Tech 21 SansAmp Character Plus

Analogue Amp-emulation Pedals

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By Dave Lockwood

Tech 21's renowned Character pedals get a new lease of life in the form of the compact, channel-switchable Character Plus series.

Tech 21's Character series of analogue guitar-amp and speaker emulations launched in 2008, into a world in which digital amp/speaker modelling had already reached a considerable degree of maturity. Yet there was still a place for the immediacy and musicality of an all-analogue signal path, combined with a simple, intuitive interface, and the various dedicated amp-design emulations became a fixture in many a pedalboard and DI recording system. This year sees the Character concept receiving something of a re-launch, but is there still a place for an analogue speaker sim in the era of the digital IR?

Getting Into Character

Tech 21's new Character Plus series marries a scaled-down version of their popular Fly Rig housing with amp-specific analogue emulations similar to the original Character series pedals. The 'Plus' factor here comes from the integration of a 'popular choice' pedal with each of the four different amps emulated. Thus the 'Fender' unit gets a Tube Screamer type, the 'Marshall' gets a Fuzz Face distortion, the 'Vox' has a choice of Rangemaster-style treble boost or midrange boost, and the 'HiWatt' amp gets a Big Muff fuzz. There's certainly a logic to this: many of what we all think of as 'classic amplifier tones' are in fact combinations of amps and pedals.

The Fuzzy Brit model aims to deliver a range of Marshall-like tones, with a distortion based on the Fuzz Face.

The all-analogue amp emulations are paired with Tech 21's analogue speaker-cab emulations, each in a style frequently associated with the nominal amp. There is no facility for switching off just the speaker emulation in these designs, however, so we have to assume the primary application to be direct recording or a direct feed to a PA system or full-range stage amp. Being created entirely in the analogue domain, a SansAmp-style speaker/mic sim doesn't have the narrow peaking and notching of a real miked speaker or impulse response taken from one. This is audible as a less complex sound when clean, but a smoother one with heavily distorted sounds, which can sometimes be exactly what you want — one of the primary reasons why we often double-mic guitar cabs is precisely to try to even out some of the peaks and dips in the overall response. The comparative smoothness of the analogue speaker sim response means you can still use it into a real guitar amp, with a bit of EQ, whereas you can't usually do that with the greater complexity of an IR.

At just over seven by two inches, the housings really are significantly smaller than the Fly Rigs, but nonetheless feature three footswitches and 12 self-illuminating rotary controls. An included external power adaptor supplies the required 9V DC 200mA, and there are quarter-inch jacks for guitar input (1MΩ) and unbalanced, low-impedance signal output, plus a balanced XLR.

All four pedals are organised as two-channel 'amps', with dedicated A and B settings for both Drive and Character, albeit with a shared three-band EQ. The latter acts after the amp and speaker-sim stages and is analogous to using an EQ on a mixer to affect a miked-up source, rather than being a part of the virtual amp circuitry, so common 'amp-user conventions', like cutting bass as you increase distortion to

As well as the unbalanced TS input and output you'd expect to find on a guitar pedal, there's a balanced line-level XLR output, making direct recording or a feed to the FOH desk easy.

prevent flubby bottom-end, don't apply here. The fixed EQ band's frequencies are subtly different for each model and allow for a lot of fine-tuning of the final output. The Character controls and their interaction with the Drive setting is where all the 'amp' action is to be found in these units. On the 'Vox' model (not sure I can bring myself to keep referring to it as a 'Mop Top Liverpool') Character A and Character B access a different range of tones, but in the other modes they facilitate alternate settings of the same parameter, sweeping through a range of classic tones associated with the general amp style. Channel A/B choice is via footswitch, with a buffered bypass footswitch taking the whole amp/speaker emulation stage in and out of circuit, and the third switch activating the distortion pedal. The latter will still work even when the unit is switched to bypass, so you could use it as a conventional stompbox distortion into the front end of an amp.

