

## Installation of the PCB into the lid.

### See drill sketches.

- Install the switches into their holes in the lid, with the nuts loosely fixed.
- Put the LED wires into the PCB. Do not solder them yet.
- Shift the BNC bus into its hole, while shifting the PCB over the switch pins.
- Then shift the LED into its hole in the lid.
- Fasten the nut of the BNC bus. The house of the BNC bus has to rest against the inside of the lid front.
- Check the correct position of the PCB.

REM : As the BNC bus has to rest to the lid internal surface, the body-width of the BNCbus will set the distance between the PCB and the lid.

**There should now be a little space between the base of the switches and the PCB.**

- Solder the switches and the LED on the component side of the PCB. Cut excess LED wires.
- Solder the meter wires and the battery wires to the PCB.
- Prevent broken wires. Glue the wires (with thermal glue) at the solder points to the PCB.

## Functional check.

As this instrument does measure the **real rms value** of the wave form presented to it :

1. A square wave signal will give a *higher* indication than a sine wave signal with the same amplitude.
2. A triangle wave signal will give a *lower* indication than a sine wave with the same amplitude.

**For checking its performance, a sine wave signal with a known amplitude is presented to the 50 Ohms BNC bus as follows :**

- Insert batteries.
  - Put some soft foam plastic between the meter and the battery holder.
  - Close the box.
  - Set s2 into position "UNsensitive" (0dB)..
  - Inject a 0.442 Vrms **sine wave** signal to the 50 Ohms BNCbus. The meter should indicate "+6".
  - Set s2 into position "Sensitive" (-20dB).
  - Inject a 44.2 mVrms **sine wave** signal to the 50 Ohms BNCbus. Again, the meter should indicate "+6".
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