Free Modulation FX Bundle from Dome Music Technologies

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Mister Memory Voltage-Controlled Delay Line Module

Audio Input & Output Sockets and Dry / Wet Mix

Mister Memory is a mono processor. If you want to process a stereo pair of signals, then you must run two instances in parallel.

There's not much to say about any of these panel features; your source signal should be connected to the **In** socket, and the processed sound comes out of the **Out** socket.

When the MIX knob is fully counter-clockwise, you hear 100% of the unprocessed input signal. When fully clockwise, you hear 100% of the delayed signal. When at the 12 o'clock position, you hear a 50:50 mix of the two. If you are using Mister Memory as a 'send' effect, ensure that the MIX knob is set to 100% wet.

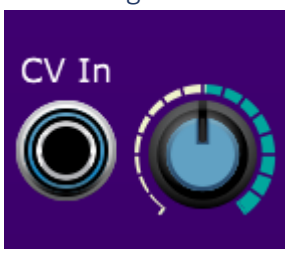
Feedback Control

The Feedback knob sets how much of the processed 'wet' signal is sent back to the input, creating decaying repeats. At the 12 o'clock position, no wet signal is recirculated. Turning the knob in a clockwise direction increases the positive feedback, up to a maximum of 100% (essentially 'infinite repeat'). Turning the knob in a counter-clockwise direction increases the negative feedback, up to a maximum of -100% (essentially 'infinite repeat' with a signal which inverts its polarity on every pass).

Delay Time Control

Mister Memory can delay a signal in the range 0 to 2,500 ms (0 to 2.5 seconds). The knob can be set to sub-millisecond delay times by setting it to decimal values. There are 48 samples per millisecond, however Mister Memory can achieve sub-sample delay times through a process of linear interpolation. The Delay Time knob has a transient slew response. This means that when you change delay time, it speeds up and slows down like a tape echo, with corresponding momentary pitch shifts.

The Voltage Control Section



Mister Memory allows external voltage control of delay time. The control signal will further modify the initial time set on the Delay Time knob.

The control voltage source should be connected to the CV In socket.

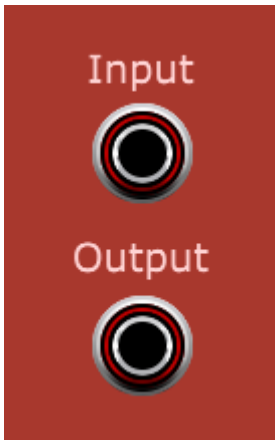
The attenuation knob allows positive scaling of the CV input.

- At the 7 o'clock position, the CV input has zero effect.
- At the 12 o'clock position, a +/- 5V input will vary the delay time by +/- 10ms. This is ideal for gentle pitch vibrato effects, chorus, etc.
- At the 5 o'clock position, a +/- 5V input will vary the delay time by +/- 1250ms. By setting the Delay Time knob to 1250ms, you can cover the entire delay time range from 0ms (-5V) to 2500ms (+5V).

The CV input does not apply any form of slewing to the CV signal. Instantaneous jumps in CV voltage will perform instantaneous jumps to a new delay time. Be aware that this can lead to clicks, aliasing and other audio artifacts.

Forth Phase

Audio Input & Output Sockets



Forth Phase is a mono processor. If you want to process a stereo pair of signals, then you must run two instances in parallel.

Your source signal should be connected to the **Input** socket, and the processed sound comes out of the **Output** socket

Phasing Mode Switch

Forth Phase has four modes of operation:

U-Vibe Mode operates like a Uni-Vibe™ pedal. That is, only the phase-shifted signal is passed to the output, with none of the original dry signal mixed in. This means that you only really hear an effect when an external LFO is modulating the corner frequency. A sine wave LFO is perfect for giving you that classic 'lumpy' cyclic vibrato, typical of authentic Uni-Vibe™ pedals.

