

CHANDLER LIMITED® TG12345 MKIV USER MANUAL



TGI2345 MKIV

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INTRODUCTION

TG12345 MKIV

Thank you for purchasing the Chandler Limited TG12345 MKIV EQ module, you now own a piece of EMI/Abbey Road Studios official equipment.

The TG12345 MKIV, inherits from Chandler Limited's TG Microphone Cassette and flagship TG12345 Curve Bender EQ, and draws its heritage from the equalizers found in the historic EMI/Abbey Road Studios TG12345 recording consoles of the late '60s and '70s.

The TG12345 MKIV 500 Series equalizer module derives its model name from the last of the great TG12345 consoles, the Mk. IV desk, and delivers legendary TG sound to the 500 Series format.

The TG12345 MKIV equalizer, accompanied by the TG2-500 Pre Amp and TG Opto compressor form a complete TG channel strip for the 500 Series format.

Your Chandler Limited TG12345 MKIV has been carefully crafted and built by hand at Chandler Limited's factory in Shell Rock IA, U.S.A., using through-hole components for, the ultimate analog experience.

At Chandler Limited we are proud of our American made products and we hope you like them!

Please feel free to call our shop anytime for help or questions.

Phone: (319) 885-4200.

History

Conceived from meetings in 1967 between Abbey Road and EMI's Central Research Laboratories teams, the EMI TG12345 Mark I desk ushered in a sea of change in sound and flexibility at Abbey Road Studios.

Installed in Abbey Road's Studio Two in November 1968 and making its debut on an 8-track recording by the Shadows, the new transistorized desk marked a departure from the earlier REDD valve consoles.

The EMI TG12345 desks had EQ on the microphone, group and main cassette channels. Compared to the REDD consoles, the TG desks featured expanded EQ, and for the first time ever, a compressor/limiter on every microphone and group cassette channel.

The EMI TG12345 desk helped shape the sound of the Beatles' final album, "Abbey Road," which was markedly richer sounding to that of the band's earlier work. The sonic qualities of classics like "Here Comes the Sun," "Come Together" and "Something" would have been very different without the EMI TG12345.

The desk encountered many revisions throughout the '70s and became the main recording console used throughout the studios until 1983. The EMI TG12345 console Marks I-IV were used on everything from Pink Floyd's "The Dark Side of the Moon" and "Wish You Were Here" to John Lennon's "Plastic Ono Band," George Harrison's "All Things Must Pass," to epic film scores including Raiders of the Lost Ark.

