# UniPulse TR606 Installation Instructions

Make sure you ordered the correct Unipulse version. The TR606-Version comes with an additional board and there should be a red wire attached to the UniPulse board and no Pin-Header Socket on the UniPulse (due to no space in the TR606 we had to get rid of it). That means you have to manually solder the cables to the pads of the UniPulse.

The assembled additional board should look something like this:
(You may receive a board with SMD-Parts instead of Through-Hole)
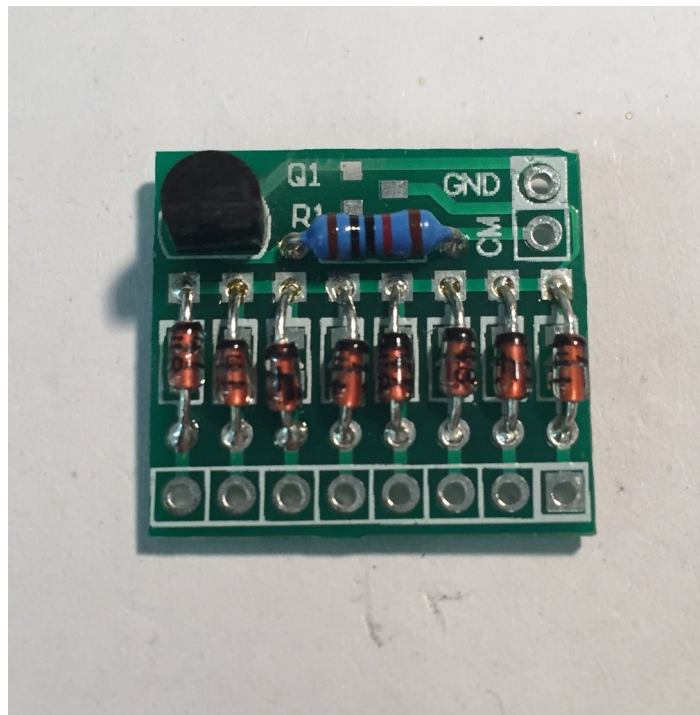

Before you start soldering, make sure that there are +5V on the 5V rail. So Either measure on the point where the 5V cable needs to be soldered to the UniPulse or on the cathode side (where the black ring is) of diode D45.
We had one perfectly working TR606 that has killed one of our UniPulses because it was giving out 8,9V instead of 5V.

Start with soldering some cables to the GND-Pin and 7 of the white squared pads. The D3 cable from the UniPulse will need to be connected to the CM-Pad. So solder one cable to the D3-Pad of the UniPulse and the other end to the CM-Pad.

Also solder the GND-Cable to a GND point on the TR606, this should be the same point where the GND connection of the UniPulse should go. In the Picture further down you will see the connection points.

