

CHANDLER LIMITED® TG MICROPHONE TYPE L USER MANUAL



TG MICROPHONE

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INTRODUCTION

TG Microphone Type L

Thank you for purchasing the Chandler Limited TG Microphone 'Type L,' you now own a piece of EMI/Abbey Road Studios official equipment.

Continuing in the rich tradition of innovation at EMI and dating back to the early 1930s with Alan Blumlein, the father of Stereo, the company's first coil and velocity 'ribbon' microphones, and the "Blumlein pair" technique, Chandler Limited and Abbey Road Studios introduce the third new EMI badged microphone more than a half century, the TG Microphone Type L.

Designed by Chandler Limited Founder and Chief Designer, Wade Goeke, the TG Microphone Type L is a *Field-effect transistor (FET)* solid-state large diaphragm condenser microphone, intended as a utilitarian studio work-horse and descended from the larger TG Microphone.

The Type L features core componentry found in the larger TG Microphone, including—capsule, TG amplifier and 'Dual Tone System'. However, apart from the larger TG Microphone, the Type L has its own unique sound and voicings.

The Type L system includes: microphone, swivel mount, and bamboo storage box.

Your Chandler Limited TG Microphone Type L 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 solid-state desk marked a departure from the earlier REDD valve consoles.

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.

From TG12345 console technology and the need for mastering consoles to perform as tape-to-disk or cutting desks, and the further requirement of tape-to-tape transfers would give rise to the now legendary EMI TG12410 transfer consoles.

Still in use today at EMI/Abbey Road Studios, the EMI TG12410 transfer consoles and their heralded sound were never available to the public.



OFFICIAL

EQUIPMENT

IMPORTANT PROCEDURES & QUICK START

Preamp Gain & Noise Floor

The TG Microphone TYPE L's output is +10 dB hotter than most microphones. While the TYPE L's self-noise is low, when comparing to other microphones at the same gain setting, one must consider the TYPE L's hotter output level and adjust the preamp's gain accordingly.

Connectivity & Power

1. The Type L requires 48V phantom power to operate.

WARNING: Prior to connection, turn off any 48V phantom power from preamplifiers or external inline supplies to be used with the Type L.

2. Connect the Type L to a microphone preamplifier using a standard XLR microphone cable.

MICROPHONE CABLE - 3 PIN XLR



NOTE: Modern microphone cable wiring standard is, 'pin two hot,' where *hot* is *positive*. The Type L is wired for pin two hot.



MALE



FEMALE

WIRING LEGEND	
1	SHIELD / GROUND
2	POSITIVE
3	NEGATIVE

3. Once the Type L is connected to the preamplifier and the output of the preamplifier is patched to its destination, the preamplifier's 48V phantom power may be activated.

NOTE: The *output impedance* of the Type L is 200 Ohms.

Warm-up

It is recommended for all electronics—once powered on—to be given time to settle before use. Though optional...for optimum results, prior to sound incident or usage, allow the Type L to warm-up for a minimum of 3-5 minutes.

Power Down

Prior to disconnecting the XLR cable between the microphone and preamplifier, first turn off 48V phantom power.

NOTE: Once 48V phantom power has been deactivated, it is recommended to wait a minute for the microphone to fully discharge before disconnection.

Vocals

For vocals we always suggest use of a *pop filter*. Large diaphragm condenser microphones (LDCs) when exposed to moisture from a source at close proximity—such as a vocal—can sometimes cause a temporary interruption of sound capture. For use on a vocal where a pop filter isn't desired, it may be possible to avoid effects of moisture by tilting the microphone at an angle of 10-15° (degrees) away from the mouth and the center of the capsule placed between the ball of the nose and the upper lip, or between the lower lip and chin, and not directly in line with the mouth.

TIP: The non-pop filter technique also minimizes plosives.

OPERATING INSTRUCTIONS

Polar Pattern

The directional characteristic of the Type L is *Cardioid*.

This unidirectional polar pattern discriminates against source arriving at the rear of the capsule—and to a lesser degree at the sides—in preference for sound incident at the front of the microphone.



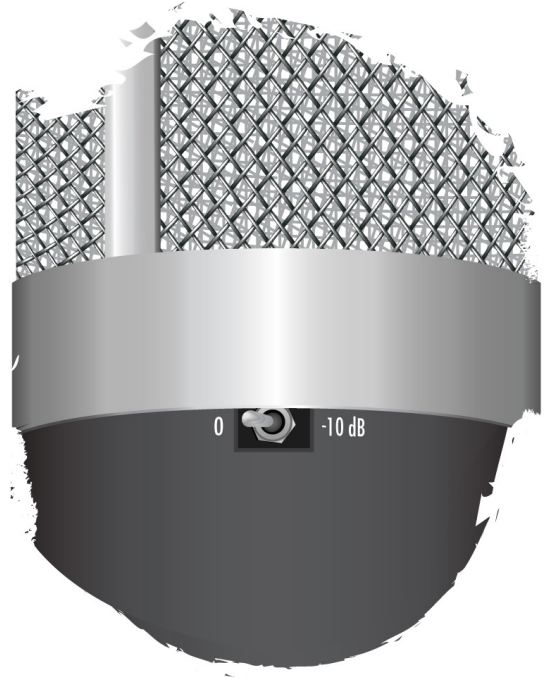
Q CARDIOID

NOTE: *Proximity effect* is a natural occurrence of the cardioid polar pattern, that is, where low-end is emphasized when the sound source is closer to the microphone.