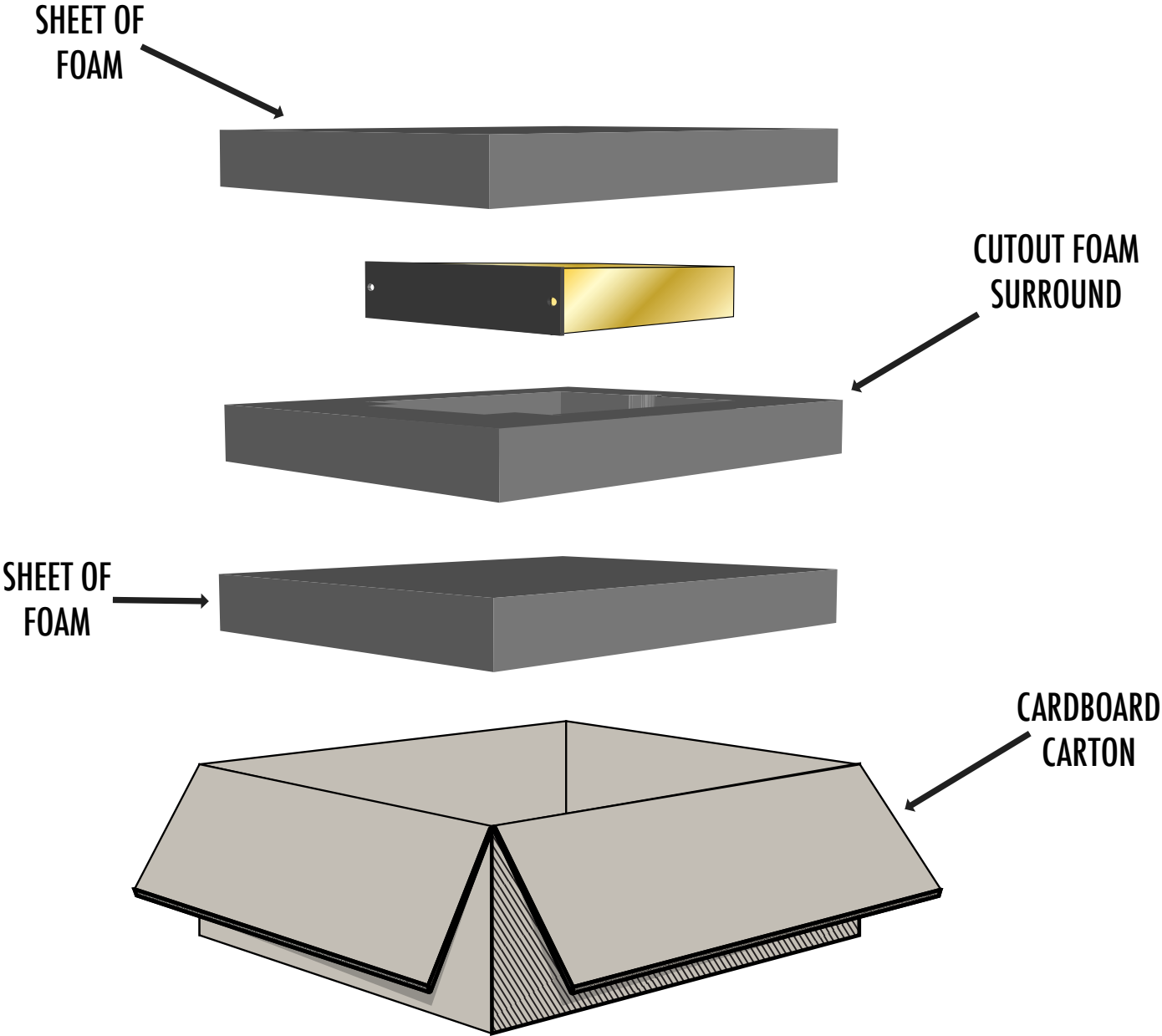


**OFFICIAL
EQUIPMENT**

SHIPMENT AND STORAGE

Packaging

This packaging has been designed specifically for Chandler Limited equipment. The cardboard carton and foam provide protection for shipment and storage. Please retain the container and associated materials for future use.



INSTALLATION

Enclosure Compatibility

Developed by API®, the 500 Series format is a widely accepted standard, and many rack enclosure options are available from third-party manufacturers; however, their build and power section design may vary.

The TG12345 MKIV adheres to the 500 Series format standard, and has no known issues with existing format conforming rack enclosures.

Recommendation: We recommend using a 500 Series rack enclosure with an external power supply, such as the API® 500V with L200 power supply.

Note: For all BAE racks, we recommend adding a wire from Earth to power supply common. In many cases, hum can be avoided and Earth to common is standard procedure on most electronic equipment.

Power

The TG12345 MKIV is powered by means of a 500 Series format rack enclosure, purchased separately. The TG12345 MKIV module design adheres to the API® 500 Series format current draw specification (+130/-130 mA), and is as follows:

+16 volts power rail = +105 mA*

-16 volts power rail = -90 mA*

*Maximum current draw as measured when in bypass.

Warning: Never install or remove a 500 Series module while the rack enclosure is powered on.

Audio Input & Output Connections

The TG12345 MKIV audio connections are transformer balanced, wired pin 2 hot. Audio input and output connectivity jacks will be provided by the host 500 Series rack enclosure.

OPERATING INSTRUCTIONS

The TG12345 MKIV is an adaption of Chandler Limited's TG Microphone Cassette EQ section and the acclaimed EMI TG12345 Curve Bender EQ, both of which are descendant of the EMI TG12345 recording console and mastering desk equalizers of the late '60s and '70s.