Ph Low Mode is a classic, subtle four-stage phaser sound with zero feedback. This sounds similar to a Uni-Vibe™ pedal in "Chorus" mode.

Ph Med Mode is a classic four-stage phaser sound with medium feedback, leading to resonant peaks in its response.

Ph High Mode is a classic four-stage phaser sound with high levels of feedback, leading to more pronounced resonant peaks with a 'vocal' quality.

Corner Frequency Knob

The **Corner Frequency** knob controls the position of the two phaser notches in the frequency spectrum. If we switch the **Phaser Mode** switch to Ph High, we get the following frequency response plots. Note the large frequency range spanned between 7 o'clock and 12 o'clock – this is crucial for achieving that authentic asymmetric 'lump' when the frequency is modulated by an LFO:

Figure 1- Freq knob at 7 o'clock position

Figure 2 - Freq knob at 12 o'clock position

Figure 3 - Freq knob at 5 o'clock position

The Voltage Control Section

Forth Phase allows external voltage control of the corner frequency / notch positions. The control signal will further modify the initial corner frequency set on the Freq knob. One important fact to remember is that the Freq knob covers the entire frequency range of the module, so adding a control voltage when the Freq knob is at +5 will have no effect. Similarly, subtracting a control voltage when the Freq knob is at -5 will have no further effect. This 'clipped' modulation effect can lead to some interesting modulation shapes, further enhancing the 'lumpy' Uni-Vibe™ response.

The control voltage source should be connected to the Ext CV socket.

The attenuation knob allows both positive and negative scaling of the CV input.

- At the 12 o'clock position (0%), the CV input has zero effect.
- At the 5 o'clock position (+200%), a + 5V input will *increase* the Freq setting by 10 (up to a max value of +5). This allows a (unipolar) envelope generator to sweep the entire frequency range from -5 to +5 (if the Freq knob is set to -5).
- At the 7 o'clock position (+200%), a + 5V input will *decrease* the Freq setting by 10 (down to a minimum value of -5). This allows a (unipolar) envelope generator to sweep the entire frequency range from +5 to -5 (if the Freq knob is set to +5).

Quad Sine LFO

The Quad Sine LFO is the ideal modulation source for both Mister Memory and Forth Phase. It provides four sine wave outputs in phase quadrature, where each output lags the previous one by 90 degrees.

Rate Knob

The Rate knob determines the frequency of all four outputs.

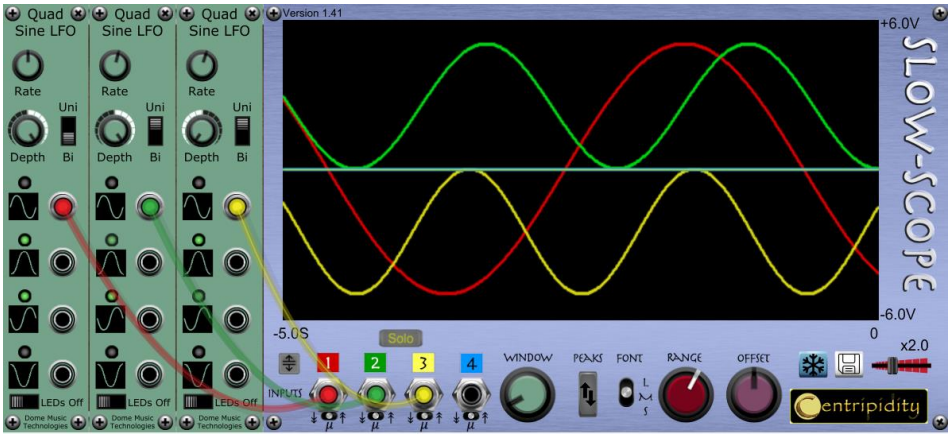
- At the 7 o'clock position, the frequency is 0.01 Hz, or one cycle every 100 seconds.
- At the 12 o'clock position, the frequency is 0.25 Hz, or one cycle every 4 seconds.
- At the 5 o'clock position, the frequency is 20.0 Hz.

