

packing a punch

**DRAWMER DS501
POWERGATE PROCESSOR**



The Drawmer DS201, the first commercial two-channel gate to feature built-in side-chain filtering, is still an industry standard, so Drawmer have wisely decided to leave this successful design alone. However, they have now made available an enhanced alternative, in the shape of the new DS501 Powergate. This has all the features of a regular DS201, but with the controls nudged up slightly to make room for two more knobs in each channel. These control a new creative feature which started life in the Drawmer MX range — Peak Punch.

The original idea of Peak Punch was to enhance drum sounds by creating a momentary boost in energy as the gate opened. For example, a kick drum exceeding the threshold level would open the gate and, at the same time, have a few dBs of level added over the first few milliseconds to give it more impact. However, in the DS501 this idea has been taken further. While the whole signal can be boosted by a user-adjustable amount (via the Level control) if desired, a second mode also allows this added energy to be passed through a broad tuneable band-pass filter. Above the two extra knobs is a three-way toggle switch which selects between these two modes and a bypass of the Peak Punch facility. The filter's centre frequency is continuously variable from 75Hz to 16kHz using the Tune knob.

All audio connections on the DS501 are via balanced XLRs, though these can be used unbalanced as long as pin three is shorted to ground. The external side-chain Key Inputs are provided on standard quarter-inch jacks.

Rolling With The Punch

The basic gate functions exactly like the DS201, with the same traffic-light metering and variable Hold and Range controls in addition to the more

Paul White evaluates the DS501, which adds a new Peak Punch feature to Drawmer's classic side-chain filter gate design.

obvious Threshold, Attack and Decay knobs. It is fast, it triggers very positively and, best of all, it does what you expect it to do. I've always felt that Drawmer products were reassuringly predictable in operation, and this one is no exception, even when you move into the new Peak Punch section.

The effect of the filter is best appreciated if the Level is turned full up during adjustment, as this applies up to 18dB of gain to the leading edge of the drum sound, allowing the effect of filter tuning to be heard very clearly. Near the low end of the range, the effect is almost like mixing in a big analogue kick drum with the natural drum sound, whereas the filter can exaggerate the click and definition of the drum when tuned high. In the middle of its tuning range, the filter makes the drum sound more boxy or nasal, but in the right circumstances even this effect could still be useful.

Clearly, with the potential to add so much level to the beginnings of your drum sounds, headroom is a consideration, so if you're feeding into a digital recording system then you'll need to keep an eye on those peak levels — in extreme cases, a peak limiter might be useful. Having said that, using the full amount of boost nearly always sounds excessive, so practical settings are likely to produce more manageable results.

Used gently, a low filtered Peak Punch added weight to thin kick drums and depth to toms, while using higher levels of boost threatened to turn that classic Ludwig 20-inch kick drum into a TR909 soundalike. Using high-frequency enhancement, limp snare drums could be made to sound crisper,

DRAWMER DS501

pros

- Easy to set up.
- Positive and predictable in use.
- Includes all the DS201's functions, to which the new Peak Punch features are added at only a modest extra cost.

cons

- Because it is linked to a gating action, Peak Punch can only be effective on single drum sounds, not on whole drum mixes.

summary

The addition of Peak Punch to the tried and tested DS201 is a genuinely useful enhancement both for creative and corrective drum processing.

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with enhanced stick impact, and kick drums took on extra snap. In the full-range mode, the enhancement is understandably far less coloured, changing the impression of attack, but not the basic sound.

It is important to note, however, that the Peak Punch only occurs during the first 10mS after the gate triggers (5mS during which the gain is boosted followed by a 5mS decay period), and will hence only work if the gate is set to have a fast attack time. It's also worth remembering that Peak Punch isn't only limited to drums — it can do some interesting things to fast-attack bass synths and other percussive music sounds, but some experimentation is needed to get the best results in these areas.

It seems likely that people will draw comparison between the DS501 and the SPL Transient Designer, but although they



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can both be used to manipulate drum sounds, they are very different pieces of equipment. The SPL unit deals specifically with modifying the attack and decay characteristics of drums whereas the DS501 is essentially a fully-featured DS201 noise gate with the added feature that it can enhance drum-sound attacks in a musically useful way if required. Also, it must be noted that the DS501 only enhances sounds as the gate triggers, so it's only really useful for processing single sounds — the SPL unit is as useful on complete submixes as it is on individual drums.

Defending Champion

Given that the DS501 costs only about 15 percent more than a new DS201 in the UK, I'd say that having the Peak Punch feature is definitely worth the extra. Not only does it allow slightly weak drum sounds to be salvaged, but it can also be used quite creatively to more radically reshape drum sounds where needed. The DS501 may not be revolutionary, but it's certainly a welcome evolution for this studio standard. **SOS**



The DS501 includes all the I/O of the DS201, including the Key Input which helped the DS201 attain its status as a studio standard.