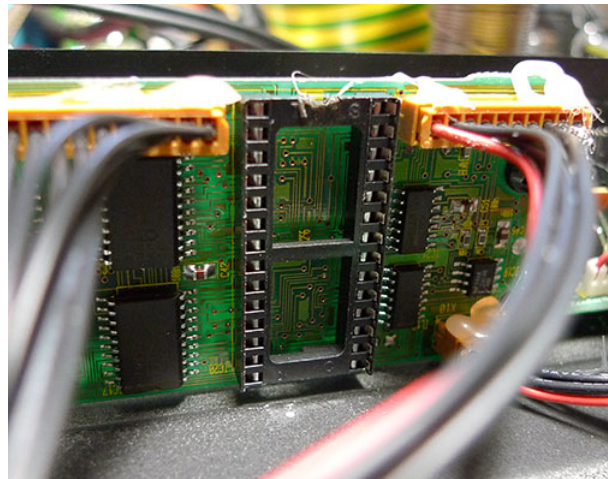
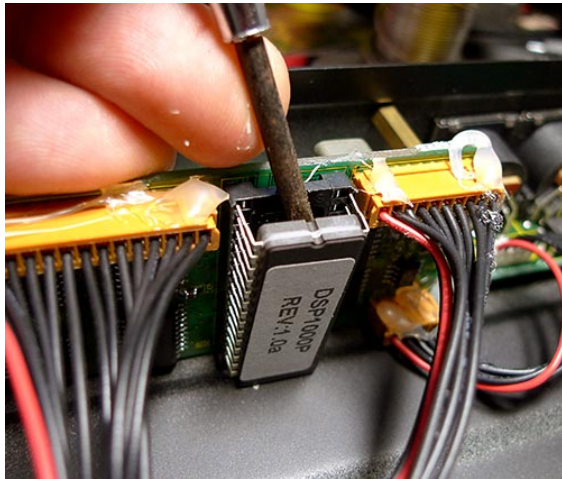


BEHRINGULIZER 2000 - 1000P & 1200P INSTALL GUIDE

Read the *WHOLE* installation guide before starting work.

This guide details the installation of the Behringulizer 2000 kit. The kit is designed to add switchable Virtualizer 1000P and Modulizer 1200P operating systems into both units, along with a system reclocking control.

The first thing to do is take the top off the case and be surprised by the sheer amount of nothing in there! Once you're past wondering exactly why its so big, you need to locate the operating system EPROM on the PCB at the back of the case and carefully lever it out of its socket with a screwdriver. You can throw this away, or sell it to some idiot on ebay, but you won't be needing it again.

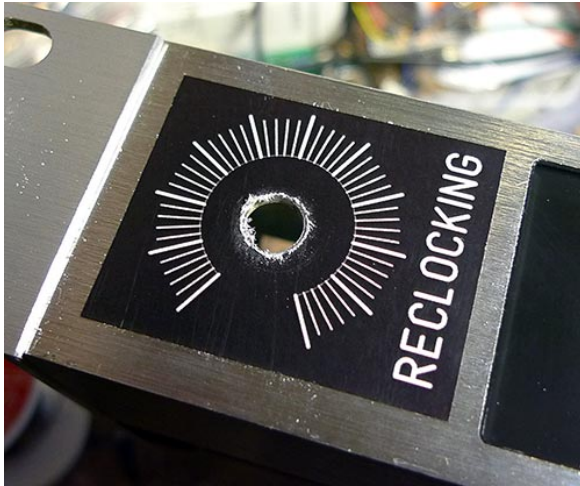


Next use a sharp knife to cut out the supplied labels and stick them on the front panel as shown below. The reclocking label should cover all of the text on the left hand side of the panel. The VR/MR label is for the VirtualizeR and ModulizeR operating system selection switch.

