

GOATKEEPER by Lightfoot Labs

Quick Guide v1.0

Waveform Select Knob: Select between 6 built-in waveform shapes and 5 user-defined waveforms.

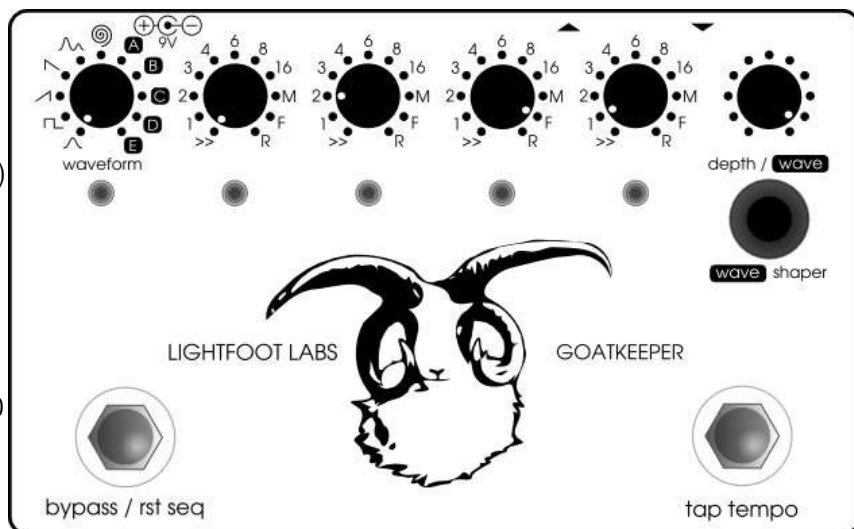
Time Division/Sequence Knobs: Skip the current step and go to the next (>>)
 Multiply the LFO's rate by the number specified (1 through 16)
 Full amplitude (F)
 Minimum amplitude (M)
 Randomly (R) select between 1 through 16 and Minimum amplitude

Depth / Wave Knob: This is a dual function knob. The first is that it functions as a depth adjustment. The second is that it determines the amplitude level when using the Wave Shaper function.

Wave Shaper Button: Press and hold this button to activate the Wave Shaper/Draw Capability. Note the Waveform Select knob must be set to one of the the A - E positions and the effect must be switched on.

Bypass / RST SEQ Switch: This switches the effect in and out. It will also reset the sequencer to the first active step in the sequence. That is, the first step that's not set to the (>>) position. The LED under the Waveform Select Knob indicates Bypass status.

Tap Tempo Switch: This sets the LFO rate by measuring time between taps. The range is approximately 200 milliseconds to 6 seconds. Tap twice to set.



Using the Wave Shaper Function

The Wave Shaper function allows for the user to create and store an LFO waveform in each of the A - E positions of the Waveform Select Knob. Once the function has been initiated by pressing and holding the Wave Shaper button, the Bypass Status LED will start to quickly flash and then stop after a couple seconds, signaling the start of recording. Knob movements of the Depth / Wave knob will be recorded as the amplitude of the waveform. Continue to hold the button while recording the wave shape. Recording ends when the Wave Shaper button is no longer depressed or after 6 seconds.

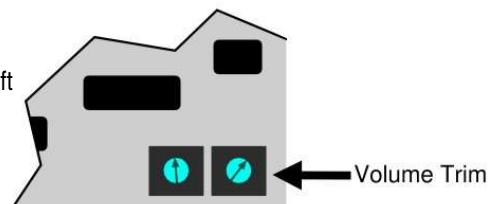
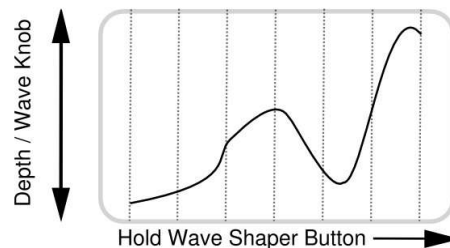
Use the flashing LED to help time the waveshape. Try to keep your created waveforms fairly simple. A complex waveform will be distinguishable only at slow LFO speeds.

Power

Goatkeeper requires a negative-tip 9V DC adapter for power.

Volume Adjustment

There is an internal trimmer control that sets the overall effect volume. It is located on the bottom-right corner of the circuit board. The trimmer on the left is used to null feedthrough from the LFO and should not be adjusted.



Designed by Austin Lightfoot

Special Thanks: Yudy Chen – Design considerations/beta testing; Gabriel Clark-Leach – beta testing