

# UniPulse TR808 Installation Instructions

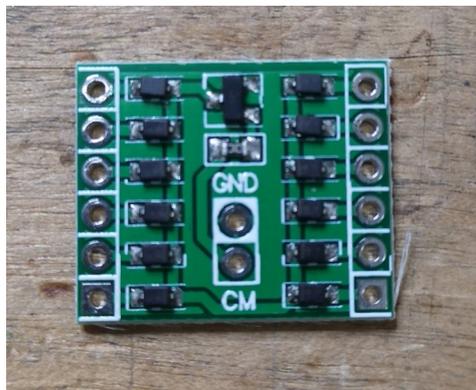
This is the instruction manual for installing uniPulse in a roland TR-808.

It adds the following features:

- Midi trigger of all instruments
- All instruments are fully velocity sensitive
- 5 Bonus sounds can be triggered as well
- Sync to midi clock, you can still use DIN-sync of course

Installation is fairly easy. It is not necessary to cut any traces on the board. The installation is completely reversible. The installation requires to solder some wires to the board and to desolder two wires from the exististing DIN socket.

Make sure you ordered the correct UniPulse version. The TR808 comes with an additional board you will need for the installation plus 11 grey extra cables and two resistors.

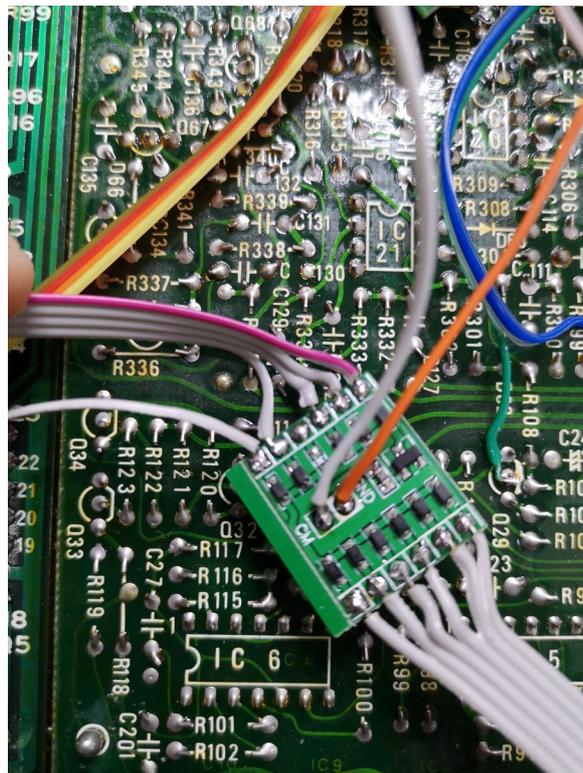


The additional board looks like shown above.

