

# Lfo

## OPTICAL TREMOLO



Inspired by the optical technology of traditional valve amplifiers, the Mastro Valvola LFO is an optical tremolo that evokes the classic vintage sounds of the past, while offering a range of exciting new features.

The classic warm, enveloping modulation that distinguished amplifiers manufactured during the 60s is reproduced by the opto-isolator that lies at the heart of the analogue audio signal circuit. However, the opto-isolator is managed by a digital brain, allowing you to produce effects ranging from traditional tremolo to unique, inspirational waveforms, and experiment with new atmospheres and hypnotic effects that have never been heard before.

Main features:

- 16 different waveforms
- Symmetry control to alter the shape of LFO waveforms
- Tap Tempo with 3 selectable divisions
- Opto-isolator variable resistance path
- Volume control for easily matching dry and effected sound

**POWER jack**  
9 V DC 50 mA  
center negative

The use of an isolated power supply is recommended for powering LFO.  
Daisy chain power supplies are not recommended.

**output jack**

**input jack**

**wave set**  
selects which set of eight waveforms is used.

**wave**  
changes LFO wave shapes.

**depth**  
controls the strength of the tremolo effect.

**sym**  
the selected waveform can be distorted using the "sym" control. This modifies the duty cycle of all LFO waveforms. Does not affect "Random Levels" wave.

**division** ♩ ♪ ♫  
selects a tempo multiplier which is used to determine the final LFO frequency. This allows the LFO to produce changes at double speed or produce triplet times.

**volume**  
determines the overall output when the pedal is engaged. Use this control to balance your dry and effect levels. Higher depth settings generally require a higher "volume" setting.

**tap**

**speed**  
sets the speed of the LFO. The range of the "Speed" control, in conjunction with the "Division" switch allows the tremolo to produce frequencies between:

- ♩ 0.05 Hz (20 s) and 12.8 Hz (78 ms) / with quarter note
- ♪ 0.1 Hz (10 s) and 25.6 Hz (39 ms) / with eighth note
- ♫ 0.15 Hz (6,6 s) and 38.4 Hz (26 ms) / with triplet













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




# Lfo

## 16 wave shapes

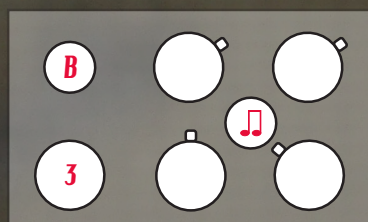
set A

- 1  ramp up
- 2  ramp down
- 3  square
- 4  triangle
- 5  sine
- 6  sweep
- 7  lumps
- 8  random levels

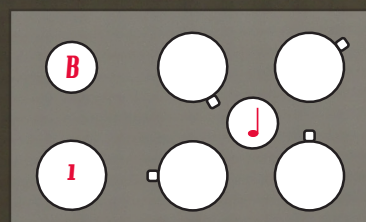
set B

- 1  ramp +oct
- 2  quad ramp
- 3  quad pulse
- 4  tri step
- 5  sine +oct
- 6  sine +3rd
- 7  sine +4th
- 8  random slopes

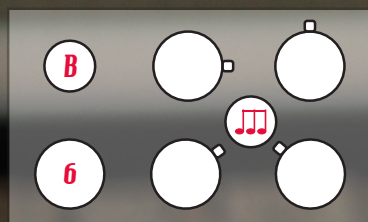
## Settings



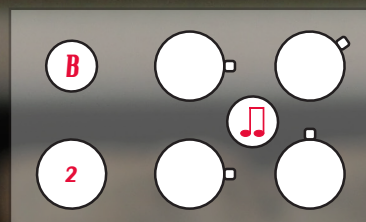
freeze



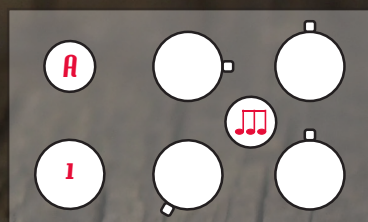
hypnotic



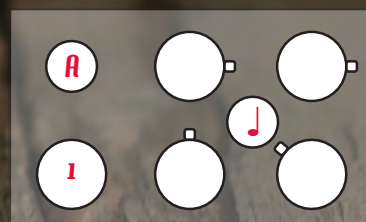
bouncing



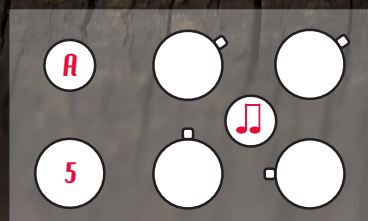
helicopter



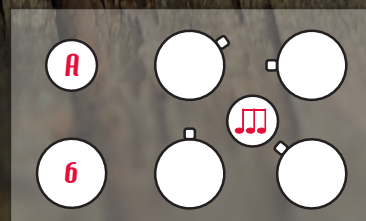
techno



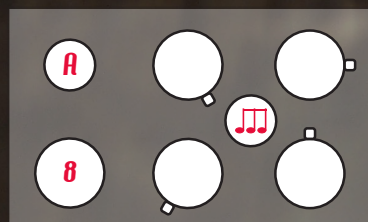
bang bang



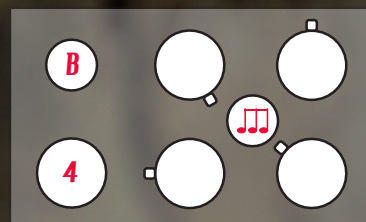
60's sine



rotor



noise random



psychedelic  
bass