PREQ2™ | DUAL MIC PREAMP WITH EQ / AIR BAND®

USER MANUAL

WWW.MAAG.AUDIO

PRODUCT REGISTRATION

Please complete the product registration form for your Mäag Audio equipment to be registered for warranty and product updates.

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PROTECT YOUR EQUIPMENT

We will keep the model number and date of purchase of your new Mäag Audio product on file to help you refer to this information in the event of an insurance claim such as loss or theft.

SAFETY INSTRUCTIONS

1. Read these instructions
2. Keep these instructions
3. Heed all warnings
4. Follow all instructions
5. Clean only with dry cloth
6. Do not block any ventilation openings.
7. Install in accordance with the manufacturer's instructions
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat
9. Protect the power cord from being walked on or pinched particularly at plugs and the point where they exit from the apparatus
10. Only use attachments/accessories specified by the manufacturer
11. Unplug this apparatus during lightning storms or when unused for long periods of time
12. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped
13. CAUTION: To disconnect the unit completely from the MAINS, unplug the unit. Turning the power switch off does not disconnect the unit completely from the MAINS
14. The unit shall not be exposed to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the unit
15. WARNING: This is a Class I apparatus. It should be connected to a MAINS socket outlet with a protective earthing connection

VOLTATE SELECTION AND FUSE

This unit is capable of operating over a range of mains voltages as marked on the rear panel. Ensure correct mains voltage setting and correct fuse before connecting mains supply. Do not change mains voltage settings while mains supply is connected. To avoid the risk of fire, replace the mains fuse only with the correct value fuse, as marked on the rear panel. The internal power supply unit contains no user serviceable parts. Refer all servicing to a qualified service engineer, through the appropriate Maag Audio dealer.

For mains voltages from 100-120 volts, use a 0.5A 3AG fuse with Slo-Blo characteristics only and configure the mains selector to display 115V.

For mains voltages from 200-240 volts, use a 0.25A 3AG fuse with Slo-Blo characteristics only and configure the mains selector to display 230V. The selectable fuse holder accepts 1/4" x 1-1/4" or 5mm x 20mm fuses.

INTRODUCTION

Mäag Audio's newest creation is the **PREQ2™ Dual Mic Preamp with EQ**, a complete analog system for either recording or mixing housed in a 1U standalone unit. It comes with Cliff Mäag's venerable Air Band® shelving equalizer first introduced in 1993 with his NTI EQ3 equalizer.

The PREQ2™ will handle either line or microphone signal levels with two matched channels both with separate rear panel line level input and microphone XLR connectors and switchable +48-volt phantom powering. The rear panel also has XLR output connectors for each channel and a on/off/fuse mains switch.

All switches on the PREQ2™ have colorful LEDs to confirm their operation and all controls have detents with the exception of the continuously variable microphone gain.

FEATURES:

- The PREQ2™ uses a mic input transformer tuned for clarity, detail, and transparency.
- The Instrument Input is designed to receive signals from many sources or instruments.
- Includes the mythical Air Band® shelf boost used on countless hit records.
- Four convenient rear input balanced XLR inputs.

MICROPHONE PREAMP

The **Mäag Audio** two channel **PREQ2™** uses a microphone input transformer tuned for clarity, detail, and transparency. This transformer provides a signal voltage gain of 4.87dB and is paired with amplifier electronics to obtain a maximum gain of +71dB. 71dB gain dual channels with infinite variable settings. The microphone transformer has a maximum input level of +8dB at 20Hz and an impedance ratio of 150:600 ohms. With a nickel core it manages high signal levels with lower distortion and wider bandwidth.

