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# **batteryACID**

an analogue distortion unit for modular synthesis

**ASSEMBLY GUIDE v1.0**

**HARDWARE v1.0**

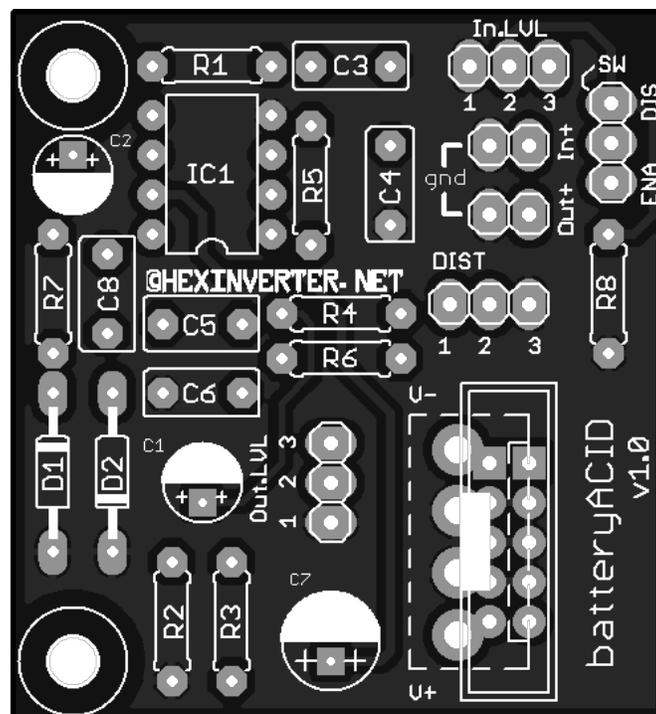
# Technical Notes

batteryACID is a simple yet elegant distortion module for analogue synthesis. It is based on the infamous MXR Distortion+ and is great for acid basslines and other uses. Try running drums and other timbres through the unit for cool effects! It is very easy to build and is quite forgiving in terms of component selection. It requires only a positive supply voltage. Anything from 5V to 15V will work fine, so it is a great candidate to build into a portable unit and run off of a 9V battery.

While 1N270 germanium diodes are suggested, I have built this module with 1N4148 as well as 1N914 diodes and enjoyed their sound just as much as well. Silicon types (1N914, 1N4148, etc) tend to sound sharper and cleaner, while germanium types (ie: 1N270) tend to sound warmer and “fuzzier”. They just sound a little different. For this reason, you may wish to add a DPDT switch to toggle between different diode types. This is an optional enhancement which I will detail in this guide and is NOT necessary for the module to work.

Panel is/will be available at [Re:Synthesis](#) (click) for this project.

There is a run [on Muff's](#) for panels as well!



# Control/Panel Descriptions

Input Level (In.LVL) -- This controls the volume of the signal going into batteryACID. Use it to attenuate high amplitude modular level signals for processing.

Output Level (Out.LVL) -- This controls the overall volume of the output (AFTER the distortion effect is applied)

Input (In+) -- Input a signal to be distorted.

Output (Out+) -- This is the distorted signal output for the module.

Enable/Disable Switch (SW) -- This SPST ON-ON switch lets you turn the distortion effect on and off, allowing you to bypass the effect if you'd like. To not use this switch, just solder in a jumper wire that shorts the centre pad of the SW pads on the PCB to the "ENA" pad adjacent to it.

