

CLIO

ELECTRICAL & ACOUSTICAL TESTS

MICROPHONE PREAMPLIFIER

PRE01 OPERATING MANUAL



PRODUCT DESCRIPTION

The microphone preamplifier PRE-01 has been designed to match Audiomatica's microphones MIC-01 and MIC-02. It is particularly useful when the microphone has to be operated far from the analyzer or when weighted measurements are needed. PRE-01 powers the microphone connected to its input with an 8.2V phantom supply and adds a selectable weighting filter (A or B or C); also available there is a 20 dB gain stage. The unit is operated with two standard 9V batteries or with an external DC power supply.

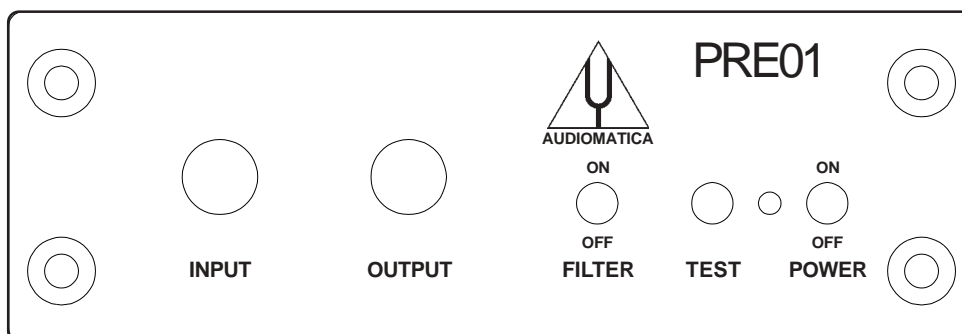
TECHNICAL SPECIFICATIONS

FREQUENCY RESPONSE:	7Hz ÷ 110kHz (-3dB)	THD (@1kHz):	0.01%
WEIGHTING FILTERS:	A, B, C (IEC 651 - TYPE I)	INPUT NOISE (@20dB gain):	7uV LIN, 5.3uV A
PHANTOM POWER SUPPLY:	8.2V (5600 Ohm)	DRIVE CAPABILITY:	±7mA
GAIN :	0 & 20dB (INTERNAL SETTINGS)	BATTERIES DURATION:	>24h (alkaline cells)
INPUT IMPEDANCE:	5600 Ohm	SIZE:	12.5x19x5cm
OUTPUT IMPEDANCE:	100 Ohm	WEIGHT:	900g
MAXIMUM OUTPUT VOLTAGE (@1kHz):	25 Vpp		

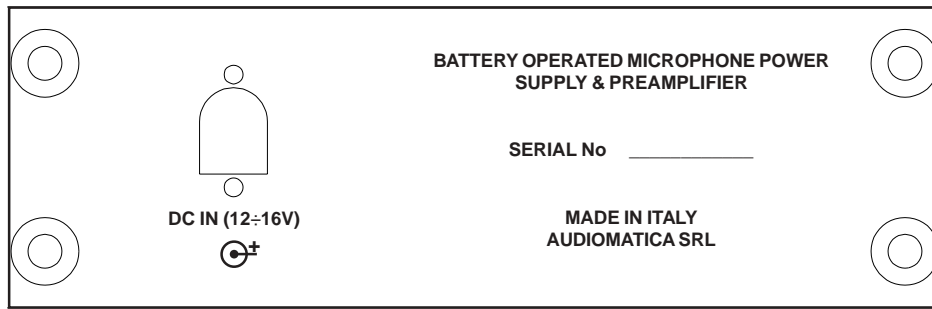
USE OF THE PREAMPLIFIER

The MIC-01 or MIC-02 microphone cable has to be connected to the preamplifier input while the preamplifier output has to be connected to the analyzer input. The unit is switched on with the POWER switch, while the TEST push-button controls the state of the unit; when pressing it, if the led light is on then the unit operates correctly, otherwise not: either the batteries are low or the external power supply is not connected. The FILTER switch inserts the weighing filter. To choose the desired weighting filter type and to set the amplifier gain you have to modify the internal settings as described later.

NOTE: if the 20 dB gain stage is inserted the overall sensitivity (microphone + pre) is 10 times higher. For example if your microphone has a sensitivity of 17.1 mV/Pa and you preamplify it of 20 dB then you get a sensitivity of 171 mV/Pa.



PRE-01 front panel.



PRE-01 rear panel.

USE OF AN EXTERNAL POWER SUPPLY

As it may be seen from the above figure the unit can be powered by an external DC power supply in the range 12÷16V capable of delivering a minimum of 100 mA. The silk-screen also reports connector wiring with the positive at the tip contact.

INTERNAL SETTINGS

To be able to modify the unit's internal settings and to replace the batteries you have to open the unit itself; to do this first turn power off and then carefully unscrew the four screws at the top of the case. You will gain access to the preamplifier PCB where the dip switches 1-4 and the batteries are located. Please have Fig.1 as your reference.

TO REPLACE BATTERIES

Substitute the two 9V cells (BAT1 and BAT2) with two equivalent among the many available in the market (PP3, 6AM6, 6LR6, MN1604 etc.). You may also use rechargeable ones. Take great care to the polarity when inserting them into the sockets.

TO SELECT A WEIGHING FILTER

Use dip switches 1-3, selecting one at a time, as follow:

- 'A weighting' filter ⇒ dip switch 1 ON (2&3 OFF)
- 'B weighting' filter ⇒ dip switch 2 ON (1&3 OFF)
- 'C weighting' filter ⇒ dip switch 3 ON (1&2 OFF)

Factory setting: 'A weighting' filter.

TO CHANGE AMPLIFIER GAIN

Use dip switch 4 as follow:

- +20 dB gain ⇒ dip switch 4 ON
- 0 dB gain ⇒ dip switch 4 OFF

Factory setting: +20 dB gain.

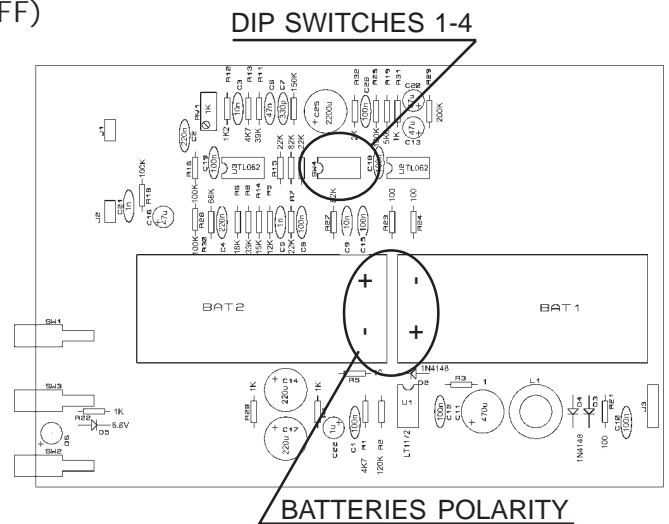


Fig.1 Internal settings.

For More Information



VIA MANFREDI 12 - 50136 FIRENZE -ITALY
 TEL : +39-0556599036- FAX : +39-0556503772
 E-MAIL: info@audiomatica.com
 INTERNET: www.audiomatica.com

CLIO

ELECTRICAL & ACOUSTICAL TESTS