

SPL Channel One

Dedicated recording strip

Price £1,169 Ⓢ Optional digital converters £TBA

For Idiot-proof functionality Ⓢ Built-in headphone amp Ⓢ Good balance of facilities

Against Limited control of compression Ⓢ Knob legending too short

Verdict Quality channel strip that has created its own niche, thanks to its integral headphone amp

The rack-mounted channel strip has become a firmly established item in the recording chain, especially as more and more people are recording directly to digital computer-based hard disk systems and need a quality front-end to make the most of the initial signal. SPL claim to have been a little ahead of the game with their EQ Magic unit of several years ago, but that unit doesn't really have all the elements that we have now come to expect in a channel strip. Their new Channel One, however, brings things right up to date and moves the game forward by cramming in everything you'd expect, and then some.

Overview

Taking up two rack spaces, the Channel One is by all accounts a Frankenstein's monster of a processor, taking the best bits from the other units in the SPL range and combining them into a new creation. No ugly bolts through the neck and visible stitches here though – the various elements are seamlessly put together behind a logically laid-out and uncluttered front panel that inspires confidence in the unit.

All the switches light up when engaged, instantly displaying at a glance which of the Channel One's functions are active, while the knobs, some ratcheted, some smooth, all have a solid feel. The only niggle is that the white line on the knob cap isn't extended down to its skirt to take full advantage of the exceptionally neat and precise panel legending when recalling settings.

There are three analogue inputs to the unit: a high-impedance instrument input with a front panel jack socket, and round the back, a balanced XLR mic input and balanced jack line input. External equipment can be inserted into the signal chain via two more balanced jack sockets, and the analogue output is available on both XLR and balanced jack.

A huge blanking panel fills the rear panel space where an optional 24-bit/96kHz analogue to digital

converter can be fitted if required, and in anticipation of the digital option being fitted, there's another input jack already present on the Channel One's rear. As the Channel One is a mono unit, this is to take advantage of the spare channel of conversion and utilise the unit as a stand-alone A-D and D-A converter.

One major difference that sets the Channel One apart from other channel strips is the built-in headphone amplifier with its front panel socket for plugging in the cans. This is for monitoring the signal through the unit, but can also be used to monitor any stereo source that's plugged into the rear panel left and right jack sockets which comprise the playback inputs. In this way, previously recorded sounds can be monitored while adding any new overdubs, with separate volume knobs provided for both the playback inputs and the signal passing through.

Front panel

The Channel One is divided into six sections that are clearly delineated on the front panel. Topped and tailed by the preamp and an output section, there are de-esser, compressor and equalizer sections, each with their own switch to bring them into the signal chain, as well as the previously mentioned headphone monitor.

The preamplifier features a valve, which following the current fashion, sits glowing away behind its ventilation grille for all to see. Switches are provided for 48V phantom power, phase reverse and a high-pass filter that operates to reduce bass content below 50Hz. Separate gain knobs are provided for the microphone and instrument inputs.

Control of the de-esser intensity is taken care of by a single knob graduated from the off position at 0 up to a max value of 20. During sibilant events, this de-esser affects only the relevant part of the frequency spectrum rather than reducing the level of a broader band of frequencies as a compression-based de-esser would do. This circuitry scans the frequency spectrum,



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Channel One: Quality sound with a good range of processing types

homes in on the narrow band of 's' frequencies and feeds a phase-inverted version back into the signal path, thus cancelling out any sibilant sounds while leaving adjacent frequencies untouched. An auto-threshold is also featured, allowing constant de-essing regardless of input level.

Dynamics control is taken care of in the next section, which features not only a compressor and limiter but also a simple noise gate. In keeping with a minimal user interface, the compressor has program-dependent attack and release times and is controlled simply by one rotary knob graduated from 0 to 20 that simultaneously adjusts both threshold and ratio.

A separate switch turns on the limiter. Any gain lost through compression can be compensated for with the make-up knob, which can add up to 22dB.

Another single knob operates the noise gate, which features ARC (auto-release circuitry) technology, whereby the circuitry continually monitors the level difference between the audio signal and the threshold set using the knob. If a large difference is detected, a short release time is applied, with longer release times being triggered by smaller level differences, enabling the gate to accurately track fades and reverb tails.

The Channel One EQ section can be switched to be either pre or post the compressor section. The EQ has

apparently been devised by SPL specifically for use with vocals and acoustic instruments and includes a distortion control intended for use on vocals. Three EQ bands are adjustable, with two being semi-parametric.

Tone booster

The low band has up to 14dB of cut or boost available on a centre-detented rotary pot, while another rotary pot is used to select the centre frequency from a range that runs from 30Hz up to 720Hz. What SPL call the mid-hi band is similarly controlled by two knobs, this time with up to 12dB of possible cut or boost with the frequency knob spanning a range from 650Hz up to 13.7kHz. The third band (designated as the 'air band') is controlled by a single centre-detented knob offering up to 10 dB of cut or boost at the high end of the frequency spectrum at 17.5kHz. The distortion on offer is controlled by a single rotary knob graduated from 0 to 20 and utilises FET circuitry rather than valves.

Output from the Channel One is controlled by another centre-detented knob, which can cut or boost the signal level, matching it to the input of the next unit in the audio chain, and there is a linked mute button.