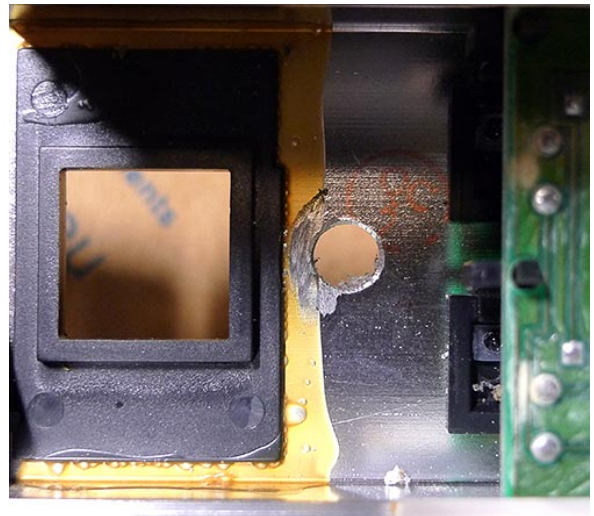
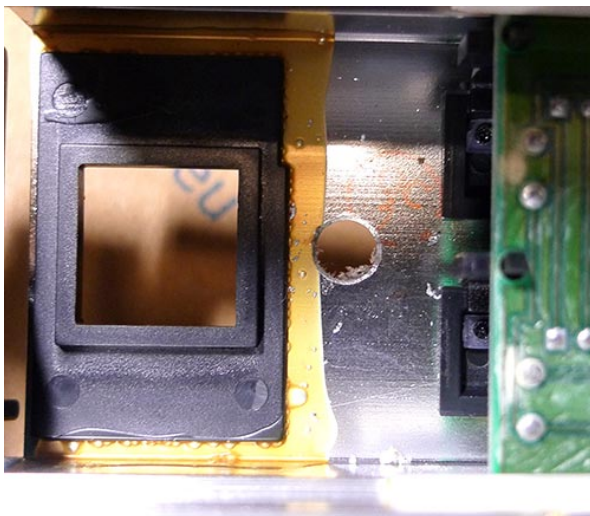


You can now drill the holes for the switch and the reclocking knob. We'd advise using a very small drill bit to drill a pilot hole in the exact centre of the positioning crosses, and then use a 6mm drill bit for the switch and a 7mm one for the reclocking pot. Be careful to get the hole for the pot as central as possible and try not to mess up the stickers by drilling wildly.

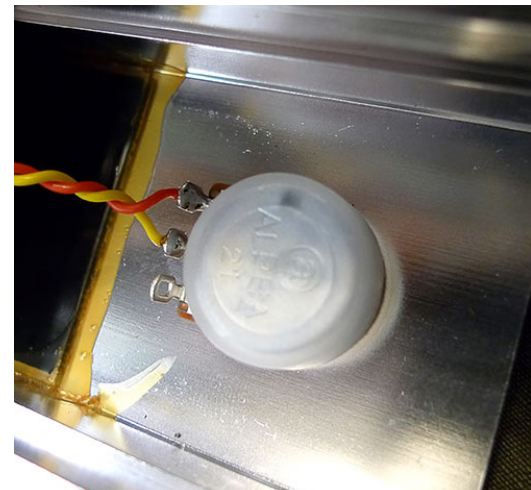
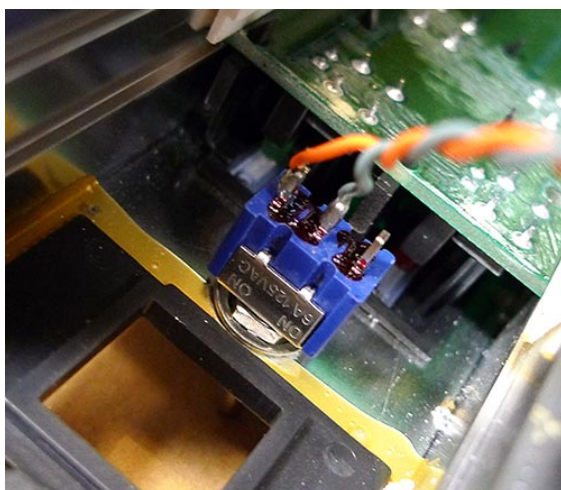
It should now look something like the images at the top of the next page.



To mount the switch you'll probably have to first take off the front panel and somehow remove some of the glue that Behringer used to hold the power button in place. This may not be necessary, but it depends how much glue is in there and whether its going to get in the way of the switch sitting properly against the panel. Below are photos of the inside of the panel showing the yellow glue, and the glue after its been ground away using a Dremel tool. You can use any technique you want to get rid of it.



