

## Quick Start Guide



### TCL-2 Front Panel

- 1. Threshold Control** — threshold adjustment range of approximately -20 dBu to +20 dBu. Threshold is most sensitive when control is turned fully CW.
- 2. Attack Time** — When fully CCW, the fastest attack time is achieved (2 mS). When fully CW, the slowest attack time is achieved (100 mS)
- 3. Release Control** — When fully CCW, the fastest release is achieved (20 mS). When fully CW, the slowest release is achieved (3 seconds). Note that release times below 80 mS are normally used only during de-essing. It is recommended that broadband compression use >80 mS release times.
- 4. Ratio Control** — When fully CCW, the lowest and most gentle compression ratio is achieved. When fully CW, the highest and most pronounced compression ratio is achieved.
- 5. Channel In Switch** — When corresponding LED is illuminated, audio signal will be processed by dynamics functions. This is not a "hard-wire" bypass. Audio signal is always in the active circuit path regardless of this switch's status.
- 6. VU Meter Function Select Switch** — determines the VU meter function. When LED is on, VU meter indicates the amount of dynamics gain reduction. When LED is off, VU meter indicates the actual output level of the balanced main outputs. A meter reading of 0 VU is equivalent to a balanced output of +4 dBu.
- 7. Twin Topology™ Select Switch** — Twin Topology is designed around two world-class, musically optimized Class-A amplifiers — one amplifier is based on twin triode vacuum tubes, while the other is based upon all discrete J-FET servo amplifiers. Like having two distinctly different compressors in one chassis. When the LED is on, the channel is operating as a solid state compressor. When the LED is off, the channel is operating as a vacuum tube compressor. Because of the TCL-2's unique shunt design, the dynamic processing chain leaves little or no detectable signal path artifact when in-circuit
- 8. Output Gain** — When fully CCW the output gain is fully attenuated (off). When fully CW, the output gain is at maximum. Up to 10 dB of make-up gain is available when fully CW
- 9. Stereo Link** — When the LED is on, both channels will respond to the channel with the highest compression activity. When the is off, each channel's dynamics operates independently.



**The sidechain controls (threshold, attack, release, ratio) remain individually adjustable and are not stereo-linked. Stereo tracking can be tightened by reducing the ratio setting of the channel driving hardest. The following set-up procedure will help balance a linked stereo image:**

**Make sure the meters are indicating 0 VU in GR mode with no signal present before starting this procedure (see 10 below)**

- Apply a steady 1 KHz to one channel of the TCL.
- Set the attack, release, and ratio controls for identical settings on both channels.
- Make sure the stereo link switch is in the "Out/Off" position.
- With the meter in GR mode, increase the Threshold control until you reach the desired amount of GR as shown on the meter.
- Depress the Stereo Link switch. Note... the amount of GR shown on the meter will probably decrease. Simply increase the threshold until you again achieve the desired amount of GR as shown on the meter.
- You should now see the same amount of GR on BOTH meters. If you do not, adjust the ratio control(s) on one or both channels until you do.

**10. VU Meter Adjustment** — multi-turn trimmer potentiometer which adjusts the VU meter zero point when meter is set to Gain Reduction. Use insulated "wand" tool designed for trim pot adjustment. Allow ample time (1/2 hour recommended) for the circuits and chassis to "warm up" and reach a stable operating temperature before attempting to set the GR zero point of VU meter.

**11. Meters** — True audio level meters offering superb ballistics and accuracy. A custom back-lit dial face provides oversized numerals for clear readability. Backlighting also provides a pilot light function.

**12. Power Switch** — turns power on and off.



**The TCL-2 Twincom is based on pure Class-A all vacuum tube and pure Class-A discrete all transistor amplifier designs. Both topologies perform best after reaching a stable, warmed-up condition. All TCL-2 factory adjustments have been performed when unit is fully warmed-up; at least one-half hour after turning unit on. During TCL-2 warm-up period, user may find that certain adjustments may drift slightly, including the 0 dB meter reading when in "GR" (Gain Reduction) mode.**



## TC-2 Rear Panel

1. **Inputs** — In 1 (Left), In 2 (Right) Conventional 3-pin female XLR input jacks for all balanced or unbalanced line level signals..
2. **Outputs** — Out 1 (Left), Out 2 (Right) Conventional 3-pin male XLR output jacks.
3. **Earth/Audio Ground Jumper** — A barrier terminal which ties earth ground to audio ground. If ground "hum" loops are experienced when using the TCL-2, removing this jumper may help. Using this jumper, the integrity of the chassis/earth ground connection is never compromised. **Do not defeat the earth grounding pin on the AC plug.**
4. **AC Voltage Mains Selection** — The fuse block contains two fuses; one fuse is in series with the hot power line while the other fuse is in series with the neutral power line. Both fuses must be installed.

To change the mains voltage selection, remove IEC power connector and assure that the TCL-2 is not connected to mains power. With a non-conductive tool, gently pry the fuse block away from the power entry module. Slide out the internal PC Board, turn it over, and reinsert the PCB so that the desired AC mains voltage appears in the viewing window. Double check that the fuses installed correspond to the AC mains voltage range which appears in the viewing window. Gently push the fuse block back until flush and snug.

Fuses: For 100-120 VAC mains, use two 5 x 20 mm, 1A, slow blow, 250 V, Littelfuse 218 or equiv. For 200-240 VAC mains, use two 5 x 20 mm, 1A, slow blow, 250 V, Littelfuse 218 or equiv.

5. **Power Entry** — IEC Power Receptacle for use with removable cords. Use only the power cord provided. (Export units' cords are provided by the distributor.)

**The complete TCL-2 manual is available on-line:**

[www.mil-media.com/pdf/ManualWebTCL2.pdf](http://www.mil-media.com/pdf/ManualWebTCL2.pdf)