A Timeline Of Classic Amps

The 'Screaming Blonde' model's Character control takes you backwards through the timeline of classic Fender amp designs, starting out anticlockwise in the Black/Silverface era, passing though the Blonde/Brown models, and then back to the Tweeds. Tonally, this means fully anticlockwise is a bit scooped in the midrange for sparkling cleans, and fully clockwise offers up the midrange focus of a Tweed, with a nice compromise balance of the two somewhere around the middle. Combine that with different Drive and Volume levels available in each channel, and it is easy to get, say, a clean rhythm sound that will go into a bit of crunch when you turn up the guitar volume, and then switch to the B settings for a louder, higher-gain, 'singing' lead tone. Or, indeed, the other way round, as neither channel is dedicated to any particular tonality.

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For further variation you've got a Tube Screamer-type overdrive, often the drive of choice with Fender amps. At the minimum drive setting this one is a little cleaner than a classic 808 or TS-9, and there's no additional volume available on the Level control until you start to push the Drive up a little, but it works pretty much as you'd expect, although I daresay some users would prefer a little less bass cut, as found in many of the popular tweaked TS circuits. A switch to assign the 'pedal' to only come on with the selection of one of the two channels would have been a nice extension to overall usability, but I guess you can't have everything in a unit this compact. You can actually hit both switches at the same time, just, if you've got really big feet, or you come at it sideways!

The High, Mid and Low EQ controls offer plus or minus 12dB, centred on 3.2kHz, 1kHz and 125Hz respectively. In general, I found I didn't really want to do much with them other than roll off a tiny bit of the highs on very distorted tones and take out a little of the midrange on cleaner settings. The most useful tonal tweaks are all to be found in the Character controls and the Drive settings. This unit's speaker sim tonality is based on the Jensen 12-inch models widely regarded as the archetypal Fender speaker, and within the constraints of an analogue response, some of that characteristic is certainly audible.

The 'Fuzzy Brit' model takes us into the world of classic Marshall tones, with a Character control that spans from the warm overdrive of the JTM45 (and Bluesbreaker combo) of the mid-1960s, up to the biting, high treble of the Super Lead models of the '70s and beyond, with the 'not as dark as a JTM and not as bright as an SL' Plexi models to be found in between. Marshalls may be renowned for their distortion, but non-master-volume models have particularly nice clean-up when you turn the guitar down, and that's something that is really well emulated here. The virtual Plexi with the Drive at about 70 percent and a Strat with the volume half down is a delicious tone, indeed.

By contrast, a screaming Super Lead setting is a much tougher challenge for an all-analogue speaker sim, albeit one mimicking the familiar response shape of Celestion Greenbacks, to handle without a bit of a tonal reset. Patching the output through a hardware IR box, leaving the EQ flat and accepting that the onboard speaker sim was still in circuit, produced an immediate improvement, but then the clean tones had lost their sparkle. That's the trade-off with an analogue speaker sim — you can usually dial-in something that works, even without external assistance, but it won't necessarily work for a whole range of tones without a certain amount of tweaking.

The three-band EQ is once again centred on 3.2kHz, 1kHz and 125Hz: I wonder if a 'fill out the lower midrange' 500 or 600 Hz might have been a more useful post-amp centre frequency with the brighter Marshall sounds.

The Drive pedal in this model is a somewhat Fuzz Face-like distortion, with the addition of a low-pass Tone control, not present on a real Fuzz Face, of course. There's certainly plenty of fuzz, even with single-coils, and more level than I'd imagine anyone could ever use, but the one thing there isn't is the classic fuzz pedal instant, dramatic clean-up when you turn the guitar down, as that requires a direct connection between the guitar and the fuzz input. Serious fuzz aficionados will miss that performance characteristic, and would be better off using a real fuzz in front of the Fuzzy Brit, which works perfectly well, I can attest.

