



**S A L L E N  
K E Y**

**BUILD INSTRUCTIONS**



## Introduction

Thank you for purchasing SALLEN-KEY Kit

SALLEN-KEY is our tribute of the legendary MS-20 filter.  
We've tried our best to honor this unique and iconic filter.

We kept what makes this filter so unique and we made some changes to make it a contemporary filter. We hope you'll like as much as we are !

## Contents of kit

Sourced

- ☐ 1- SALLEN-KEY PCB (SMD presoldered) **x1**
- ☐ 2- SALLEN-KEY Faceplate **x1**
- ☐ 2- Pin header 2x5 **x1**
- ☐ 3- Capacitor 10μ **x2**
- ☐ 4- Trimmer 10T 1K **x1**
- ☐ 5- LED 3mm - Red **x2**
- ☐ 6- Jack socket 3.5 mono **x4**
- ☐ 7- Potentiometer B-100k **x5**
- ☐ 8- Big Knob **x1**
- ☐ 9- Medium Knob - White **x1**
- ☐ 10- Medium Knob - Black **x3**
- ☐ 11- Power ribbon cable **x1** *optional*

## Warranty

BLACK NOISE warrants the contents of this kit to be free of defects in materials or workmanship and to be conform with the specifications at the time of shipment for a period of two years from the date of purchase.

We do not warrant, and we do not repair or take in modules to troubleshoot end-user DIY build faults or second hand DIY products.

BLACK NOISE cannot be held responsible for any damage caused by one of our DIY kits and resulting from an end-user DIY build faults.

If you encounter problems in the assembly you can contact us at: [contact@blacknoisemodular.com](mailto:contact@blacknoisemodular.com)

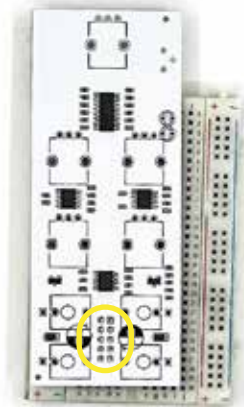


## 01 Solder the pin-header

To make soldering of the connector easier, start by soldering two opposite then solder the rest of the pins.



you can use a breadboard to hold the connector while you solder it.

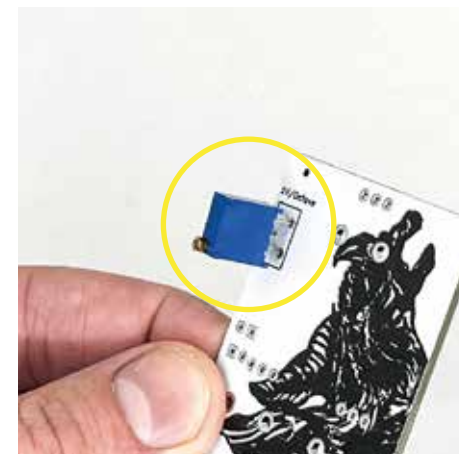


## 02 Place and solder the trimmer

Place the trimmer on the back side of the PCB and solder it from the front side of the PCB.



Due to component shortages we are occasionally forced to change the reference of the trimmer. If you have received a trimmer with a footprint that does not match the footprint on the PCB, please scan the QR code to access the instructions for retrofitting the trimmer with the footprint.







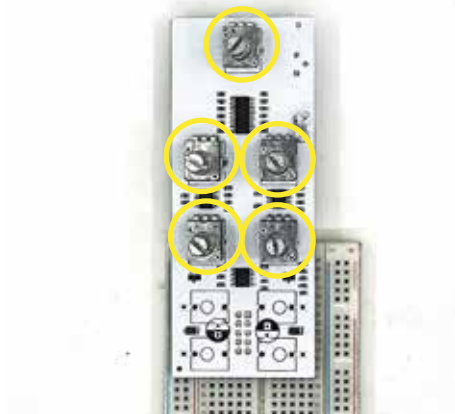
### 03 *Clean the PCB*

Cut off the trimmer tabs and clean flux residue around the pin-header and trimmer with isopropyl alcohol.