TIP: If the microphone is required to be placed in close proximity to a source—such as an acoustic guitar—where capture of low frequency data may be less desired, or in small environments where natural build-up can occur, use of a *low-cut* or *rumble filter* may be necessary.

Pad

Facility to decrease the sensitivity of the microphone by -10 dB exists via the on-board *PAD*. The PAD is located at the rear of the microphone and below the head basket. The PAD is actuated by placing the toggle switch towards -10 dB.



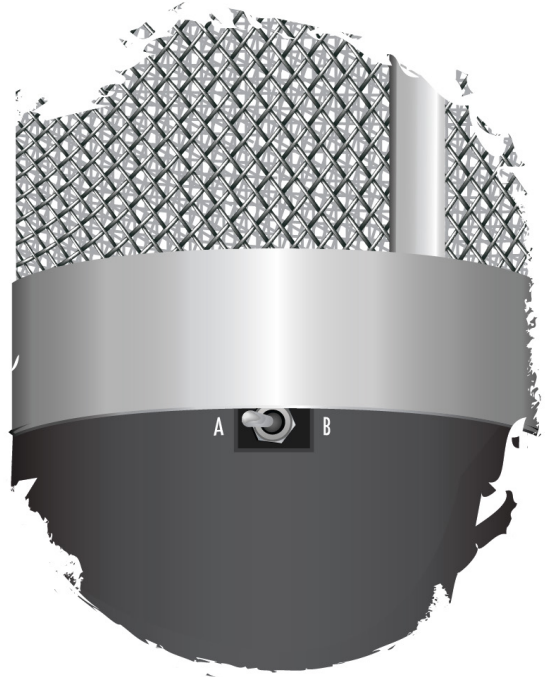
TIP: Use the PAD in scenarios where the sound incidence is overloading the capsule. Examples of high SPL sources are—drums, kick drum, bass or electric guitar cabinets.

Dual Tone System

The *Dual Tone System* facility of the TG Microphone Type L is located at the rear of the microphone and below the head basket, and is operable via a toggle switch. The Dual Tone System provides two options, A or B. System A and B modify the input structure of the microphone and have a distinct effect upon how the microphone responds to the source and the character of the sound captured.



TYPE L REAR ASPECT



System A

Input system A is rich in harmonic content, more forward and characteristically what you'd expect from a TG preamplifier. System A is suitable for a wide array of sources and is comparatively more colored than system B.

System B

System B was intended to have a unique sound in contrast to system A. Comparatively to system A, input system B is cleaner or more pristine and embodies a ribbon like quality; system B also runs about -6 dB lower in level.

System B with the on-board PAD engaged, is the extreme SPL mode of the TG Microphone.

TIP: System A and B with the PAD engaged are both capable of handling loud sources. However, if the source exceeds the handling capacity of System A—with PAD engaged—then B with the PAD is the logical choice.

Regardless of system B's extreme SPL capability, it may be used for any source including—vocals, acoustic guitar and other lower SPL sources.

TIP: Use both system A and B when doubling parts—E.g. acoustic guitars, electric guitars—to create interest and the illusion of different setups for a part; pan the doubled part hard right and left in the mix for maximum effect.

SERVICE

MAINTENANCE

Storage

WARNING: Turn the microphone system off and wait until at least a minute to give the microphone a chance to fully discharge before disconnecting the XLR microphone cable from the Type L or the preamplifier input.

When the TG Microphone Type L is not in use for extended periods of time, please stow the microphone in the supplied plastic dust cover and bamboo box; always store the microphone in a room temperature environment.



NOTE: If the microphone is to be left out for daily use, take care to further protect capsule by using the provided plastic dust cover.

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, except expendables defined as vacuum tubes and meter or badge lamps, which are covered by a lesser warranty period as set forth below.

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 for non-expendables: 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 all shipping costs AND a \$35 handling fee per unit.

Repair During The First 90 Days for expendables: During the first 90 days, all defective expendables (vacuum tubes and meter or badge lamps) that are covered by this Limited Warranty will be replaced or repaired free of charge including parts and labor. The purchaser will pay all shipping costs and a \$35.00 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 email 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.

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