CLIO

ELECTRICAL & ACOUSTICAL TESTS

SUPPLY, FILTER & GAIN UNIT

PRE33A

OPERATING MANUAL

PRODUCT DESCRIPTION

The supply, filter & gain unit PRE-33A has been designed to match Aco Pacific's microphone capsule 7012 (and relative preamplifier 4012) and is needed to operate it. The PRE-33A powers the microphone connected to its input with a 200V phantom supply and adds a selectable weighting filter (A or B or C); also available there is a configurable attenuation/gain stage (-20dB/0dB/+20dB). The unit is operated with two standard 9V batteries or with an external DC power supply.

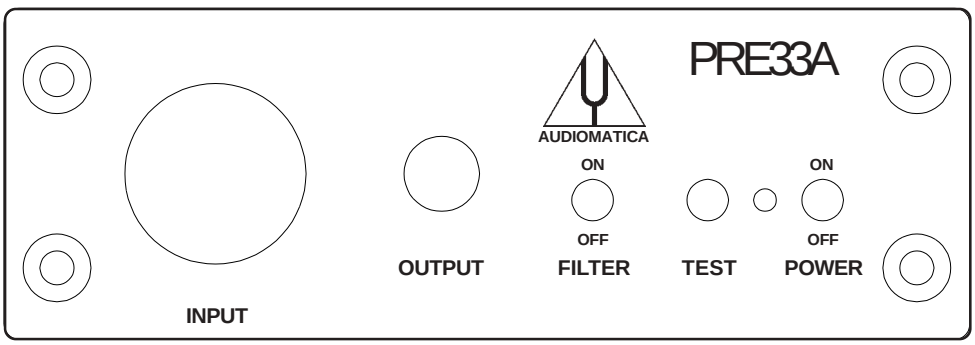
TECHNICAL SPECIFICATIONS

FREQUENCY RESPONSE:	7Hz÷110kHz (-3dB)	MAXIMUM OUTPUT VOLTAGE (@1kHz):	25Vpp
WEIGHTING FILTERS:	A, B, C (IEC 651 - TYPE I)	THD (@1kHz):	0.01%
PHANTOM POWER SUPPLY:	200,28,0V	INPUT NOISE (@20dB gain):	5uV(LIN),3uV(A)
PREAMPLIFIER POWER SUPPLY:	50V	DRIVE CAPABILITY:	±7mA
ATTENUATION/GAIN :	-20,0,+20dB	BATTERIES DURATION:	3h (alkaline cells)
INPUT IMPEDANCE:	100 KOhm	SIZE:	12.5x19x5cm
OUTPUT IMPEDANCE:	100 Ohm	WEIGHT:	900g

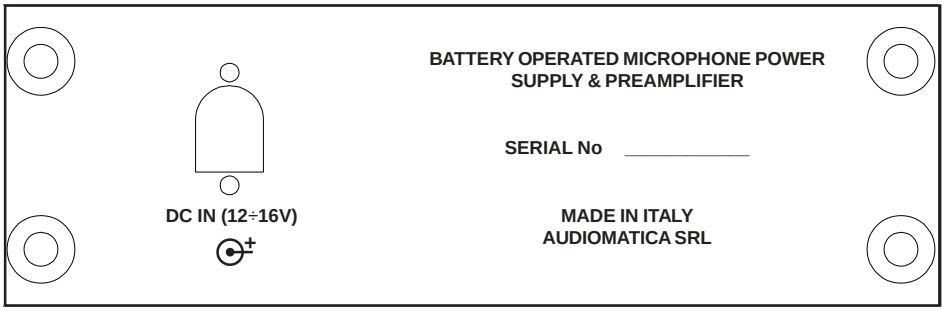
USE OF THE PREAMPLIFIER

The 7012/4012 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 weigthing filter. To choose the desired weighting filter type and to set the amplifier attenuation/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 you get a sensitivity of 171 mV/Pa. If the -20 dB attenuation stage is inserted the overall sensitivity is 10 times lower: in the example above your microphone +pre would have a sensitivity of 1.71 mV/Pa.



PRE-33A front panel.



PRE-33A 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 three jumpers and the batteries are located. Please have Figure1 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 WEIGTHING FILTER

Use the filter jumper as in Figure 1.
Factory setting: 'A weighting' filter.

TO CHANGE AMPLIFIER GAIN

Use the gain jumper as in Figure 1.
Factory setting: 0 dB gain.

TO CHANGE PHANTOM POWER SUPPLY

Use the phantom jumper as in Figure 1.
Factory setting: +200 V.

INPUT CONNECTOR (XLR 5-POLES)

Pin 1 - Ground
Pin 2 - N.C.
Pin 3 - Polarization Voltage (200,28,0V)
Pin 4 - 50V Supply
Pin 5 - Signal Input

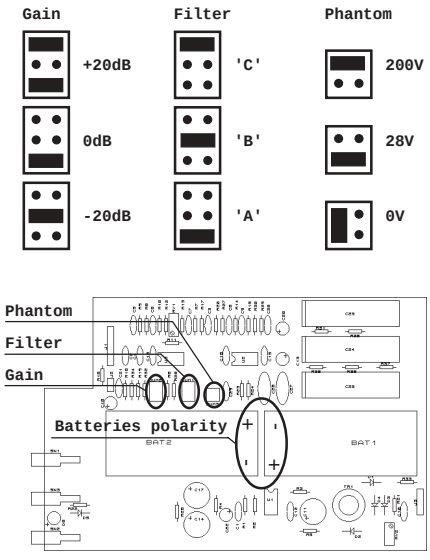


Fig.1 Internal settings.

For More Information ....

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