This ULU

The *ULU.15 Data bus* is used to interconnect up to 9 4-bit data buses. It can be used in three different configurations: 9 cable interconnections (for use as a data bus), a 6 and a 3-cable interconnection and three 3 cable interconnections. After specifying and building this ULU, I finally found a Y-splitter cable for sale that was able to who duplicate all four lines (see *ULU.00 Common specifications*). This cable makes this ULU obsolete.

Used parts

The following standard parts are used:
1x casing 50 x 25 x 25mm;
9x 4-bit data connector;
9x colored O-ring 8 x 5 x 1.5mm.

The following extra parts are used:
2x four pole, double throw switches

Construction

The standard ULU specifications are applicable as specified in the datasheet *ULU.00 Common specifications*. The circuit diagram is straight forward. The three vertical connectors are interconnected and connected to the switch. The middle column of connectors is connected to both switches. All the connectors are positioned in exact the same way:pin 3 to the top.

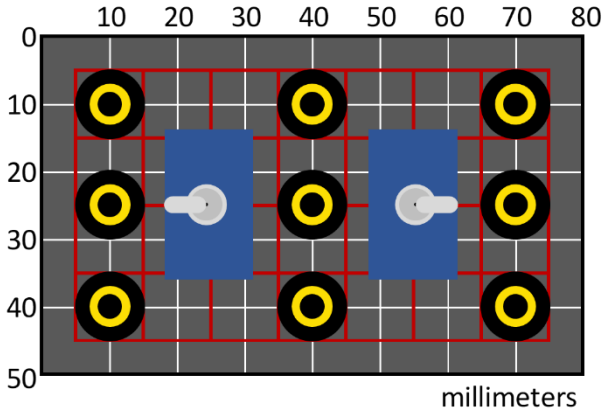

Figure 1 – Drill guide

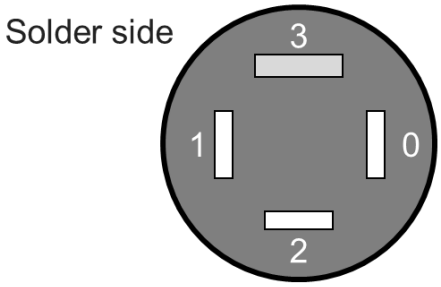

Figure 2 – Connector layout

Soldering is not that difficult, when the right order is applied. First the 1 and 0 connectors are interconnected by copper wire in a]-shape. Then the orange 2 wire is stripped on two places in the middle and both ends. It is soldered beneath the bare copper wire. After that the red wire is stripped and soldered in the same way. Finally the yellow and white wires are soldered.

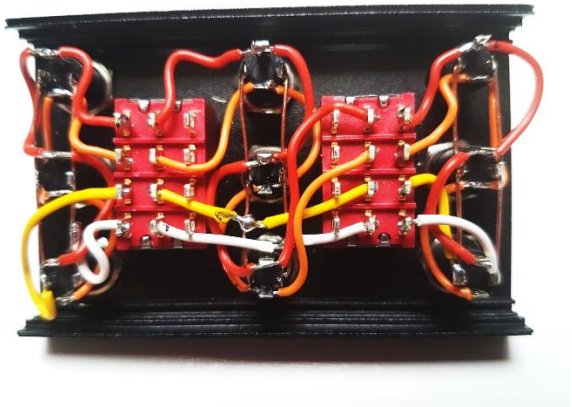

Figure 3 – ULU inside

Figure 4 – Finished ULU

Usage

This ULU can be used to create a data bus, or to make three separate Y-splits. It has the following possibilities:

1. Both switches set towards center: 9 connector data bus;
2. Left switch towards left and right switch towards center: 6 connector data bus (left part) and Y-connector (rightmost part);
3. Both switches set outward: three Y-splits.

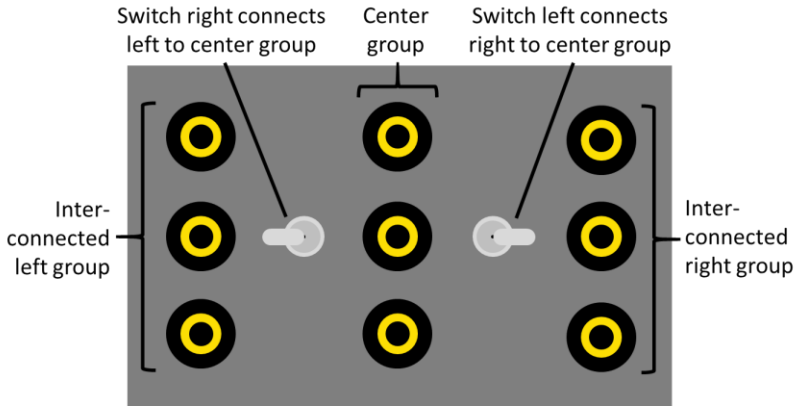

Figure 5 – Controls and connectors