TUBE-TECH CL 1B
VIRTUAL COMPRESSOR / LIMITER

MANUAL

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TC Support Interactive

The TC Support Interactive website **www.tcsupport.tc** is designed as an online support and information center. At the site you can find answers to specific questions regarding TC software and hardware. All known issues are stored in a database searchable by product, category, keywords, or phrases. Under the section "My Stuff" you can login to check the status of your questions, download materials such as product manuals, software updates and new presets.

This site has been specifically designed to meet the needs of our users. We constantly update the database and you will find the site to be a huge resource of information. Browse through Q&A's and discover new aspects of your TC product.

If you can't find an answer online, you have the option of submitting a question to our technical support staff who will then reply to you by e-mail. The TC Support Team is on constant alert to help you in any way they can.

Contact Details

Alternatively, you may contact the TC Electronic distributor in your area, or write to:

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Foreword - by Frank Filipetti

As an engineer/producer I am constantly amazed by the sheer number of new (and vintage) equipment available to us. And yet, more often than not, I find myself returning to those few trusted pieces of gear that in a certain sense define our individual sound. One of those pieces that I would never want to be without is my Tube-Tech CL 1B. Sometime in the mid 80's, I was contacted by John Petersen and offered a chance to play with a prototype of their first compressor – the CL 1A. I remember at the time being very impressed, but I had a few reservations and suggestions about the product. While not suggesting my recommendations led to the final CL 1B, I was very impressed to find that, not only was every one of my thoughts addressed, but a great deal more as well.

Since the introduction of the CL 1B it has been an essential element in my recordings. While exhibiting the characteristic warmth of tube equipment, it is by no means soft or slow. The fixed and variable attack and release knobs as well as variable threshold and ratio give me all the flexibility left wanting in vintage compressor/limiters. With quick attack and release at a ratio of 1.5:1 or 2:1 it is my number one choice for vocal recording. With longer attack and release times at higher ratios I use it for everything from bass drum to acoustic guitar to piano to bass. In fact, about the only thing I don't use it for is mix buss compression as that is handled by my indispensable Tube-Tech SMC 2B.

Frank Filipetti.

Biography:

Frank Filipetti came to NY as a singer songwriter in 1971. Ten years, two publishing, and three record deals later, he decided to try his hand at engineering and production. He had his first number one single in 1983 with Foreigner's "I Want To Know What Love Is". Since then he has worked on projects with artists as varied as James Taylor, Kiss, Luciano Pavarotti, Courtney Love, Barbra Streisand, Dave Grusin, Korn, Carly Simon, Elton John, Mariah Carey, Rod Stewart, and Paul McCartney; on film soundtracks for directors Mike Nichols and Nora Ephron. In 1998 he won two personal Grammy's for his engineering and production work on James Taylor's "Hourglass", and in 2000, 2004, and 2005 he won Grammy's for his engineering and production work on the Original Cast albums of "Aida", "Wicked" and "Spamalot".

Recently he has been at the forefront in 5.1 surround mixing. The N2K album "Dave Grusin – West Side Story", which he recorded and mixed with producer Phil Ramone in 1997, was one of the first commercially available 5.1 recordings. Since then he has done numerous 5.1 mixes for artists such as James Taylor, Meatloaf, Billy Joel, Five For Fighting, Elton John, Polyphonic Spree, Paul Simon and Frank Zappa.

System Requirements

Windows
PowerCore software 2.2 or higher
Windows XP
PIII 1,4 GHz or faster
512 MB RAM
VST compatible host application
System must meet requirements of the
host application

Mac OS X
PowerCore software 2.2 or higher
Mac OS X (10.4 or higher)
G4/G5 or Intel (1 GHz or faster)
512 MB RAM
VST, Audio Units or RTAS*) compatible
host application.
System must meet requirements of the
host application

*) RTAS (Pro Tools) is supported via the VST to RTAS adapter from FXpansion (optional).
More info on www.tcsupport.tc

Getting Started

Scroll Wheel Support
If you are using a host application that supports this feature, all parameters support
scrolling on both Windows XP and Mac OS X. Simply place the mouse over a
parameter value field and use the Scroll Wheel to increment/decrement the associated
parameter-value.

Key Commands
In most host applications, Plug-Ins support keyboard commands for certain functions.
The following key commands are available for all Plug-In parameters.

Key Commands in Mac OS
Reset To Default = Alt

Key Commands In Windows
Reset To Default = Shift & Control

DSP Usage

For each open instance of the CL 1B on 1st generation PowerCore devices
(PowerCore Element and PowerCore PCI), the following DSP usage applies:

@44.1 kHz:	@48 kHz:
mono 49%	mono 54%
stereo 61%	stereo 67%

88.2 and 96 kHz sample rates are
not supported on 1st generation
PowerCore hardware.

For each open instance of the CL 1B on 2nd generation PowerCore devices (Express,
PCI mkII, Unplugged, Compact & FireWire), the following DSP usage applies :

@44.1 kHz:	@48 kHz:	@88.2 kHz:	@96 kHz:
mono 33%	mono 36%	mono 69%	mono 76%
stereo 41%	stereo 45%	stereo 85%	stereo 93%

Overview & parameters

1 - In switch
CL 1B has two bypass functions. The IN switch activates/deactivates the processing, but leaves the meter functions working. Using the IN switch to bypass the plug-in, the plug-in is still loaded onto the PowerCore DSPs and the CL 1B can therefore instantly be switched in and out.

