

The following procedure defines the processes required to perform the alignment of the “Pico” correctly.

The procedure described below should only be performed on Pico units that have been PAT tested, and declared safe for subsequent use. This status is confirmed by affixing a printed PAT report, with wide transparent tape to the underside of the Pico.

The following pieces of equipment, and cables will be required.

- 1) Audio oscillator with dual, balanced OP, and associated PHASE reversal switch on one channel only.
  - 2) Precision audio meter capable of measuring audio levels to 0.1dB, or better.
  - 3) 4 off, XLR3 male to female cables.
  - 4) A second Pico, with audio A1 & A2 input wiring phase confirmed as correct.
- A) Using an “XLR3-F to XLR3-M” lead, connect the Audio Meter to output 1 of the Audio oscillator, and then to output 2. Both outputs of the oscillator should be producing an identical output level, which must be adjusted to generate 0dBu *precisely*, “ie an output of 0.775V RMS).

This 0dBu is the standard reference level from which ALL other measurements are made, as a positive or negative offset. **Correct setting, and maintenance, of this level is VITAL.**

- B) Connect the two outputs of the audio oscillator to the two female XLR3s on the Pico rear panel. Ensure that the PHASE reversal switch on the generator is in the “normal” (non-inverted) condition.
- C) Ensure that the Audio Oscillator is set to “SINE”, and generating 1Khz, nominal.

All adjustments that require accurate meter setting MUST be performed with “normal” viewing, to remove any possible parallax error. A small mirror may be found useful to assist with obtaining a convenient viewing angle.

- D) With no power applied to the Pico, check that the mechanical zero of the two meters are correct. Any pointer alignment error is corrected by adjustment of the nylon screw on the respective meter rear.

E) Apply mains power and, whilst the electronics are stabilising (allow 5 minutes before making any adjustment) check that the white LEDs are all illuminated, and that the scale illumination is reasonably consistent with no obvious hot spots. Correct any LED misalignment before proceeding. Do NOT be tempted to adjust the LED’s positioning with power applied, it will be very easy to short circuit the LED leads to the case and to destroy them.

- F) Check that the PHASE LED is extinguished when no signal is applied to either input, ie “stereo silence”.

G) REMOVE test link “LK1” at the front of the main board and adjust the 2 individual meter sensitivity controls R47 and R48 to give a deflection of exactly “4” on each meter. Replace the link “LK1”. Note the PICO generates an *internal* calibration signal for this particular parameter, and NO EXTERNAL INPUT SIGNALS ARE REQUIRED. Be aware that this is **NOT** the procedure for setting PICO gain.