TECHNICAL SPECIFICATIONS:

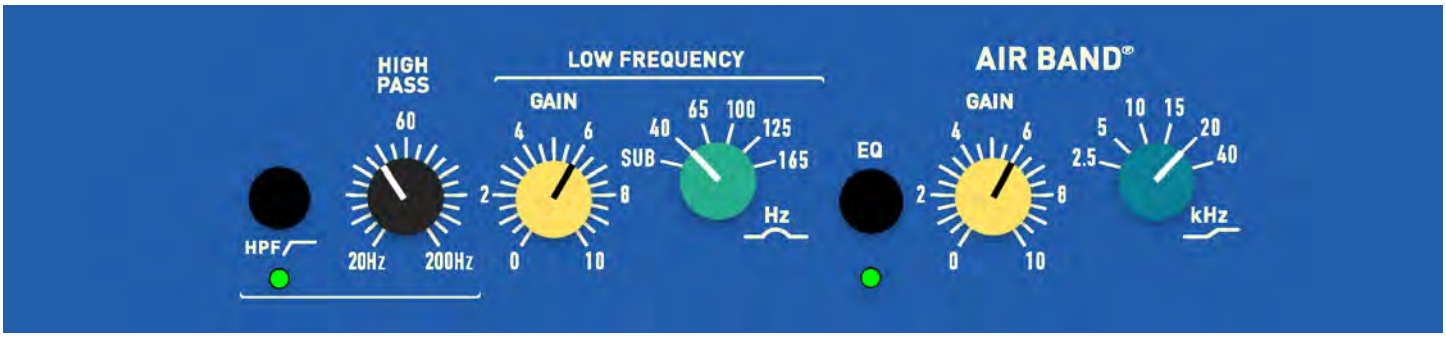
- Noise level at the lowest gain setting is -100dB. EIN is -128dB.
- Balancer XLR Output Headroom is +27dbu.
- The microphone transformer feeds a differential set of front-end class A discrete transistors paired with a FET input Operational Amplifier.
- High and Low Gain push button switch. Low range: +20db to +42db. High range (Gain +25 Switch w/Green LED) +42db to +71db.
- Switchable -20db Pad w/Green LED.
- +48 Volt Phantom Power, Switchable, w/Red LED.
- Phase Reversal Switch: Switches the Phase of the Balanced Output.
- Green signal present LED, Red Peak LED lights at +26dbu.

EQ SECTION

The **PREQ2™** has three equalizer/filters sections; the layout and control compliment are identical for both channels. The equalizer design is specifically designed for both recording and/or subtle touchup tonality changes and euphonic enhancements.

On the left side of the channel is the first control for the 2nd order, 12dB/octave high pass filter. It is fully variable using a 21-detent control to sweep from 20Hz to 200Hz. It has its own hard-wired, in/out bypass switch.

Next is the Low Frequency bell-shaped equalizer section with a boost (only) control at 6dB/Octave. Frequencies are switched using a six position rotary switch and are: 10Hz (Sub) shelf, and bell-shaped curves for 40Hz, 65Hz, 100Hz, 125Hz, and 165Hz. Up to 9dB of boost is available.



EQ SECTION:

- Low Frequency boost control 6dB/Octave @ Sub (20Hz) shelf, 40Hz bell, 65Hz bell, 100Hz bell, 125Hz bell, 165Hz bell. 9db maximum boost.
- EQ in/out switch with Green LED.
- Variable High Pass Filter -3dB points at both extremes of the potentiometer: 20Hz to 200Hz.
- 21 position detents. 2nd order filter, 12dB/Octave. The High Pass Filter -3dB point at the nine o-clock position is 25Hz, 60Hz at the twelve o-clock position and 100Hz at the three o-clock position.
- High Pass Filter in/out switch w/green LED.

AIR BAND®
The third band of the equalizer is the Mäag Audio Air Band shelving section with 2.5, 5, 10, 15, 20, and 40-kHz frequency choices with its own control and up to 9dB of maximum boost. Both the Air Band and Low Frequency equalizers share a single bypass push-button.

