

PA-13

PREAMPLIFIER for polarised MICROPHONE

USER'S MANUAL



ENGLISH

CONTENIDO

| | |
|--|---|
| 1. GENERAL DESCRIPTION..... | 2 |
| 2. PARTS | 2 |
| 3. USES..... | 4 |
| 4. CONNECTION | 4 |
| 5. FITTING THE PREAMPLIFIER TO A TRIPOD..... | 4 |
| 6. PRECAUTIONS | 5 |
| 7. TECHNICAL SPECIFICATIONS..... | 6 |
| 8. ACCESORIES..... | 7 |
| 9. STANDARD..... | 8 |

1. GENERAL DESCRIPTION

The **CESVA PA-13** is a robust small preamplifier, designed to condition ½" polarized microphones as the **CESVA C-130** model. It is also compatible with other makes of microphones.

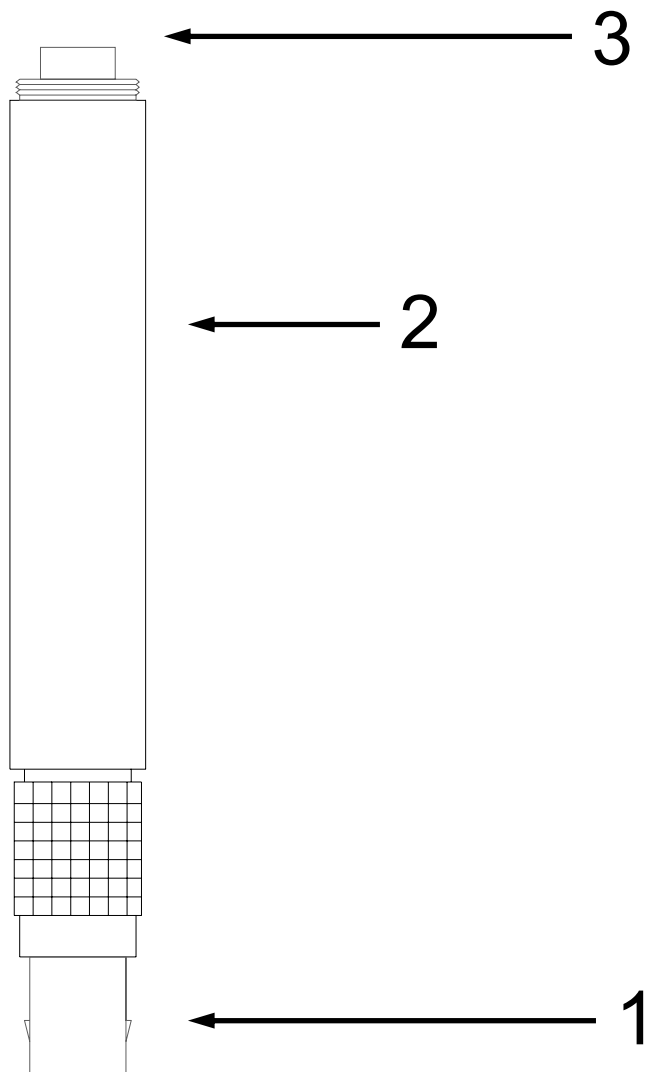
By virtue of its wide frequency response and low noise level, the PA-13 is ideal for precision applications.

Because of its low output impedance the PA-13 allows to use long cables. The PA-13 has a high input impedance that makes the microphone not to charge.

The **PA-13** preamplifier together with the **C-130** 200 V polarised condenser microphone are the perfect solution for multi channel systems.

2. PARTS

1. **Output connector.** 7-pin LEMO connector for the connection of the preamplifier.
2. **Preamplifier body,** Preamplifier housing where the model and the serial number of the preamplifier are indicated.
3. **Thread of the microphone,** thread for the connection of the ½" polarized microphone (**CESVA C-130**).



