

# Chandler Limited® REDD.47 Mic Amplifier User Manual





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Thank you for purchasing the Chandler Limited REDD.47 Mic Amplifier, you now own a piece of EMI / Abbey Road Studios official equipment.

The Chandler Limited REDD.47 Mic Amplifier is a recreation of the highly sought after and rare EMI / Abbey Road Studios REDD.47 vacuum tube based line amplifier. The Chandler Limited REDD.47 Mic Amplifier is a mono channel, and incorporates an extended feature set over the original equipment.

Your Chandler Limited REDD.47 Mic Amplifier has been carefully crafted and built by hand at Chandler Limited 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

The EMI / Abbey Road Studios REDD.47 line amplifier was first conceived in 1958 as a replacement plug-in, all purpose line amplifier cassette for the Telefunken/Siemens V72s as used in early REDD mixing consoles.

In 1958, EMI and Abbey Road Studios, through their REDD (Record Engineering Development Department) division, set out to design the next generation REDD mixing console, the REDD.51. The REDD.51 would be the last of the valve or vacuum tube-based mixing consoles built by EMI, and the only one to rely on the REDD.47 line amplifier.

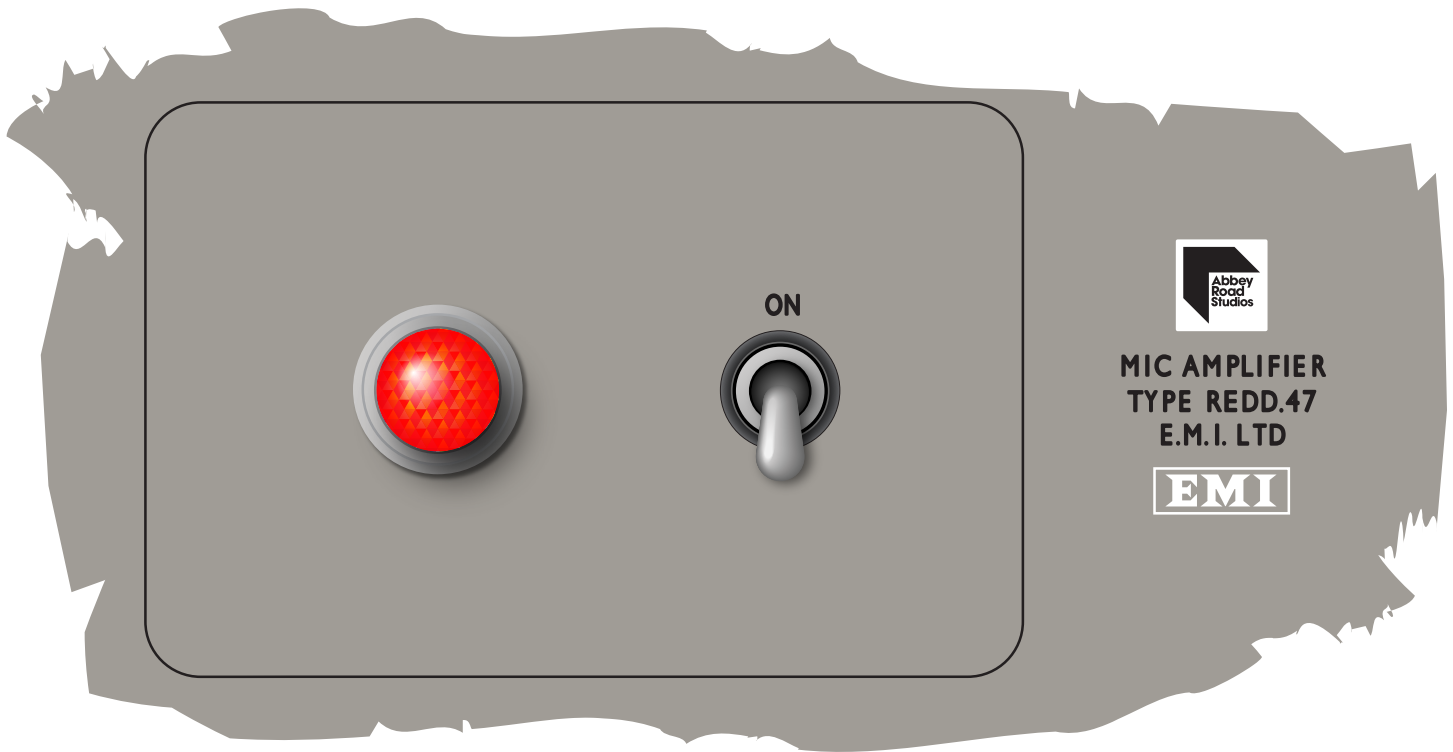
The first REDD.51 console of only three built was manufactured in 1959. However, it wouldn't be until 1964 before a REDD.51 console was installed at Abbey Road Studios' Studio Two, home to the Beatles.

The REDD.51 console and its REDD.47 line amplifiers left their unique and exceptional sonic character on Beatles records recorded at Abbey Road Studios' Studio Two during 1964-1968; the majority of the Beatles' catalog.