GAIN control for the AIR BAND 9 dB max gain

IN engages and disengages the AIR BAND. Green LED

INPUTS

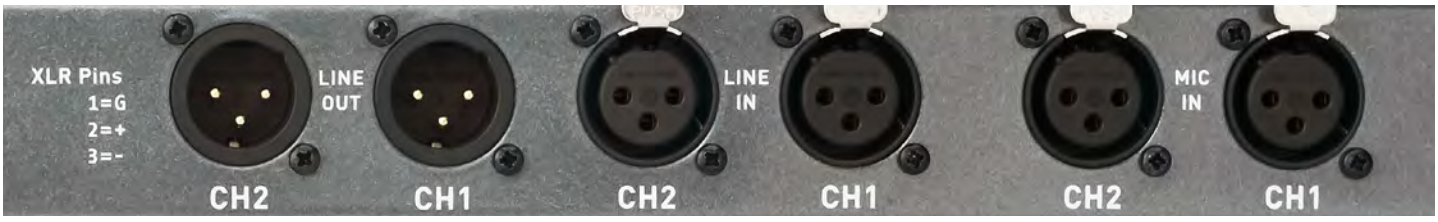
INSTRUMENT MIC THRU: ¼" Tip-Sleeve unbalanced Jack
This Jack serves two purposes. First: With an Instrument plugged into 'Instrument In' this signal will be buffered and sent back out the 'Instrument Thru' at unity gain. This can be used to feed Amplified Speaker Cabinets or Stomp Boxes. Buffering makes it possible to send this signal longer lengths without degrading the signal. For example, a guitar signal being recorded in the control room could then be sent to an Amplified Speaker Cabinet in a sound isolated Studio.

Second: With only a Mic attached to the Balanced XLR Mic input, this microphone signal will be amplified by a set +20 db and sent out the ¼" 'Instrument Mic Thru' jack. This is an ingenus way to route the Mic signal to Amplified Speaker Cabinets and Stomp Boxes without the use of extra interface equipment. Example: Mic in studio feeds channel one Mic input. It is amplified and the balanced XLR output of channel one is recorded. The microphone is also sent out the +34dB amplified channel one unbalanced ¼" 'Instrument Mic Thru' jack. This signal feeds a stomp box in the control room. The unbalanced output of this stomp box is then feed to the unbalanced 1/4" 'Instrument In' on channel two. This signal is amplified and sent to the balanced output of channel two to be recorded.

INSTRUMENT INPUT: ¼" Tip-Sleeve unbalanced Jack
The Instrument Input is designed to receive signals from many types or instruments. Including Instruments that have a high output impedance. To avoid a high frequency signal loss of any instrument plugged into the Instrument Input jack, the input impedance of this Instrument Input jack is very high (1.0 Meg Ohms). Unbalanced instrument signals are automatically detected, switched via a relay, balanced, and the signals Impedance is lowered to better match the mic transformer before being sent to the microphone input transformer. All microphone functions are available to the Instrument except 48 volts Phantom Power. Phantom Power can be activated but this voltage will not interact with the Instrument Jack.

LINE INPUT: 1/4" TS unbalanced Thru Jack when the Line switch is engaged. This allows for a Re-Amping feature. The out pit of a DAW can be sent to the line input and this signal will be attenuated by 26 dB and sent to the 1/4" TS unbalanced Thru jack. This signal can then be sent to a stomp box or an amplified speaker cabinet and mic'ed and re-recorded.

LINE INPUT: Balanced XLR inputs.



Line Input Switch w/Green LED: Routes Line Input through High Pass Filter and 2-band EQ section to Balanced XLR Line Out connectors.

WARRANTY & REGISTRATION

PRODUCT WARRANTY

Maag Audio expressly warrants its products for a period of one (1) year from the date of purchase. Products will be free of manufacturing defects. Within the warranty period, a product will be tested, repaired or replaced at the sole discretion of Maag Audio, free of charge. All warranty service will be conducted through authorized Maag Audio dealers only. The end user is required to provide proof of purchase (receipt or invoice) of the product. This warranty is offered solely to the original purchaser of the product from an authorized Maag Audio dealer and is not transferable. This warranty does not include the shipping charges to and from the authorized Maag Audio dealer from whom the product was purchased. Maag Audio will pay for shipping costs between the dealer and Maag Audio. All warranty service requires a Maag Audio issued RMA number. Please conduct warranty service communication with an authorized Maag Audio dealer.

WARRANTY EXCLUSIONS

The foregoing express warranty is made in lieu of all other product warranties, expressed and implied, including merchantability and fitness for a particular purpose which are specifically disclaimed. The express warranty will not apply to defects or damage caused by post purchase shipping and transportation, storage, careless handling, nor damage caused by misuse, hot swapping, accidents, neglect, alterations, operator error, or failure to properly maintain products.

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