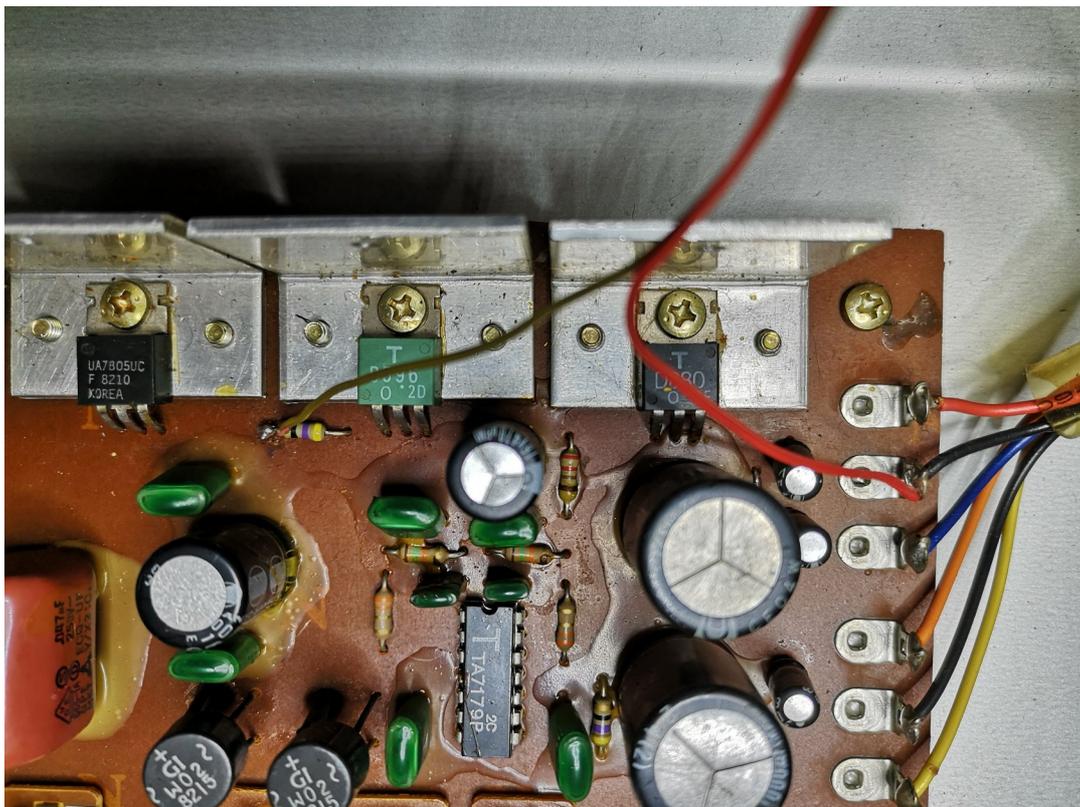
Start with soldering the **11 grey cables** to the white squared boxes. These are the inhibitor cables that will need to be connected to the inhibitor points on the TR808 later.

Now solder the **orange GND** cable from the UniPulse to the GND pad on the inhibitor board. Next solder the **white D1** cable from the UniPulse to the CM pin on the inhibitor board.

It should look something like this.



Now you can solder the power and GND connection for the UniPulse.

