



# Looptrotter Audio Engineering Satur-8

It's big and bold and makes a big thing about distortion, yet it's also for summing. **GEORGE SHILLING** covers his eyes and plugs in.

Looptrotter is a fairly new Polish company set up by drummer, sound engineer, sound designer, electronics wizard and analogue sound enthusiast Andrzej Starzyk. You may have seen Looptrotter's garish yellow and black Monster compressor, which features a hybrid circuitry with FET compression and valve saturation. Starzyk worked on all the elements of that model's design for seven years before unleashing it. The second product from Looptrotter is this equally gaudy looking Satur-8 box (UK£2000 +VAT) which provides 8 x 2 audio summing and saturation, but the latter is achieved without tubes this time.

The PDF manual comprises just a few diagrams and no text, but the 2U box has a straightforward front panel, and the black on lurid yellow printing makes for very clear legending. The eight numbered channels are arranged along the front side by side, with a Master level knob and a Power toggle with blue On LED to the right. The front panel is rather thin by modern standards, but the box seems sturdy enough. On the back is a large array of connections, all clearly labelled. Analogue inputs and outputs are individually available through rows of XLRs or D-Sub connectors for the 8 inputs and 8 outputs, wired conventionally as per the Tascam standard. The stereo summed output appears on a pair of XLRs labelled Mix L and R, but not before passing through an insert point that is provided with separate jacks for sends and returns — no doubt ideal for inserting one's Monster compressor. Furthermore, a pair of Aux Input XLRs is provided for chaining units together.

Intriguingly, there are also four blanked sockets labelled Monitor A and B Left and Right, and a blanked serial port shaped hole labelled Control, but I understand these were a developmental dead-end, so later units will probably lack those. After removing the 13 screws in the top, (or in fact 12 — the 13th was missing, perhaps left off by a superstitious assembler) the insides are a lesson in neat design. The toroidal transformer with multiple taps is housed inside its own metal box within. Each channel has a main pair of vertically mounted boards behind the front panel, connected via a ribbon cable. The smaller boards are richly populated surface-mount affairs. There are smaller perpendicular boards holding trim pots and metering LEDs, and audio is carried to and from a further board at the rear via further ribbon cables, where audio is distributed to the various inputs and outputs.

Each channel features two knobs, Drive and Output, scaled 1 to 11, and two toggles. The upper toggle

labelled On and Off enables the Drive circuitry and both knobs. In the Off position, unity gain is presented to the direct outputs of the channels. The channel signal is also routed to the Master Mix bus via L-C-R toggles, enabling setup in stereo pairs or mono for signals like bass guitar. On the master section, unity is just around 7 on the Master knob's scale (also ranging from 1 to 11 where 1 is Off and 11 is about +16dB), and dual eight-LED meters flash up the signal with green, yellow and red indicators from -24 to +18dB. The individual channels indicate level with simple yet useful four-LED meters (two green, two yellow at -24, -12, 0 and +12). With Drive at minimum and Output at maximum, enabling the Drive circuitry does very little. The Drive knob achieves the desired saturation, and lowering the Output knob compensates for the increase in level. LEDs indicate 4% (orange) and 8% (red) distortion when you're really pushing it.

The first review model had (I assume) its trimpots calibrated rather strangely as signal level was reduced by 4.3dB on all channels. It turned out I had been sent a custom modified unit by accident, and a standard replacement was rapidly couriered directly from Poland — top service! And what is more, the calibration of the replacement was impeccable and extremely accurate — important when comparing summed mixes.

With the Drive toggles all set to Off, I compared the same mix sent to the bus in the box, through two channels of Satur-8, splitting it up across the eight channels in stereo pairs for instrument groups, and going straight out and back in through the converters (in stereo). As with my previous experience of summing boxes, the most noticeable difference was between the three versions that had gone through D-A/A-D conversion compared to in-the-box, they seemed a little more focused, but really there was only a fag paper between each. Perhaps with better converters than mine you might find a bigger difference. Mixing on a desk is a whole different thing, but routing channels into a box with fixed gains often reveals more about your converters than anything else! The verdict on the Satur-8's summing is therefore that it seems utterly neutral with Drive turned off; it is pretty clean, and the summing in itself makes virtually no difference when compared with coming out and back into the converters in stereo, whether or not the Satur-8 is part of the circuit.

Setting up the routing for summing is what one might term a PITA that is simply not worth the bother. But flip on a bit of Drive, and another world opens up. With the Drive knob set to minimum and Output

at maximum there is unity output. As you increase Drive, the level increases and you must lower the Output knob to keep things sensible. A little distortion creeps in and the 4% LED starts to blink, and cranking further brings on richer crunching, with things just beginning to get slightly uncomfortable higher up the scale when the 8% LED is on. With the ability to crunch the drums more than the vocals (or vice versa), you can start to make some interestingly pleasant things happen. An already rich sounding pop-rock track gained some significant 'glue' with a bit of Drive on all channels except vocals, and being able to tailor the amount for each instrument group separately makes for interesting tweaking.

There is something juicy and magical about the Drive characteristic. It is rather more subtle than the TL Audio summer's valve drive (which was across all channels) and more akin to Avid's HEAT processing. But it somehow seems more convincing and satisfying than similar plug-in processes, lacking the variety of flavours that software offers but reminding me perhaps of the Groove Tubes Glory Comp 'Glory knob' circuit (*Resolution* V5.8). It really is surprisingly valve-like for a transistor circuit.

As with a mix compressor, one should probably start with the Satur-8 in circuit, tweaking the Drive knobs as appropriate en route to the final mix, as I found that it was not always appropriate to 'Drive' up previously approved mixes. But the Satur-8 is a simple box that performs impeccably, and if you like the sound of its Drive circuit you could track through this, thanks to the individual outputs. In any case you'll get a lot of satisfaction here. ■

## PROS

Characterful and juicy saturation circuitry; excellent connectivity; clear legending.

## CONS

Love it or hate it colour scheme; similarly Marmite-like Drive characteristics; thin front panel; no calibrated Unity gain setting on master mix bus.

## EXTRAS

The Monster Compressor boasts a minimalist signal path with a FET



used for the signal reduction and an operational amplifier with discrete components. The saturation system uses military grade valves for even harmonics generation. Recall is simplified by the use of switches and a Mix function allows the mixing of clean and processed signals.

## Contact

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