

MP1 MkII

Microphone Preamplifier

OPERATING INSTRUCTIONS

Thank you for choosing the **MCAudioLab MP1 MkII** mic preamp

For further information or support, visit our website or contact us.

Enjoy recording with your new preamp.

Table of Contents

1. Introduction
2. Product Features
3. Installation and Setup
4. Front Panel Controls and Indicators
5. Operating the MP1 MkII
6. Op-Amp Compatibility and Customization
7. Technical Specifications
8. Warranty Information

1. Introduction

The MP1 MkII is a versatile microphone preamplifier and DI designed for high-end audio performance. Featuring a Lundahl input transformer and traditional through-hole components, this preamp excels in a wide range of recording applications, from vocals to drums and other dynamic instruments.

2. Product Features

All-Discrete Class-A Design:

Provides superior audio quality with rich harmonic content.

Lundahl Input Transformer:

Ensures clean and transparent sound, with excellent noise rejection.

60dB Gain:

Adjustable gain suitable for a wide variety of microphones and sound sources.

Low Noise and Low Distortion:

Ultra-clean, linear and low distortion recordings.

-20dB Pad, 48V Phantom Power, and Phase Inversion:

Allows versatile use for different mics and instruments. Each button on the front panel activates its respective function by energizing the corresponding sealed relay. This design ensures that the signal path never passes through the switch contacts, which are not suitable for carrying audio signals. As a result, the integrity of the audio signal is preserved, and potential signal degradation is avoided, offering a cleaner and more reliable performance.

Discrete Class-A DI Input:

Ideal for direct-instrument recording with a rich, full tone.

API/GAR Compatible Op-Amp Socket:

Swap op-amps for customizable tonal options.

Wide Frequency Response:

Captures the full spectrum of audio, from low rumble to high frequencies.

3. Installation and Setup

1. Insert the module into 500-Series Lunchbox:

The MP1 MkII is designed for use in a 500-series rack or lunchbox (sold separately). Ensure that the lunchbox is not powered on while inserting the module.

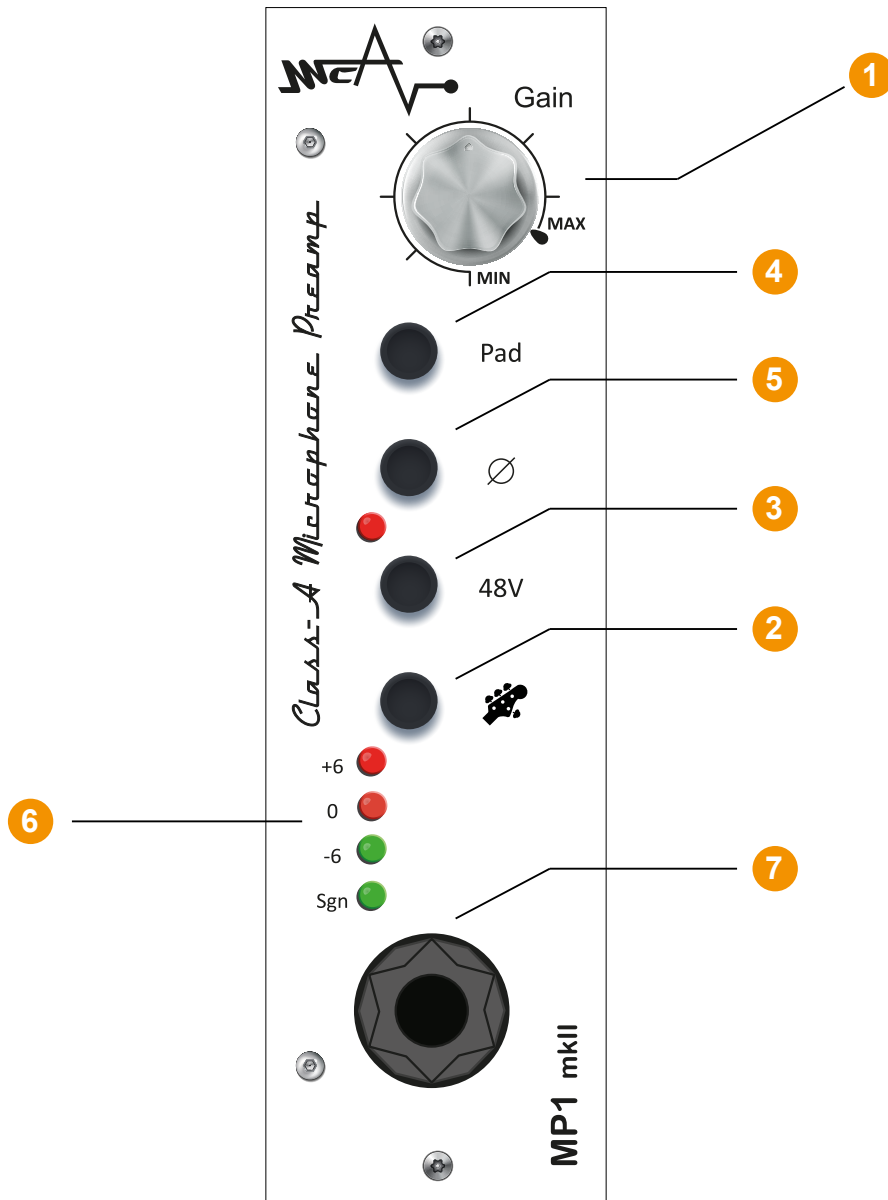
2. Connect Power:

The MP1 MkII draws power from the 500-series rack. Ensure the rack is properly powered.