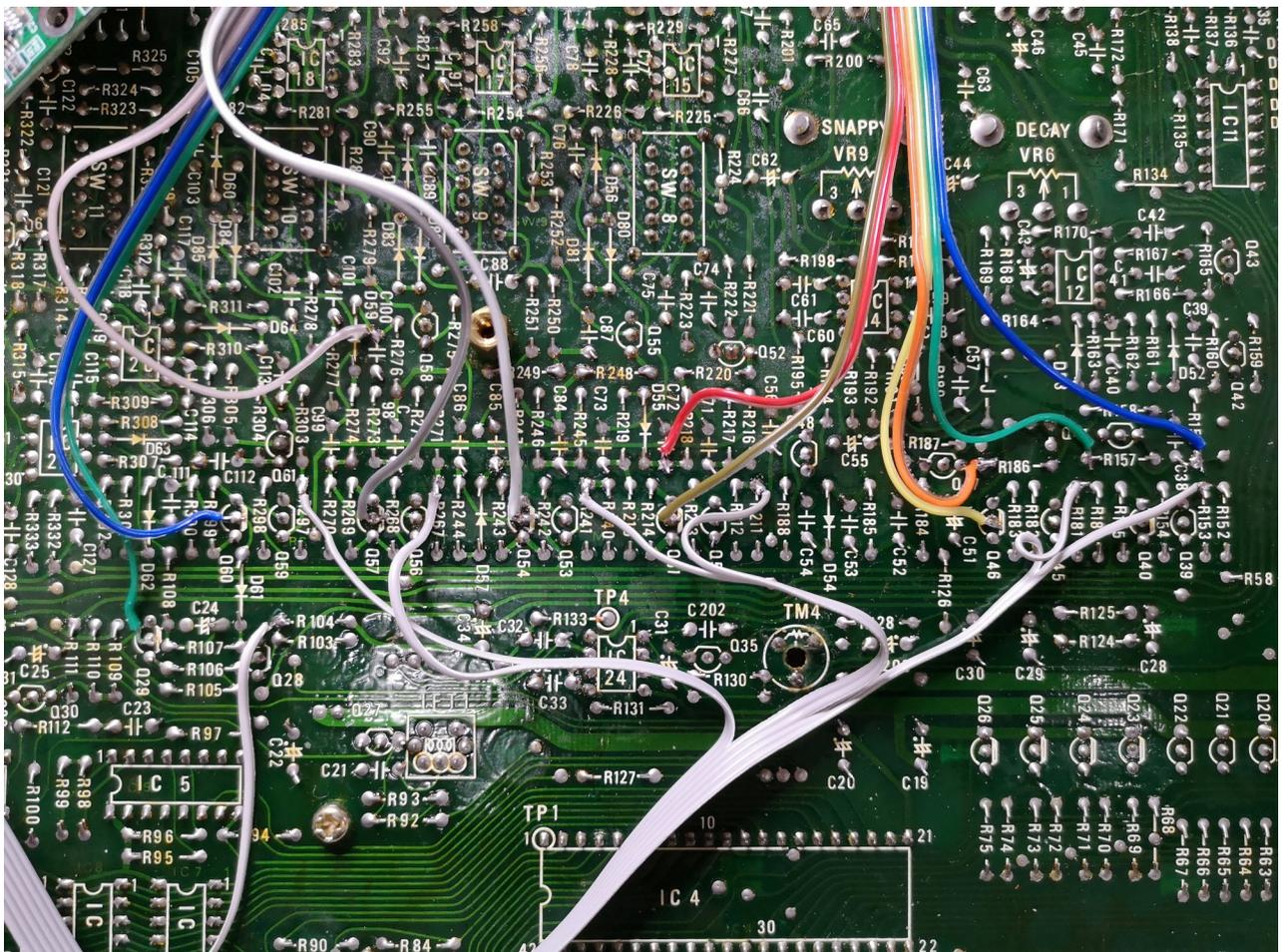


Connect the **brown V-In** cable to the left side of the resistor, like shown in the photo. The **red GND** cable goes to the black cable on the right side as you can see in the picture.

Next you can solder the trigger cables from the UniPulse and the inhibitor cables from the inhibitor board to your beloved TR808. Download the PDF that contains the TR808 boardlayout and the solder points for the UniPulse Trigger cables. That makes it easy to see where all the cables should be soldered.

The red squared boxes that are labelled P1 to P16 refer to the P1 to P16 trigger cables coming from the UniPulse. The blue squared boxes are the pins where a cable from the inhibitor board needs to be soldered. For the inhibitor cables it doesn't matter in what order you solder them.

Attached are some photos of how it should look when you are done with that.





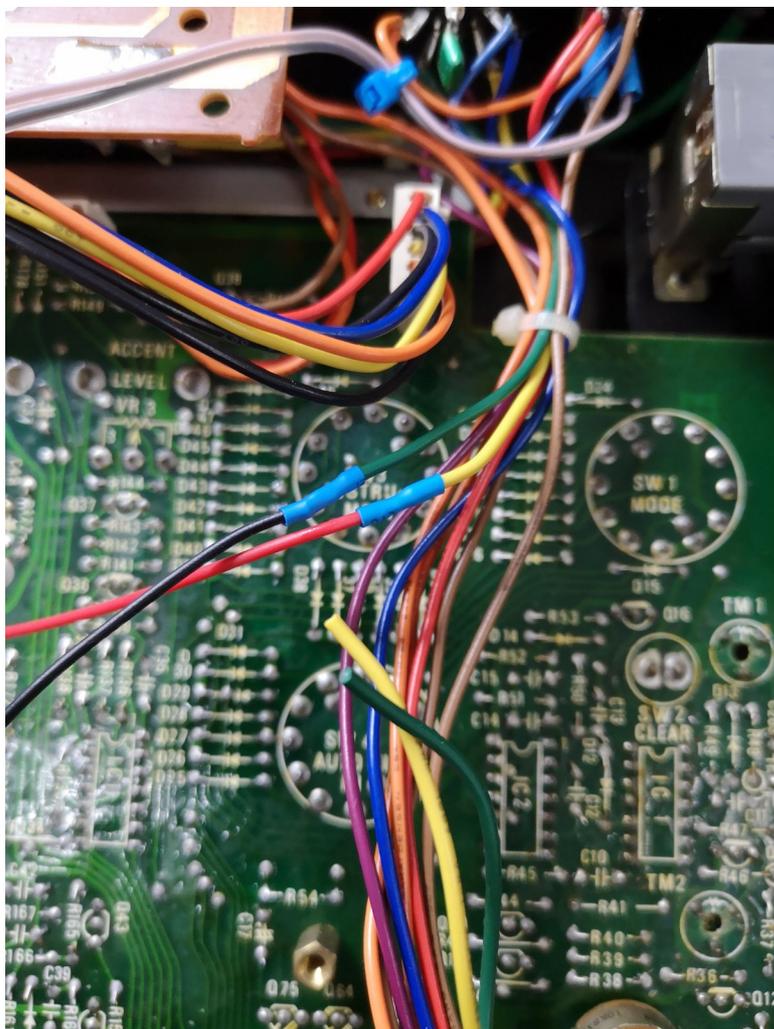
Now you have to decide if you want to drill an extra hole for the MIDI socket or if you want to use the existing DIN Sync socket. If you choose the first option, you will have a MIDI-Clock to DIN-Sync converter as an extra feature. If you choose the second option, you can still get the DIN-Sync signal, but you will have to use a Y-Cable to split the signals on the DIN-Socket. Nevertheless you will lose the Fill-In and Tap signal that would normally be present on the DIN-Socket.

