a string pair, move the saddle then retune, but even so, it's never going to intonate accurately. It's an age-old issue with the Telecaster design, but if accurate intonation is important to you, let's flag this up as a basic issue that'll need to be sorted.

Caramelised (aka roasted, baked, torried) maple has a relatively new reputation as a wonder wood that we're told is more stable than regular maple and 'older sounding', as in more like a neck on an instrument that's been played for some decades. More quantifiable is that there's visually some typical maple figure on the neck sides, it's slab sawn and light/medium caramel in colour. After checking, there's a little too much relief and the neck needs a

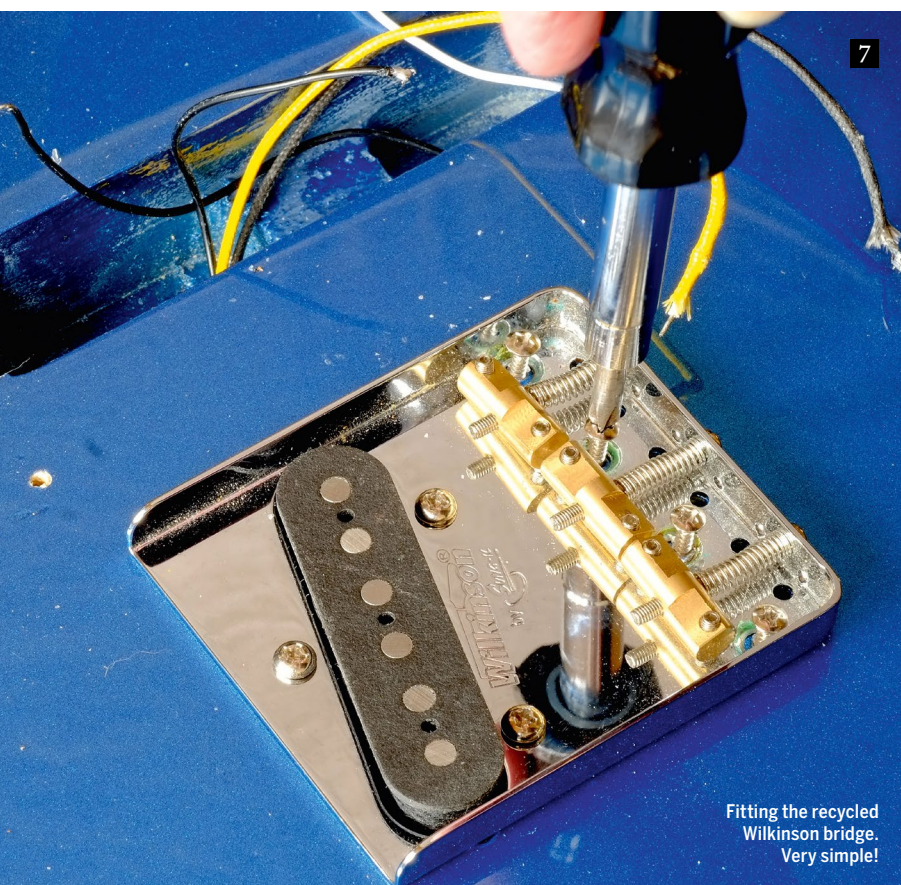
little straightening – pretty much like any new guitar that's still settling in.

Mind you, even a simple truss rod adjustment illustrates an oddity: what's with that string tree on the D and G strings being so close to the nut? [pic 2] It's not period-correct early 60s and makes getting to the truss rod adjuster a bit of a pain. I think we can lose that. With that sorted, checking string height at the 12th and at the nut, the former is good for me, the latter very slightly high [pic 3].

"The weight and feel of the guitar – not to mention its lively resonance – punch above its price point"

Checking over the laurel fingerboard with its 305mm (12-inch) radius with a FretRocker, well, it's not Plek-flat, but it's nothing that a simple fret level and dress wouldn't sort. Even then, that's borderline; you could easily fettle the fret ends a little more, too, but at this price, the craft is way higher than the price suggests.

There are no surprises within the control cavity [pic 4]: two mini 250k pots, a .022 microfarads tone cap and a block style



Fitting the recycled Wilkinson bridge. Very simple!



After some basic edge rolling and fret buffing, a couple of drops of oil brings out the colour of the laurel fingerboard

three-way lever switch – all economy level and wired tidily in generic Tele-style, not like the actual '62 circuit used by Fender. We were hoping that under the scratchplate we'd see pickup rout for a neck humbucker, but no. It's just a tidy enough cavity for the single coil [pic 5].

