

Soldering

I designed the little PCB with longer solder pads. It makes heating the solder pads easier, preventing over heating components.

The two miniature switches are chosen for small size and small price. They have a pin pitch of 4,12mm. Switches with 5mm pin pitch will not fit into the PCB.

Do not solder the BNCbus, the two switches and the LED yet. They will be soldered later on.

Warning :

Prevent problems. **BE SURE that you solder a component with the correct values.**

- **SMD capacitors** have NO value printed on them. You have to trust the value mentioned on their packaging.
- Check the printed value on every **SMD resistor**, or measure it.

Solder IC1 as last, and then take ant-static measures.

I found the following solder strategy practical :

- First pre-tin the component soldering islands on the PCB.
- Remove excess solder using a de-soldering wick. Remove the wick before the solder hardens

For each component, one soldering island will be used to pre-fix the component before definitive soldering. This island should contain a bit more solder.

- Place the component and quickly flow one contact to the PCB to pre-fix its position.
- Check the correct position and correct it if needed.
- First solder the other contact.
- As last solder the first contact.

- Inspect solder quality using a magnifier glass.

Pin1 of IC1 is marked with a dot in a corner. Its legs are bend towards the PCB.

- Place IC1 and pre-fixed by soldering pin4 only.
- Check the correct position of IC1 using a magnifying glass.
- Then use a hot iron (350C) and a short, medium sized, solder tip. Tin the tip.
- QUICKLY overflow pins 1-3 with solder.
- Let cool down well.
- QUICKLY overflow pins 4-6 with solder.
- Let cool down well.
- QUICKLY remove excess solder from pins 1-3 using a piece of fresh de-solder wick.
- Let cool down well.
- QUICKLY remove excess solder from pins 4-6 using a piece of fresh de-solder wick.
- Let cool down well.
- Solder the BNC bus ***flat*** onto the **TOP** (non-component) side of the PCB.