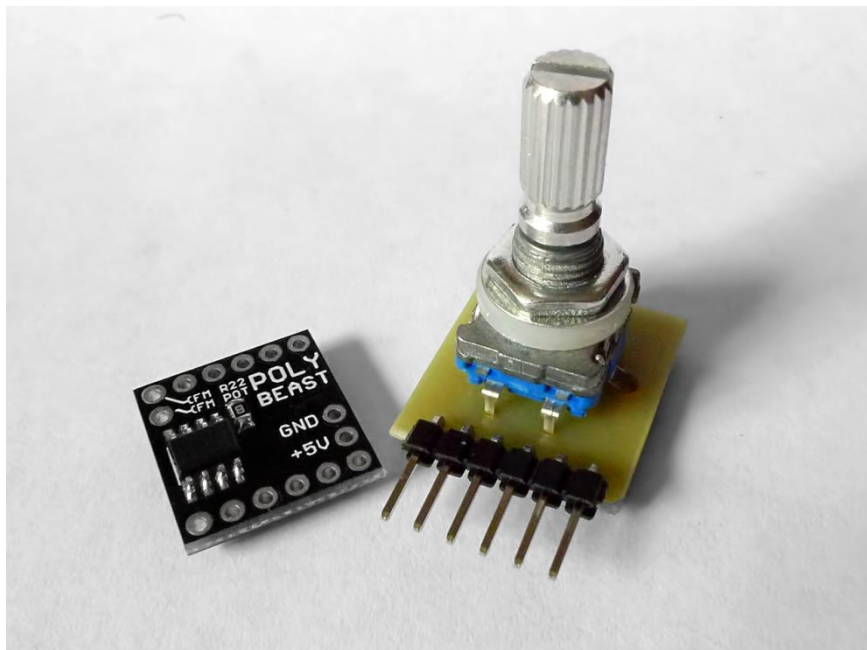


Korg Poly800 / EX800 Data Entry Knob Installation Guide:

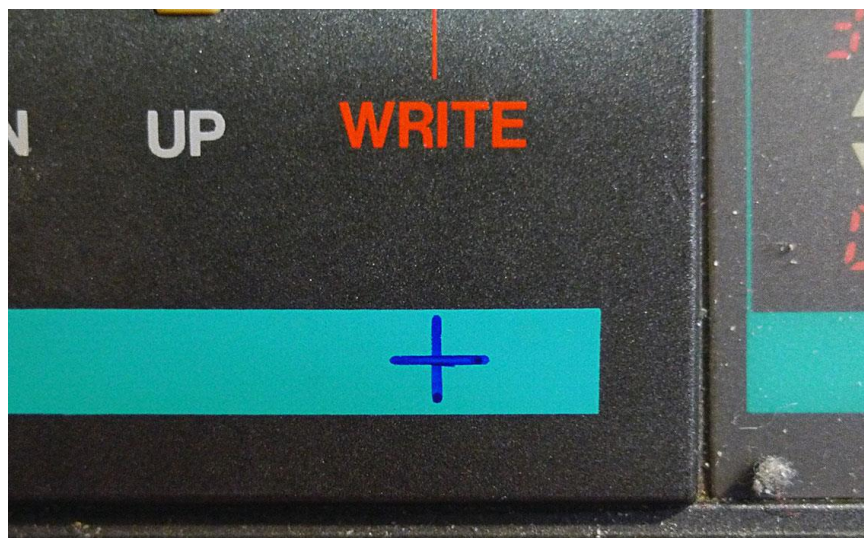
READ THE ENTIRE GUIDE BEFORE STARTING INSTALLATION

This guide details the data entry knob installation on both the Poly800 mkl and the mklI. The only difference is that the power wiring can be slightly different on the mkl.

In the kit you should have a small black Polybeast PCB, the encoder PCB, and a set of right angle pins as shown in the image below.

