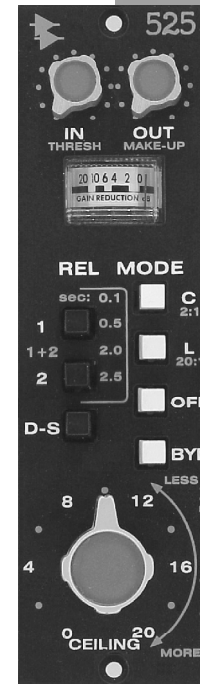# api audio products

525

525 Feedback Compressor / Limiter

Features

- Reissue of API's original 525 from the early 70's
- Peak detecting "feedback" compressor/limiter
- Variable Threshold and Output levels
- Unique "Ceiling" control combines key functions
- VU meter for monitoring gain reduction
- 4 Switchable release modes
- De-Ess function
- Traditional API fully discrete circuit design
- Hardwire bypass

Originally released in the 70's, the API 525 is a "feedback" type compressor, such as the1176 and 660, etc. An input (threshold) control and output (make-up gain) control are provided. An additional "Ceiling" fine tune function modifies threshold *and* make-up gain for precise changes in compression without changes in output. A compression/limit switch sets ratio at either 2:1 or 20:1. Attack time is as fast 15u/s. Four auto release modes are offered via two switches, 0.1s, 0.5s, 1.5s, & 2.0s. A De-Ess function inserts an inverse vocal energy curve filter in the detector for effective sibilance/p-pop reduction. The 525 is an identical re-issue of one of the most popular API products ever.
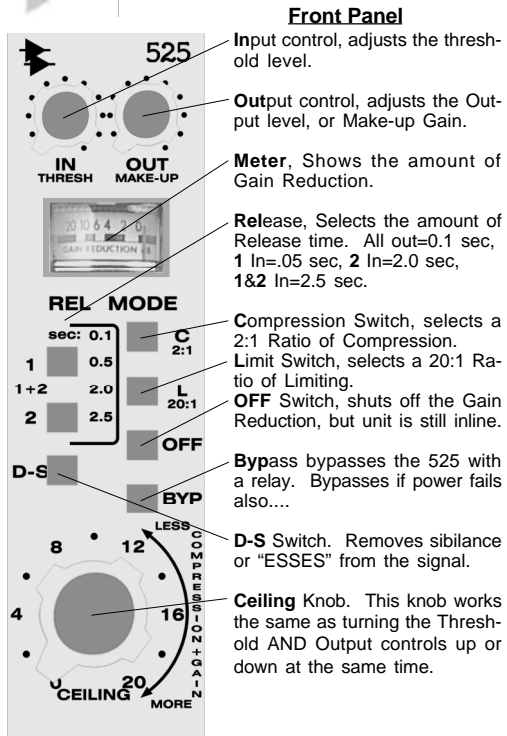
The API 525 is perhaps the most successful solid state feedback compressor in history. It delivers dynamics control behavior unlike VCA "feed forward" compressors so common today. A remarkable multi-function "ceiling" control can increase gain reduction (lower threshold) while simultaneously raising output level to match, so the user can alter dynamics "on the fly" without level changes.

Release times vary with frequency, with high frequency/full bandwidth content released faster than just low frequency for natural envelope tracking. Attack time is fixed, chosen to catch the fastest peaks, without "pumping". Equally useful as a tracking, mixdown or program compressor/limiter, the benefits of the API 525 are most obvious to those who use compression on a regular basis. "Vintage" dynamics control, an easy to use multi-function control set, and a wide range of 500 Series mounting options assure the 525 will surpass your most critical applications. With the addition of a hard-wire bypass switch, a balanced input, and a pinout that is the same as all the other 500 series modules, the 525 is still, after 25 years--"the sound". Two or more 525s can be linked for multi-channel compression.

The 525 Feedback Compressor/Limiter makes use of the 2510 and 2520 Op-amps and therefore exhibits the reliability, long life, and uniformity which are characteristic of API products.
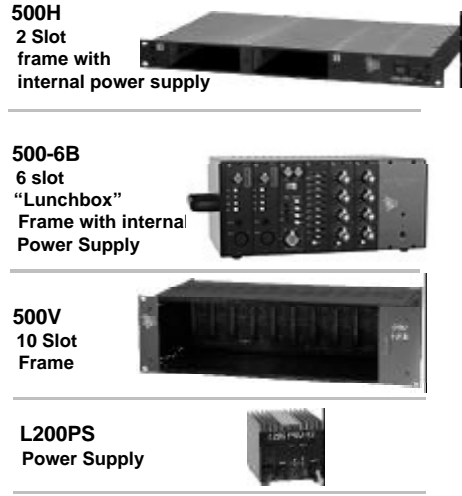
525 Features

api

Front Panel

Input control, adjusts the threshold level.

Output control, adjusts the Output level, or Make-up Gain.

Meter, Shows the amount of Gain Reduction.

Release, Selects the amount of Release time. All out=0.1 sec, **1** In=.05 sec, **2** In=2.0 sec, **1&2** In=2.5 sec.

Compression Switch, selects a 2:1 Ratio of Compression.

Limit Switch, selects a 20:1 Ratio of Limiting.

OFF Switch, shuts off the Gain Reduction, but unit is still inline.

Bypass bypasses the 525 with a relay. Bypasses if power fails also....

D-S Switch. Removes sibilance or "ESSES" from the signal.

Ceiling Knob. This knob works the same as turning the Threshold AND Output controls up or down at the same time.

Connector Pinout
Rear View

A	CHASSIS
B	512c 525 550b 560b OUTPUT + (+4)
C	512c 550b 560b OUTPUT + (-2)
D	512c 525 550b 560b OUTPUT LOW
E	AUD GND
F	525 STEREO LINK N/C 512c 550b 560b
J	INPUT LOW (-2) 560b INPUT LOW (+4) 512c 525 N/C 550b
8	INPUT LOW (+4) 512b 525 560b INPUT LOW (GND) 550b
K	INPUT HI (-2) 550b 560b INPUT HI (+4) 512c 525
L	INPUT HI (+4) 512c 525 550b 560b
M	GAIN ADJ 550b 560b N/C 512c 525
N	+16 VDC
P	PWR GND
R	-16 VDC
S	+48 V PHANTOM 512C

525 Specifications

Input Impedance: > 30 K Ohms, Balanced

Output Impedance: 100 Ohms, Transformer coupled, Balanced

Operating Levels: -15 dBu to +20 dBu

Maximum Gain Reduction: 25 dB

Noise: 98 dB below +10 dBu output, at 10 dB of Compression

Harmonic Distortion: 0.5% Max, 30 to 20 KHz

Attack Time: 15 micro seconds

Release Times: .1, .5, 2.0, 2.5 seconds

De-essing: Inversion of the Voice Energy Curve

Slopes: Compression, 2:1, Limit, 20:1

Metering: Compression or Limiting-Illuminated Analog dB meter, shows Gain Reduction

Frequency Response: ±.5dB, 30 to 20 kHz

Power Requirements: ±12/18 Volts/DC, @80 ma.

Rack Frame and Power Supply Options: Fits 500H (2 slot internal power supply), 500-6B "Lunchbox" (6 slot internal power supply), 500V (10 slot, requires 200L power supply), API Legacy Consoles and vintage API Consoles.

Mounting Frame and Power Supply Options

500H
2 Slot frame with internal power supply

500-6B
6 slot "Lunchbox" Frame with internal Power Supply

500V
10 Slot Frame

L200PS
Power Supply

Represented by: