

Shock Electronic

ESQU-One Step-Sequencer

Build Guide V01



Introduction:

Congratulations on your purchase and thank you for supporting Shock Electronix.

The **Shock Electronix ESQU-One Step Sequencer** is our Eurorack conversion of the super compact and highly versatile Korg SQ-1 Step Sequencer.

As standard, the Korg SQ-1 is a compact step sequencer with 2 x 8 steps. It's wealth of connection jacks allows it to be integrated with a Eurorack System, connected to the MS-20, and a variety of other synthesizers.

Vintage analog synths or the latest compact synths can be controlled from this single unit. You can also switch between a variety of synthesizer modes and use the step buttons to create performances overflowing with spontaneity.

As a descendant of the SQ-10, and just like the SQ-1, the EsQu-One supports the Hz/V standard, enabling it to perfectly control the MS-20 or MS-20 mini. It goes without saying the V/Oct standard is also supported, and the voltage level of the CV output (*) and polarity of the GATE output can be specified as appropriate for the device you've connected. This versatility will enable you to control a wide variety of other synthesizers as well.

** V/Oct supported for 1V, 2V, and 5V; Hz/V supported for 8V.*

Just like the SQ-1, the EsQu-One provides two CV/GATE OUT channels, the standard MIDI OUT and USB MIDI, littleBits out (to connect to the littleBits synth kit by littleBits Electronics Inc.), plus the SYNC IN/OUT channel that allows you to connect to the volca series and monotron. In addition to this, we've designed the EsQu-One with an added 4 rows of multiples, and easy access to the USB port at the bottom.

Read more about the Korg SQ-1 [here](#),

The modification has purposely been designed for those with very basic assembly and soldering skills. We are sure that you will reap the rewards of this simple modification.

Disclaimer:

Whilst we have made every effort to ensure that the product is of high quality, and working perfectly we would appreciate you read our disclaimer below, as it is really important.

- Shock Electronix provides a 5-year warranty on the EsQu-One's Front Panel and PCB
- If you do not feel comfortable with installing the EsQu-One's, then please consult a qualified technician.
- ***It is essential that you test your Korg SQ-1 device before the modification of it with the EsQu-One to ensure your device is fault free, and that any warranty issues are resolved with the manufacturer prior to installation.***
- ***Any modifications to the original OEM design of your Korg SQ-1 device may void its warranty in full.***
- Shock Electronix accepts responsibility for the design of the EsQu-One
- Shock Electronix does NOT accept responsibility for any damage, loss or harm that may result during installation.
- "SQ-1" is a trademark of KORG Inc. Japan, all other trademarks and copyrights are property of their respective owners.

We have designed the assembly guide to form our particular method of assembly/disassembly. It is designed so that you can have both an instructional guide view and visual guide view to complete the task.

We encourage you to report any areas of concern or ways of doing things better and quicker, or any hacks and mods that may be useful.

Installation: (Let's do this!)

Stage 1: Assembly of the ESQU-One PCB Board.

Step 1: We will assemble the components to the included PCB.