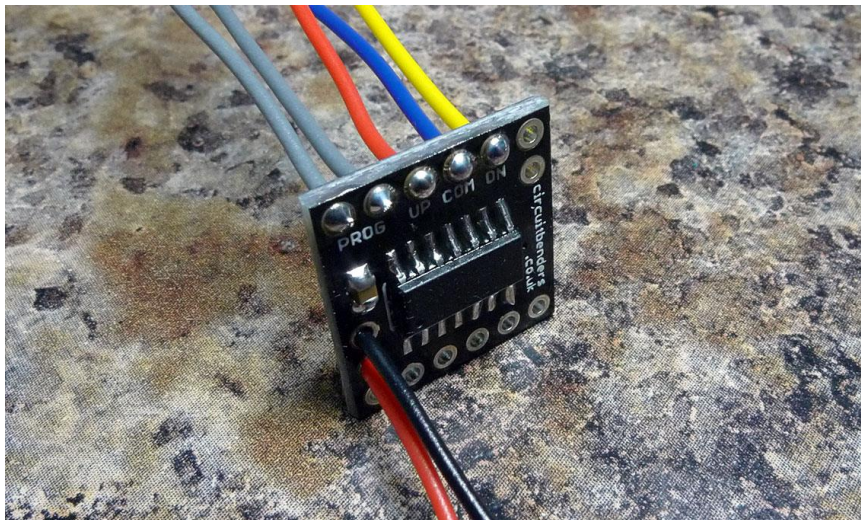
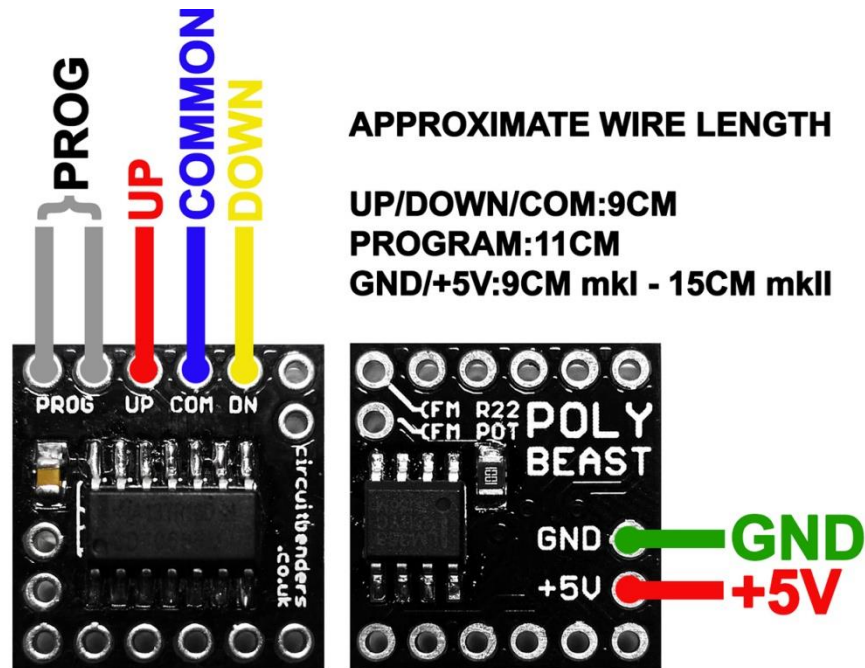


Please note, you can mount the knob wherever you want, but its a lot easier to solder the wiring to the Polybeast PCB before you solder it to the encoder PCB, so it would be a good idea to measure how long your wiring will have to be once you've decided on positioning, but before you solder anything together. If you mount the knob where we normally do as shown below, the recommended wiring lengths are shown later in the guide.