A nice touch is the square metal jack plate, although some bigger screws would give the gigging musician a little more insurance [pic 6]. Actually, screws overall are a bit of an issue. The scratchplate screws' heads don't fit in the countersinks and protrude a little, and poplar, of course, is relatively soft: don't be surprised if you'll need to plug and re-drill some as the threads strip.

Fit for Purpose?

It's very hard to evaluate the modding potential here because, as ever, it's not until you give it a go that you find out often hidden issues. So, before I did anything else, I decided to replace the bridge. I used a Wilkinson by Sung-il WTB bridge, left over from a kit build: good quality, not expensive and importantly has intonated brass saddles. You'll need some proper screws, though, as the ones used to hold the HB bridge are too small [pic 7].

As I'd removed the strings, however, the string ferrules on the back of the guitar that anchor the strings all fell out – the holes in the body are too large. And the tuners, which actually have a good smooth feel, are really odd [pic 8]. They look like those split-post vintage types, but the hole in the string post where you'd normally load in the string isn't deep enough; it barely holds the string as you wrap them around the post. Tuners with normal holes in the posts would be so much better.

Then the simple job of fitting better quality pots is hampered by the small-diameter holes in the control plate; you can't fit a CTS pot in those, you'll need a new 'plate. I simply added that and some 250k CTS pots and a Switchcraft lever switch, all pre-used recycled parts but perfectly good. And I added a Pure Tone output jack, too.

All that said, and with costs rising, this initial raft of improvements does have a noticeable effect. Giving the neck and fingerboard a little attention – from lightly rolling the edges, and a good rub with 0000 wire wool or a similar grade abrasive pad, including the frets and fingerboard face – really begins to raise the level. A couple of drops of fingerboard oil on the laurel enhances the colour [pic 9]. It's stuff we've

covered in The Mod Squad many times, but it's this sort of hand-time that's impossible on a production instrument like this and will genuinely create a far better feel.

The Verdict

Low-end guitars are getting better and better, and thanks to the likes of Harley Benton they seem to cost less and less. How can that be? This lowly HB is actually a nice guitar, but it's really let down by its bridge. The tuners look the part and feel good, but the actual posts are poorly designed. And the string anchor ferrules fall out when you go to restring, not something you want to find out at a gig. Issues? Yup, there are plenty.

But the weight and feel of the guitar – not to mention its lively resonance and response – certainly punch above its price point, and with some replacement parts and some hand-time on the neck and fingerboard here's an instrument that now feels much more fit for purpose. I'm going to live with the guitar a bit longer, and I'll probably replace the tuners at the next string change, but I can't help concluding that, while it might not quite be the bargain it looks, with some pretty simple and basic mods it's now a way more serious piece. **E**

*That should give you something to think about till our next issue.
In the meantime, if you have any modding questions, or suggestions, drop us a line – The Mod Squad.*



Huw Price's *Nitty Gritty*

Restoration expert Huw looks at vintage PAF characteristics and convincing replicas

Patent Applied For Pickups (Part 2)

Nobody disputes the 'Holy Grail' status of PAFs, but their relative scarcity means very few of us will ever get the chance to try the real thing. The danger with 'Holy Grails' is the way we project our hopes and dreams onto them. This partly explains why those lucky few who do experience vintage PAFs don't always get what they expected.

Classic recordings are of limited value because any guitar tone that has been processed through random microphones, preamps, equalisers and so forth can only tell us so much. Let's begin by describing what vintage PAF pickups actually sound like so you can judge whether the PAF replicas in your guitar are as accurate as the manufacturer claims.

Bloom & Bust

Apparently, some vintage PAFs sound terrible, but the ones for sale on Reverb always sound "amazing". Jokes aside, any informed discussion of PAF tone has to acknowledge a range of characteristics.

However, certain traits are shared by most PAFs and when you're trying to authenticate them, knowing what to listen for can be more informative than knowing what to look for. Some copies are visually indistinguishable from genuine PAFs, but replicating the tone still eludes the overwhelming majority.

Vintage PAFs and P-90s sound similar, but this shouldn't be surprising. Gibson had settled on the P-90 as the best tone generator for its electric guitars, and it's logical to assume that Seth Lover was trying to create something close to a noise-free P-90 rather than reinvent the wheel. Nevertheless, PAFs do have an added dimension. To our ears, P-90s sound drier and more direct than PAFs. In contrast, PAFs exhibit a more harmonically rich and multi-layered character. In acoustic guitar terms, P-90s equate to Indian rosewood whereas PAFs are more like Brazilian.

With PAFs, we test for microphony by tapping the cover or the top of a bobbin with a plectrum, or even the body with our

knuckles. You should hear the tapping very clearly through an amp, but if you can only hear a dull thud or nothing at all, be suspicious. Genuine PAF pickups are among the clearest and brightest of all humbuckers – so much so, they'll handle indie jangle, jazz, funk and country. But that clarity shouldn't mean underpowered mids or excessive treble.

