This ULU

The *ULU.40 Data switch* is a simple ULU that redirects 4-bit data to two different destinations or to none of them both.

Used parts

The following standard parts are used:
1x casing 50 x 25 x 25mm;
3x 4-bit data connector;
3x colored O-ring 8 x 5 x 1.5mm;

The following extra part is used
1x 4-pole ON-OFF-ON;

Construction

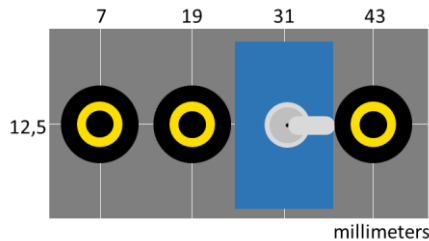The standard ULU specifications are applicable as specified in the datasheet *ULU.00 – Common specifications*.

Figure 1 – Drill guide

After the holes are drilled, a file is used to remove a bit of the casing to make the large switch fit.

It is a very simple circuit: all the corresponding pins of the three connectors are interconnected as shown in Figure 2. The data connector pins don't have to be soldered to the switch in a specific order, as long as each pin of the three connectors is soldered to the same row on the switch. Also, all the pins of one data connector must be soldered to the same column of the switch. Since it is a rocker switch, the pins opposite to the rocker are powered. Therefore, the wires must be crossed over, as shown in Figure 2.
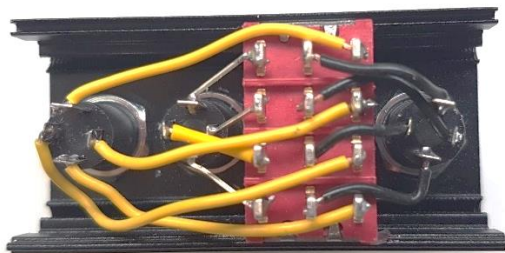

Figure 2 – ULU inside

Figure 3 – Finished ULU

Usage

This ULU can be used to redirect the data bus to two different destinations or to disconnect the input from both those destinations. It is the manual equivalent of *ULU.03 Dual relay/data switch* (Figure 5)
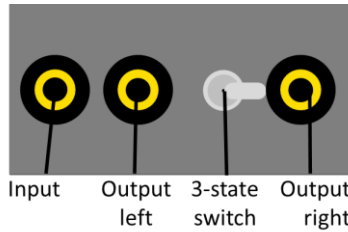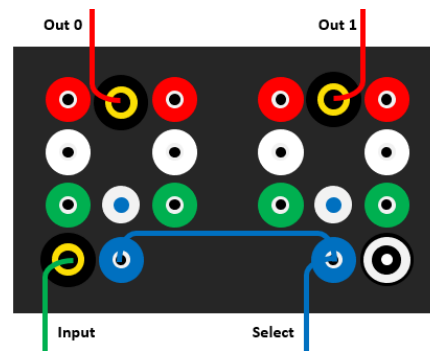
Figure 4 – Controls and connectors

Figure 5 – The relay equivalent