LIGHTFOOT LABS GK3

GK3 2014 builds: Expression controlled depth and optional presets switch: Control depth instead of rate with the expression input by holding the tap tempo switch on startup. To go back, hold the bypass switch on startup. Settings are saved on power down. When depth is under expression control, the depth knob functions as rate. Note if expression controlled depth mode is set, there will be no effect (zero depth) unless expression or CV is plugged in. Presets option adds four presets that cycle when tapping the preset switch. Sequence LEDs indictate the preset. Holding the preset switch saves the preset. Waveform, sequence info, depth and tempo parameters are all saved. All LEDs off is the the the live (current) knob settings. If the preset switch is held in this state, the presets will automatically cycle in sequence with the current tempo and depth. Presets with all ">>" will be skipped.

Waveform Select Knob: Select between 6 standard 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 (1 through 16), Full amplitude (F), Minimum amplitude (M), Random (R)

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 Waveshape Record function.

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 top middle LED 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.

DC IN: Use a 9V negative tip (Boss style) power supply, 75mA or greater. One-spot and Godlyke daisy chain supplies work fine.

VOL Knob: Adjusts the output volume.   **Preamp Gain Knob (Internal):** Adjusts the preamp gain. Set to zero during assembly.

LFO OUT: This jack outputs Goatkeeper's LFO as a 0 to 5V control voltage signal. The LFO will be at the full range with the depth knob at its full clockwise position.

SYNC IN: Input an audio click track from a sequencer/metronome/drum machine/etc to sync Goatkeeper. The source should be a short "click" or "blip" type sound. Sounds with long decay or reverb will not work reliably. Adjust the source's volume so that Goatkeeper is locked in sync (Sync In should over-ride tap tempo and Expression/CV control).

EXPR IN: Expression/ Control Voltage input. Use an expression pedal with Tip-Ring-Sleeve plug or Control Voltage from 0 to 5V to control Goatkeeper's LFO rate. LFO rate with this input ranges from approximately .05 Hz (20 seconds - sequence knob set to 1) to 300 Hz (sequence knob set to 16).

Waveform Record Function:
The Waveform Record function allows for an LFO waveform to be created and stored in each of the A - E positions of the Waveform Select Knob. Once the function has been initiated by pressing and holding both the Bypass and Tap Tempo switches, the right two sequence LEDs will start to flash, indicating the mode has been entered. At this point, moving either the Depth knob or Expression input will select it as the recording source. When ready to record the waveshape, press and hold the Bypass switch. Movements will be recorded as the amplitude of the waveform. Recording ends when the Bypass switch is no longer depressed, or after approximately 8 seconds.

Use the flashing LEDs to help time the waveshape. Try to keep your created waveforms fairly simple. A complex waveform will be distinguishable only at slow LFO speeds. If using an expression pedal to record waveshapes, press the Tap Tempo switch after Waveshape Record has been armed with the expression pedal in the max position. This will calibrate so that the pedal's maximum position corresponds to maximum amplitude. This calibration is lost when Goatkeeper is powered off.

Special Thanks: Yudy Chen, Dave Gill

Designed by Austin Lightfoot

lightfootlabs.com