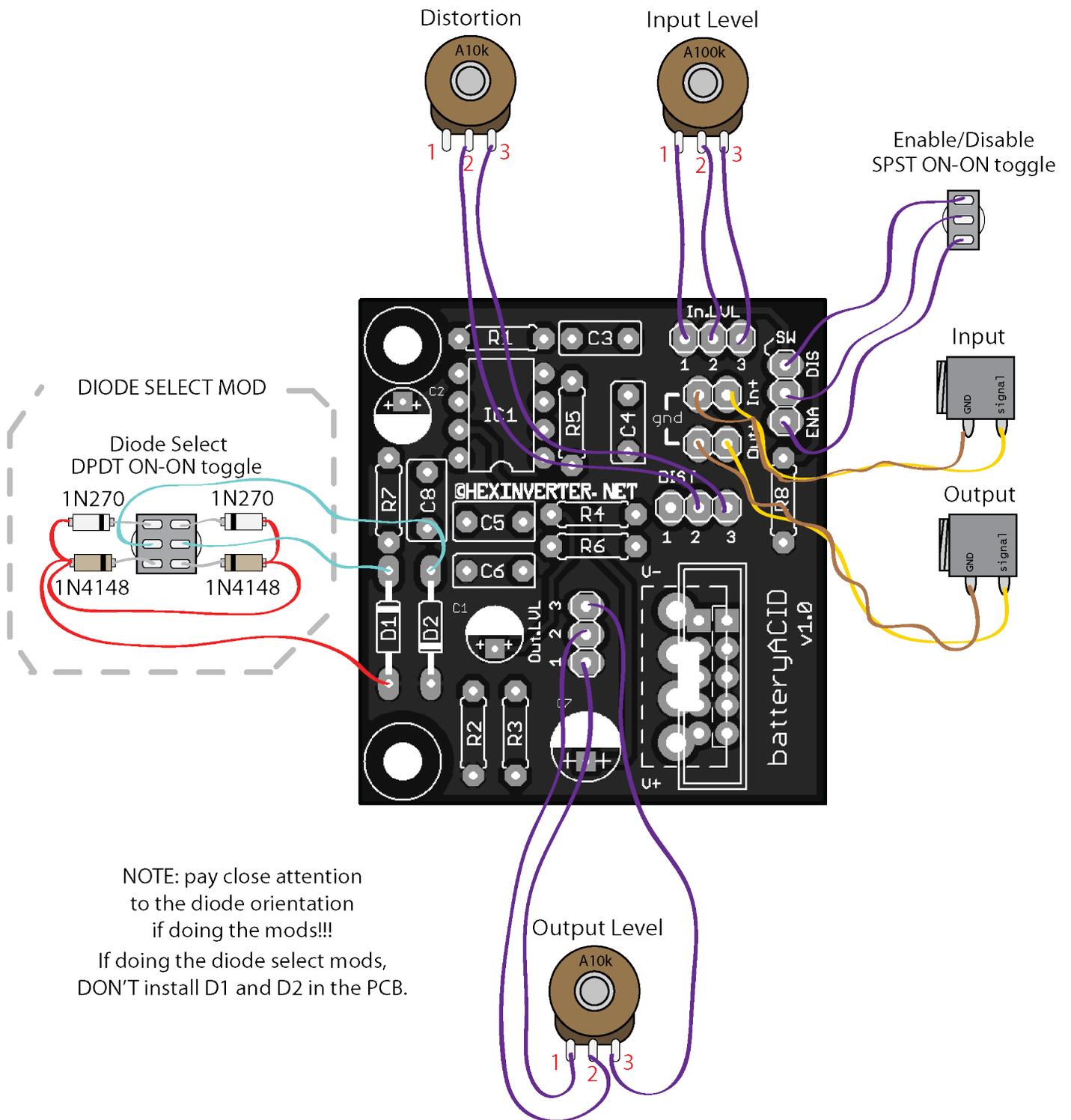
Distortion (DIST) -- This is the distortion amount control.

## Modifications

DIODE SELECTION can be added by replacing D1 and D2 by a DPDT ON-ON switch that selects between two pairs of diodes. Please refer to the wiring diagram on the next pages for how to do this.

(panel wiring on following page)

# POTENTIOMETERS VIEWED FROM FRONT



NOTE: pay close attention to the diode orientation if doing the mods!!!  
 If doing the diode select mods, DON'T install D1 and D2 in the PCB.