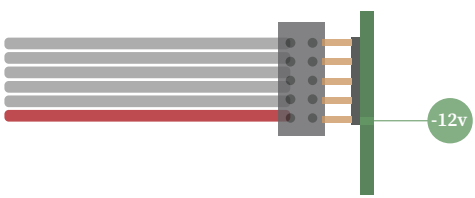
Touchplate-Controlled
Gate/Trigger Source

TOUCHGATES

SetonixSynth

BEFORE PLAYING WITH TOUCHGATES

To power your **TouchGates**, connect the upper row of the 10-pin side of a standard 10-to-16 pin Eurorack power ribbon cable to the single row header on the back of the module, so that the power connector sits behind the panel of the module. Before powering the module on, make sure the **-12V** side of the power cable, commonly bearing a red stripe, is aligned with the silkscreen stripe and "**-12V**" label on the module. The **TouchGates** is reverse power protected using a Schottky barrier diode, but we do not advise plugging it in backwards under any circumstances.



TECHNICAL SPECS

Width: 2hp
Depth: 25mm
Peak current draw: 25mA @ +12V, 0mA @ -12V
Output Impedance: 1kΩ

ABOUT TOUCHGATES

SetonixSynth TouchGates is a four-channel module for producing gates and triggers. Each of its four outputs can be used to control a separate module or function which is responsive to analog gates or triggers, such as four separate drum modules, four separate envelopes, clocked devices, or some combination thereof.

In order to trigger a channel, a small resistance must be placed between the two parts of the corresponding exposed copper spiral. This can most be easily accomplished using the electrical properties of touch.

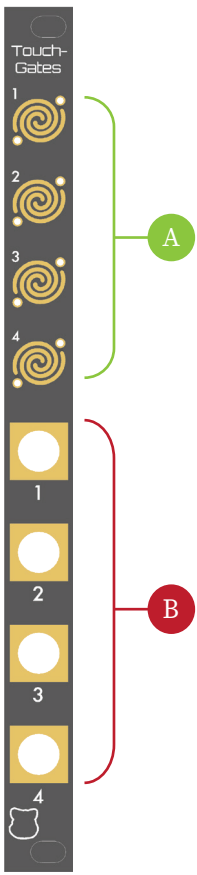
As long as a small current is allowed to flow between the two parts of a touch point, the corresponding output will produce an output of approximately +5V, while an untouched spiral will produce an output of approximately 0V until it is touched again. Each channel of the TouchGates has some filtering to prevent "noisy" gates and re-triggering, but overall the output is dependent on continuous touch. As such, you can "tap" a touchpoint to produce a trigger or clock, or hold it to produce a continuous gate.

PLEASE NOTE

Because its circuitry is dependent on the modular case's main power rail, we do not recommend using the **TouchGates**' outputs for "precision voltage" functions such as controlling the pitch of a VCO. Instead, it should be viewed as a way to generate binary On-Off voltage signals to control time-based events such envelope functions, sequencer step advances, voice triggering, and all other synthesizer functions that respond to Gate/Trigger signals.

TouchGates Touch Point

INTERACTING WITH TOUCHGATES



A : Touch
B : Gates
(it's that easy)

As each channel of the **TouchGates** requires a certain low amount of current passing through a touch plate, it may produce unexpected results if used with fingers that are either too moist or too dry. If your fingers are too moist, some notes may "hang"; this can be managed by wiping off the TouchGate, drying your hand, and/or physically touching less of the touchpoint with your finger. If your fingers are too dry, the TouchGates may not trigger until you apply a bit of moisture to your fingertips.

The 2hp TouchGates is designed to use the Eurorack Gate output standard of 0-5V. In practice, each channel produces an output around 5.30V in its "on" state and around 0.05V, or 50mV, in its "off" state. Eurorack modules are usually controlled by a voltage crossing a threshold between 1V-5V and will respond well to **TouchGates**, but this might not be the case for all modules and circuits, especially non-Eurorack sequencers and hardware, so it is worth checking the specs of all related hardware if in doubt.

THANK YOU FOR USING

TOUCHGATES

SetonixSynth