When you have soldered the cables to the additional board it should now look like this (note, in the picture we soldered 8 cables to the right side, but only 7 are needed):
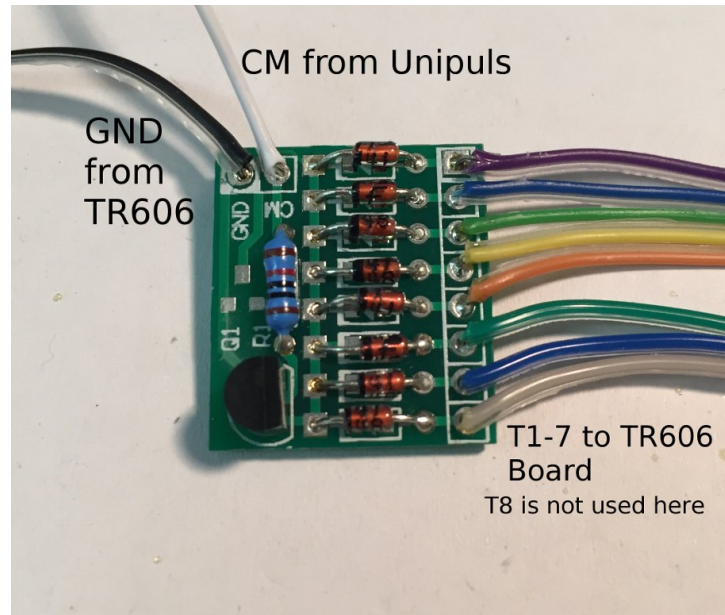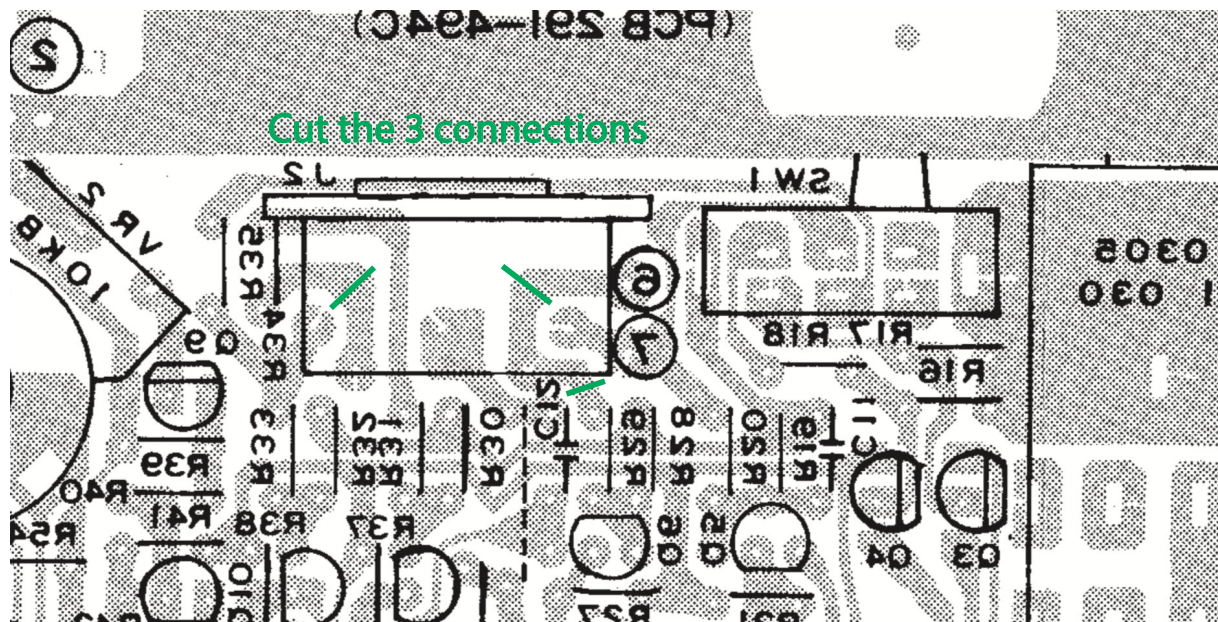

Now you can solder 13 cables to the P1 to P13 pads on the UniPulse. Additionally you need a cable connected to the GND-Pad and on to the +5V-Pad on the UniPulse. D3 should go to the additional board's CM-Pad. D1 and D2 on the UniPulse will be needed for Clock and Start/Stop. We will get to that later.
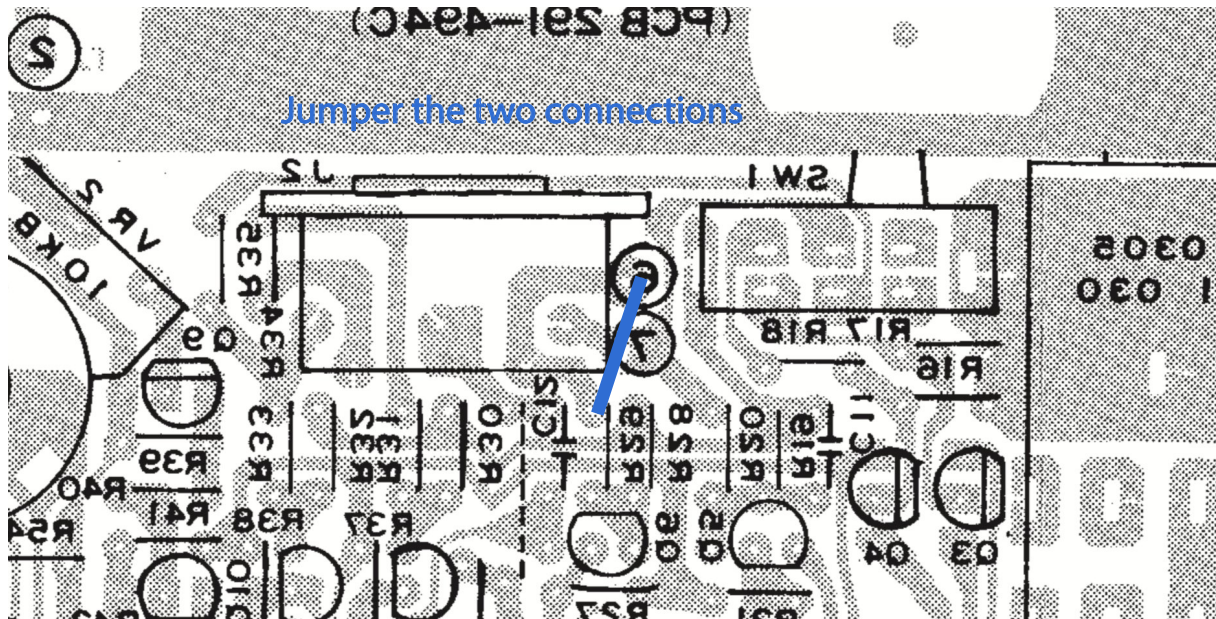
The following picture shows all trigger points coming from the UniPulse (marked with a red dot and labeled P1 thru p13) and the blue-ish rectangulars for the points from the additional board. The order here doesn't matter. This will also be available as PDF so you can zoom into it. (makes it a lot easier to see where the cables should go)

