

# CHANDLER LIMITED

## TG1 LIMITER

Thank you for purchasing the Chandler Limited TG1 Compressor/Limiter. This unit is proudly hand wired and assembled in the USA. This unit is made with 100% discrete components, specially wound transformers, and has been precisely designed to match their vintage cousins. Included are item descriptions and hints to get you on your way. Please feel free to contact our shop anytime for help or with questions.

Phone: 1-319-885-4200

Email: [support@chandlerlimited.com](mailto:support@chandlerlimited.com)

● **Warranty-** All Chandler Limited products have a two-year warranty. Each warranty repair must include \$12 for return shipping and are generally finished within 2-3 days of receipt. To make solving your problem easier please include the following information.

- 1) Written description of your problem.
- 2) Your name, address, phone, and email, if possible.
- 3) Receipt of purchase, if possible.
- 4) Power supply and cables.

Send to: Chandler Limited

Attn: Repairs

222 S. Cherry St.

Shell Rock, IA 50670

● **Connections-** All connections on the TG1 are transformer balanced with pin 2 hot.

● **Power supply-** The TG1 is designed to be used with the Chandler Limited PSU-1 MKII.

The power pin out is as follows-

- 1) Chassis and audio ground
- 2) +48 volt
- 3) +28 volt
- 4) -28 volt

**Notes on Grounding-** The back of the power supply has two black banana connectors. These join the audio ground to the earth ground with a solid wire between them. Depending on your studio you may want to connect or disconnect this. Turn up your monitors or headphones to experiment with which has a lower noise floor in your system. You may also need to join the audio banana plug to other sections of your studio to obtain the lowest noise floor. The connectors are located near the closest edge of the power supply case. Use something simple, like a guitar cord, and touch the tip to other portions of your studio to find the best results.

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## The Controls

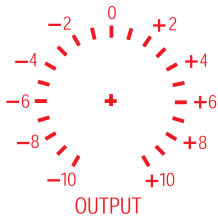
● **Hold-** This control functions as input gain/threshold. Crank this up and adjust the output to really hear it work! Please note that with this control all the way down you will get no sound. Also this control can be special ordered, or modified after purchase, with a 21 position switch that has a specially designed taper to give more control at lower limit settings.



● **Comp/Limit-** This switch selects between compress and limit functions of the unit. It selects between a 2:1 compressor or a limiter with up to 20db of limiting. The limiter has a very classic pumping/breathing sound, while the compressor is less drastic sounding and has a sound all its own. Both can be mean and nasty or more subtle depending on the Hold and Recovery settings (see below). As a general rule limit might be more usable for tracking and effect type sounds, while comp might be better for mixing.



● **Output/Gain make up-** A 21 position switch set to 1db steps giving +/-10db of output adjustment for level matching as well as accurate recallable gain make up.



● **Recovery-** This switch is marked 1-6 because the release times change when switching between compress and limit. #1 being the fastest to #6 being the slowest. This control is important for varying the sound of the unit. As compression is slowed it greatly affects the amount and sound of the gain reduction. Listen closely to the changes it makes.

Recovery times- Limit Mode 0.05, 0.1, 0.25, 0.5, 1, & 2 seconds.

Compress mode 0.25, 0.5, 1.20, 2.5, 5, & 10 seconds.

Attack times- Limit Mode 8ms charging time.

Compress Mode 47ms charging time.



● **Stereo Link-** When linked in stereo you must set the release time on both channels to the same setting. In this condition whichever unit is working harder becomes the "master" channel.

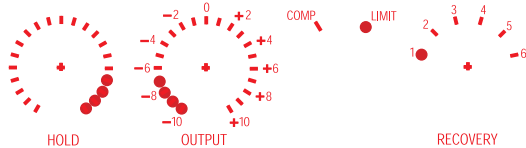
● **THD-** Allows bypassing of the compressor/limiter threshold but leaves all circuits in the signal path, turning the unit into a powerful harmonic distortion generator, capable of kicking out up to 2% Total Harmonic Distortion.

● **IN/OUT-** A true hardwire bypass.

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## ● Suggestions

**Vintage Limiting Settings-** The TG1 can easily produce classic over the top limiting sounds from your favorite vintage recordings. This is best done by boosting the input Gain/Hold until you get the desired effect while adjusting the output gain to match levels. Set Recovery to #1 (fastest) to give you the most bang! You can easily go from smooth vintage to the craziest sound imaginable (like a fairchild 670 about to explode) by varying the gain in this way.



**"EQ the limiter"-** We have also had great results using a nice eq such as a LTD-1 (1073 style) or TG Channel (pultec style) and boosting frequencies into the limiter, causing it to clamp down hard on those areas and produce some interesting pumping sounds. 5k on a vocal or 5k and 50hz on a drum room mic will give you a lovely Beatles Sgt. Pepper's flashback.

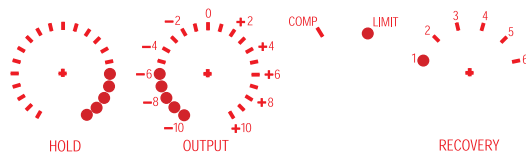
**General limit settings-** For general use you may want to back off on the Hold, but you can get these sounds by setting Recovery to #2-6 when the Hold/gain is still set high. This will work for either compress or limit.



**Getting less limit-** If you are getting more limit than you want at the very low hold settings. Try setting the recovery times slower. Setting the recovery to #3-6 can be very effective. The TG1 can be special ordered or modified with a 21 position input switch that has a specially designed taper to give better control at lower settings.



**Drum room mics-** My favorite way to use the TG1 for drums is on a single room mic. Place it 5-10 feet from the kick pointing slightly down. I prefer a ribbon of some sort as they are less bright and counteract the swishing you can get from the cymbals. Crank up the input and keep the recovery fast. I prefer to squeeze it very hard, and then mix in what I need below the track.....

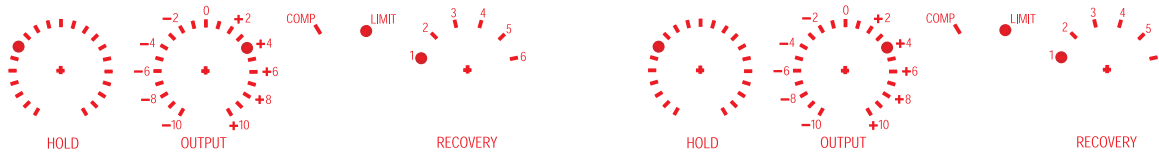


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Eddie Kramer trick- As Eddie showed us, running two channels in a series can be very cool! Patch them together and set the first to limit with fast recovery, and the second to comp with slow recovery. Adjust the Holds for desired amount of reduction. TRY THIS ONE.



Michael Brauer buss mixing- Michael uses a buss to send tracks through the limiter. He then returns them on another set of console faders and mixes them underneath the uncompressed sound. Drums and bass together, when done this way, can give the track some nice glue to hold it together. These are his settings.



## RECALL SHEET

