Tea kick is a universal analog circuit, based on an improved version of the twin T resonant drum sound design. When a trigger signal is sent to the circuit, it generates a classic dampened sine wave sound.

**Instruction**

- **Resonance** control affects how resonant the circuit is. However, the resonance also affects the tuning: the more resonant, the lower the drum sound. Add resonance to get longer decaying drum sounds. The resonance range switch can prevent the resonance from self oscillating. When you switch it up the resonance control makes the circuit self oscillate and then it can be used kind of as a VCO.

- Tea kick also has a click generator with tone control. The click tune control also affects the timbre of the twin T circuit.

- **Trigger** input triggers the dampened sinewave generation at lower resonance settings. Connecting an audio rate signal to this input results in very pleasing waveforms at the output. The trigger is visualized by the led.

- The twin T circuit can also act as a bandpass filter, for which there is a WTF input. The aim of the tea kick is not to provide you with a perfect BPF though, so this feature has more of an experimental character and lets you access another interesting point of the circuit.

- CV input is for tuning the circuit so the sound can range from a bass drum through all the toms up to a woodblock.

- CV input goes through the attenuator and is mixed with the voltage from the TUNE knob, to create the final pitch control voltage.

- The click output takes the click impulse away from the OUTPUT, so you could for example mix it in an external mixer at a different volume, or use it for other experimental purposes.

- The Tea kick has a buffered OUTPUT but is also fed through a comparator which generates a square wave on the SQUARE OUT.

- A resonance adjustment trimmer on the back limits the lower resonance range.
technical details

- 5HP
- 35mm deep (skiff friendly)
- current +12: <15mA, -12 <15mA
- PTC fuse and diode protected 16 pin power connector

features

- bass drum generator
- Tune knob for adjusting pitch
- CV input with attenuator for Tune
- resonance knob
- resonance range switch (low range limits the circuit from self oscillation)
- click tune knob – adjusts pitch of click added to the drum body
- click output jack – when plugged in it puts the click out of the main output
- buffered output
- square wave output
- trigger input
- wtf input (acts something like band pass filter but not really:)
- trimmer to adjust the resonance range
- handmade in Brno, Czech republic

Connecting module to your system

Before connecting the ribbon cable to this module disconnect your system from power!

![Warning]

Check the polarity of the ribbon cable and that it is not shifted in any direction. The red cable should match the -12V rail both on the module and on the bus board.

Please make sure of the following:

- You have a standard pinout Eurorack bus board
- You have +12V and -12V rails on that bus board
- The power rails are not overloaded by current

Although we put protection circuits in the device, we do not take any responsibility for damages caused by wrong power supply connection.

After you connected everything, double-checked it and closed your system, so no power lines can be touched by hand, turn on your system and test the module.

Beyond the drum

Tea Kick can be either used as a predictable drum circuit, or it can go totally nuts as an experimental oscillator. There are several ways how to route inputs and outputs to generate feedback loops, to generate a signal. However, there are also several ways you can try to modify and filter a signal from another VCO. We highly recommend to route any oscillator into the trigger input. There is a lot to explore in here.