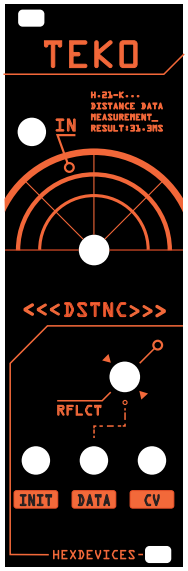
HEXDEVICES
HANDCRAFTED AUDIO EQUIPMENT



TROUBLESHOOTING
D.I.Y TEKO MANUAL

Teko is a diy echo effect in Eurorack module format. It is a very useful, simple, diyer friendly, medium difficulty project. The only components you have to place are the through hole. The active SMD components are already soldered on the board by one of our androids, to make your life easier.

Whats inside the package

Inside the package you will find. Two PCB boards, passive components such as resistors, capacitors, potentiometers, audio 3.6mm sockets, an IC, diodes, trimmers, single row pin headers, a transistor, power socket, IC socket, spacer, M3x6mm screws the front panel, knobs and a power cable.

DETAILED:
- **2x** 10Ω Resistors
- **3x** 1kΩ Resistors
- **2x** 4.7kΩ Resistor
- **2x** 10kΩ Resistors
- **1x** 22kΩ Resistors
- **1x** 27kΩ Resistors
- **1x** 30kΩ Resistors
- **1x** 47kΩ Resistors
- **5x** 100kΩ Resistors
- **2x** 300kΩ Resistors
- **1x** 5.6MΩ Resistors

- **2x** 560pF Ceramic Capacitor
- **1x** 10nF Ceramic Capacitor
- **10x** 100nF Ceramic Capacitor
- **4x** 330nF Ceramic Capacitor

- **3x** 1µF Electrolityc Capacitors
- **3x** 10µF Electrolityc Capacitors

(Note! Those capacitors have polarity -+)

- **2x** 400X Diode
- **2x** 100kΩ Pot's
- **1x** 2N3904 Transistor
- **1x** PT2399 IC
- **1x** IC socket
- **3x** 100kΩ Trimmers
- **1x** 4 Pin Header Male
- **1x** 4 Pin Header Female
- **1x** 7 Pin Header Male
- **1x** 7 Pin Header Female
- **4x** 3.6mm Mini Jack Sockets
- **1x** IDC 5 Pin Power Socket
- **1x** Spacer
- **4x** M3x6mm Screws
- **1x** Orange Knob
- **1x** Black knob
- **1x** Front Panel

Any missing part of the list can be claimed via email:
info@hexdevices.com

WHAT YOU NEED TO START:
To start building the Hekate Stereo mixer you need some tools such as:

1. Solder iron
2. Solder Aloy (preferable 60/40)
3. Solder wick or pump
4. Plier, side cutting plier
5. Multimeter
6. Plenty of love

Trableshooting

My board doesnt make any sound what is going on?

1. **Be sure that you didnt make any short circuits.**
   If yes try to fix it with your soldering iron by heating it up and remove the solder. Or better with your pump or wick and then resolder it.

2. **Check if you placed the power connector or the protection diodes with the right orientation as it shows on the board.**
   If not, try to fix it by heating a bit the back side, remove the plastic part and revert it. Or if its difficul take it completely out carefuly because its easy to break any circuit connections and place a new one. If the issue was a wrong diode positioning heat the pad remove the solder with the soldering pump or wick and put the part in the right position.

3. **Check your voltage supply.**
   Turn you multimeter in the DC voltage measurement position. Place the ground prob at any ground place (its easier between the ground pin and the plastic part of any of your input/output conncetors) then check your power connector carefuly and steady to avoid any short circuits with your prob. If the everything is correct there the multimeter suppose to show around +-12V. If not do the step 1,2 of the troubleshooting and then check your power cable or the main power supply

4. **Check if the opamps are powerd.**
   Check the two opamp ICs. Turn you multimeter in the DC voltage measurement position. Place the ground prob at any ground place (its easier between the ground pin and the plastic part of any of your input/output conncetors) and measure the pins of the opamp. At Pin 8 the multimeter suppose to show around +11 to +12V and at pin 4 around -11 to -12V.

   If the opamps have no power at all but you measure the right voltage on the power connector then measure if the voltage can pass resistor R2 and R18.

   If you are able to measure the supply from one pin of the resistor but in the other you get zero, just remove them and place a jumper* or replace it with a new one if you have a spare on your bench.

5. **Send us an email.**
   If you tried everything of the steps above carefully, more than one times but nothing happens, feel free to contact us.

Enjoy and have fun with your new and powerful echo module!