



BUILD INSTRUCTIONS



#### Solder Zener diode

Bend de tabs and place the diode on the PCB. Pay attention to the polarity, the black mark on the diode must be aligned with the black mark on the footprint printed on the silkscreen. Double check the polarity and solder the diode.





#### Solder hearders

Start by soldering the I/O header. Then solder the power connector. If you have solder paste you can use some instead of solder wire to make connector assembly easier.



#### Introduction

GOMA stand for Generator, Offset, Mixer, Attenuverter.

The idea behind GOMA was to make an improved version of the classic 3 Attenuator/Attenuverter modules.

We wanted to design high-end but small module so it could fit in any case. We want it to be ergonomic and easy to use despite is size. But we also wanted to pack as much features as possible to make of it a "swiss knife module".

## Contents of kit

- 1- GOMA PCB (SMD presoldered) x1
  2- GOMA Faceplate x1
  2- Pin header 2x5 x1
  3- I/O Header x1
  4- 11v Zener Diode x1
  5- LED 3mm Red/Green x3
  6- LED 3mm White x12
  7- Jack socket 3.5 mono x6
  8- Potentiometer B-100k x3
  9- Small knob x3
  10- Micro Switch x6
- □ 11- Micro Switch Caps **x6**
- 12- 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

#### Clean the PCB 03

Cut off the trimmer tabs of the diode and clean flux residue with isopropyl alcohol.



# **05** Place the dual LEDs

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







#### Place the potentiometers

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





## **06** Place the white LEDs

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

#### Ξġ:

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





Place the jack connectors

Before placing the jacks make sure that

none of the legs of the sockets are bent

(07)

then place the them.

don't solder the yet.



#### Identify the orientation of the switches

Look under the switch you will see a round mark. Pay attention to this mark is important to correctly place your switches on the PCB.





Place the caps on the switches as shown in the picture.



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#### **10** Place the switches

Place the switches on the PCB. As indicated in the previous step pay attention to the orientation of the switches. place the switches as shown in the picture.







#### Place the faceplate

Place the faceplate and screw the nuts on the potentiometers and jack connectors.





#### **13** Solder the jack connectors

Solder the jack connectors. Before soldering them make sure they are flush against the PCB.





#### Secure the switches

To prevent the switches from moving during the assembly of the module, solder a pin of each switch. Do not solder all the pins of the switches right away. Make sure the switches are flush against the PCB before soldering them.





## **14** Solder the white LEDs

Before soldering them make sure they are flush against the faceplate and aligned with the diffusers.





#### **17** Cut the tabs of the dual LEDs

Once soldered, cut the dual LED tabs. Be careful when cutting the tabs, some are close to SMD components, they could be damaged during the operation.





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#### Cut the tabs of the white LEDs

Once soldered, cut the white LED tabs. Be careful when cutting the tabs, some are close to SMD components, they could be damaged during the operation.





#### Solder dual LEDs

As for the white LEDs, now solder the dual LEDs. The LEDs must be flush with the faceplate and aligned with the diffusers.





#### **18** Solder the switches

Now solder the rest of the switch pins.



Clean the PCB

using Isopropyl alcohol.

Clean the PCB of flux and solder residue

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#### Solder the potentiometers

Finish by soldering the potentiometers. Once the potentiometers are soldered, check the PCB to spot any solder bridges, unsoldered pins, etc.



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.

Check our module

your multimeter should not ring, if it rings there is a short.





#### **22** Place knobs

Place the potentiometers at 0, align the white dot on the knob with the potentiometer. Press the knob halfway and turn the pot to full to check that the knob is well placed. Once the knob is correctly placed, pushed into the bottom.









# test your GOMA

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



Scan the QR code to access the user manual



