



# Drawmer Six-Pack

Depending on your individual proclivity, the term 'six-pack' conjures up images of alcoholic beverages or bodybuilding. This multichannel dynamics processor brings a whole new meaning to the term.

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**D**ESIGNED IN THE main to address the specific issues of dynamics processing for multichannel audio, the Six-Pack, at its simplest level, offers six channels of compression-expansion in a 3U. However, there are some additional tricks up its sleeve that makes it more than the sum of its parts.

The unit is sturdily built and attractively finished in the latest vogue of brushed aluminium, which breaks up the sea of matt black boxes generally found in outboard racks. Despite the large number of front panel controls, it never looks or feels particularly cramped in use and the rotary controls have a very positive feel. If I have a criticism, it's that the exact position of the controls can be hard to read in low light conditions.

The back panel offers balanced connections on XLRs for input and output to each of the six chan-

nels, plus a switchable high pass filter on the input to the sixth channel, more of which later.

Users of Drawmer's DL241 will find the controls reassuringly familiar and Drawmer says that the design for each processing module is derived from DL241 circuitry. Each channel has a gate/expander, a compressor and a peak limiter. The compressor controls are fairly straightforward, with the usual settings for threshold, ratio, attack, release and gain make-up. The compressor is a soft knee type, and an option exists for setting automatic attack and release parameters. In use, the auto setting works well on complete mixes or programme material that has widely varying dynamics, but better results can be obtained with manual settings on most other material. Two eight-segment LED bargraph displays for output level and gain reduction complete the compressor section.

The expander consists simply of a threshold control and a release time, with two LEDs to indicate whether expansion is taking place or not. The simplicity of this section, though, belies its actual power. Drawmer refers to it as being an 'adaptive expander', which means that the ratio of expansion varies according to signal level below threshold. In practice, this means that signals hovering around the threshold don't cause 'chatter' and that the effect of the expander is extremely transparent, even with very short release settings.

The peak-limiter is a zero-overshoot type, and is permanently in circuit, with a maximum threshold level of +16dB. In use, it sounds quite severe, although not quite as harsh as some other units.

Generally, each processing module sounds very similar to a DL241, although to my ears a little 'softer' in most applications - you need to work quite hard if you're after obvious compression artefacts.

This much said, so far the Six Pack offers no more than many other multiple channel dynamics processors. What makes it distinctive are a couple of features that make it eminently suitable for working with multichannel surround formats. While there are

many views about how compression, in particular, should be handled in surround production, there is no doubt that a key requirement is a logical extension of the stereo linking function found on conventional units. This translates to a unit that has the ability to have anything up to six channels of compression following the same settings, and deriving their side-chain signal from the sum of all the linked channels.

While the debate continues as to whether all six channels should be treated equally, or all except the LFE channel, or a split between front and rear channels - happily the Six Pack will accommodate all these permutations. With the exception of the first channel, each channel has a Link button, which will link it to the furthest unlinked channel on the left. So pressing Link on channel 2 will link it to channel 1, with channel 1 being the master - subsequently pressing Link on channel 3 will also link it to channel 1. This sounds confusing, but in practice it's very easy to see what's going on thanks to the front panel legending and a highly visible LED indicator on each channel that shows whether it is a master or a linked channel. This makes setting up a permutation, such as channels 1,2 and 3 linked for LCR, channels 5 and 6 linked for LS and RS, and channel 6 independent for LFE, a very quick job.

On the subject of LFE, I mentioned the inclusion of a switchable high pass filter on the input of channel 6. This filter is set at 120Hz, with a slope of 24dB/octave, which Drawmer suggests could be used for generating an LFE signal from a sum of the other five signals. A quick and easy approach to bass management, but effective enough in some situations. It's a shame, though, that the switch for this is located on the back panel. Some users may well want this unit to fulfil a dual purpose: as a surround sound dynamics processor and as a very capable set of six independent general-purpose compressors.

If you are working in surround sound and need dynamics processing with the capability of flexible linking, the Six Pack does the job admirably, and, as a bonus, works equally well in most other situations. If you are simply looking for six channels of compression in a compact unit, you don't save any rack space over three standard stereo units, and there are more compact 4-channel alternatives around. The price, though, might make this an attractive option nevertheless. □

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**PROS** Comprehensive, intuitive linking system for multichannel work; very effective gate/expander; lots of compression for your money.

**CONS** Doesn't save any rack space for conventional use; HPF switch not easily accessible in fixed installations; some controls difficult to read in low light

**EXTRAS** Drawmer has upgraded the DC2476 Digital Processor in its Masterflow range. The 24-bit/96kHz multidynamics processor employs the manufacturer's multiband digital 'bootstrap' compression, tube saturation and advanced EQ processing.



New features include comprehensive up/down sample rate conversion (32kHz to 96kHz) and switchable word clock I-O sample rate selection. There's an absolute stereo output trim (up to 12dB), which is useful for conformance to broadcast regulations. The output trim level is maintained even in 'system bypass' and a tone generator with variable output levels for line-up purposes is also included.