OFFICIAL

EQUIPMENT



## CONNECTIVITY

### POWER

The REDD.47 Mic Amplifier features an internal power supply. Connection is made using the supplied IEC power cable. Power is preset internally to operate at either 120V or 220V.

### INPUT/OUTPUT

On the rear panel of the REDD.47 Mic Amplifier exists two XLR jacks, one for input, and the other for output.

The XLR input is activated when the MIC/DI switch is set to 'MIC' or the up position.

Output signal will be available from the male XLR jack.

XLR jacks are wired pin 2 hot.

### TUBES

The REDD.47 Mic Amplifier relies on two vacuum tubes: 6X4, 6X5.



## MIC/DI

The MIC/DI switch allows the REDD.47 to function as a mic/line amplifier, or a tube DI. For line level applications, reference the 'PAD' section.

In the 'MIC' position or up, signal is applied via the XLR input at the rear of the unit.

To access DI functionality, set the MIC/DI switch to 'DI' or down, and plug your guitar or bass guitar into the accompanying  $\frac{1}{4}$ " jack. DI access sends your signal directly into the heart of the tube. Using the REDD.47 in DI mode is similar to plugging directly into a VOX AC15.

When using the DI, the output signal will be available from the male XLR jack on the rear of the unit.

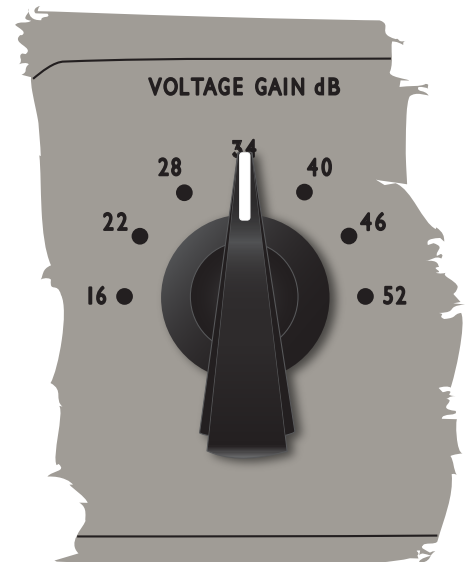
**TIP: Start a REVOLUTION!** One the most iconic if not unique guitar sounds is that of the Beatles song 'Revolution.' John Lennon's guitar sound was created without the use of a guitar amplifier, by plugging directly into the line amplifier, overdriving one REDD.47 in another.

Overdriving the REDD.47 can be achieved in the following ways:

1. Use two, REDD.47 units in series, overdriving a second unit with gain from the first unit.
  - a. 'Revolution' style - via DI, plug your guitar directly into the first REDD.47, and patch the XLR out from the first unit into a second REDD.47.
2. Using a single REDD.47, plug your guitar or bass directly into a boost pedal (Chandler Limited Little Devil Colored Boost or other into), and from the boost pedal into the  $\frac{1}{4}$ " DI jack.
3. Re-amp a source signal by applying a hot signal from your DAW to the XLR input of the REDD.47.
4. Apply a hot source via microphone to the REDD.47.

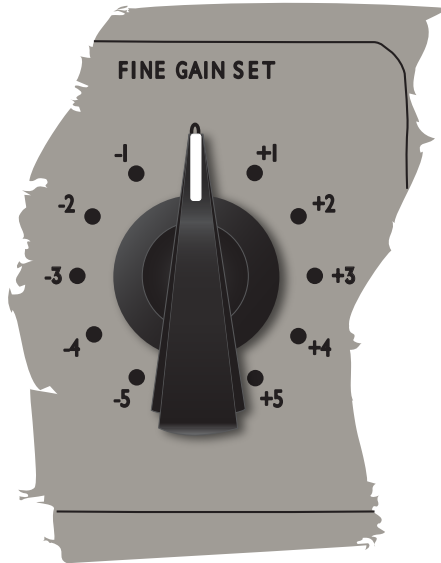
## VOLTAGE GAIN

The 'VOLTAGE GAIN' control is a stepped input gain switch, preset in 6db increments. The gain range available from this control is expanded to 16-52db from the original REDD.47's 34, 40, and 46db. Use this control to set the desired input gain. An additional +/-5db input gain is available via 'FINE GAIN SET'.



## FINE GAIN SET

The 'FINE GAIN SET' control is a stepped switch allowing for fine-tuning of the input gain. The 'FINE GAIN SET' offers an expanded range of +/-5db available in 1db increments over the original REDD.47 line amplifier.



TIP: When gain staging, begin with 'OUTPUT' fully clockwise, 'FINE GAIN SET' at zero, and set the gain first using the 'VOLTAGE GAIN' control. Once the approximate 'VOLTAGE GAIN' or input gain has been acquired, use the 'FINE GAIN SET' control to adjust for optimum level, and color.

NOTE: When 'VOLTAGE GAIN' and 'FINE GAIN SET' are set fully clockwise at the highest settings, the total input gain is 57db.