1. Fit L1 and D1
2. Fit U1 using the M3 screw and nut
3. Fit C1, C2 and C3



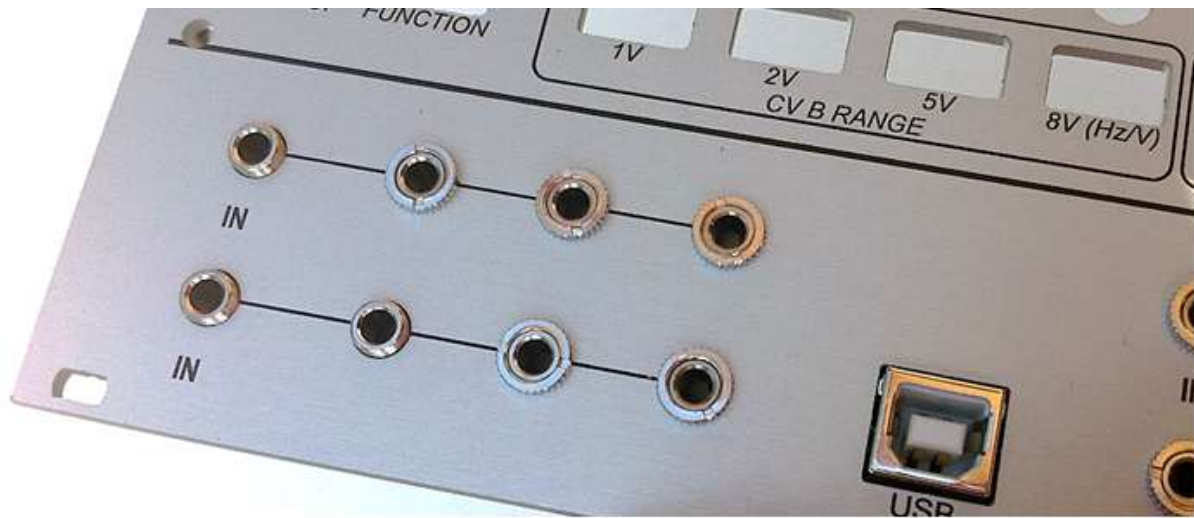
Step 2:

1. Fit J1, J19, J20



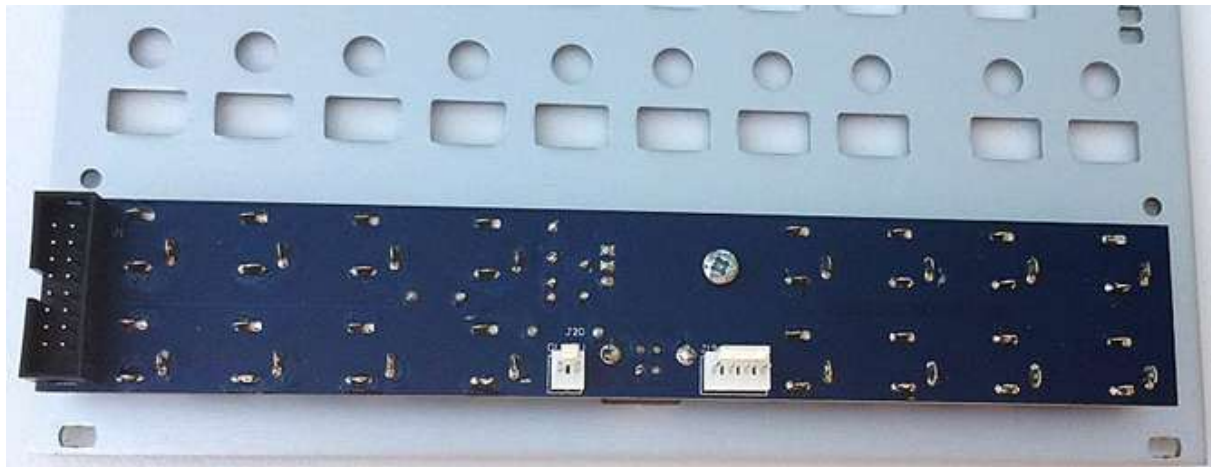
Step 3:

1. Fit J18, all of the 3.5mm jacks to the PCB, J2 - J17, **"but do not solder"**.
2. Place the EsQu-One front panel over the PCB, so that J18 and all of the 3.5mm jacks, J2 – J17 locate freely into position.
3. Fit 16x round nuts to the sockets.



Step 4:

1. Whilst holding together the PCB to the Front Panel, turn over, lay on a flat surface and solder J18, all of the 3.5mm jacks to the PCB, J2 - J17.



Stage 2: Removal of SQ-1 from Chassis to ESQU-One Panel.

Step 1: Remove all external Allen key and Philips head screws from the Korg SQ-1 chassis and separate

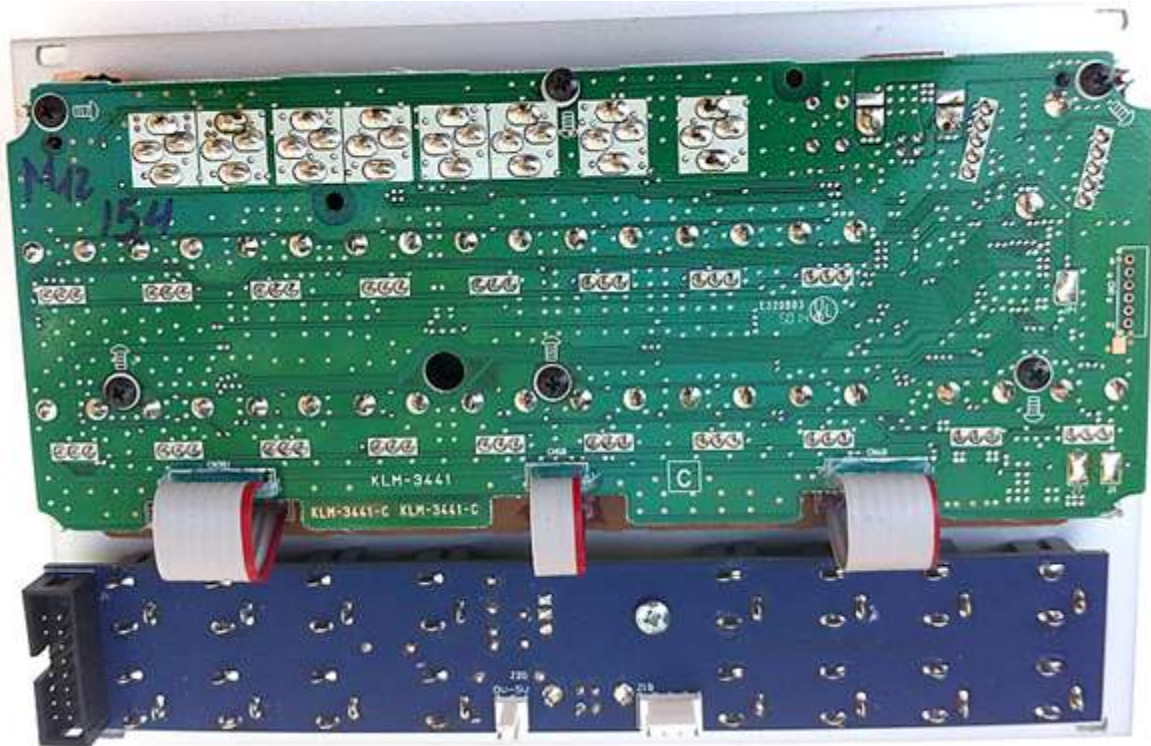
Step 2: Cut the battery wires as close to the battery compartment as possible and separate. Or de-solder the wires from the board, unravel, and de-solder from the battery compartment, then solder back into position.

Step 3: Now you will find the plastic internal chassis is stuck with double sided tape to the outer metal chassis. To separate, it is strongly recommended you start at the plastic ring that surround main control pot as this is part of the plastic chassis. You can push down with reasonably firm pressure and if required wedge the plastic chassis down with a wide flat blade screw driver or scrapper.