If you go for the first option, drill a hole for the MIDI socket and connect the cable from the MIDI socket to the UniPulse.

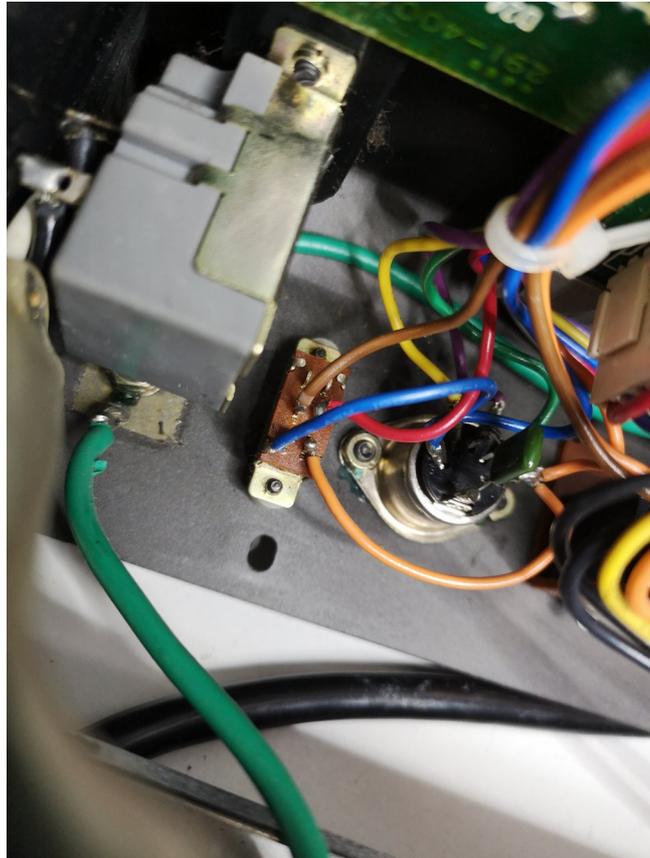
We chose the second option as it is easier and doesn't involve hurting our TR808.

First cut off the socket coming with the UniPulse from the wires.

Now you have the red and black cable with connector without the MIDI socket. Next find the **yellow** and **green** cable that runs from the DIN-Socket to one of the connectors on the TR808 board. See the picture if you are not sure which one it is. Cut the two cables and solder the **black** cable to the **green** one that goes to the DIN-socket. Do the same for the **red** and **yellow** cables. Make sure the loose ends coming from the TR808 board are isolated.