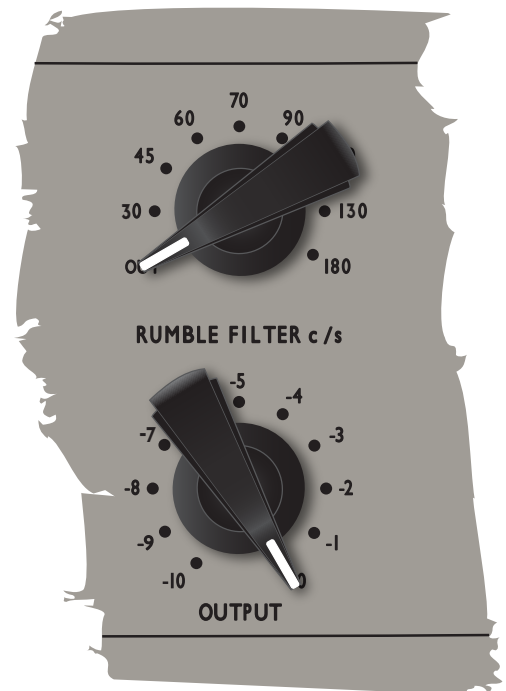
## RUMBLE FILTER

The 'RUMBLE FILTER' control is a low cut mechanism, featuring an expanded eight frequency settings (30, 45, 60, 70, 90, 110, 130, 180hz.) The 'RUMBLE FILTER' may be fully disengaged from the amplifier by setting it to 'OUT.' This feature is useful for removing unwanted low frequency information from the signal. The 'RUMBLE FILTER' only works upon signal applied to the XLR input.

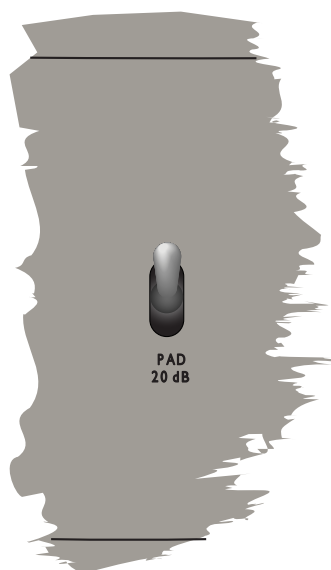
NOTE: The original 'RUMBLE FILTER' was a filter circuit available via jumper on the REDD.51 console. This 'RUMBLE FILTER' was both unique in circuit design and function, rolling off bass at 30hz. The filter was applied after the line amplifier, and before the fader.

## OUTPUT

The 'OUTPUT' control is variable, and acts as a fader would on a console. Use this to control the overall output level of the pre-amplifier to your recording device or DAW. 'OUTPUT' set fully clockwise is considered unity level.



## PAD



A 20db pad exists to tame hot sources applied to the MiC Input XLR jack. To engage the 20db pad, flip the 'PAD' switch to the down position. The 'PAD' is handy for taming hot signals, or using the REDD.47 for line level sources. Use a pair of REDD.47 Mic Amplifiers on your mix bus! The 'PAD' only works upon signal applied to the XLR input.

**TIP:** Sending line level source material into the REDD.47 is a great way to further process your material, adding the rich harmonic texture available from this historic tube amplifier.

To use the REDD.47 at line level, begin with 'VOLTAGE GAIN' at '16,' 'FINE GAIN SET' at '0,' and engage the 20db 'PAD.' Apply source signal via the XLR input, bring up 'VOLTAGE GAIN' if needed, and adjust the 'FINE GAIN SET' for the desired color.

If using on your mix bus, turn down your DAW's master fader enough not to distort the REDD.47's input (you might not need the PAD either), then turn up the 'VOLTAGE GAIN' and use the 'FINE GAIN SET' to dial in the right color; let the REDD.47 do it's job, AMPLIFY!

## POLE

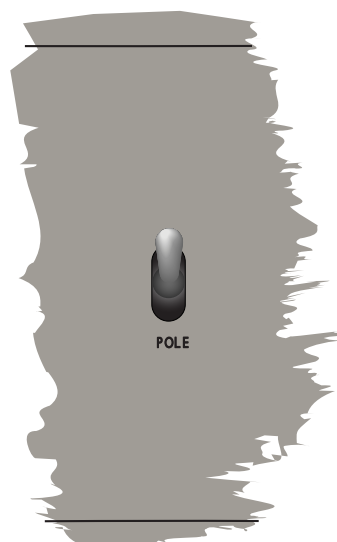
The 'POLE' switch reverses the input signal by 180° when in the down position. This feature may be useful when a microphone is not ideally placed, a cable is wired incorrectly, or line level source material is out of phase.



## 48 VOLT

Some microphones require phantom power. Phantom power is available via use of the '48 VOLT' switch, and is engaged when the switch is set to the down position.

**WARNING:** Only engage or disengage phantom power with the microphone already connected to the pre-amplifier. Disconnecting a microphone while phantom power is on may cause damage to equipment downstream. Never use phantom power with ribbon microphones.





## U.S. SERVICE

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

### 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](mailto:support@chandlerlimited.com)

## INTERNATIONAL SERVICE

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](http://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](mailto: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

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## **DISCLAIMER OF WARRANTY**

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## **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.