The Less-often Emulated HiWatt

The 'English Muffy' (and I shall say that only once!) gives us the sound of a HiWatt DR103, with Fane speakers. Think Pete Townshend crunch, or Floyd's David Gilmour-style soaring lead lines, but also the driven bass sounds of John Entwistle. The Character control goes from subjectively clean, even with a fair amount of Drive, to full-on distortion. And if you want more distortion, there's an emulated Electro-Harmonix Big Muff pedal, too. Not sure if this is a particular one (there are versions) or just covering the range, but it certainly does 'the Muff thing' of flattened dynamics and practically infinite sustain. The Tone control is more than just the usual low-pass, operating as a 'tilt' EQ centred around 1kHz and allowing for quite a lot of subtle tonal fine-tuning.

The English Muffy: think HiWatt and EHX.

The bass-amp emulations are aided by a significantly different EQ setup, with the High and Low bands apparently based on '70s British console EQ. The Mid band boosts up to 12dB at 400Hz, but cuts (again up to 12dB) at 750Hz, whilst the Low band offers 22dB of boost or a 12dB cut at 120Hz. The High band goes even further, with a whopping 30dB of boost, or 12dB of cut, at 3.2kHz. I can't say that I've ever used 30dB of boost on an EQ band before, and may not do so again, but it's certainly there if you want it!

The Vox model (Mop Top Liverpool, if you must) is the most different of the four models, with the A and B Character controls representing opposite settings of the Treble and Bass controls of a Top Boost model Vox. Anyone familiar with the operation of vintage Voxes will know that this has a dramatic effect on the amount of midrange, versus top and bottom, as well as affecting the overdrive tonality. Not that you need to be familiar: a bit of tweaking will soon reveal that you can get warm clean or thinned-out clean, and a choice of big 'throaty' drive, or uniquely Vox 'bracketed' midrange drive, and a whole range of flavours in between. Voxes are tonally complex beasts with many important subtleties that make them what they are, and I expected this to be the hardest of the amps to emulate well in the analogue domain. I'm surprised to find myself concluding that it is one of the most successful in the Character Plus range, especially in its clean to semi-clean ranges. Rather than a drive pedal, this one has a single-knob Boost that operates as a treble boost clockwise from the centre and a midrange boost turned the other way. The EQ, too, gets a tweak in the form of shift switches that move the Treble control from 3.2 to 4.5 kHz and the Mid from 325 down to 250 Hz, both useful in trying to replicate the clean 'chime' and sometimes gritty crackle of that most classic of Vox speakers, Celestion AlNiCos, in the analogue domain.

Despite the tonal complexity of Vox amps, this model offers a commendable emulation.

The Last Word?

Even in the era of super-accurate digital-modelling replicas of amps and speakers, I have to admit to still enjoying the tactile immediacy of a good analogue emulation. It's not as 'real' and you always have to tweak something to get a range of useful tones, but there is still something very musical about all-analogue circuitry — and the people of Tech 21 are very good at it. Repackaging the Character series into a compact, more affordable, two-channel format with an integral drive pedal makes good sense as a product. I can't help feeling, however, that a very slightly less compact unit which had room for an insert point that would allow you to get a delay or reverb into the post-amp signal path before it exited via the XLR would have been even more appealing to many.

The last word, though, should be about what is here and not what isn't: the SansAmp Character Plus series offers a range of very usable amp and speaker sim tones, with each unit offering something unique. If you are just starting out down the amp sim path, or backing your way out of a menu-driven rabbit hole, maybe the immediacy and simplicity of a WYSIWYG analogue interface is just the thing you need.

Summary

Despite the goofy names, there are some really good DI recording or direct-to-PA sounds in these boxes. Analogue speaker sims have their limitations, so don't expect 'IR reality', but if you prefer to stay in the analogue domain, you'll appreciate the breadth of tonality available and the amount of subtle fine-tuning offered by the Character controls.