

# SPL GainStation

Combining some of the two-stage thinking that has long been applied in guitar amps, SPL's 'preamp in a block' fuses solid state and valve circuits for tone that can be dialled in. **JON THORNTON** compares its weight and size to house bricks, but with handles on.



**THERE SEEMS TO BE A TREND** these days of making your product stand out from other offerings by giving it what industrial designers would call an unusual 'form factor', which audio engineers would just call a funny or awkward shape. At first glance, SPL's GainStation would seem to have fallen prey to this trend. After using it for just a short while though, it becomes clear that in this case form very much follows function, and the unit is capable of standing out from the crowd purely on its sonic merits.

The GainStation is a single channel microphone/instrument preamp housed in a rugged metal enclosure about the size of one and half house bricks. Hefting the unit gives some indication of the lack of compromises made, as it weighs about the same as those bricks – good thing that carrying handles are thoughtfully provided on the front panel. Price is UK£549 (+VAT).

Internally, close attention has been paid to the power supply and the components chosen to custom build the Class A discrete amplifier stages. I say stages, because the GainStation actually has two of them. The first is solid state, which can provide up to 63dB of gain, while the second stage is valve-based, built around the ubiquitous 12AX7. Somewhat unusually, the two gain stages are configured serially, with the valve stage following the clean stage. The total signal gain, therefore, is an additive function of the two stages.

Guitarists should feel right at home with this principle, which in practice allows you to exploit the capability of the valve stage to add a perceived 'warmth' to the signal. By allowing the valve stage to handle most of the gain required, sounds can be really 'rounded off', while if only a little warming up is needed the majority of the gain required can be supplied by the solid-state stage. If not required, the valve stage is completely switched out of circuit by a relay at its minimum setting.

Turning attention to the rear of the unit reveals mic level and high-impedance inputs on XLR and 1/4-inch jacks respectively, together with balanced line-level outputs on jack and XLR. An optional (although not fitted to the review unit) digital output card allows SPDIF output via coaxial or optical connections, with 24-bit resolution and sample rates up to 96kHz.

Returning to the front panel, a series of miniature toggle switches serve for source selection, phase reverse and phantom power application. A 50Hz high pass filter with a slope of 6dB/octave is also provided, which functions pre and post the clean gain stage. Input impedance can be switched between 200ohms, 1.2kohms and 10kohms to facilitate the best matching of sources for different applications. Again, all switching functions are achieved through encapsulated relays to preserve signal integrity.

A rudimentary LED meter is also provided, which shows signal level before the final output level control, rather than signal output level from the device. Four LEDs indicate signal at -30dB, 0dB, +9dB and +18dB, with a clip LED that signals signal clipping in the clean gain stage. Although the intensity of each LED increases to show level steps in between the indicators, I didn't find this terrifically informative in use.

Saving the best till last, the final toggle switch in the line-up allows the choice of two distinct types of limiting to be applied to the signal. If selected, the limiter is post the gain stages, but pre the master output level, allowing the limiter to be driven particularly hard for effect if required. Simple peak limiting, with a fixed threshold level of +20dBu can be selected, and this does a good job of harnessing problem transients with minimal side-effects unless driven overly hard, when it can sound quite nasty. If the valve gain stage is switched in circuit, though, this peak limiter can also be used in conjunction with a FET-based circuit that modulates the gain applied by the valve stage, with an effect that is more akin to moderate to severe compression than straightforward limiting.

First impressions with a Neumann U87 and the valve stage firmly in the off position is a mic preamp of some note. Quiet and transparent throughout the frequency range, the solid-state stage does a fantastic job of capturing high frequency transients, and gives an incredibly solid and detailed sound. A nylon-strung acoustic guitar sounded incredibly detailed and life-like. A range of dynamic and capacitor mics were auditioned, and in each case the GainStation does a commendable job of extracting the most information possible from the microphone.

While not completely soulless, the solid-state stage does little to colour or otherwise add character to the sound – but this changes when the valve stage is dialled in. Varying from gently warming up the mid-range to some fairly severe saturation effects, playing



with the balance between solid-state and valve stages is almost like having a whole new mic cupboard. While the unit was being reviewed, there was call for a very grainy, husky Tom Waits-style vocal delivery for some spoken voiceover music. Every microphone auditioned fell short of the producer's ideas, but the GainStation came to the rescue. By adding a large amount of valve gain, and gently bringing the FET + limiter stage into play, the vocal line was immediately transformed. Yes, it's easy to overdo things, but it highlighted the versatility of the unit.

Used in a slightly different context, the GainStation must be the ultimate DI box. On an acoustic guitar with a piezoelectric pickup that usually sounds extremely tinny, the sound was suddenly ten times bigger. And on DI bass, the combination of valve stage + FET + limiter gave a tremendously earthy, balanced sound that needed virtually no further dynamics processing.

And in both these contexts the GainStation's form factor suddenly makes sense. It's a tremendously tactile unit, and using it is more akin to working with a microphone than with an outboard device – it engenders the same respect. For those more at home with their outboard gear in a rack, an optional 3u rackmount kit is available that will house up to 4 units. But I'm quite happy with just the one as it is. Or maybe a pair... ■

**PROS** Well built; great sounding, versatile tonal palette.

**CONS** Quality doesn't come that cheap; metering a little hard to use accurately; packaging might not suit everybody.

**EXTRAS** SPL's desktop surround monitoring controller manages two surround and two stereo



sources and speaker sets, each including source and speaker switching as well as dim, mute, mono L/R and mono LS/RS functions. It has one set of balanced surround and stereo inputs via a Sub-D 25 connector; the other set of inputs are unbalanced on phono connectors. A six-layer pot provides direct volume control without D-ACs or VCAs. A slave output permits the stereo or surround input signal to be routed directly to a recording device.

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