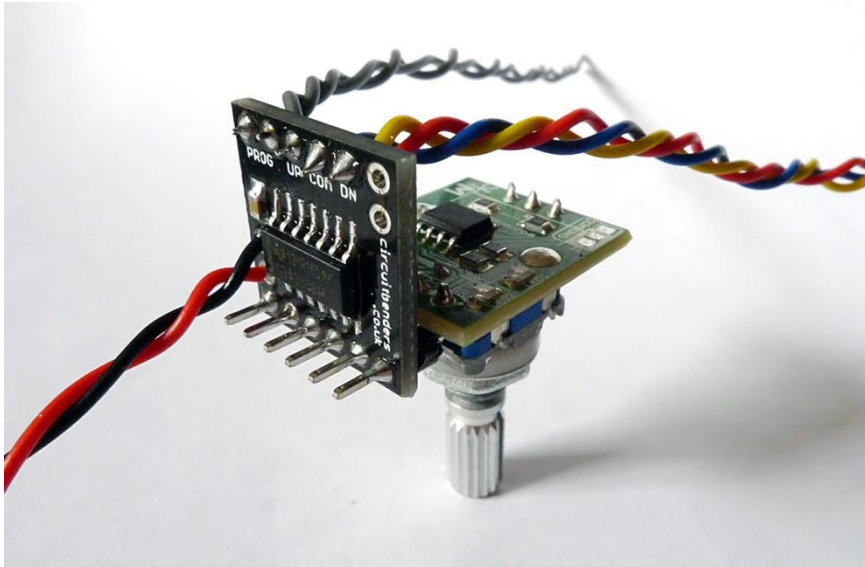
Drill the hole here to mount the knob in the recommended position. Line it up with the red line above 'WRITE', and exactly halfway across the blue bar. This should be as accurate as possible.

The first thing you need to do is solder the pins to the encoder board as shown in the first image on the previous page, and then solder the wiring to the Polybeast PCB as shown below.

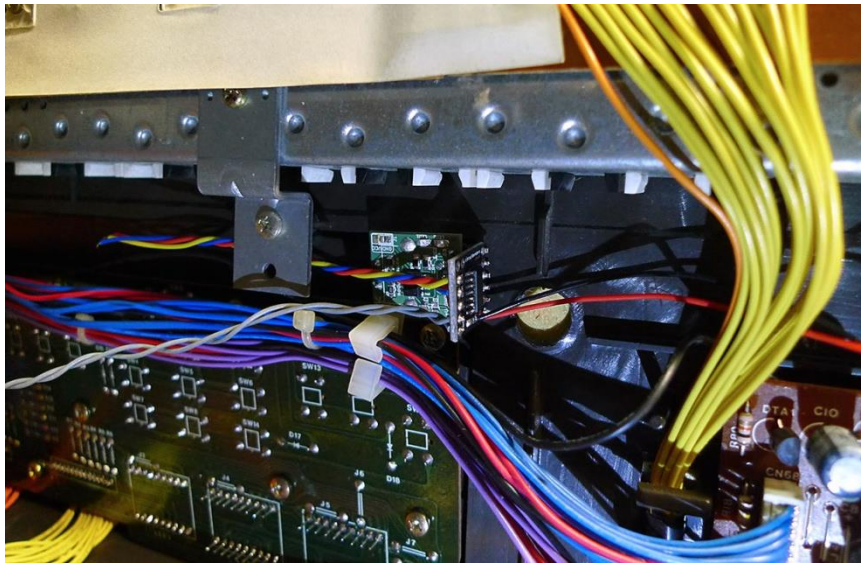


Unless you are installing this kit at the same time as the full Poly800 Polybeast mods, you can ignore the two extra header holes labelled 'FM R22' and 'FM POT'. You only want to be using the holes labelled +5v, GND, PROG, UP, COM, and DN.