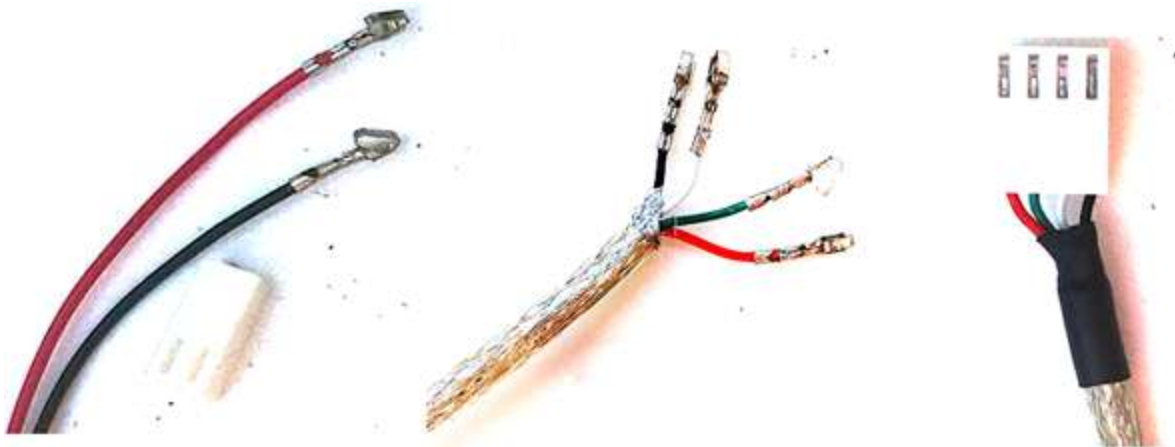
Step 4: With the plastic chassis and PCB assemblies removed from the SQ-1's chassis, now fit to the ESQU-One's front panel, and secure it using 4x M2.5mm screws and nuts.

In the event that the assembly doesn't fit to the ESQU-One's front panel with ease, you may have to loosen both KLM-3441, KLM-3442 and the plastic chassis to realign it.

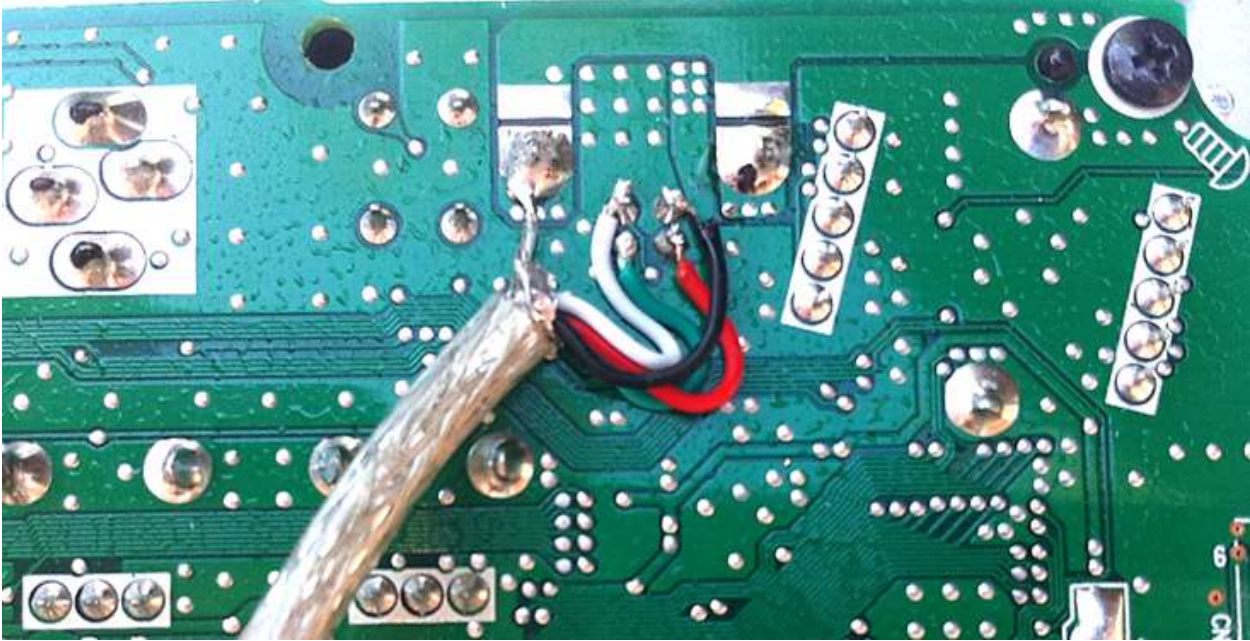


Step 5: Prepare the existing battery cable by stripping back approximately 3mm off one end of each of the red and black wires and attaching crimps, then plastic surround

