

AWARD SESSIONMASTER Guitar Preamp



From the designer of the highly-acclaimed Session guitar amplifiers comes an inexpensive, D'able guitar preamp. *Text by Paul White.*

It seems that this year, nearly every effects manufacturer has come up with a multi-effects guitar preamp, but I suspect that many of us already have all the effects we need - what we could really do with is an affordable, D'able box that will give us a good, basic guitar sound to work with. By a million-to-one coincidence, this is exactly the conclusion reached by Stewart Ward who, as well as being a connoisseur of guitar sounds, also founded the company that produced Session guitar amplifiers. I've known Stewart for a good many years now, and I can't remember a time when he wasn't pottering around with some guitar circuit or other. So, when he brought me the first prototype of the Sessionmaster, I was quite eager to give it a go. After listening to my comments, and to those of others who'd tried the unit, Stewart fine-tuned the design and now here it is in production - the Sessionmaster.

In essence, the Sessionmaster is a complete solid-state guitar preamp, with an on-board speaker simulator enabling it to be D'd straight into a mixing desk or Portastudio. But for those

not familiar with speaker simulators, a few words may be in order. The rock guitar sound wasn't invented - it evolved over a number of years and many of the desirable attributes of a modern guitar amp stem from technical shortcomings that contributed to the original sound. Take amplifier distortion - it wasn't designed in, it was simply something that happened when you played too loud. Players started to use the sound creatively and now a guitar amplifier without distortion would be unthinkable.

But the distinctive guitar sound isn't just the result of distortion, as anyone who has ever tried D'ing a fuzz box will tell you. Perfectly reproduced, distorted guitar sounds thin, buzzy and generally awful. No, the sound that we have come to know and love is a combination of at least two technical deficiencies: amplifier distortion and speaker characteristics. To get a loud guitar sound, early manufacturers simply put a large-diameter speaker in a wooden box with the result that the frequency response was anything but flat. At the bottom end, the cabinet design either rolls off the bass, as in a sealed box, or allows the speaker to thump

uncontrollably as in the case of an open-backed combo. And at the top end, the lack of a tweeter means very little happens above a couple of kHz, apart from harmonics generated by cone distortion in the speaker itself. In its simplest form then, a speaker simulator is a carefully-tailored filter, that emulates the characteristics of a typical guitar speaker in a typical cabinet. In theory, playing a good guitar preamp through one of these filters should give a D'd sound that is very close to that of a miked-up amp, except for the fact that there will be no room ambience. However, room ambience is easily simulated using a modern digital reverb unit.

THE CONCEPT

To satisfy the proclivities of studio users, the Sessionmaster is built to a 1U rack-mount format and power is supplied from an external adaptor to minimise the risk of induced hum - and electric shock for that matter! It is built as a single-channel guitar pre-amp, with overdrive and an authentic passive tone network, based ▶

▶ on those used in the classic valve designs. An input gain control varies the sound from clinically clean through jangly to overdriven, and for higher levels of overdrive, there is a gain boost button. There are also bass and mid boost buttons which function in a similar way to those pull-for-boost controls on trendy valve amp tone controls.

The EQ itself is a wide-ranging three-band bass/middle/treble system which, on the high gain setting, treats the sound after it has passed through the overdrive circuitry. Without the gain boost selected, the EQ comes before the overdrive stage, so simulating output stage distortion. A volume control is provided enabling the output level to be matched to the mixer or amplifier to which it is connected.

Constructionally, the Sessionmaster is based around economic but well-considered circuitry, employing high grade components, including metal oxide film resistors to keep the noise as low as possible. The circuitry is built onto a single-sided, glass fibre PCB and all the sockets and controls are directly mounted on the PCB to eliminate potentially unreliable wiring and to keep conductor lengths short.

On the rear of the unit is the power adaptor socket, and two outputs - one unfiltered for direct connection to a guitar amplifier, and one filtered for direct injection to a mixing desk. This makes the unit suitable for both live and studio

use, which is a double boon for those who gig as well as record. Some of the controls are interactive, or at least behave as such, and the boost buttons influence the overdrive characteristics, as does the position of the gain setting knob. This gives a lot of tonal flexibility from what is a deceptively simple control layout. Furthermore, the output socket is wired to accept either mono or stereo jacks, and enough drive is available to power headphones for private practice. By the same token, a suitable adaptor allows the unit to be plugged into a conventional stereo hi-fi system.