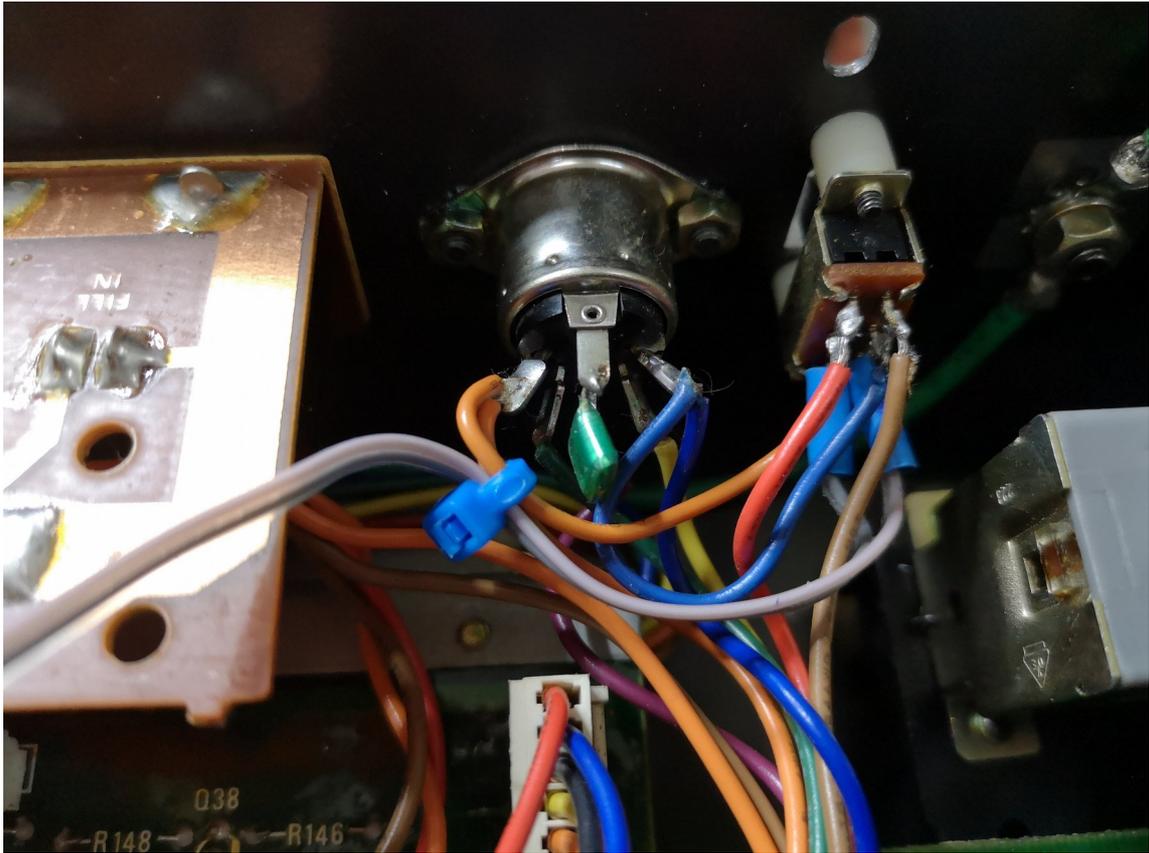


Next check the switch for internal or external sync. On some TR808s the cables are soldered differently. The short cables that go to the DIN-Socket need to be in the middle of the switch. On the picture you can see a TR808 that has the cables „wrong“. So these need to be changed from the outer pins of the switch to the middle pins.

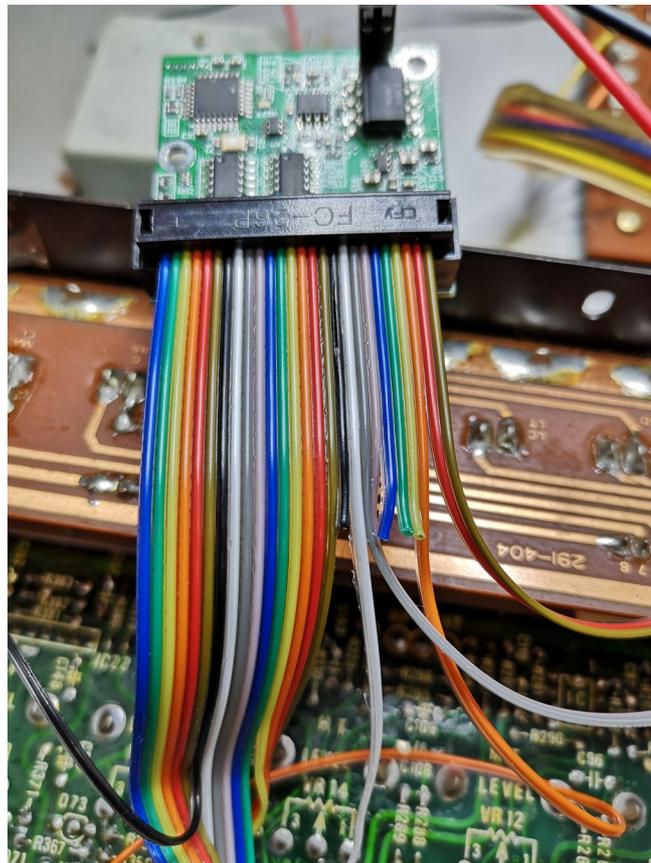


For this TR808 it would mean that the orange cable needs to be switched with the red one and the blue cable with the brown one.