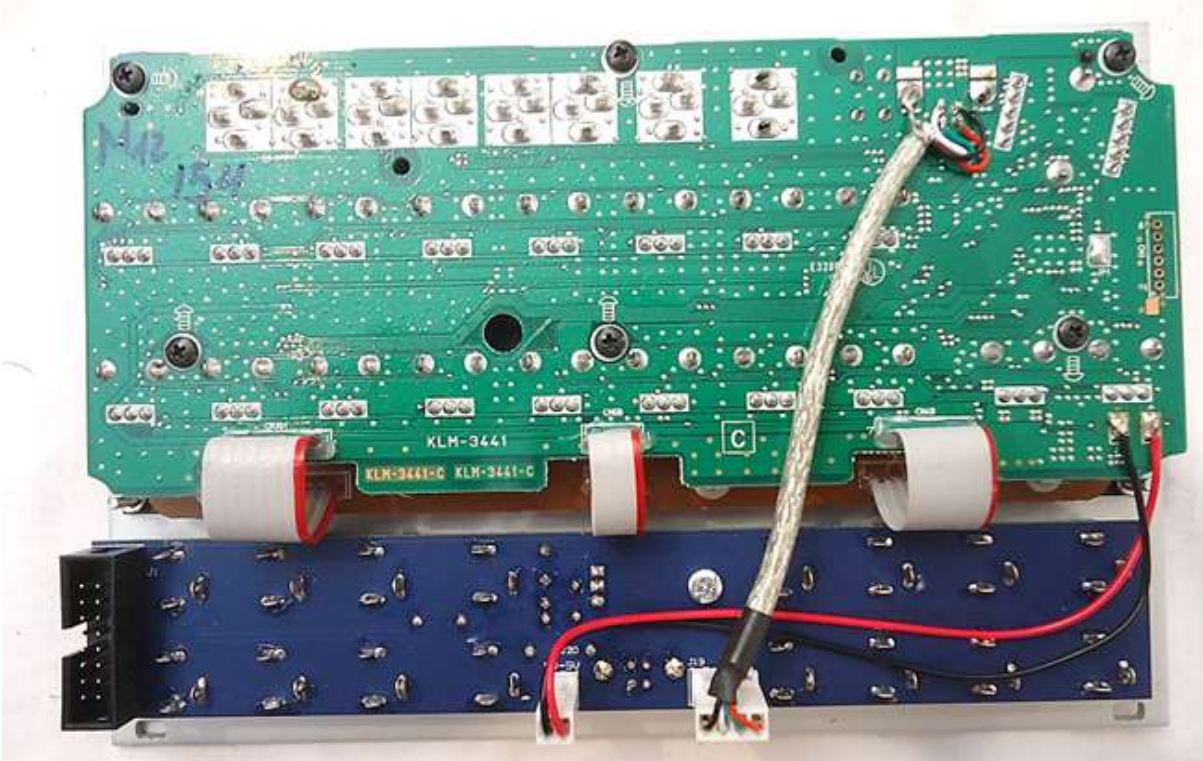
Step 6: Prepare the USB cable by removing approximately 20mm of the outer covering. Cut back and remove the foil and screen wire, stripping approximately 3mm off wires and attach crimps, then plastic surround



Step 7: Solder the USB cable wires to the KLM-3441 PCB at the contact points shown.



Step 8: Plug the USB and battery cable into their matching sockets, and it should be similar in appearance to picture shown.





If you have done everything according to the instructions, then **CONGRATULATIONS**, you are done!