Presence

The Presence band incorporates features from the EMI TG12345 recording console *Microphone*, *Sub Group* and *Main Cassette* modules.



The *Presence* or mid band is a combined peaking bell and shelving type EQ, and has two controls: boost or cut and frequency selection. The upper control is continuous, allowing for ± 10 dB boost or cut at the frequency selected by lower rotary switch. The available presence frequencies are as follows: 500, 800, 1.2, 1.8, 2.8, 4.2, 6.5 and 10 kHz. The first seven frequencies are a peaking bell type, and the eighth is shelving at 10 kHz. The Presence or mid band can be bypassed independently apart from the *Bass* band by means of setting the frequency selection switch to the *Out* position.

Historical note: The TG12345 MKIV Presence frequencies match those originally available on the Sub Group and Main Cassettes found in the historic EMI TG12345 desks, and selectable by means of rotary switch. The historic Presence control allowed for up to ± 10 dB of boost or cut at the selected frequency. Sub Group and Main Cassettes did not feature a Bass control.

Bass

This shelving type EQ control is continuous, allowing for boost or cut of up to ± 10 dB, at a default frequency of 150 Hz, unless otherwise selected by way of the *PUSH 90 Hz* push-button.

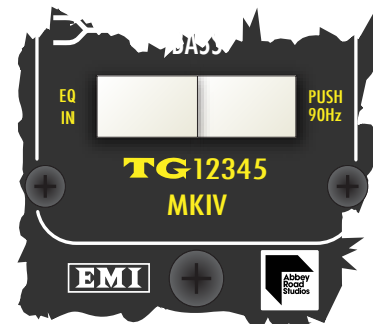
Historical note: The historic EMI TG12345 desk's Microphone Cassette modules featured Treble and Bass controls,



allowing for boost or cut of up to ± 10 dB, at fixed frequencies. The Treble control was a peaking bell type, fixed at 10 kHz, while Bass was shelving at 50 Hz.

Utility Cluster

At the bottom of the TG12345 MKIV faceplate exists two utility push-button switches labeled as follows: *EQ IN* and *PUSH 90 Hz*.



EQ In

The push-button labeled *EQ IN*, when set inward, inserts the TG12345 MKIV into the audio path, conversely, when in the outward position, the equalizer is fully bypassed.

Push 90 Hz

The *PUSH 90 Hz* push-button modifies the *Bass* control frequency from the default setting of 150 Hz to that of 90 Hz. When this button is set inward, 90 Hz is the operational frequency affected by the *Bass* control.

SERVICE

United States

Prior to sending in equipment for repair, please contact our shop at the number below. We will assist you in troubleshooting, and if needed, we will issue an RMA# to return the equipment for service.

Send Repairs To:

Chandler Limited, Inc.

Attention: Repairs

222 S. Cherry St.

PO Box 38 (if sending via the postal service)

Shell Rock IA 50670

Phone: (319) 885-4200

Email: support@chandlerlimited.com

International

Repair of Chandler Limited products purchased, outside of the United States, is provided by local or regional authorized Chandler Limited distributors. To obtain service or repairs, please contact your local dealer or regional distributor for further instruction.

Visit chandlerlimited.com for a list of authorized [International Distributors](#).

CE CERTIFICATION

Chandler Limited declares under its sole responsibility that all products manufactured by them are in compliance with Electromagnetic Compatibility (EMC) Directive 2014/30/EU; Standards: EN55103-1:2009+A1:2012; EN55103-2:2009; EN55013:2013 and Low Voltage Directive (LVD) 2014/35/EU; Standards: EN60065:2002+A1:2006+A11:2008+A2:2010+A12:2011.

PRODUCT LIMITED WARRANTY

During the first year from the date of the original purchase, this product is warranted to be free from defects in materials and workmanship under normal use, service and maintenance. This warranty applies to the original purchaser and is subject to the following terms and conditions:

What Is Covered: The product's components as originally installed by the manufacturer that are defective in materials or workmanship under normal use, service and maintenance.