With electric guitars, most of the 'action' happens in the midrange, and PAFs tend to combine full mids with excellent detail resolution and crisp pick attack. They're also extremely responsive to playing dynamics – and another telltale characteristic emerges when you hold a note while adding finger vibrato. As the note fades, the sound that's generated

The lucky few who experience vintage PAFs don't always get what they expect

by string friction against the frets and fingerboard gradually takes over and can be almost as loud as the note itself. It's a breathy and evocative effect you have probably heard on many great recordings, and only vintage PAFs and the very best copies can do it really well. You should also be able to back off the volume controls with no loss of clarity or treble. Bridge PAFs often sound a bit too bright and balance best with the neck if you set the tone control to about half way.

PAF enthusiasts use the term 'note bloom' and it describes the phenomenon of sustaining notes changing in character – maybe a higher harmonic drifting in or even a shifting series of harmonic overtones that resembles a very subtle and natural flanging effect. It's an ethereal and beautiful thing to experience, and this ability to 'shape shift' is one of the most intriguing of the PAF's attributes.

PAF-ing Your Pickups

A vintage set of pickups would be a 'magic bullet' solution for PAF tone, but the prices are now astronomical. For this reason, most players turn to PAF replicas instead – and while the choice is vast, the endless merry-go-round of pickup swaps can be



The tonal roots of the PAF can be traced to an earlier, Gibson pickup – though not a humbucker – the P-90



This stunning 1959 Les Paul Standard epitomises the blend of power and expression that good PAFs can offer

Modern reissues of original 'Bursts, such as the Custom Shop instrument below, all try to capture the spirit of the best original PAFs. But the concept of a 'definitive' PAF replica is necessarily elusive as the spec, sound and performance of originals varied

frustrating and costly, especially if you don't consider all the variables.

Potentiometers in 1950s Gibsons usually read above 500kohms, so try to determine the pot values in your guitar. Gibson went through a period of fitting 300k pots, and if your guitar has those, any set of humbuckers will sound dark and muffled. Also check that the tone controls are connected to the centre tags of the volume pots, 1950s style.

If you don't take the time to adjust your pickups, you may not realise how good they can sound. In studios, microphone placement goes hand in hand with microphone selection, and pickups are no different. PAFs and the best clones are extremely sensitive to height setting

'Note bloom', or an ability to 'shape shift', is one of the most intriguing of the PAF's attributes

relative to the strings. There are plenty of online tutorials out there and some recommend specific measurements, but all pickups are different. Fortunately, the only tools that are needed to find the sweet spot are a screwdriver and your ears. Having said that, there are other features and modifications you should consider in your PAF tone quest...

PAFs Uncovered

PAF-style pickups are relatively easy to modify, but having to remove the cover may be a complicating factor here. Solder blobs fix the cover to the baseplate, so a very hot soldering iron with a solder sucker should remove them. A blade can cut through any solder residue while it's still runny and the covers will usually pull off. Wax potted pickups may require a blast with a hot hair dryer before they'll come loose, but if they're potted then it's usually a lost cause anyway.

Players began removing covers to increase output and push valve amps into overdrive. It's debatable whether cover removal increases output or merely achieves an illusion of loudness by emphasising the upper midrange. You may hear a bit more 'bloom' and aggression, but some vocal articulation can be lost. It's a trade-off, though if you like bright and aggressive tone, you'll probably prefer things uncovered.

Covers that are too thick may reduce clarity, harmonic chime and definition. Vintage PAF covers weigh around 24g and are pressed from very thin nickel. So if your covers are thick and heavy, they might be worth swapping. The best-sounding covers aren't always those expensive types with classic contours, artful dimples and eye-candy relicing.

Magnet Swaps

Swapping the magnet can dramatically change the tone of a humbucker. Alnico II, III, IV and V magnets are all vintage correct and they should be 2 1/2 inches long. They do sound different, and since they are relatively cheap and easy to buy, it's best to try them out for yourself. You'll find plenty of online opinions; we all hear things differently and it's important to assess how those magnets interact with your guitar's hardware and your amp.





To cover or not? Covered PAFs arguably sound a little less aggressive than uncovered equivalents

Stronger magnets can be louder and more aggressive, but to avoid string-pull and harshness you may be obliged to set them lower than a PAF with a weaker magnet, which just levels things out. Listen for the frequency balance and, crucially, the midrange voicing. For an early 1960s PAF tone, Alnico V may be the best magnet choice. And if you're after stronger mids and softened treble, then we'd advise you to consider the shorter 2 5/16-inch magnet that was phased in post-1961.