### 04 *Place the potentiometers*

Place the potentiometers as shown in the picture but not solder them yet.



### 05 *Place the LEDs*

Place the LEDs as shown in the picture but not solder them yet.



The shortest leg of the LED is the cathode (-). place the cathode in the square hole as shown on the picture.

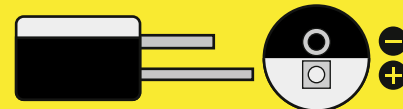


### 06 *Place the capacitors*

Install the capacitors, but don't solder them yet.



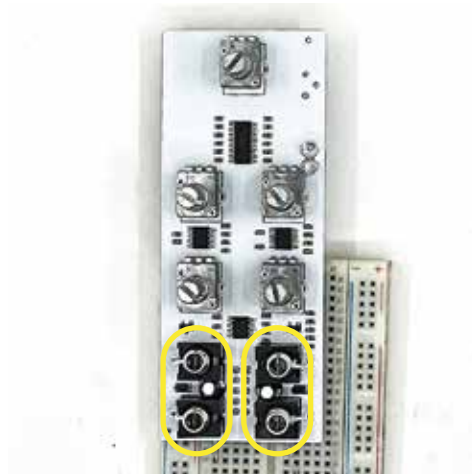
The cathode (-) represented by a white band on the capacitor must be aligned with the black mark on the silkscreen.





## 07 Place the jack connectors

Install the jack connectors.  
Before placing the jacks make sure that none of the legs of the sockets are bent then place the them.  
don't solder the yet.



## 08 Place the faceplate

Place the faceplate on the module and screw the nuts of the jacks and the potentiometers.  
Make sure the nuts are tight enough.



## 09 Solder the components

Turn over your module and solder the components starting with jack sockets, the potentiometers, the capacitors and the LEDs.



*Make sure the LEDs are flush and properly placed before soldering them as shown in the picture.*



## 10 Cut the legs of the components

Once all the components soldered, cut the tabs of the capacitors, and the LEDs as close as possible to the PCB.





## 11 Check your module

Set your multimeter to "continuity", connect one of the probe to one the the ground pin. Test +12V and -12V pins with the other probe. your multimeter should not ring, if it rings there is a short.



## 12 Clean your module

Clean the PCB of flux and solder residue using Isopropyl alcohol.



## 13 Place the knobs

You can now place and screw the potentiometers on the potentiometers as shown in the picture.



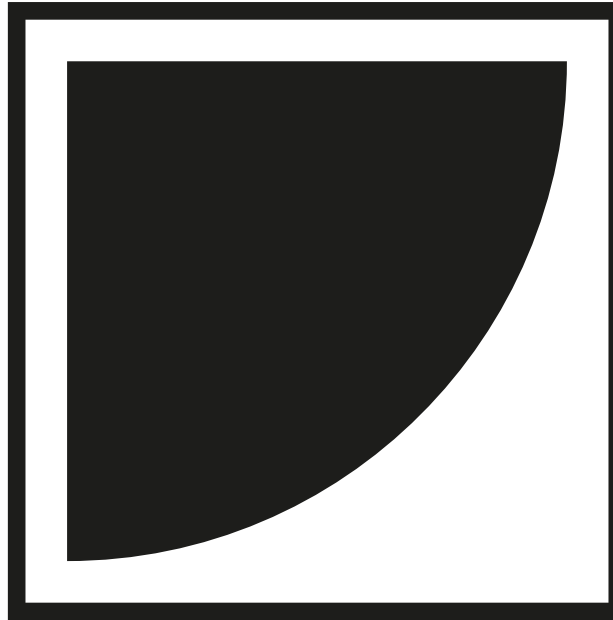
## 14 Test your SALLEN-KEY

For more information on connecting to your rack and the possibilities of your SALLEN-KEY, consult the user manual accessible by scanning the QR code.



Scan the QR code  
to access the user  
manual





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