When you have done that, take the two resistors that were provided with the kit and solder one end to one of the free pins. Do the same for the other resistor and switch pin. Now the **violet D3** cable from the UniPulse has to be soldered to the other end of the resistor that is underneath the **brown** cable. The **grey D2** cable from the UniPulse goes to the other resistor. In the picture you don't see the resistors as we cut the cables in the middle to put the resistors there, so it is easier for us to experiment with the correct value.



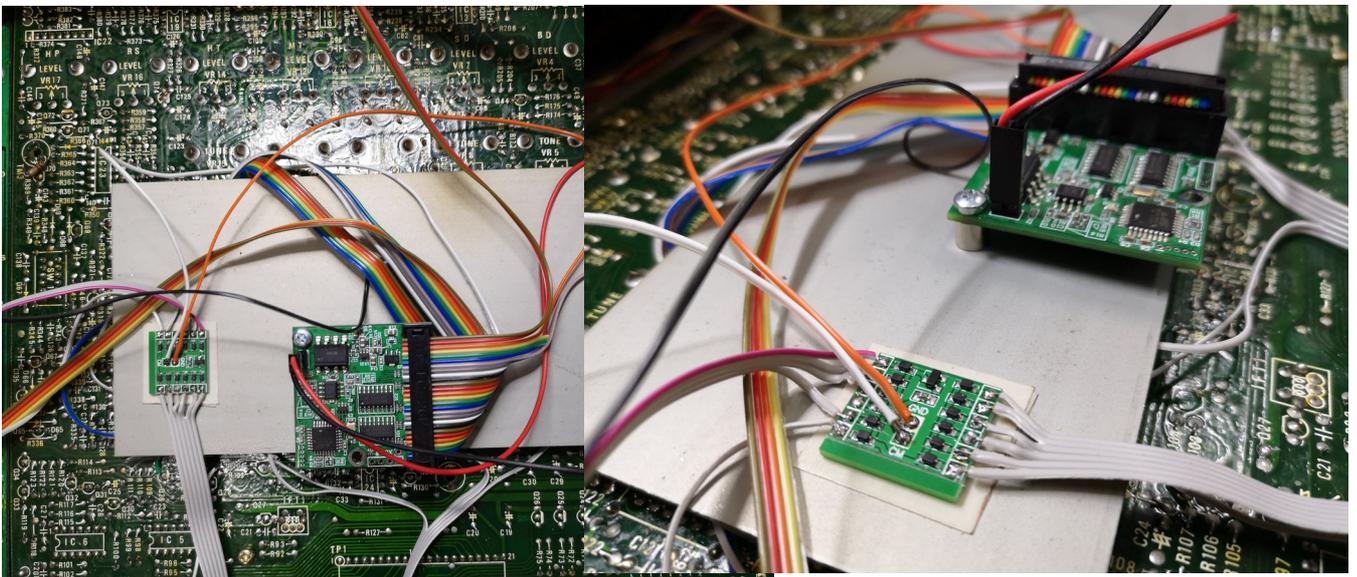
You are almost finished now. There now should be only 4 cables unused. You can cut them and make sure they are isolated.



Now it is time to place the UniPulse and the Inhibitor board somewhere safe where it doesn't touch anything.

The best location would be on top of the metal protection cover. **But if you place the UniPulse there, make sure you place it the same way we did, as otherwise the big capacitors from the powersupply will touch it.**

For the inhibitor board we just used a double layer of double sided tape. Feel free to use something else, as long as it is still isolated from the metal. For the UniPulse we used a little stand off. If you like you can also use some thick paper or plastic for isolation. Screw the UniPulse to the location where the metal sheet was screwed before.



Now you can upload the config file to the UniPulse using the uniPulse configuration tool and enjoy the new sounds from your TR808.