To swap magnets, undo the four bobbin screws under the baseplate a few millimetres to loosen the bobbins. If the pole screws are screwed into the baseplate, you'll need to retract those, too. Then carefully grip the exposed end of the magnet with some thin pliers and slide it out. If you're changing both magnets in a set of pickups, you should ensure they remain in phase;

As they're magnetic, steel screws become polepieces and give PAFs extra bite – a subtle but clearly audible difference

you can use a compass to determine which edge is south, usually oriented on the screw side. If you like the Peter Green 'out-of-phase' tone, flip the neck magnet so it's north to the screws.

Screw It

The earliest PAFs had steel bobbin screws and, although brass soon became standard, some later PAFs do show up with steel screws. Noted examples include the Peter Green 'Burst and the Kris Blakely-owned Kossoff 'Burst. When Duane Allman swapped his '57 Goldtop for a '59 'Burst, he insisted on keeping his original pickups with their steel screws. As they're magnetic, the steel screws become polepieces and they give PAFs extra bite. It's a subtle but clearly audible difference and by far the cheapest mod you can make to your humbuckers. Simply unscrew the brass and screw in the steel.

As steel is graded for carbon content, this means the pole screws can affect the tone. Jon Gundry of Throbak Pickups reports vintage pole screws varying from 1006 to 1018. For a sweet and smooth tone, try some 1010 screws, or for upper midrange cut, try 1018 or 1020. Sunbear Pickups is a good source for pole and bobbin screws in the UK.

Consider The Coils

Differences in coil resistance readings in a PAF-style humbucker can have a profound effect on tone. A pair of closely matched coils will have a thicker tone but may lack clarity. A greater difference between the coils can enhance brightness and dynamic response, but the tone becomes excessively thin if they're too far apart.

Finding the right degree of offset between the coils gives the best of both worlds. The wires linking the coils are usually tucked between the bobbins. If you can pull them out and remove the insulation, it's possible to measure the resistance of each coil. A pair of pickups gives you four coils to choose from and recombining them can modify the offset. Clearly, this is the most advanced mod detailed here and is not without risk. It's easy enough if you're careful, but a professional could do it for you and it will be cheaper than buying a new set of pickups.

Hopefully our two PAF features have gone some way to demystifying vintage Gibson PAF pickups, and you should now know exactly what to look for when buying modern PAFs. Yes, vintage PAFs are the dream, but with the right combination of ingredients and sympathetically wound unpotted coils, some replicas sound a lot closer than you might think. 

www.huwpriceguitar.com



Rod Brakes' ClassicGear

Originally built for George Harrison, this reworking has become an iconic prototype

Fender Rosewood Telecaster

Rosewood Telecasters have been in and out of regular Fender production several times since 1969. A reworking of Fender's seminal solidbody electric design by craftsmen Roger Rossmeisl and Philip Kubicki, the prototype guitar was custom-built for George Harrison in 1968 alongside an equivalent-style rosewood Stratocaster intended for Jimi Hendrix. While Hendrix sadly never received this Strat, Harrison famously used his Rosewood Tele for The Beatles' historic rooftop concert on 30 January 1969.

Harrison's instrument was unique. It sported a pre-CBS 'spaghetti' logo, a satin finish and a rosewood 'cap' fingerboard atop a solid rosewood neck. When regular production of the Rosewood Telecaster commenced in 1969, Fender built its new model using a bolder mid-60s 'transition' logo, rather than a contemporary black CBS-era decal that would be tricky to see against dark rosewood. Poly finishes had largely superseded nitrocellulose by the late 60s and the new Rosewood Tele was adorned with this hardwearing, glossy alternative. Standard production Rosewood Teles of this era are also easily identified by a maple plug and 'skunk stripe' as Fender brought back its original 50s-style fretted neck design during this time.

Fender's initial launch of the Rosewood Telecaster was somewhat underwhelming. Despite The Beatles association, no bespoke advertisements were created. The model merely popped up on the price list marked at \$375 in May 1969 and was unceremoniously

described as "Telecaster, (Dual Pickups) Rosewood." (By comparison, a regular Tele with a rosewood 'board cost \$269.50.) By spring 1970, the Rosewood Telecaster was nowhere to be seen on the Fender price list and was apparently unavailable throughout 1971. The model made a reappearance in February 1972 when it was confusingly touted as "new", before being omitted again the following year. Hence, the vintage Fender Rosewood Telecaster is a relatively rare guitar. Educated guesses put production figures in the low hundreds. Such scarcity, coupled with the desirability of being an iconic Beatles guitar, has meant Rosewood Teles are easily pushing into five figures these days. Some Fender Custom

Their scarcity and desirability has meant Rosewood Teles are easily pushing into five figures these days

Shop models go for several thousand pounds, too. More often than not, these are prototype/Harrison-style instruments with pre-CBS logos, satin finishes and glued-on rosewood fingerboards.