3. USES

- Acoustic precision measurement with ½" polarized microphones.
- The general use of the PA-13 is conditioning the signal from ½" microphones with a high input impedance and delivering this signal with a low output impedance for connecting to conditioning amplifiers or analysers.
- Multi Channel Systems

4. CONNECTION

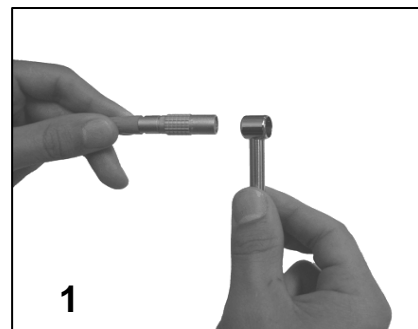
1. Screw the microphone to the preamplifier. Do not screw and unscrew the microphone with the preamplifier feed it.
2. Connect the preamplifier to an equipment with a LEMO connector (make sure that the equipment is compatible with the pins and with the supply range of the preamplifier) through a cable male LEMO- female LEMO. Make sure that the connector is correctly inserted.

5. FITTING THE PREAMPLIFIER TO A TRIPOD

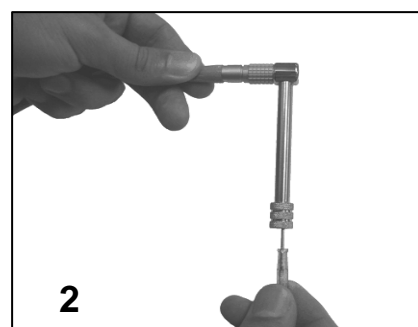
To adapt the preamplifier to a tripod , you should use the TR-001 adapter to fix the preamplifier+microphone to the TR-40 tripod, thereby, the preamplifier will be perfectly fitted to the tripod.

To do it, please follow the next steps:

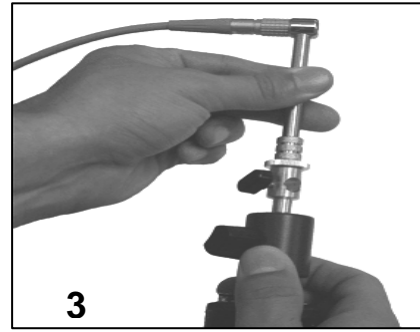
- 1- Put the LEMO socket of the extension cable through the TR-001.



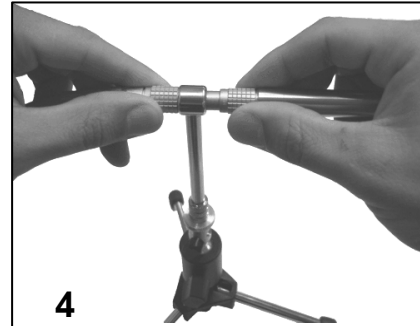
- 2- Fix it to the adapter with a screwdriver.



- 3- Screw the adapter into the tripod (the adapter thread is Whitworth ¼")



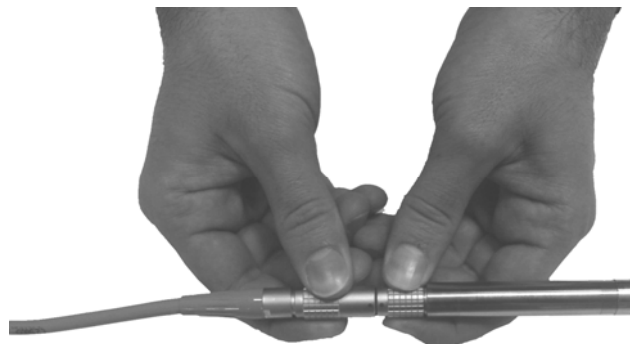
- 4- Plug the preamplifier. Make sure the slit of both LEMO connectors fits.