THE SOUND

With the gain boost switched off and the gain control set towards its anticlockwise position, the overdrive is disabled and a clean, presency guitar sound produced. This may be varied using the three-band equaliser plus the bass and mid boost buttons to create a good range of rhythm or clean lead sounds. Advancing the gain slightly introduces a degree of harmonic jangliness without actually allowing the sound to break up while even more gain produces a kind of 1960s crunchy AC30 sound. Cranking the gain right up and banging in the boost button, gives a searing lead overdrive tone that D's well with no fizziness and certainly no thinness. The bass boost button goes some way to simulating the cabinet thump

you'd expect from an open-backed combo. Apparently, the gain control does some progressive tone shaping, being brighter in its more anticlockwise position. This means you can get different overdrive sounds by either working on low gain settings with the boost on, or high gain settings with the boost off.

You do need to adjust the tone controls carefully to create the sound you want, and you'll find that reducing the mid control and selecting mid boost gives quite a different result from using no boost and turning the mid up. The same is true of the bass control, and with a little experimentation, you'll find that you can approximate most guitar sounds, especially if you bring your desk EQ into play. As with most versatile units, you can also produce some less pleasant sounds, but that's inevitable if a high degree of flexibility is to be retained.

The actual overdrive character is quite rich and well-behaved, with a reasonably convincing valve-like honk when two notes are bent together. It's not as angry as some overdrive sounds I've used, but in many ways, that makes it even more adaptable to shaping by other studio processors. For example, a graphic or tunable mid equaliser can be used to add additional bite between 1 and 2kHz, while a touch of room reverb gives a good intimate club sound. Without reverb the sound is rather too dry, which is also true of a close-miked amp with no in-built spring reverb. So you really

must consider this unit as producing a basic sound to be worked with, rather than a fully-produced result in its own right. Other avenues of exploration include compressing the output, or using additional guitar effects pedals at the input.

Perhaps most surprising for a guitar device is the very low level of background noise. Any noise that does occur is generally attributable to the guitar picking up interference via its pickups rather than circuit noise. Even with large amounts of overdrive, the noise is well below what you'd expect from a conventional guitar amplifier, and certainly quiet enough to show up the noise produced by even the best active guitar electronics.

SUMMARY

This unit will appeal to those users who already have some studio effects and processors, but would also like to be able to get a decent basic guitar sound without having to mic up an amplifier. To this end, the Sessionmaster gives a more than reasonable range of both clean and overdriven sounds. It also works quite well in achieving those elusive, in-between sounds, where so many effects pedals throw in the towel and simply splutter. It is quiet enough to use for even very serious recording projects, and the fact that it isn't bristling with programmable effects means

that the cost remains sensible. Also it's very easy and quick to set up, once you've spent a few minutes getting to know it.

Though Stewart assures me that the design uses totally new circuitry, I still feel that the sound has a kind of Sessionette smoothness and richness to it. So if you like Session amps, you're almost certainly going to like what the Sessionmaster can do. On the plus side, the Sessionmaster seems to be better behaved when producing those mildly overdriven BB King-type blues sounds, which really respond as you dig in. The other thing I really like is that even with a lot of overdrive, the guitar's characteristics are preserved - Strats sound like Strats, while humbucking guitars sound more biting. With just a touch of reverb, what I got out of the monitors was very much like what I'd expect to hear on record. And I managed to emulate quite a few classic guitar sounds - from early blues Clapton, raunchy Kinks and Stones, and wailing Free to more up-to-date Van-hooligan and mega-metal sounds. With a Strat-type guitar, you may want to try an additional overdrive pedal if you're into really overkill chainsaw sounds. But with humbuckers, there's as much overdrive as any half-way sane player would ever want. And, as well as its obvious recording applications, the unfiltered output can be used with an ordinary guitar amp to produce the whole range of Sessionmaster guitar sounds live.

Of course, with guitar sounds being such a subjective area, there are bound to be those who will still prefer to use their amps cranked up to breaking strain. However, it is important when evaluating units like this not to compare the sound directly with a live guitar amp, but with the kind of guitar sounds you hear on record. After all, a record that includes a miked up four by twelve, 200 Watt stack doesn't sound anything like being in the same room as the same stack!

To sum up, the range of sounds you can get just keeps on growing as you experiment with the controls. Given the limitations of your guitar (or my playing), you can get just about every type of rock or pop guitar sound imaginable. I hope this unit does well because it is sensibly designed to fill a real need, and without us having to buy a load of effects we either don't want or already have. I mean, if you need 20 simultaneous effects on your guitar to make it sound good, isn't it just possible that there's something intrinsically wrong with the basic guitar sound in the first place? And what's more, the Sessionmaster comes in a very pretty rack-mount box! ■

The retail price of the Sessionmaster is £149 including VAT, carriage and power supply. Details: Radius International Ltd, PO Box 3, Basingstoke, Hampshire RG24 9QA. Tel: (0256) 477222. Fax: (0256) 817687.