In 1986, the Rosewood Telecaster made a comeback as part of Fender's Limited Edition series when it reappeared on price lists at \$699. Made in Japan, these are fairly accurate recreations of the earlier standard production guitars and have become sought after by players. In the 1990s, Japanese-made Rosewood Telecasters were offered in Fender's Reissue Series.

Over the years, numerous Custom Shop Rosewood Telecaster models have been released sporting the popular Harrison-style prototype specs, and in 2017 Fender launched the George Harrison Rosewood Telecaster in a run of 1,000 instruments. With Peter Jackson's 2021 documentary *The Beatles: Get Back* creating a renewed interest, the same model was re-released this year as a "limited-edition tribute". As per previous Rosewood Telecasters, these guitars are chambered to alleviate weight (rosewood is generally a dense, heavy wood) and feature a maple centre veneer separating the laminated top and back. **G**

The Evolution of the Fender Rosewood Telecaster

1968

Prototype built by Roger Rossmeisl & Philip Kubicki

January 1969

George Harrison plays prototype during rooftop concert; pre-CBS logo; satin finish; no skunk stripe

May 1969

Appears on price lists; transition logo; gloss finish; skunk stripe; omitted from price list April 1970

February 1972

Reappears on price lists; omitted from price list again January 1973

1986

Limited Edition Series; production specs; made in Japan

1990s

Reissue Series Rosewood Telecaster; production specs; made in Japan

2007

Custom Shop Rosewood Telecaster; prototype specs

2017

George Harrison Rosewood Telecaster; limited edition run of 1,000; prototype specs

2022

George Harrison Rosewood Telecaster re-released; prototype specs



Transition logo and maple plug/skunk stripe were standard production run specs

1969 Fender Rosewood Telecaster

1. SERIAL NUMBER

Six-digit number stamped onto steel neck plate marked with 'F' logo (normally between 252000 and 291999 in 1969)

2. HEADSTOCK

Single 'butterfly' string tree, Fender transition logo decal; maple plug

3. PLASTICS

Three-layer black/white/black laminated pickguard; black selector switch tip

4. HARDWARE

Metal bridge plate; six metal ferrules; two metal strap buttons; three adjustable steel saddles. Chrome-plated: 'ashtray' cover; single 'F' logo tuners; two knurled knobs (volume and tone); control panel; recessed side jack

5. PICKUPS

Single-coil bridge pickup with staggered polepieces; single-coil neck pickup with chrome-plated cover; three-way selector switch; two 1meg-ohm pots (volume and tone)

6. BODY

Rosewood top and back; maple veneer centre; chambered; poly finish

7. NECK

Single-piece fretted rosewood; maple 'skunk stripe' and headstock plug; 21 frets; pearloid dot markers





David Davidson's *Vintage Icons*

This gilded late-60s Bigsby-loaded rarity sports an uber-rare custom colour finish

1969 All-Gold Gibson Les Paul Custom



This immaculate all-gold model is one of a kind, likely made for a trade show or as a luxe presentation piece

I've never seen one before this – or even knew it existed. But there it was in the Gibson ledger from 1969. It's got the original tags, too. The tags say it's an all-gold finish, with gold Bigsby, which is pretty cool. It may have been some kind of presentation piece or a trade show guitar. It's an unbelievable piece and is in virtually brand-new condition. It plays well, too, and the T-top pickups sound great.

"It's an all-gold finish meaning everything, including the back of the neck, is gold; Goldtop finishes are also self-explanatory. It has various original paperwork and tags with it, including some that state 'all-gold, special order, gold Bigsby.' Somebody had it down previously as a '68, but there's no dot in the 'i' [of the headstock logo] and the serial number corresponds to early '69; Gibson repeated '66 serial numbers in 1969.

"It's a little on the heavier side, as they were – especially with a Bigsby. '68 and '69 guitars can be a little weighty, but all in all they're really cool. I mean, they were definitely still trying to put out some special pieces in the late 60s. This is a good made-in-the-USA pre-volute guitar. Obviously, 1970 is the beginning of the end for a lot of things. But not all guitars that came out of the Norlin era were bad.

"Way too many people still believe the fairy tale that they were using 50s wood to build the late-60s guitars. That simply is not true. There were no leftover 50s bodies made into '68 Les Pauls. It never happened. I think that's purely wishful thinking.