3. Initial Setup:

Power on your rack/lunchbox, and your MP1 MkII will power up automatically.

Front Panel Controls and Indicators



4. Front Panel Controls and Indicators

1 Gain Control:

Use the Gain Knob to adjust the preamp's input gain. The MP1 MkII provides up to 60dB of gain, allowing you to accommodate various microphones, from low-output dynamics to high-output condensers up to ribbons.

2 DI Input Button:

Engage the DI Input (7) by pressing the DI Pushbutton. This activates the all-discrete Class-A DI circuit, ideal for recording electric guitars, bass, and other instruments directly into the preamp. The signal passes to the discrete operational amplifier, bypassing the microphone input transformer.

3 Phantom Power (48V):

When recording with condenser microphones, press the 48V pushbutton to engage phantom power. A red LED indicates the presence of 48V phantom power for the mic.

4 Pad Switch (-20 dB):

If you're using a high-output microphone, engage the -20 dB Pad by pressing the corresponding button. This reduces the input level to prevent distortion or clipping. The pad operates before the input transformer.

5

Phase Inversion Button:

Press the Phase button to invert the phase of the output signal. This is useful when troubleshooting phase cancellation in multi-microphone setups.

6

4-LED output level indicator:

The MP1 MkII features a 4-LED output level indicator that provides real-time feedback on your signal strength. This visual tool allows you to easily monitor the output levels and ensure they stay within an optimal range during recording. The LED meter helps prevent clipping and distortion, giving you the control you need for a clean, accurate sound.

The 4-LED display offers immediate, clear visual cues, allowing you to make adjustments quickly and confidently for the best possible recording quality.

0dB is intended to be the +4dBu recording studio standard. Sgn: \geq -15dB, -6dB, and +6dB are intended to be 6dB below and above 0dB, respectively.

7 Instrument input

The DI input provides a high-impedance direct instrument connection, managed by a transistor. The signal then passes to the discrete opamp, ensuring minimal distortion and maintaining signal integrity, bypassing the microphone input transformer.

5. Operating the MP1 MkII

1. Set Gain Level:

Adjust the Gain control to your desired level. The MP1 MkII provides a wide range of gain, so you can accommodate anything from dynamic to condenser microphones.

2. Engage DI for Instruments:

For instruments like electric guitar, bass, or keyboards, press the DI Pushbutton to activate the Class-A DI input. The preamp allows for both an electric instrument and a microphone to be connected simultaneously - one to the DI input and the other to the dedicated microphone input. When the "Instrument" button on the front panel is not pressed, the preamp will operate with the microphone input, even when phantom power is active. This ensures flexibility in recording setups without the need to disconnect the instrument.

3. Use Pad for High Output Signals:

If you're working with a high-output microphone or source, use the -20 dB Pad to prevent distortion by lowering the input level.

4. Activate Phantom Power:

Press the 48V Pushbutton to provide phantom power for condenser microphones.

5. Correct Phase Issues:

If you notice phase issues, engage the Phase Inversion button to resolve phase cancellations.

6. Op-Amp Compatibility and Customization

The MP1 MkII features a socket that allows you to install a variety of discrete op-amps. We recommend the **MCAudioLab 816** DOA (sold separately) for enhanced tonal shaping. Alternatively, you can experiment with third-party op-amps to further tailor the sound to your liking.

To replace the op-amp, carefully remove the existing one by gently pulling it out of the socket and insert your desired op-amp, ensuring it's seated properly.

7. Technical Specifications

- Gain: Up to 60dB
- Input Transformer: Lundahl transformer for u noise rejection
- Frequency Response: Wide bandwidth for full-range audio capture
- Op-Amp: Compatible with MCAudioLab 816 DOA or third-party discrete op-amps
- Controls: Gain, -20 dB Pad, Phantom Power, Phase Inversion, DI Input
- Noise Performance: Ultra-low noise and distortion
- Phantom Power: 48V for condenser microphones
- Dimensions: Fits in standard 500-series rack

8. Warranty Information

This product is available both as a DIY kit and pre-assembled.

The warranty applies if the product is purchased fully assembled only. If purchased as a kit, the warranty does not cover any parts or the assembled product once it has been fully constructed by the user.

To ensure the product's proper functionality and longevity, we strongly recommend following the assembly instructions carefully.

Any damage resulting from improper assembly, misuse, or modifications will not be covered under warranty.

Please retain your proof of purchase for any warranty inquiries.

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