What Is Not Covered By This Warranty: This warranty does not extend to or cover:

1. Any defect due to the negligence of others; failure to install, operate or maintain the product properly; unreasonable use; accidents; alteration; use of unauthorized or non-standardized parts; acts of God; theft; vandalism; electrical malfunctions (i.e., resulting from power surges, shorted or overloaded circuits, etc.), use of any power source other than supplied by manufacturer; repair by anyone other than an authorized Chandler Limited representative; or damage resulting from improper packing or mishandling by a shipper.
2. Normal wear and tear of parts.
3. Shipping, handling, packaging and delivery costs of the product.

Who Is Covered: The original purchaser.

Repair During The First Year: During the first year, all defective product components that are covered by this Limited Warranty will be repaired free of charge including parts and labor. The purchaser will pay shipping costs AND a \$35 handling fee per unit.

What You Must Do for Warranty Service (in the United States): If you live in the United States and your product was purchased through a U.S. Dealer, please contact your dealer OR call 319-885-4200 or e-mail support@chandlerlimited.com.

What You Must Do for Warranty Service (outside of the United States): For warranty service if you live outside of the United States, please contact the dealer where you purchased the product.

Any products returned to Chandler Limited for repair should include: (1) complete description of the problem; (2) name, address, phone number, fax number, and/or e-mail address; (3) receipt of original purchase; (4) power supply and all accessories and cables. The purchaser is responsible for the shipping costs to and from Chandler Limited. Chandler Limited is not responsible for damage resulting from improper packing and/or mishandling by a shipper.

If sent by UPS or Federal Express, ship to: Chandler Limited, 222 South Cherry Street, Shell Rock IA 50670

If sent by Postal Service, ship to: Chandler Limited, PO Box 38, Shell Rock IA 50670

The foregoing expresses Chandler Limited's obligations and liabilities with respect to the quality of the product, its components and accessories. All other warranties, express or implied, including the warranties of merchantability or fitness for a particular purpose are disclaimed. Chandler Limited shall not be liable for the loss or use of the product, its components and accessories, inconvenience, loss or any other damages, direct or consequences arising out of the use of, or inability to use the product or its components or damages resulting from or attributable to defects in the products or its components. No one other than Chandler Limited has authority to extend or modify the terms of this limited warranty in any manner whatsoever.

DISCLAIMER OF WARRANTY

EXCEPT FOR THE FOREGOING WARRANTIES, CHANDLER LIMITED HEREBY DISCLAIMS AND EXCLUDES ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO ANY AND/OR ALL IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND/OR ANY WARRANTY WITH REGARD TO ANY CLAIM OF INFRINGEMENT THAT MAY BE PROVIDED IN SECTION 2-312(3) OF THE UNIFORM COMMERCIAL CODE AND/OR IN ANY OTHER COMPARABLE STATE STATUTE.

LIMITATION OF LIABILITY

THE LIABILITY OF CHANDLER LIMITED, IF ANY, AND PURCHASER'S SOLE AND EXCLUSIVE REMEDY FOR DAMAGES FOR ANY CLAIM OF ANY KIND WHATSOEVER, REGARDLESS OF THE LEGAL THEORY AND WHETHER ARISING IN TORT OR CONTRACT, SHALL NOT BE GREATER THAN THE ACTUAL PURCHASE PRICE OF THE PRODUCT WITH RESPECT TO WHICH SUCH CLAIM IS MADE. IN NO EVENT SHALL CHANDLER LIMITED BE LIABLE TO PURCHASER FOR ANY SPECIAL, INDIRECT, INCIDENTAL, OR CONSEQUENTIAL DAMAGES OF ANY KIND INCLUDING, BUT NOT LIMITED TO, COMPENSATION, REIMBURSEMENT OR DAMAGES ON ACCOUNT OF THE LOSS OF PRESENT OR PROSPECTIVE PROFITS OR FOR ANY OTHER REASON WHATSOEVER.