2 - Gain
The gain control is used to compensate for the gain loss during compression. It is placed after the gain-reduction section and therefore it has no influence on the threshold setting. The gain control is continuously variable from off to +30 dB.

3 - Ratio
The ratio control varies the ratio by which the input signal is compressed. If the ratio set to 2:1, and the input signal increases 10 dB, the output signal is only increased by 5 db. The ratio control is continuously variable from 2:1 to 10:1.

4 - Threshold
When the signal is above the set threshold point, the compressor is activated and the gain of any signal above the Threshold point is processed according to the ratio, attack and release settings.

5/6 - Meter
Input: The VU-meter displays the input level.

Compression: The VU-meter displays the gain reduction. The meters neutral position is at "0 VU", and the amount of compression is shown as a decrease in dB.

Output: The VU-meter displays the output level.

<u>Enhanced VU-meter function</u>:
Pressing **L+R** in the lower left side of the meter allows you to change between three meter states.

L: Meter indicates left channel only
R: Meter indicates right channel only
L+R: Meter indicates both left and right channels

7 - Off/On
To bypass CL 1B and free PowerCore DSP resources at the same time, set the Off/On switch to "Off". - See also the description of the IN switch.

8 - Attack
The attack control determines how fast the compressor responds to an increase of the input signal. The attack control is continuously variable from 0.5 to 300 milliseconds.

9 - Release
The release control determines how fast the compressor responds to a decrease of the input signal. The release control is continuously variable from 0.05 to 10 seconds.

10 - Attack/Release Select

Three options are available

<u>Fixed</u>:   Attack time: 1 msec
           Release time: 50 msec

<u>Manual</u>:   Attack time: from 0.5 msec to 300 msec
           Release time: from 0.05 sec to 10 sec

<u>Fix/man</u>: This setting is mainly intended as an overall compression on a full mix or on a sub-group mix. Combining the release times of Fixed and Manual modes, the Fix/man mode facilitates an adaptive release function with fast constant attack and release times for short peaks and a longer release times for longer peaks.

• Turn the Attack control counter-clockwise to increase the time before the release control takes over
• Turn the Attack control clockwise to decrease the time before the release control takes over

Notice that the Fix/man mode is in effect only when the peak-time is shorter than the setting of the attack control. If the peak of signal is longer than the setting of the attack control, or if the attack control is set fully counter-clockwise, it will respond as in manual mode.

11 - Sidechain Link

The Sidechain Link function is relevant only when CL 1B is used on a stereo audio file. In Left+Right mode it creates a dynamic master/slave relation between right and left channels, allowing the channel where most compression is applied to also control the compression amount of the other channel. This is similar to the sidechain functionality you have available when connecting two hardware CL 1B (mono) units for the purpose of processing in stereo.

In Left mode the compression amount applied on the left channel also controls the compression amount applied on the right channel. In Right mode we have the exact opposite situation.

Presets section

Via the Presets section you are able to recall, store and compare different settings.

12 - File
Press FILE to open the File menu.

Load Preset: Select to load presets from the default preset location.

Save Preset: Select to save the preset in My Presets folder.

My Presets: Via "My Presets" you are able to load you own presets.

📝 If you chose to store presets in other locations than the "My Preset" folder,
NOTE these presets will not appear in the "My Preset" drop down menu. However, you
can still navigate to, and load these presets via the Load Preset function.

13 - Preset name
This is the name of the preset.

Default Preset Locations

The following locations will describe where you can find the CL 1B presets, which are
stored in a folder unique to each plug-in:

Mac OS X preset paths:
Factory presets:
<Macintosh HD>/Library/Application Support/Tube-Tech/CL 1B/Presets/

User presets:
<your user name>/Library/Application Support/Tube-Tech/CL 1B/Presets/

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Windows preset paths:
Factory presets:
C:\Program Files\Tube-Tech\CL 1B\Presets\

User presets:
C:\Documents and Settings\<your user name>\My Documents\Tube-Tech\CL 1B\Presets\

- To delete a preset file, simply move it to the 'Trash' or 'Recycle bin'.
- To create a new sub-folder that appears in the Plug-In menu, simply create a new folder in the Plug-In folder that resides in the PRESETS folder of the CL 1B default preset location.

NOTE: A folder will not appear in the Preset File Menu unless it has at least one preset inside!

14 - Up/down
The UP/DOWN arrows can be used to browse through all presets.

15 - A/B
With the A/B compare function you can easily compare different parameter settings when working with the CL 1B.

When you start working with your preset, the A/B button is grayed out. This state indicates that the settings in both memory locations A and B are identical - so there is actually nothing to compare.

As soon as you touch one of the parameters, the memory location "A" will be active. All parameter changes will be applied to memory location "A". If you switch to memory location "B", you go back to the starting point, and all further changes will now be applied to memory location "B".
Every time you press the A/B button, you will toggle between these two memory locations.

NOTE: The A/B memory locations are temporary settings only! Saving a preset, will save the currently selected memory location only. The setting of the other (hidden) memory location will not be saved!

16 - Reset
Press "Reset" to clear memories A/B and return to the originally recalled preset.

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