

# MODEMACHINES

ANALOG. KULT.



## MW-01 WASP Filter

---

MANUAL

## THANK YOU

---

for purchasing the MODE MACHINES **MW-01** "WASP Filter".

**T**his filter is based on the circuitry of the WASP Synthesizer built by "Electronic Dream Plant" (EDP) in the late 70's. Apart from its own distinctive sound its three different filter types set it apart from other filters.

While the original circuit did not self oscillate with high Resonance settings the **MW-01** features a switch that will allow self oscillation under certain circumstances to occur.

## CONNECTIONS

---

### POWER

9 - 12V DC input with  
"+" on center pin

### AUDIO OUT

Audio input:  
6.35mm mono jack

### AUDIO IN

Audio output:  
6.35mm mono jack





## FILTER TYPE

low: low pass filter.

Turning the “Cutoff” control counter-clockwise will attenuate high frequencies. The low pass filter is the most commonly found filter in synthesizers.

band: band pass filter.

A band pass filter will - as the name suggests - let pass only a certain frequency range; frequencies both higher and lower outside this range will be attenuated. The “Cutoff” knob controls the middle frequency of this range.

high: high pass filter.

Turning the “Cutoff” control clockwise will attenuate lower frequencies so that only the high frequency components of the signal remain audible.

## LFO SPEED

This knob controls the speed of the LFO (“Low Frequency Oscillator”). The speed is also indicated by the LED above.

## LFO LEVEL

This control determines how strong the LFO modulates the Cutoff frequency. Turning the knob clockwise will increasingly move the filter frequency up and down periodically.



## CUTOFF

The “Cutoff” knob controls the filter frequency. The result depends also on the “Filter Type” setting.

# FUNCTIONS

## POWER ON/OFF

Turns the unit on/off.

## SELF OSC

This switch modifies the filter circuit to enable the filter so self oscillate at high "Resonance" settings. The filter will then generate a sine by itself. The frequency of the sine is controlled by the "Cutoff" knob.

Depending on the "Filter Type" setting it may be necessary to open the "Drive" control for self oscillation actually to happen.

## DRIVE

This knob controls the pre-amplification of the signal prior to entering the actual filter circuit. At minimum setting there's no additional amplification. Turning the "Drive" control clockwise gradually increases the signal's amplitude until it starts to distort. The amount of distortion also depends on the original amplitude of the signal.

## RESONANCE

This control feeds a certain amount of the filtered signal back to the filter input. This will emphasize the Cutoff frequency. If "Self Osc" is active this control can make the filter generate its own sine signal.

## CONTACT

---

For information, pictures and accessories to our product line, please visit:

 [www.modemachines.com](http://www.modemachines.com)


Information, product news and many other interesting articles can be found at

 [www.facebook.com/modemachines](http://www.facebook.com/modemachines)

You also get news and links from Twitter.  
Follow us on

 [www.twitter.com/modemachines](http://www.twitter.com/modemachines)

Mode Machines is a Division of Michael Thorpe Consulting GmbH

 Fichtenstraße 49 • 90763 Fürth • Germany

Tel: +49 (0)911 - 97 92 92 -0

Fax: +49 (0)911 - 97 92 92 - 18

Email: [contact@modemachines.com](mailto:contact@modemachines.com)