6. PRECAUTIONS

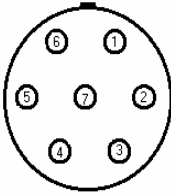
When using the PA-13, be careful with the next points:

- To screw or unscrew the microphone into position use only your hands (no tools). Do not do it while the PA-13 is feeding it.
- This equipment only can work with the accessories mentioned in the accessories section. In case that using a different accessories and that this causes a failure in the equipment, **CESVA** would not be responsible of this failure. Then the equipment will lose its warranty.
- When connecting and disconnecting the LEMO-LEMO cable, do it by holding the preamplifier by the connector never by the cable, as it is shown in the next figure.



7. TECHNICAL SPECIFICATIONS

| Technical specifications | |
|---|--|
| Attenuation (typical) | 0.12 dB |
| Frequency response (1 Vpp): | 1Hz – 900 kHz \pm 0.5 dB 0.5 Hz -1 MHz \pm 3 dB |
| Input impedance (typical) | 10 G Ω 3 pF |
| Output impedance: | < 25 Ω |
| Supply range (Vcc): | 12 - 30 Vdc |
| Polarization voltage (Vpol): | < 240 Vdc |
| Maximum output voltage (peak to peak): | 20 V |
| Maximum output current (peak to peak): | 2.8 mA |
| Slew rate: | 1.2 V/ μ s |
| Phase response: 20 Hz to 20 kHz: 3 Hz to 500 kHz: (without charge and Cm =20 pF) | \pm 2.6 $^{\circ}$ -15 to +5 $^{\circ}$ |
| Current consumption: | 2 mA |
| Electric noise: With prove microphone of 20 pF: A: Lin (20 Hz-20 kHz): With prove microphone of 56 pF: A: Li0 n (20 Hz-2kHz): | <2.6 μ V <14.8 μ V <1.6 μ V <10 μ V |
| Temperature range: Operation: Storage: | -10 to +50 $^{\circ}$ C -20 to +70 $^{\circ}$ C |
| Relative humidity: Operation: Storage: | 0 a 90 % 0 a 95 % |

| | |
|---|--|
| Type of connector: | LEMO 7 pins FGGIB307CNAD62 |
| Pin connection (pin front view): |  <ul style="list-style-type: none"> 1: Without connection 2: Microphone plateholder 3: Vpol 4: Signal 5: Vcc 6: Without connection 7: GND |
| Type of microphone: | ½" polarised (CESVA C-130) |
| Length of the extension cable available: | 3,10 and 30 m |
| Dimensions: | Length: 97.2 mm Diameter: 12.7 mm |
| Weight: | 40 g |
| Observation: All the characteristics have been measured feeding the preamplifier with a 28 V voltage | |

8. ACCESSORIES

Supplied accessories

| |
|--------------------|
| Transportation box |
|--------------------|

Optional accessories

| | |
|---------|---|
| CN-003 | LEMO-LEMO 3 m extension cable |
| CN-010 | LEMO-LEMO 10 m extension cable |
| CN-030 | LEMO-LEMO 30 m extension cable |
| PVM05 | Windscreen |
| C-130 | Polarised microphone |
| CB-5 | Acoustic calibrator |
| TR-001 | Tripod adapter |
| TR-40 | Tripod |
| TK-1000 | Environmental kit (tripod, dehumifier, preamplifier protector and microphone against rain wind and birds) |
| FC-822 | 8 channel power supply and conditioning amplifier |

9. STANDARD

Normas

CESVA instruments S.L. as manufacturer of electric or electronic equipment gives notice that the product you have purchased was put on the market later than 13 August 2005 and complies with 2002/96/CE and 2003/108/CE directives on Waste from Electrical and Electronic Equipment (WEEE).



In addition, the product is marked with the following symbol, which indicates that it is subject to separate collection.

CESVA *instruments, s.l.*

Villar, 20, bajos – 08041 BARCELONA (ESPAÑA)

Tel. (+34) 934 335 240 – FAX (+34) 933 479 310

e-mail: info@cesva.com

www.cesva.com

CESVA *instruments, s.l.* Reserves the right to modify the characteristics
and accessories of this manual without prior notice.