If you want MIDI-Control over the decay time of the hats and cymbal, yoou will need to solder a cable to the CV-Pad on the UniPulse. To the other end of the cable you need to solder a 10k resistor and the resistor will go to the point shown in the PDF.

Note the green labels on the left, there is the GND connection for the UniPulse and the additional board, the location where the +5V cable should go and the location where to solder the red cable coming from the UniPulse (the one that was already attached).

When you have connected all pads P1 to P13 from the UniPulse to the corresponding points on the TR606 and also the extra cables from the additional board, we can now solder the cables for the MIDI connection, Clock and Start/Stop.

If you want to connect MIDI over an additional MIDI-Socket you can skip parts of this.

Step 1:

You have to cut three traces on the TR606 mainboard.

Step 2:

Now you have to solder a little jumper wire to connect two points again. This is needed as the pin we will need for the MIDI connection is actually used for something else.

So you have to connect the point marked with the mirrored 6 with the pin that goes to R29:

Jumper the two connections

For a better oversight we don't show the cut connection again in the picture.

Step 3:
Now you can solder the two wires for the MIDI-Connection. These are the red and black cable that goes to the pinheader on one end. The Pinheader has a white mark on it. This white mark should look to the upside. For better oversight there is picture further down.

Connect RED MIDI wire   **Connect BLACK MIDI wire**
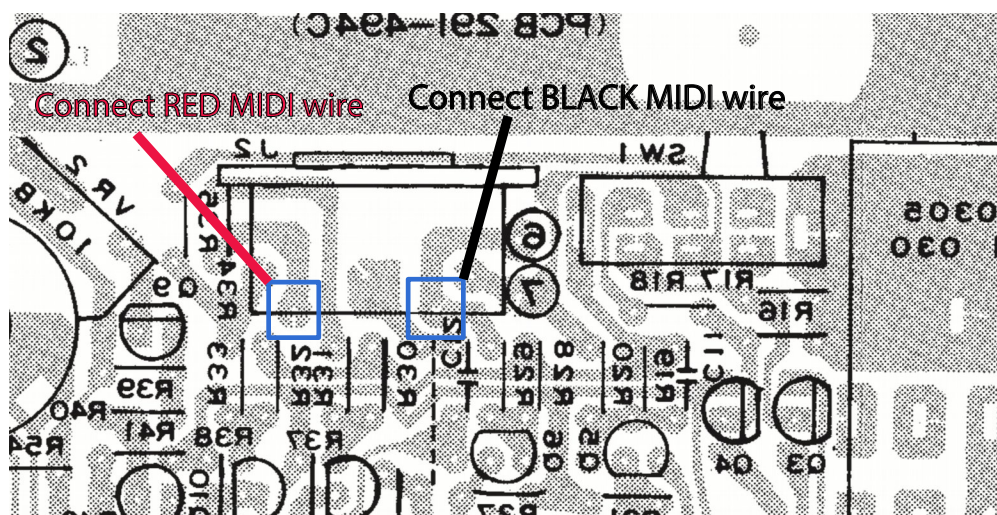
Make sure you connected the wires according to there color labelled in the picture.

For Clock and Start/Stop control you need two 47k resistors and you can proceed to

Step 4:

Attach two cables to D1 and D2 on the UniPulse and connect a 47k resistor to each end. The resistors than go to the two points shown in the picture above.

Now you only need to put the config file on the UniPulse and your are ready to rock!

We placed the additional board and the UniPulse each inside a little plastic bag and then put them between the mainboard and the switchboard. This way you can still use the battery compartment like before, and even run the TR-606 and UniPulse with batteries!

When everything is soldered, your TR606 should look something like this: