TIDES
Parasite V1.11

# TIDES (Regular Mode)

AD (trig in one shot)

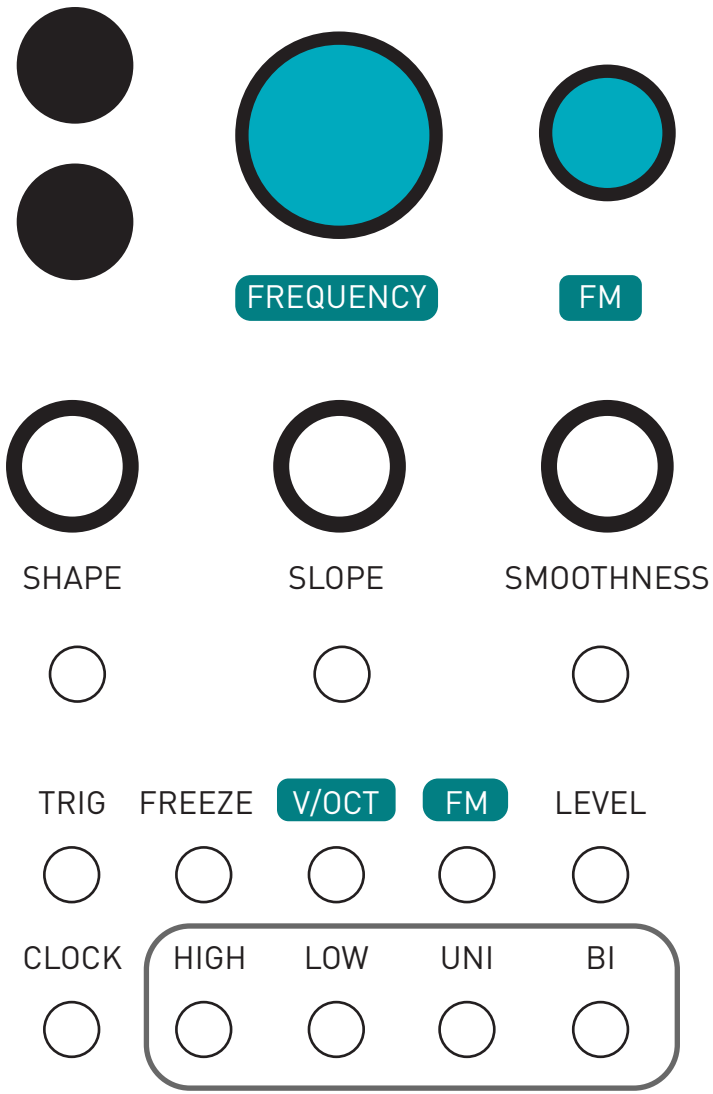
CYCLIC (looping)

AR (gate to trig to hold)

SLOW L

MEDIUM M

FAST H




**Parasites Calibration Procedure.**

Note: slight difference from stock procedure.

Set the FREQUENCY knob to its center position.

Connect a patch cable to the FM input. Leave the other end of the cable unplugged (this prevents the normalling to ~1 semitone to be activated).

Connect a patch cable to the Level input. Leave the other end of the cable unplugged (this prevents the normalling to full scale to be activated).

Connect a MIDI>CV interface or precision voltage source to the V/Oct input.

Turn on the module while holding the Range knob.

Input a 1V voltage from your CV source.

Press the mode switch.

Input a 3V voltage from your CV source.

Press the mode switch.

**Mode-switching interface**

Tides Parasite can be used in three different modes, each being a completely different function. To switch between modes, press the two buttons simultaneously. The LED corresponding to the current mode blinks quickly for two seconds. Whithin these two seconds, the two press buttons, called Mode and Range in the manual, can be used to select a mode (Mode goes forward, Range goes back). After two seconds of inactivity, the selected mode is entered and the LEDs and buttons reclaim their normal function. The modes are:

LED 1: function-generator mode (the original mode of the stock firmware)
LED 2: Two-bumps mode: a harmonic oscillator.
LED 3: Two-drunks mode: a random generator.

**Quantizer**

There is a built-in quantizer in Tides Parasite, which applies to all modes (including the original function-generator mode). To enable it, long-press on the Mode button (> 1s), then choose the active scale with the two buttons (Mode goes backwards, Range goes forward). The scales are indicated by a dim green LEDs using binary notation:

- ○○○ No quantization
- ●○○ Semitones
- ○●○ Major
- ●●○ Minor
- ○○● Whole tones
- ●○● Pentatonic minor
- ○●● Poor pentatonic
- ●●● Fifths

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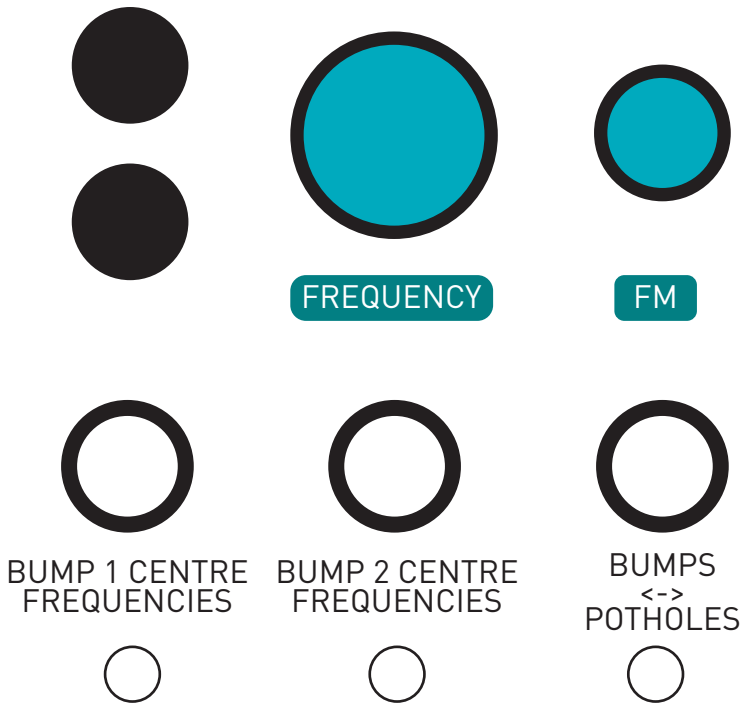
# TWO BUMPS

ODD HARMONICS ONLY
ALL HARMONICS
OCTAVES ONLY

LOWEST QUALITY L
MEDIUM QUALITY M
MAXIMUM QUALITY H




A trigger in to the Trig input will randomize the phase of each harmonics

A trigger in to the Clock input will randomize the Harmonics distribution and Decimation settings.

## ABOUT

A harmonic generator (also called an additive synthesis engine) produces its timbre by summing sinusoids of multiple frequencies (harmonics). Theoretically, all timbres can be reproduced this way, by choosing the right amplitude for each sine.

Two-bumps is a harmonic generator that sums 28 harmonics. The timbre is shaped by choosing two "center frequencies", (with the Shape and Slope knobs) which select the loudest harmonics, and a "width", which is the amount of harmonics adjacent to the two centers that will also ring (the Smoothness knob, from fully CCW to noon). Additionally, you can have the exact mirror of what I just described. The bumps then become potholes: all harmonics ring by default and you are selecting the quietest harmonics, digging a notch of varying width in the spectrum (this is selected by the Smoothness knob, from noon to fully CW).

## PLL (phase locked loop)

A long press on the range button puts Tides Parasites into PLL mode where the engine is locked to a clock (or oscillator) being fed into the CLOCK input.

In PLL mode, the FREQUENCY knob acts as a divider/multiplier of the input to CLOCK, all other controls should act as normal

PLL will not produce any results with no clock input, if your module is not operating as expected, check if you're in PLL mode.