"Gibson brought the single-cutaway Les Paul back in '68 due to popular demand. They were pretty dead until Keith Richards went on *The Ed Sullivan Show* with The

Rolling Stones in '64 playing his '59 'Burst. People's interests were regenerated, and everyone was making a bug hubbub of trading these 50s single-cutaway Les Pauls around. So Gibson decided they weren't going to sit on the sideline and started making them again.

"However, the fact that they reintroduced a P-90 guitar was pretty shocking to me. They could have just put T-top humbuckers in it and had a Les Paul Standard with dual humbuckers and the appointments as a '57 or '58 Goldtop. But for whatever reason they liked that '55/'56 ABR-1/P-90 thing. At this point, Gibson was a company that didn't yet fully understand the significance

"Way too many people believe the fairy tale that 50s wood was used in late-60s guitars"

of its own history. There were a few older cats hanging around, but I don't think there was the same kind of thought process that went into it as nowadays.

"Some of the first Les Paul Goldtops that came out in '68 have an SG-style crown inlay because they didn't have the Les Paul Model silkscreen logo ready to go in time. I have one of them. They made about 20 or so of those. In '69, pretty soon after the reissue P-90 Goldtops came out, they changed to Les Paul Deluxes with mini-humbuckers.

"The Les Paul Custom was reintroduced in '68 as a dual-humbucker guitar, rather than being three-pickup like earlier ones. I think they were listening to people on some

level who were complaining they didn't like the third/middle pickup. And at that point the two-pickup Les Paul Custom was born – though they did make a very small amount of dual-humbucker guitars in '57 and '59.

"As the Les Paul Custom kept evolving – or devolving, depending on how you look at it – Gibson continued to come up with some interesting stuff. I have one from the early 70s with a Brazilian rosewood top. And I have one that's like a tuxedo, a kind of Randy Rhoads creamy white colour on the top, but the sides and back are black. I also have a '72 in Sparkling Burgundy, which is really nice. So they were trying a few interesting things to woo people back.

"Gibson used gold as a basecoat for their Sparkling Burgundy. You'll often see those guitars fading to a gold-ish colour as the translucent red fades away. While the finish on this guitar is virtually mint, gold Gibson finishes are known to fade and wear to a greenish hue. The way it was explained to me is there's a bronze powder in the paint and that's why they turn the colour they do.

"For every person I meet that doesn't like a Bigsby I find the person sitting next to them thinks it's the greatest thing that's ever happened. They're wonderful both ways. I think the naysayers are probably people that just read internet forums and can't judge a guitar for what it really is. If you play it for a minute, you'll discover it's pretty darn good. Ultimately, it's the player that makes the guitar." **[RB]**

Vintage guitar veteran David Davidson owns Well Strung Guitars in Farmingdale, New York
www.wellstrungguitars.com / info@wellstrungguitars.com / 001 (516) 221-0563

Applied to the entire guitar
aside from the headstock
front, all-gold finishes are
more often seen on 50s
Les Paul Models



Blues Headlines

Richard Barrett is on a mission to make you a better blues player – with full audio examples and backing tracks



Keep It Simple (Part Two): Travelling The Fretboard

Tutor Richard Barrett | **Gear used** Knaggs Choptank, Boss Keeley-modded SD-1 & Vox AC15 C1

Difficulty ★★★★★ | 15 mins per example

BB King was a master at negotiating his way through a blues progression using slides and passing notes



PHOTO BY EBET ROBERTS/GETTY IMAGES

LAST ISSUE I PLAYED FOUR 'SHAPE 1' C MINOR PENTATONIC PHRASES, as

regular Blues Headlines readers will recall from Part 1, making a point of keeping within that one shape and not adding any fast runs or embellishments (as much as possible!). This time, I'm deliberately pushing in the opposite direction – not by playing anything ridiculously fast but certainly allowing a bit more flamboyance here and there. Rather than constraining myself to one pattern, I'm employing various pentatonic shapes, with frequent additions in the form of chord tones, chromatic passing tones and arpeggios.

The four examples are played as separate phrases, but could be 'comped' together to make a full solo, with Example 4 giving an alternative take on the final phrase. As there are only three chords (I-IV-V) in this 12-bar blues backing, it's relatively easy to keep an awareness of those changes in real-time as we solo/improvise over it.

For a long time, I've been a fan of visualising the CAGED chord shapes and associated arpeggios, which can be found in the same locations on the fretboard as the pentatonic shapes. Combining this with a knowledge of how the minor pentatonic can fit over a major chord by pushing or pulling the minor 3rd (in this case, E_b) slightly sharp, adding in a few 6ths (A, in this key) and playing in a linear fashion along the strings to move between different shapes and registers can give almost infinite options. Sometimes, however, it's good to remember that not playing at all is one of the most effective tools at our disposal. I emphasise this particularly as there would be no point in recording any examples of me not playing!