The headphone monitoring section has been included in the design to help combat any latency problems encountered with hard disk recording

specifications

Inputs

Mic, balanced jack line input, instrument jack

Outputs

XLR, balanced jack

Insert points

Balanced jack

Compressor

Combined threshold/ratio control, program-dependent attack and release

Noise gate

Program-dependant

3-band EQ

Mid-Hi ± 12 dB, 650Hz to 13.7kHz;
Low ± 14 dB, 30Hz to 720Hz
Air band ± 10 dB, 17.5kHz

The competition

With a price tag of £1,169, the SPL unit seems to be in the mid-range of available channel strips, many of which have been reviewed in *The Mix* over the past three years.

Top of the heap among the British-built units at the moment has to be the Focusrite ISA430 Producer Pack (£2,345), Editor's Choice in *The Mix* issue 70. Focusrite were actually one of the pioneers of the concept with their Green series (the ones with a front panel resembling an aerial view of a golf course) but captured much of the popular vote with their less expensive Platinum series. The Platinum Voicemaster and Tonefactory (£399 each) are pretty much two sides of the same coin, with the former being optimised for vocals and the latter for instruments, although both are adept at either task.

JoeMeek have also had this type of unit in their range for some time and have been continually upgrading their specifications over time. The VC1 studio channel has metamorphosed from having an onboard compressor and enhancer to the new VC1Q version (£549) with the addition of a 'Meequalizer' EQ section and a de-esser. The VC3Q (£199) and VC6Q (£349) are less expensive variations on the theme. Other home-grown units include the TL Audio Ivory 5051 (£469).

SPL are, of course, a German company, and not the only pro audio manufacturer in continental Europe. Mindprint, also German, produce the En-Voice (£469) and Denmark's Tubelech weigh in with the excellent valve-based MEC 1A (£1,795).

Across the pond, those Yanks have some choice performers, with the Avalon VT737 (£1,757) and the Manley Voxbox (£2,931) being particularly worthy of a mention.

Note the space for the optional digital board 'round the back of the Channel One



Ⓢ systems. The idea here is to use headphones to monitor the signal being recorded before it gets into the computer, thus avoiding any delay that might be added if the signal was monitored after having made the round trip through the computer.

In use

First up the Channel One was put to use as the front end for recording vocals and instruments into Logic Audio running on a Mac, with a Digidesign Project 2 card and 882/20 interface. Now, the Project 2 has no hardware through connection, which means that any material being monitored from the 882's outputs as it is being recorded is subject to a latency delay, so the usual solution is to split the signal just before it enters the computer and monitor it at that point.

With the Channel One this is entirely possible without resorting to a splitter box or parallel sockets, simply by using both of the unit's analogue outputs; i.e. sending the output from the XLR to the computer while the output from the jack is used for monitoring.

Alternatively, using headphones, with a stereo output from the computer (with muted output from the track being recorded) fed into the unit's playback sockets for monitoring proved to be a great way of working, with the two volume knobs in the headphone section allowing a good mix of previously recorded and new signals to be quickly set up. The only drawback with this is that it's not possible to add any monitoring reverb to the signal being recorded. For anyone working on their own this offers an elegantly simple method of recording, allowing the work to be done without recourse to using a mixing desk and speakers.

Sound-wise, the Channel One has little to fault it. The preamp provides a clean, transparent signal of obvious quality both with mics and with guitars, bass and keyboards plugged into the instrument input. The de-esser is really quite unobtrusive in operation and, set around midway on its scale, achieves excellent results with none of the emasculated 'lispiness' that can result from overcooking it on some machines.

Compression is assured and workmanlike, ranging from a light touch to some real squash, and is particularly suited for use on vocals. The simplicity of turning just one knob to get the job done is quite appealing, and setting up for keeping signals in check

while recording couldn't be easier. But anyone wanting to use the compression for effect may be disappointed by the lack of any envelope controls. The noise gate is rudimentary with the limited range of usefulness associated with a single control, but given the right kind of signal and a little patience in setting up, it can be a quite effective tidying device.

No problems whatsoever were encountered with the EQ section. The air band control is effective in not only adding a bit of high-end sheen, but also in reducing unwanted hiss on some sources. The amount of control available from the other two bands is impressive with plenty of scope for both subtle shifts of emphasis and more extreme stuff, and the chosen Q values sound very natural. Up to about the halfway mark the distortion control adds a nice bit of enhancement to vocals; beyond that, the sound veers towards a buzzy distortion with the intensity dependent on the sound/instrument fed into it. It's capable of sounding unpleasant or adding some edge to the sound, depending on your perspective.

Verdict

The Channel One has much in its favour. There's no doubting the quality of the sound, and all the relevant types of processing have been included. The presence of automatic control of certain aspects of the Channel One's processes does raise another point, however. While it makes for an uncomplicated user interface and an ease of use that is painless for both the novice and the more experienced user, there will be some who yearn for more control in some departments, particularly in compression, where more flexibility could be achieved with separate ratio, threshold, attack and release controls. On the whole, however, the Channel One offers a good balance of processing that can tackle a wide range of tasks.

The inclusion of the headphone monitor is inspired, and for anyone sitting down composing and tracking by themselves, a combination of a fully-loaded computer, a set of headphones and a Channel One would make a simple and compact studio set-up. Ⓢ

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