



MCAudiolab SHD

It's another box with a claim on adding distortion in a clear and organised manner.

GEORGE SHILLING is the go-to man for the lairy and hairy...

There have been periodic attempts to assimilate the effect of distortion into the recording engineer's rack of toys, and in recent years the Thermionic Culture Vulture has gained many devotees. I have recollections of others including an offering from TL Audio that sounded good but became truly horrid when driven too hard. SHD stands for Second Harmonic Distortion, so you might presume that this is a device for adding some crunch, and you'd be partly right. But the SHD effect is not a Vulture rival, as I was soon to discover.

I previously enjoyed MCAudiolab's take on the Pultec EQP-1A in the shape of the EQ1ch (*Resolution V9.6*), and the SHD is the latest addition to a range of valve outboard that also includes preamp and channel strip models. The company is based in Sicily, and founder and designer Manuel Curcuruto maintains the Italian reputation for style with this latest device. This two

channel unit follows the house design scheme with a chic black case, the sturdy front panel highlighted with a terrific looking cut-out transparent blue lit model badge which acts as a Power On indicator. The 'handwriting' font is retained for the labelling of controls and indicators, (and the proud boast 'Hand Built In Italy'); this looks cool but can sometimes be a little hard to read. 'MCAudiolab' is printed in a plain font, but I thought the overall look was slightly spoiled by the military stencil font used for the model name and channel numbering.

The rear panel includes the usual IEC mains connection, fuseholder, and two pairs of latching XLRs for input and output connections. An Earth Lift toggle is provided next to the mains connection; a 2mm Earth socket duplicates the IEC socket earth, and further Ground Lift toggles are provided for each channel's Output. Each channel's circuitry is on a separate board,

with a separate PSU board and a large custom toroidal transformer. The SHD effect uses a JJ branded ECC83 dual triode for each channel, but input and output stages are driven by op-amp. Curcuruto opted not to employ potentially coloured-sounding audio transformers.

The two channels' controls comprise just three knobs each, with channels arranged side by side, metering and Bypass toggles in between (near the middle) which hard-bypass signal independently for each channel, red LEDs indicating Bypass state. The knobs are labelled Input, Output and SHD Level. The knobs used are the classic (and pleasant to twiddle) design first popularised by Focusrite's Red range, these examples finished in a smooth smart black with clear red-painted pointer grooves/lines. The Input uses a small knob and has a range labelled 0 to 10, as does the larger output knob. There are painted lines on the front panel representing each integer between the extremes for ease of recall, and these lightly damped pots scale very smoothly from their completely off position. The large SHD knob on each channel is marked Min and Max at extremes, with blobs for positions equivalent to 2, 4, 6, and 8 if you assume a similar 0-10 scale. On the right is a no-nonsense large toggle for Power.

Manuel supplied me with a preliminary PDF manual which explained the concept. In it, he claims the SHD adds harmonic content without fundamentally changing the sound. Careful level setting with this device is crucial to achieving the intended result. To this end, there are three vertically arranged LEDs to help set Input level on each channel. Min lights up Green when the signal is just about loud enough to process with the SHD Level control, and when the yellow Max is lighting up, the level is just right. The red Over LED means that you are probably clipping the valve stage, which is not quite the intention here. A further three horizontally arranged LEDs show Output level (peak):



Green SGN lights at -15dB, orange is labelled 0dB and lights at +4dB, while the red OVR indicator lights at +10dB. Metering usefully continues to operate even in hard bypass state.

Before reading any of the information, I initially plugged in the unit in the heat of a session where we were looking to distort a guitar. Powering on, there are no relay clicks or any obvious warm-up procedures, so I flicked it on and let it warm up for a bit. But I soon abandoned the attempt at guitar distortion, as clearly the SHD is not designed for full-on screaming savagery. Indeed, this box is rather subtler, and is designed for enhancement of signal rather than full-on wanton destruction.

Illustrations in the manual show oscilloscope grabs with a sine waveform gradually squaring off at the top and gradually acquiring an M-shape with a dip in the centre of the peak when SHD is increased, while the lower half of the waveform stays relatively untouched, which is perhaps why this doesn't destroy the signal altogether even when pushed hard — the SHD effect is to shift the harmonic content and make it richer.

With the review deadline creeping ever closer, I found myself struggling mid-mix with a problematic female lead vocal. Although recorded with an SM7B and compressed with a series of vintage and valve

compressors and plug-ins, and EQed in various directions, the sound still lacked a certain thickness to allow it to blend with the warm, George Harrison-inspired track. Inserting the SHD before a final de-esser, I found exactly what I needed: a gorgeous thickness and richness. I had to set the SHD knob to minimum, otherwise distortion became overly apparent and slightly unpleasant, but with just a hint of hairiness (*Hairiness? Ed*), the vocal settled in perfectly, so I bounced the track to save the effect for posterity, and never looked back. On further investigation, it seems that despite Manuel's manual claims, there is often already a little distortion occurring with minimum SHD level even before the green input LED lights. There is sometimes not quite enough gain available on the Output knob to match levels without starting to distort the signal; lowering the input does eventually allow for a clean path.

Your perception, of course, changes depending on programme. Plumbing a bass guitar (or almost any other instrument) recording through the SHD is a very worthwhile pursuit, and here you can usually crank the SHD Level knob with less danger of offending the artist! It adds a lovely rich character, and in among a mix you can get away with quite a lot of crunchiness, although cranking the knob can be deceptive as it also increases

measured output level by about 1dB across its range.

At €1,399 (+ VAT) this is not an impulse buy for most, and might be seen as something of a one-trick pony. But the SHD imparts a wholesome warming effect unachievable in-the-box. It's akin to tape saturation or enhancement plug-ins, but slightly bigger-sounding than those. So if you feel you need for a bit of extra added richness — and these days, who doesn't — I'd thoroughly recommend having a listen. ■

PROS

A pleasant touch of richness to warm and embolden limp digital signals.

CONS

Sound is already coloured with Minimum SHD level when the Min (green) level LED is on, so care is required.

EXTRAS

The MCAudioLab TP2ch preamp is the two-channel version of the TP1ch and has a gain stage with a high- μ dual triode tube operating in class A. Each channel has a gain stage, a master volume output control, VU-meter and LED peak meter.



Features include 75dB maximum gain, switchable pad, phase invert and phantom power, fully balanced inputs and outputs, and Lundahl transformers on the mic input and output stages.

Contact

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