



CLATTER

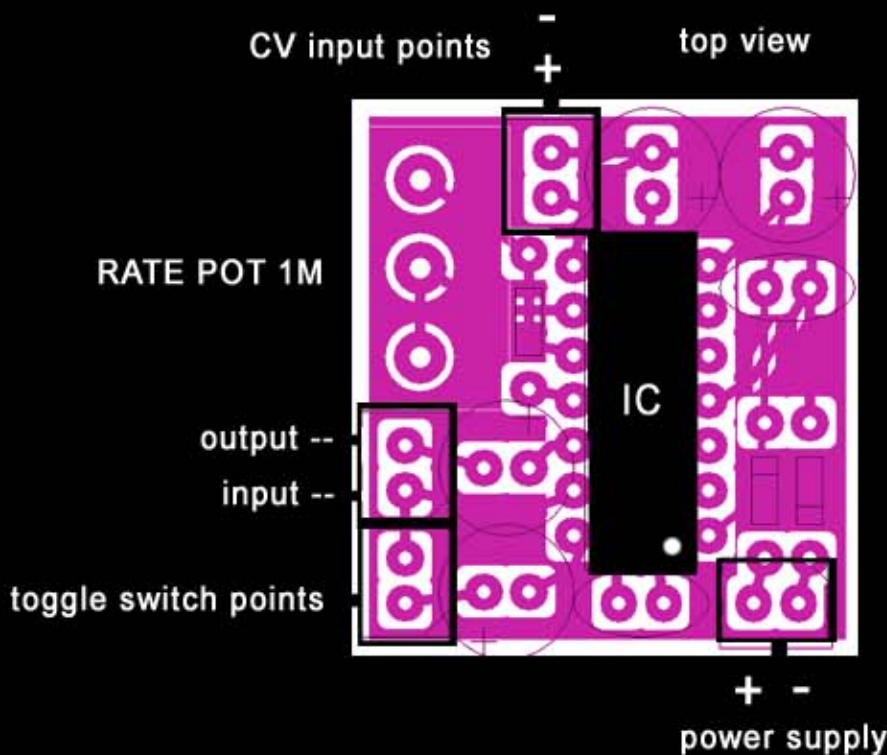
this is an opto-isolated switch that is controlled by a wide range variable speed (crudely) voltage controllable square-wave clock / lfo. it can be used as a simple on/off, stutter, vibrato, whatever... device. being optical it also smoothes out the signal so there is not any harsh clicking or sharp edges to deal with at all. there is also a bend switch that i explain on it's page

the rate pot can either be panel mounted or you can just wire them up with the hookup wire provided. the pin choices are just suggestions.

you solder a single wire from the output of the device you are attaching the clatter to and then another from the output to whatever you are feeding from the clatter.

if you hear a hum there are two simple things you can do to fix it. first, if there is not already one there, you should add a DC offset capacitor (maybe 100nf or 1uf, larger or smaller is fine) to the output of whatever device you are sending to the clatter. the second thing is that you should solder a wire connecting both of the grounds of each device. i did not provide a point for you to do this on the board (i will on newer models) but you can just use one of the ground solder points on the bottom of the pcb.

if you plan to use it as a standalone device then i suggest that you add an input and output pot to give you more control over the volume. just follow the diagram down in the left corner.



pot wiring for passive volume control -
any value will work but 100k works best
for me in most cases - experiment

power supply range from 4.5 volts DC to 15 volts DC

length and width dimensions—1-3/16" x 1-1/16" or 30mm x 27mm

height dimensions - without pots 7/16" or 15mm / with pots 15/16" or 24mm

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<http://thesquarewaveparade.com/clatter.html>

the inputs are only shown with jacks to make it easier to understand. you only need to do this to use it with outside audio sources. if you are building it inside of something, then you can just wire the "input" and "output" pins to the device and then a single wire from any ground tab on the clatter to ground on the device or you will get hum.

notice that i forgot to add extra ground tabs for the audio inputs, but you can wire them to any ground pins on the pcb. i'll fix this on future versions

audio input

audio output

cut

the pot can be inserted directly into the pcb or you can add wires as shown.

clatter
basic wiring tutorial

by the squarewave parade
thesquarewaveparade.com

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in some cases you will not get the switch to close all of the way, meaning there will not be any true silence between switching and in others you will hear a hum or even a click when in use, though its rare. its very easy to fix this, you just need to add a single 100nf (or anything close) capacitor between the input connection and the board as shown in the diagram