# Refractor Bypass

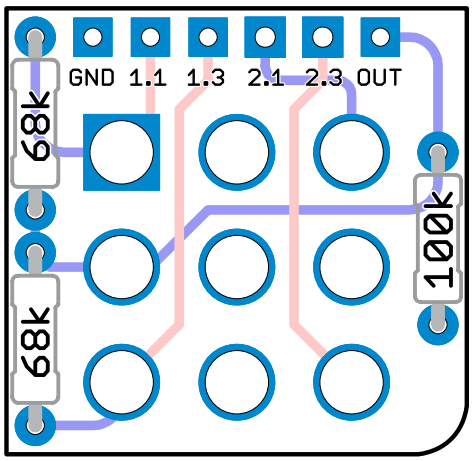
*Easy wiring for Centaur clone bypass*

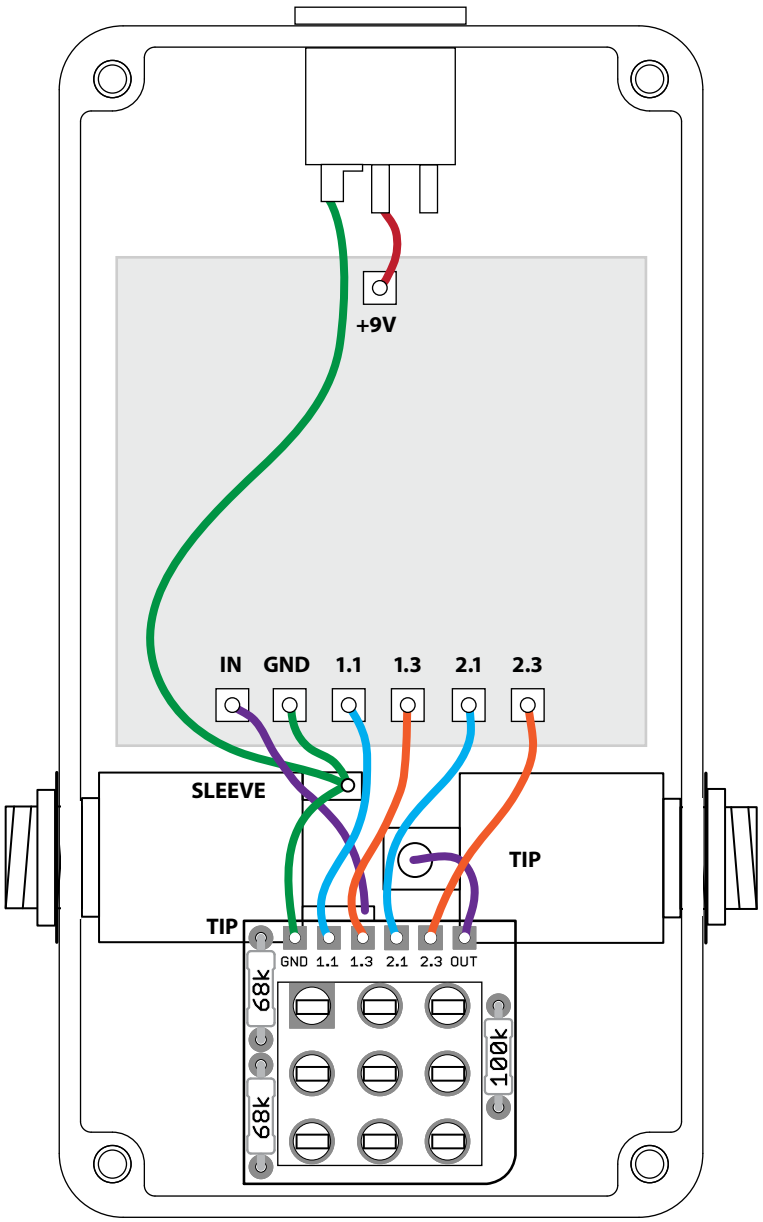
## Usage

The Refractor Bypass was designed to simplify the wiring of the Refractor Overdrive project, but it will work for any Klon Centaur clone. At only 0.8” wide by 0.75” tall, it’s only barely larger than a 3PDT stomp switch.

There is some variance in the lug positions of 3PDT switches, so it may fit tightly, but don’t worry—this just ensures a better mechanical connection.

Note that this was designed for 22-gauge stranded wires, so larger solid core wires may not fit in the pads. This has not been tested, but just be forewarned.




Wiring is dead simple: the pads match up to the Aion Refractor PCB project, so you can run the wires straight across (as shown in the diagram to the left) and be done with it. But here’s a description of each of them.

**GND** goes to the star-ground point of the circuit (shown here as the sleeve of the input jack).

**1.1** goes to the circuit’s buffer (bypass) output.

**1.3** goes to the circuit’s effect output (lug 2 of the volume pot).

**2.1** goes to the junction of the clipping diodes in the drive section.

**2.3** is the bypass indicator LED ground. The cathode (flat side) of the LED connects to this pad, with +9V connecting to the other side of the LED through a current-limiting resistor. **The Refractor PCB has the LED and resistor built in, so just connect this to the “2.3” pad on the PCB.**

This bypass board will work with nearly every Centaur clone project, but some of them may include the 68k resistors on the main PCB itself. For those projects, this bypass board would probably be more trouble than it’s worth. However, many projects do include the 100k resistor on the main PCB, so if that’s the case then leave it off of this board.