

# 2500 Stereo Bus Compressor

## Features

- ▶ Uses API 2520 Op Amp
- ▶ Variable Threshold between -20 and +10
- ▶ Selectable Ratio, Attack and Release Times
- ▶ Patented "THRUST" High-Pass Filter before RMS Detector
- ▶ Variable Link Between Left and Right Channels
- ▶ "OLD" or "NEW" Feed Back or Feed Forward Compression
- ▶ Soft, Med or Hard Knee for Easy to Sharp Compression
- ▶ Auto or Manual Gain Make-up
- ▶ 1/4" Balanced Side Chain Inputs
- ▶ Output Clips at +30 dBm

The new API 2500 Stereo Bus Compressor is a very versatile bus compressor that allows adjustment of sonic qualities that can alter the punch and tone of the stereo mix. The 2500 is a rack-mountable 19" unit featuring ATI's patented "Thrust" circuit for a chest-hitting, punchy bottom end. With its dual channel design, the API 2500 is primarily set up for stereo compression, but can be used as two separate units via a single compression settings. The 2500 boasts a range of parameters that make it incredibly musical.

With threshold settings between -20dB and +10dB and a variety of ratios to selectively vary the compression ratio from almost none to infinity, the 2500 performs subtle compression to brick wall limiting. Transients can be squashed with an attack time of 0.03ms or allowed to stand tall with an attack time of 30ms. Release times vary between 50ms and 3s. Depending on the application, the unit offers hard, medium or soft knee compression.

Unique to the 2500 is use of ATI's patented "Thrust" high-pass filter circuit before the RMS detector, used for years in the ATI Paragon series live consoles. In the API 2500, this results in a low end "punch" that rivals competitive units. This effect can be bypassed, moderated at 2dB/oct or left fully in at 4dB/oct.

API pushes the envelope of flexibility further with selectable "Old" or "New" compression. The "Old" style uses the "Feed-Back" type of compression found in the API 525, 1176 and Fairchild, etc. The "New" style uses a Feed-Forward type, much like many of the dbx and SSL type boxes. Used in combination with the Soft, Med, Hard Knee function, you can make the 2500 sound like just about anything.

The 2500 stereo coupling strength varies between 100% and 0% (dual mode) in six steps. A high or low pass filter may also be implemented to alter the coupling signal and improve the transfer of heavy low end or transients from one side to the other, thus minimizing cross modulation and improving the stereo image.

The 2500s output stage features API's auto-makeup gain button, permitting the user to vary the threshold or ratio while maintaining a constant output level, automatically. The feature makes live tracking or broadcasting considerably easier as the dynamic range can be manipulated without affecting the absolute output gain. The auto-makeup gain can be bypassed with a conventional gain knob, and the left channel can be trimmed +/-2dB to compensate for imaging problems. Fidelity is ensured with an all-discrete, fully balanced design, and two front panel VU meters show input, output, and gain reduction levels.