I hope these examples and the approach I have described give some food for thought. Enjoy and see you again next time! 



Richard Barrett's album, *Colours*, (complete with backing tracks), is available now from www.richardbarrettguitar.com

Example 1

STARTING UP HIGH using shape 4 of the C minor pentatonic, this example swiftly moves down to shape 3, where I'm including the 6th (A) in lieu of the B $\flat$ you might normally expect here. You could, of course, include the B $\flat$ as well. This phrase finishes with a little run down shape 1. I suppose you could say there's a brief slide through shape 2 (one note!) to get there, but it's probably easier to regard this as part of the shape 1.

Example 2

HERE'S A GOOD EXAMPLE of where the CAGED and pentatonic shapes coexist on the fretboard. Over F, the IV chord, I'm using C minor pentatonic shape 1, initially bending up to the root (F) before playing some descending phrases using the A (6th), again on the second string. Having said that, A becomes the major 3rd in F – you may also notice that the run here traces the F major chord that lives in this location... The final phrase lands on a shape 5 C minor pentatonic.

Example 3

I'M HEADING INTO THE G CHORD with a G7 arpeggio pattern, which segues neatly into the shape 1 C minor pentatonic. It stays here until the end of the phrase, albeit with the brief inclusion of another 6th (A), which fits the C major chord better. Once you get that arpeggio under your fingers, you'll find lots of uses for it in a jazzy blues context.

YOU COULD VIEW THIS ALTERNATE TAKE on the final phrase as having three parts: beginning with some horizontal slides through the G major pentatonic, it switches abruptly to shape 3 of the C minor pentatonic, embellished with some chromatic linking notes, as well as the 6th (A) again. After a pause for thought in bar 3, I switch back to the shape 1 C minor pentatonic for the descending run, which lands on G just in time for the turnaround!

The image displays a musical score for the song "The Sound of Silence" by Simon & Garfunkel. It includes a guitar part and a bass part. The guitar part is written in standard notation with a key signature of one flat (Bb) and a 4/4 time signature. The tempo is marked as 106. The guitar part features a melodic line with various chords (G7, F7) and a bass line with a wavy line indicating a sustained note. The bass part is written in standard notation with a key signature of one flat (Bb) and a 4/4 time signature. It features a melodic line with various chords (C7, G7) and a bass line with a wavy line indicating a sustained note. The score is divided into two systems, with the first system containing measures 1 through 10 and the second system containing measures 11 through 20. The guitar part is written on a single staff, and the bass part is written on a single staff. The guitar part includes a capo on the 1st fret, indicated by a "1" below the staff. The bass part includes a capo on the 3rd fret, indicated by a "3" below the staff. The guitar part includes a wavy line indicating a sustained note in measure 10. The bass part includes a wavy line indicating a sustained note in measure 10. The guitar part includes a wavy line indicating a sustained note in measure 11. The bass part includes a wavy line indicating a sustained note in measure 11. The guitar part includes a wavy line indicating a sustained note in measure 12. The bass part includes a wavy line indicating a sustained note in measure 12. The guitar part includes a wavy line indicating a sustained note in measure 13. The bass part includes a wavy line indicating a sustained note in measure 13. The guitar part includes a wavy line indicating a sustained note in measure 14. The bass part includes a wavy line indicating a sustained note in measure 14. The guitar part includes a wavy line indicating a sustained note in measure 15. The bass part includes a wavy line indicating a sustained note in measure 15. The guitar part includes a wavy line indicating a sustained note in measure 16. The bass part includes a wavy line indicating a sustained note in measure 16. The guitar part includes a wavy line indicating a sustained note in measure 17. The bass part includes a wavy line indicating a sustained note in measure 17. The guitar part includes a wavy line indicating a sustained note in measure 18. The bass part includes a wavy line indicating a sustained note in measure 18. The guitar part includes a wavy line indicating a sustained note in measure 19. The bass part includes a wavy line indicating a sustained note in measure 19. The guitar part includes a wavy line indicating a sustained note in measure 20. The bass part includes a wavy line indicating a sustained note in measure 20.

BB KING

ONE KIND FAVOR



On this, his final studio album, BB embellishes between his soulful vocals in a way that can be related back to our featured examples. Check out *I Get So Weary*, *How Many More Years* and *Backwater Blues* to hear how he manages to negotiate through major I-IV-V progressions with all the attitude the minor pentatonic can deliver, plus lots of chromatic linking notes, slides, well-placed 6ths and bluesy quarter-tone bends – a technique BB was using way before most.