Depth Knob and Polarity Switch

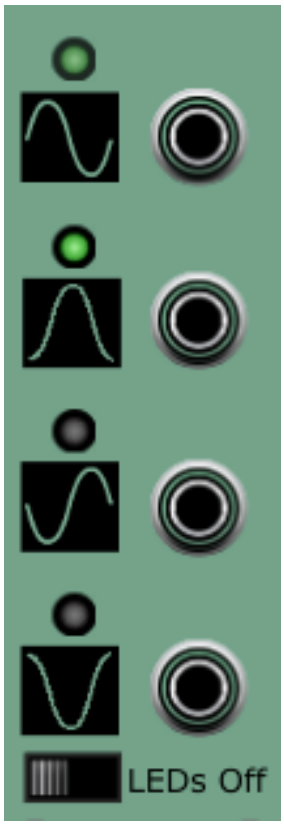
The depth knob allows the output level of the sine waves to be varied between +100% (5 o'clock), through 0% (12 o'clock) and down to -100% (7 o'clock). Negative depth values only become meaningful when the Polarity switch is in "Uni" mode.

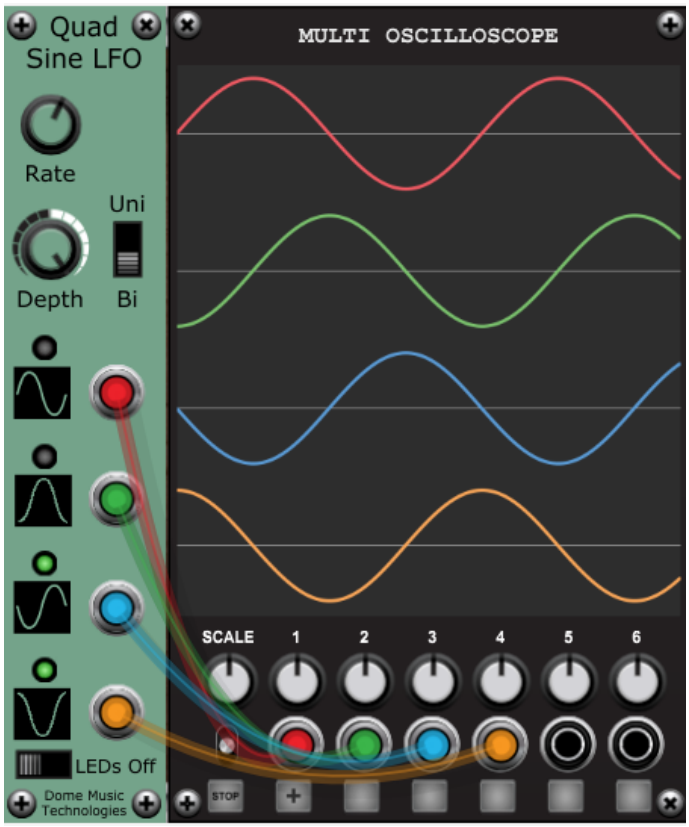
The Polarity switch determines whether the output waveform is **Bi**polar or **Uni**polar in nature:

- In the **Bi** position with Depth at +/-100%, the wave outputs will swing between -5V and +5V.
- In the **Uni** position with Depth at +100%, the wave outputs will swing between 0V and +5V.
- In the **Uni** position with Depth at -100%, the wave outputs will swing between 0V and -5V.



Quad Wave Outputs, LEDs and LEDs Off switch.





There are four sine wave outputs, which lag each other by 90 degrees. Each quadrant has its own indicator LED which show when it is in the positive half of its cycle (dim green) and close to its peak value (bright green). If the LEDs become too distracting (particularly at high frequencies), they can be switched off by sliding the **LEDs Off** switch to the right-hand position.