MP1

MIC
PREAMP

**USER
GUIDE**

MCAudioLab

for 500 Series enclosures

Introduction

Congratulations on your purchase of this 500 Series compatible MCAudioLab channel module.

It has been specifically designed to operate in a 500 Series enclosures (riginal API lunchbox® or its equivalent).

The nominal output level is +4 dBu. The MP1 is a single-width 500 Series mic preamp & DI featuring the 816 Discrete OpAmp. The preamp is a simple way to add a microphone or instrument input to the line level of any professional audio device, It is also a flexible way to create a professional modular channel strip 500 Series rack unit.

In this module, both mic and instrument inputs are served by the same discrete Op-Amp.

The MP1 preamp consists of a microphone input and a front panel Instrument (Hi-z) level input (¼" TS Jack Socket).

The rear 500 Series enclosure XLR is the default input individually switched +48V phantom power. The Mic (XLR) input's nominal impedance is 1,2 or 0,8kOhm depending on the position of the front panel impedance switch.

Operation

Please refer to the illustration below

MCAudioLab MP1
front panel
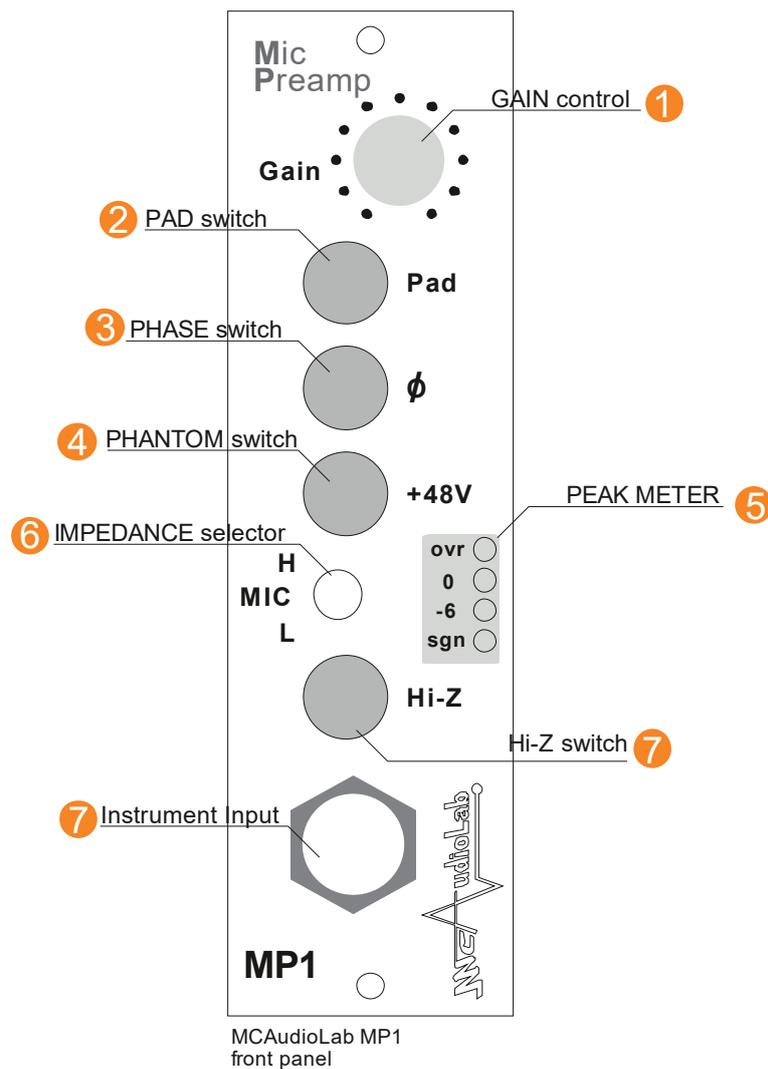
1 Gain control
Turn to select the required amount of Gain while in MIC or Hi-Z mode. To boost the level of the input signal, turn this control clockwise.

2 -20 pad switch
Press to reduce the level at the input stage by 20dB (indicator LED ON when active). Press again to revert to the normal input level.

3 Ø Phase switch
Press to flip the phase of the audio by 180 degrees. Press again to revert to the original phase.

4 +48V phantom power switch
Press to activate +48V phantom power (indicator LED ON when active). The phantom power MUST only be activated when AFTER the microphone has been connected to the XLR. While the input mode is changed to Hi-Z source, the +48V switch can stay active. Press again to switch off +48V phantom power, if active.

5 Peak meter
Use this meter to monitor the status of the output signal,
At any given time, one of the following LEDs illuminate on this meter:
sgn: a small -12dB is on the output;
-6: the output level is -6dB
0: this is the studio standard 0dB (+4dBu)
ovr: the unit is clipping. The red OVR indicates that the combination of the mic signal and additional gain exceeds the circuit's capabilities. Reduce gain via the MIC GAIN control and set the GAIN control.

6 Impedance selector
Use this switch to select the impedance for the microphone. The H position set an impedance of 1200 Ohm while the L position reduces the impedance to 800 Ohm.

7 Hi-Z switch and Instrument input
When the front Hi-Z input is active, the unbalanced ¼" TS Jack is active and an electronic instruments (bass or guitar) can be plugged in. Press again to deactivate the Hi-Z Input and reactivate the corresponding XLR input connector on the rear of the enclosure.

Audio Specifications
MIC Input: Transformer balanced input; impedance > 1,2kOhm/0,8kOhm
Gain +20dB to+70dB. Frequency response: 20Hz-22kHz +/- 0.5dB, @60db gain
Distortion 1kHz @ 60dB gain, <0.025% @ +4dBu
Noise: <-126dBu @60dB gain

DI: Electronically balanced; input impedance > 1MOhm
Gain range 0dB to +50dB
Frequency response 20Hz-20kHz +/- 3dB
Distortion 20Hz-20kHz @ 0dB gain, <0.0025% @ +20dBu
Noise: <87dBu @ minimum gain
Specifications are typical of a production unit and are subject to change without notice.

Installation Instructions
Switch off the 500-series enclosure and remove mains power.

Carefully insert the PE1 module into the empty slot in the 500-series enclosure and ensure the rear edge connector on module and the edge connector of the 500-series enclosure mates correctly.
Screw into the 500-series enclosure to secure the module into the enclosure.
Apply mains power into the 500-series enclosure and switch on. Connect the microphone or instrument and select the correct settings. The module is not designed to be hot-plugged. Ensure the phantom power is OFF before inserting or removing a microphone.

Disclaimer: The information in this manual has been carefully checked and is believed to be accurate at the time of publication. However, no responsibility is taken by us for inaccuracies, errors or omissions nor any liability assumed for any loss or damage resulting either directly or indirectly from use of the information contained within it.
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Health & Safety Notice
For your own safety and the protection of others,
please observe the safety instructions below:
• Read these instructions, follow all instructions and keep these instructions.
• Heed all safety warnings.
• Do not use near water.
• Clean only with a dry cloth.
• Do not install near heat sources.
• Do not block ventilation openings.
• Unplug when unused for long periods of time.
• Refer all servicing to qualified personnel only.