BB KING & ERIC CLAPTON

RIDING WITH THE KING



Yes, BB King gets a double mention here because his style of 'major' blues playing really pioneered what we are looking at this time around. However, Eric Clapton is hardly an afterthought as a listen to the title track demonstrates. Also, check out *Three O'Clock Blues* to hear the two guitarists trading licks on a slow blues, then turning up the tempo on *Days Of Old*. This is one of those albums where you can really hear the room(s) it was recorded in.

BUDDY GUY

THE BLUES IS ALIVE AND WELL.



The title of this album from 2018 says it all, really... and not many of us can boast guest appearances from the likes of Jeff Beck, Mick Jagger and Keith Richards, can we! But then again, Buddy's fiery soloing was always way ahead of its time in terms of tone and attack. Tracks including *A Few Good Years* and *Guilty As Charged* are a great example of soaring solos, and for a little variety, give the funky minor blues of *When My Day Comes* a listen.

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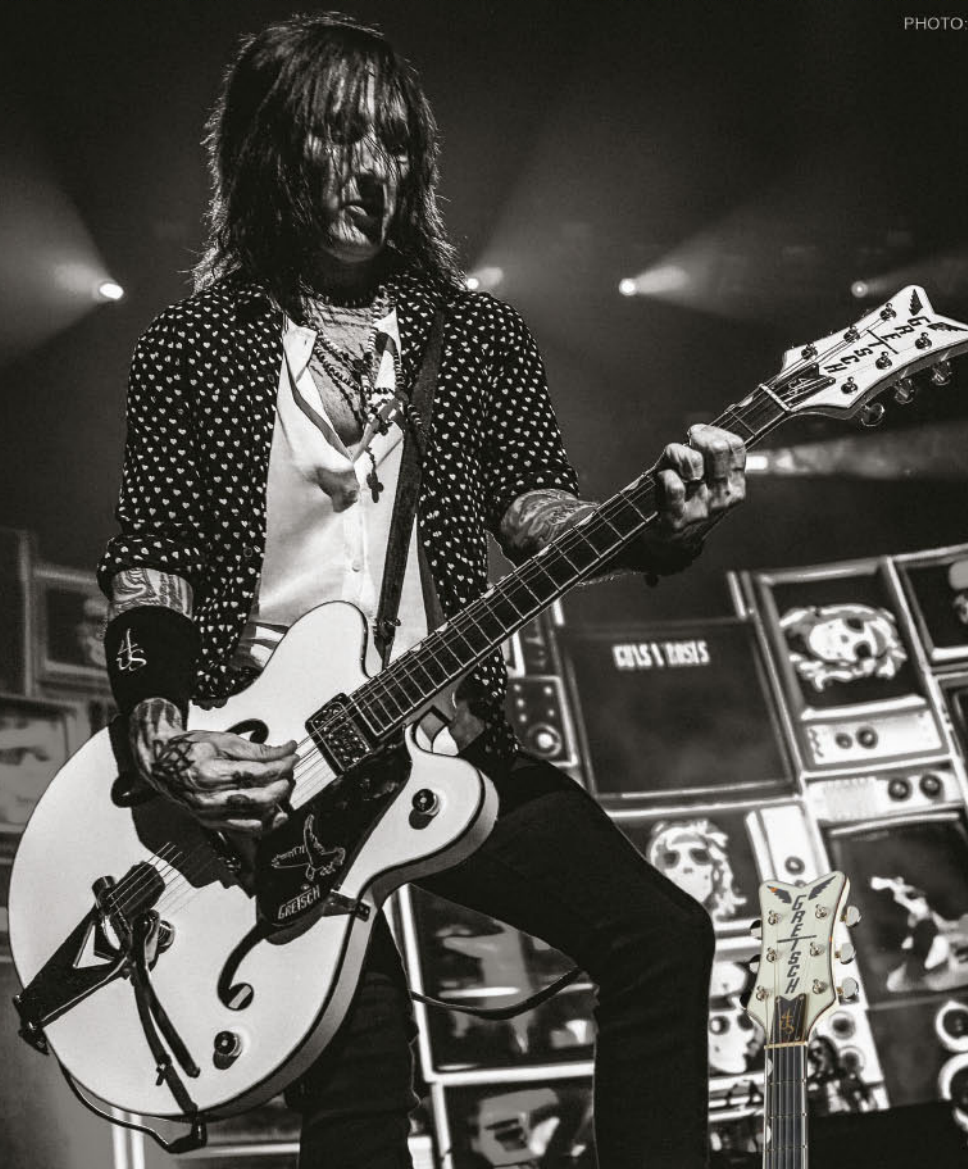
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