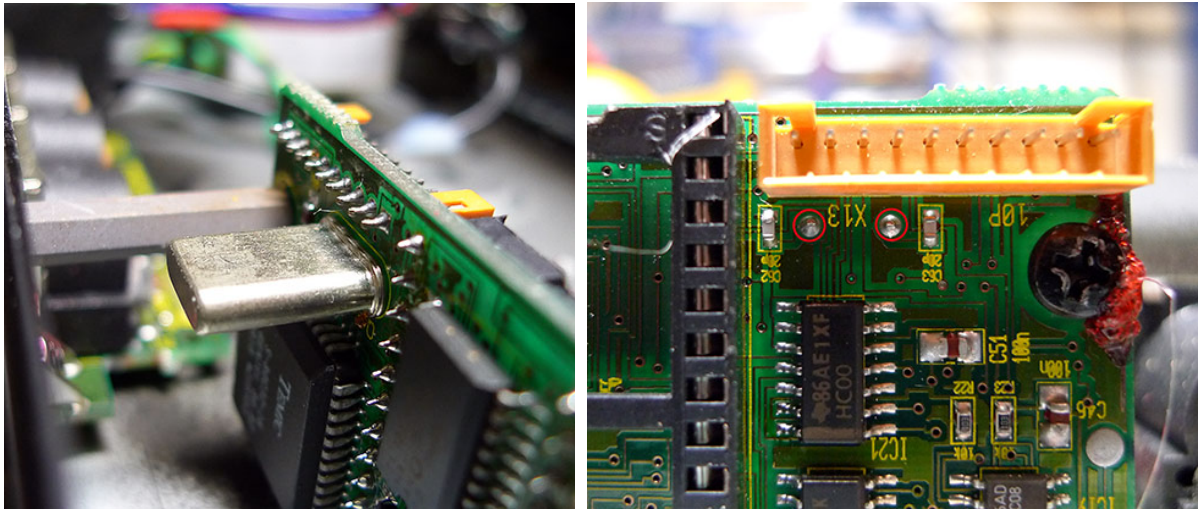
Once the panel is clear, solder wires long enough to reach back to the EPROM socket plus an extra couple of cm to the middle and top pins of the switch, and install it into the panel as shown on the left image below. Try not to over tighten the panel nut as it may cause the sticker on the to tear or fold up slightly if you do.



Now you've installed the switch you can solder wires long enough to reach back to the EPROM socket plus an extra couple of cm, to the reclocking pot. You should use the middle and right hand tags, as shown in the image on the previous page.

Next you need to remove the timing crystal that sets the system clock speed, so you can replace it with the new clock supplied by the Behringulizer 2000 PCB.

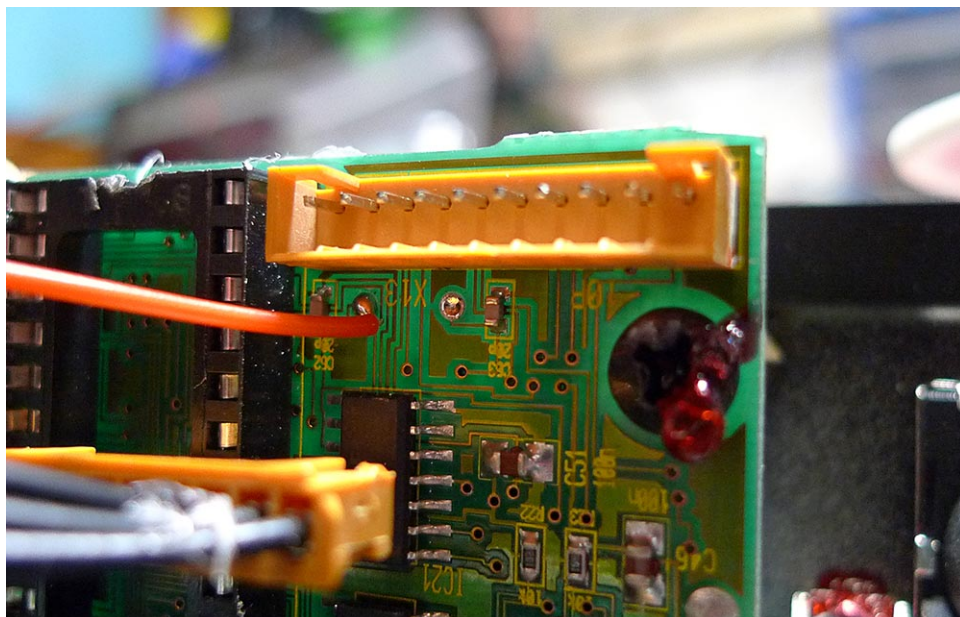
The crystal is the large silver can component on the back of the main board, behind the EPROM socket. The crystal and its solder points are shown on the image below. It is labelled X13 on the front of the board.