Once you have these wires in place, you can solder the Polybeast PCB to the encoder PCB as shown on the image at the top of the next page. **Make sure that you have the Polybeast PCB the right way round!** The side with the POLY BEAST text should be pointing towards the encoder board, and the 'circuitbenders.co.uk' side should be facing away

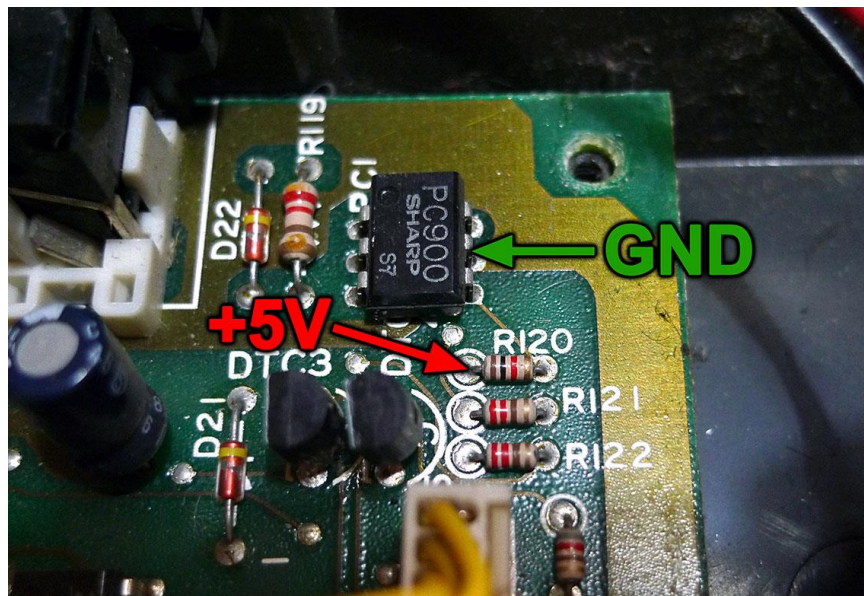
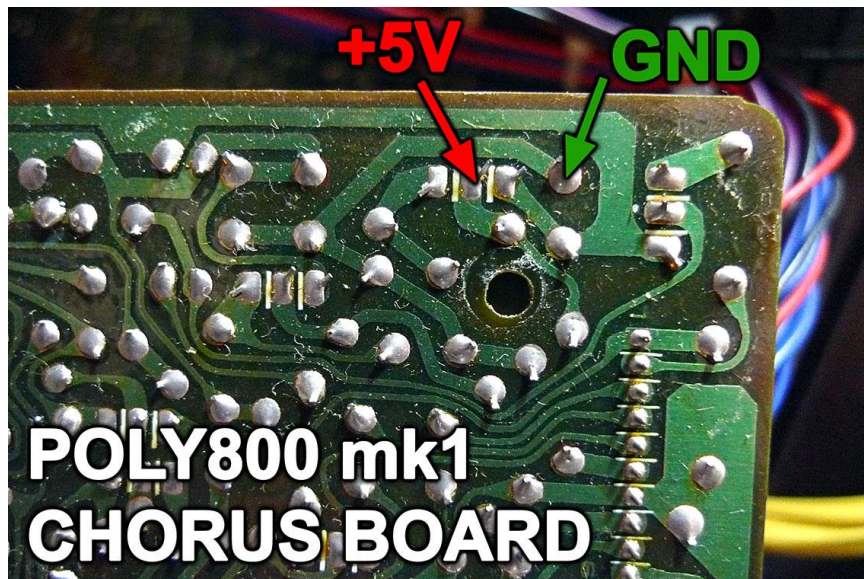


You should now mount the kit into the casing. The polybeast PCB should be to the right, as shown in the image below. If you are mounting the kit in the recommended position then you should keep the white plastic washer on the encoder inside the panel, and tighten the metal washer and nut on the outside. The white washer is designed pure to raise the height of the encoder PCB so it doesn't interfere with the Poly800 buttons board. You may not need it if mounting the kit elsewhere. If you have a Poly800 mkl you may have to twist the rubber wiring loom holder aside while you install the kit, and then twist it back once the kit is in place. The mkII doesn't have this wiring loom.