**PLL can be accessed in all Parasites modes.** To exit PLL mode, simply hold down the range button for 2 seconds.

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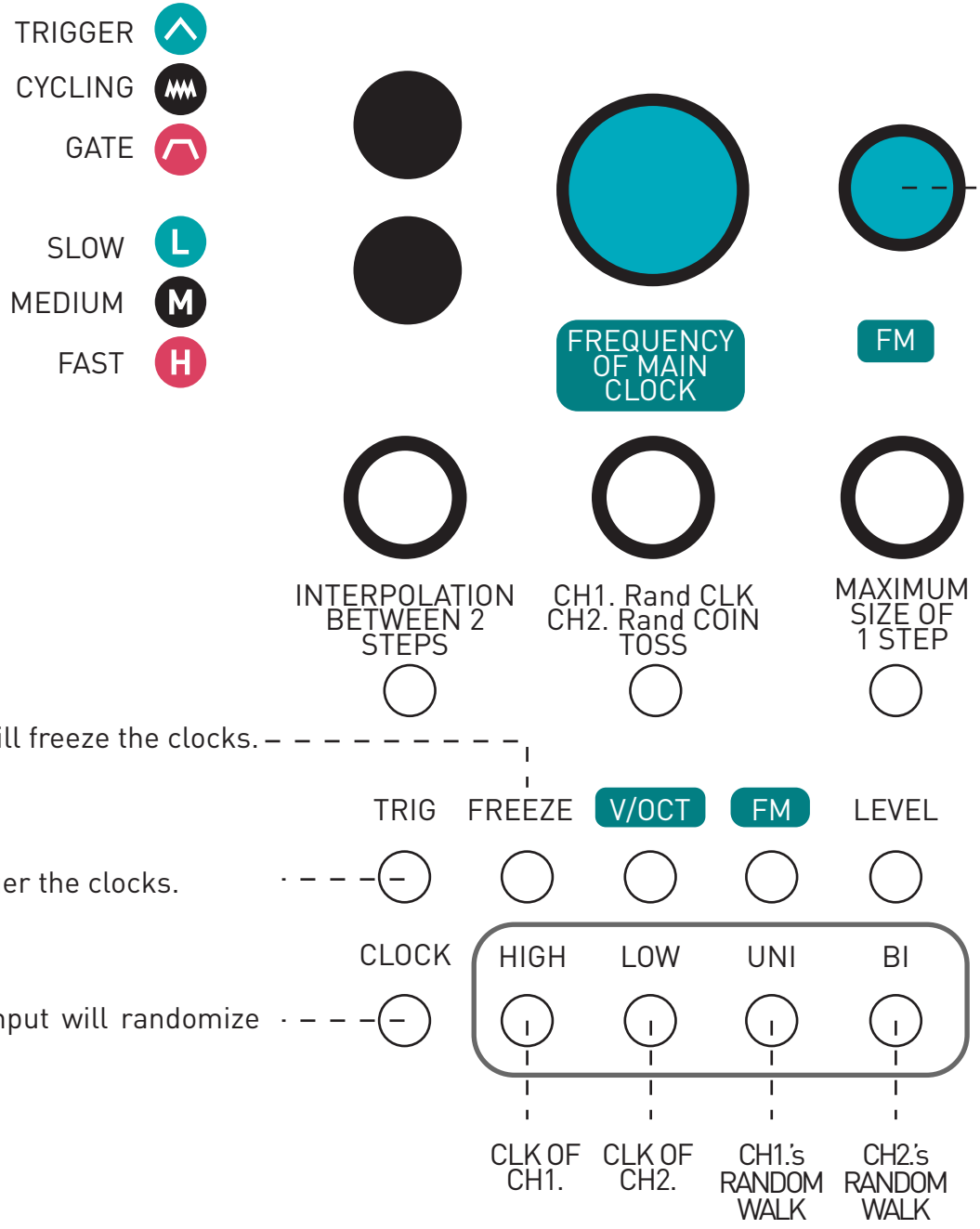
# TWO DRUNKS




**ABOUT**

A random walk, also called a Drunkard's walk, is a stochastic process (a system that evolves randomly over time) that consists in repeatedly making small steps in random directions in a given space. Imagine a drunkard wandering in a city, taking a random direction at each crossing. Will (s)he ever make it back home?

Two-drunks is a dual random walk simulator. Each walk is timed by an independent clock featuring a form of randomness: one—Channel 1—is jittery, with control over the amount of jitter (from steady to completely random); the other—Channel 2—simulates a random biased coin toss, with control over the bias (from always ticking to ticking once every very long while). The Low and High outputs emit these clocks, respectively. They are both derived from the same main clock; the Frequency knob sets the frequency of this main clock.

FM is an attenuator for the FM CV input, and also determines the output gates duration: random gate distribution for Channel 1, pulse width for Channel 2.

**Tides By Mutable Instruments**
**Parasites By Matthias Puech**
**Info/sheet Prepared By D.Fyans**
**for reference only with endless thanks to the above**