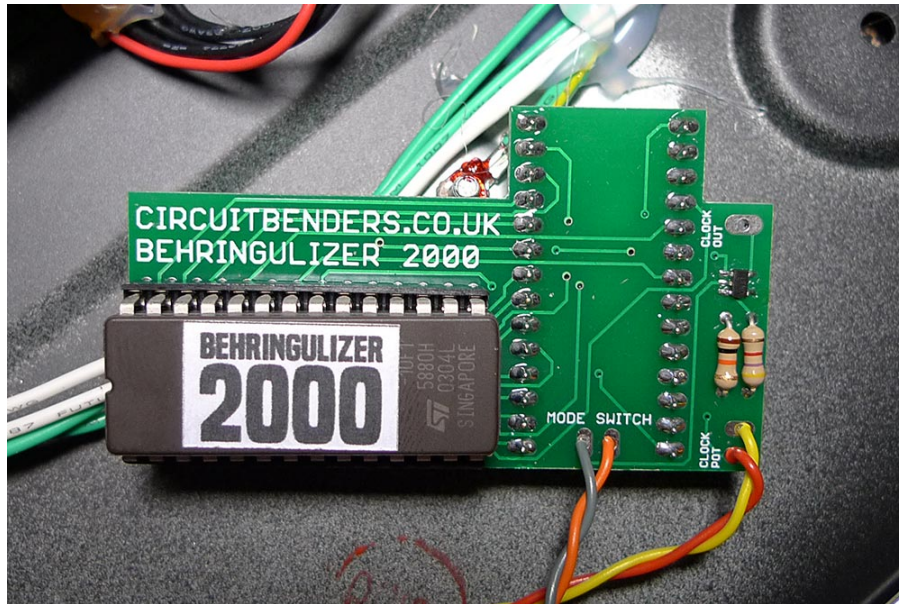
To get the crystal out you're probably going to have to remove the main board from the case, as without doing so its very difficult to get a soldering iron to the solder points without melting the orange socket. You might be able to manage it, but its probably better to take the time to do it safely than to accidentally destroy the socket.

When you've removed all the screws from the XLR sockets and nuts from the jacks etc, you'll be sitting there wondering why you still can't get the board out. Check the voltage regulator screwed to the bottom of the case! Heating the solder points alternately and slowly easing the crystal out is probably the easiest way of removing it.

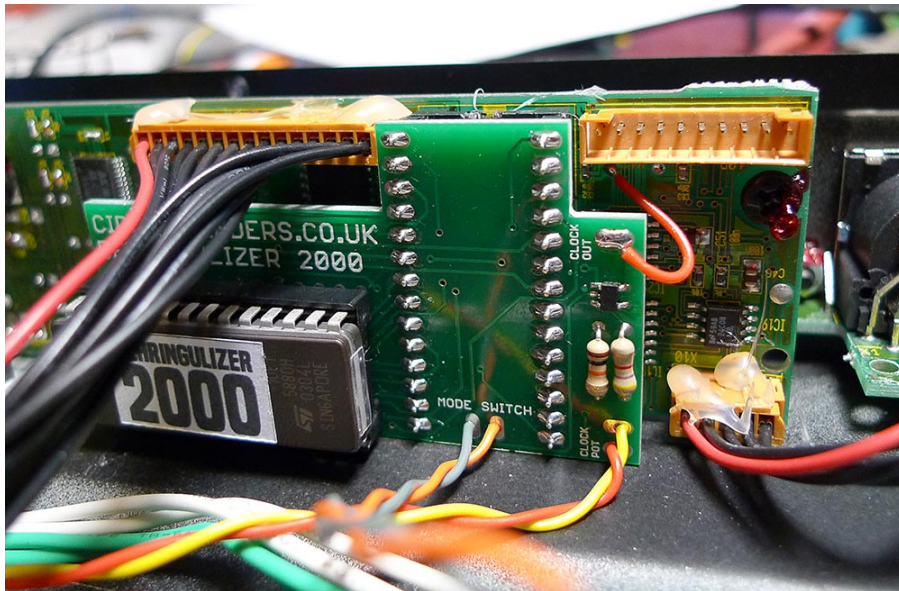
Once you've removed the crystal, solder a piece of wire approximately 3cm long to the left hand solder point on the front side of the board, as shown below. You don't need to solder anything to the other end yet



Now you need to solder the wires from the switch to the two terminals on the Behringulizer 2000 PCB where it says 'MODE SWITCH', and the wires from the pot to where it says 'CLOCK POT', as shown in the photo at the top of the next page.



Make sure none of the pins on the other side of the board is bent to the side, then carefully align them with the EPROM socket on the main board and push the Behringulizer 2000 PCB into place as shown below. There shouldn't be any resistance, although on some units there may be some slight friction between the Behringulizer board and the bottom of the casing.



Now just solder the wire coming from where you removed the crystal to the 'CLOCK OUT' terminal on the Behringulizer board, as shown above. Remember to reconnect any of the orange connector blocks you removed during installation and you're finished.

If you attach the knob so it matches the scale on the reclocking sticker, standard operating speed should be around 3 o'clock. At higher clock speeds you may find that your unit sometimes gets confused when you're using the data entry dial. If this happens just lower the clock speed until it operates normally again. The unit will respond to button presses and program changes much more slowly at lower clock speeds, and you may have problems with MIDI control outside of a limited range either side of the standard clock speed. This is normal.

The operating system can only be changed when the unit is switched off or it will crash violently. In order to change the OS you need to power it down, switch the VR / MR switch, and then power it up again. When you change operating systems the unit may restart in either the preset or user program mode, with a different FX mix setting, or with the effects bypassed, so if you are having problems check those first