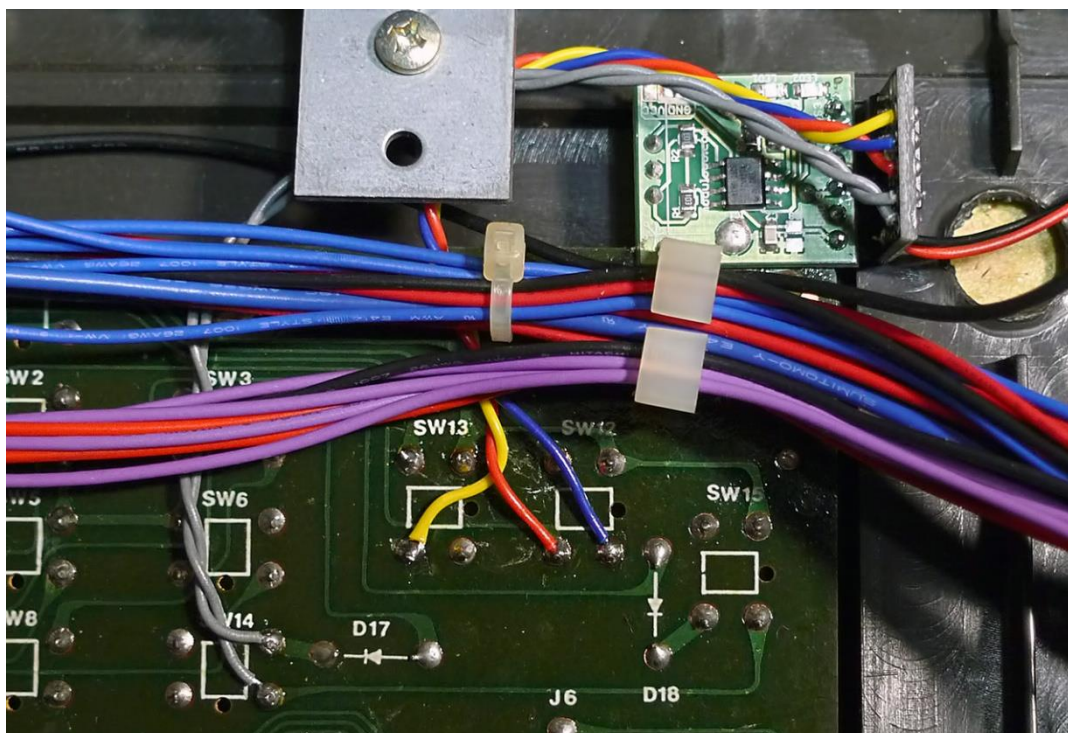
Next you need to wire the +5v and GND power connection in place. If you have a mkl synth then here are two options here. The easiest way of doing it is to unscrew the chorus board to the right and wire the power connections to the positions shown at the top of the next page.

The mkII version doesn't have this chorus board, so you'll need to wire the power to the points on the top right hand side of the main PCB as shown on the second image on the next page. If you have a mkl Poly800 then you can also use this option if you wanted. Obviously any other +5v and Ground point can be used if you mount the knob elsewhere.



Now all you need to do it to solder the Polybeast PCB output wires to the Poly800 buttons board as shown in the next image, and you're done. Take a look at the Polybeast PCB wiring guide on page 2, and the wiring photo on the next page to see which wires go where. The colours of the wires are the same in the wiring guide and the photo.

The blue common (COM) wire should be soldered to the bottom right pin of SW12.
 The red parameter up (UP) wire should be soldered to the bottom left pin of SW12.
 The yellow parameter down (DN) wire should be soldered to the bottom left pin of SW13
 The two grey program mode (PROG) wires should be soldered to the top and bottom right pins of SW14.



Push the knob onto the encoder and power the synth up. Pressing down on the knob should take you into edit mode, and then the knob should change the selected parameter. pressing the knob again will take you out of edit mode, but remember that it doesn't write the edits to the saved sound.



Please note: due to limitations of the Poly800 hardware, you may find that if you turn the knob too fast the speed the parameter changes may slow down. This seems to be more of an issue with mkl machines, but with a little use it is easy to get a feel for how fast the knob can be turned.

Below you can see the solder points for installing the knob on an EX800. Power can be sourced from the the main board as shown on page 4.

