Rotomorph M4L

OWNER'S MANUAL

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About

Rotomorph is a multi-head tape delay emulation device that bridges the gap between vintage charm and modern precision. Inspired by the legendary Morphophone and classic tape echoes, Rotomorph brings the warmth and character of analog delays into the digital realm.

It's designed for producers, sound designers, and musicians who appreciate the nuances of vintage equipment but demand the flexibility of software.

Inspiration: Jacques Poulin's Morphophone

At the heart of Rotomorph lies the inspiration drawn from Jacques Poulin's **Morphophone**, a ground-breaking electroacoustic instrument from the 1950s. The Morphophone, developed at the GRM (Groupe de Recherches Musicales) in Paris, utilized a rotating disk with multiple playback heads to create complex, evolving delay patterns. This innovative approach to sound manipulation laid the groundwork for many tape-based effects and compositions in electronic music. Rotomorph pays homage to this pioneering device, reimagining its core concepts for the digital age while expanding its sonic possibilities.

Key Features

- Five independently controllable playback heads
- Variable tape speed and reverse playback options
- Per-head filtering, gain, and panning controls
- Syncable delay times with note value selection
- Erase and clear functions for tape manipulation
- Multiple metering for precise monitoring. In case things get out of control.

Rotomorph is more than just an effect; it's a time-bending companion for your sonic explorations. Whether you're crafting lush ambient soundscapes, adding depth to rhythmic patterns, or experimenting with abstract textures, Rotomorph offers a unique palette of creative possibilities.

Enjoy your journey through time and tape with Rotomorph.

Installation

Prerequisites

- Ableton Live Suite 11.2 or higher

Installation Steps

- Download and Extract: Unzip the downloaded file to a location of your choice.
- Locate Max4Live Device: In the extracted folder, find the file named `Rotomorph.amxd`.
- Install in Ableton Live:
  - Open Ableton Live.
  - In Ableton Live, navigate to the browser panel on the left side.
  - Locate the "Max for Live" section in the browser.
  - Drag and drop the `Rotomorph.amxd` file into the "Max Audio Effect" folder in the browser.

Alternative Installation Method

Alternatively, copy the `Rotomorph.amxd` file to your Ableton Live User Library:

- Windows: `C:\Users\[YourUsername]\Documents\Ableton\User Library\Presets\Audio Effects\Max Audio Effect`
- macOS: `/Users/[YourUsername]/Music/Ableton/User Library/Presets/Audio Effects/Max Audio Effect`

Use Rotomorph

To use Rotomorph, drag it from the Max for Live browser onto an audio track in your Ableton Live set.

Access Manual

The detailed Owners Manual is included in the download as a PDF file. Open this file for comprehensive information on using Rotomorph.

Note: Ensure you have the latest version of Max for Live installed and activated in Ableton Live for optimal performance.

Quick Start

1. Place Rotomorph as an **audio effect** on a track. Ensure some audio is playing on this track. When adding the effect, you should hear **no difference** – this is the default setting.
2. Increase the **"Gain"** of the first tape head to **0dB**. Meters will move, but **no sound change** yet, as position is still 0 – record and playback are in perfect sync.
3. Now change the **"Pos" (Position)** control of the first row. This "moves" the tape head back and forth, determining when the recorded audio is played back. **Only now** will you hear the delay effect. Set the position to around **0.66** to get a nice, gentle echo.
4. You should now hear a gentle echo from the first tape head. Experiment with the other controls:
   - Click **"R"** to reverse the playback of this tape head.
   - Change playback speed with **"Speed"**.
   - Use **"Freq"** and **"Q"** to adjust a bandpass filter.
   - Increase **"FB"** (Feedback) to send your echo back onto the looping tape, creating more intense effects.
5. Adjust the **other tape heads** (rows) as needed. Each tape head can be set independently, allowing for complex and interesting delay patterns.

Note: *There's no "Record" button. Think of Rotomorph as **constantly recording** on a tape loop. The position determines from which point of the loop playback occurs.*

Controls

Global Controls

Tape Section

- **Length**: Adjusts tape length in ms when Sync is off.
- **Sync**: Aligns tape length to note values when enabled.
- **Note Value**: Selects tape length in note values when Sync is on.
- **Start / Stop**: Initiates or halts virtual tape movement.
- **Clear**: Instantly erases all content from virtual tape.
- **Erase**: Controls amount of previous recording cleared each cycle.

Gain / Mix

- **Gain**: Controls overall output gain.
- **Mix**: Balances ratio between dry (0%) and wet (100%) signals.

Tape Head Controls (Per Head)

Playback

- **R**: Enables reverse playback when active.
- **Pos**: Sets playback position on tape (0–1).
- **Speed**: Adjusts playback speed (1 = normal, <1 = slower, >1 = faster).

Filtering

- **Freq**: Sets center frequency of bandpass filter (0 Hz – 10 kHz).
- **Q**: Controls bandwidth of bandpass filter (0.10 – 10).

Level and Feedback

- **Gain**: Adjusts output level (–inf to +6 dB).
- **FB**: Controls feedback amount.
- **Pan**: Sets stereo position (50L = left, C = center, 50R = right).

Visualizers

- **Tape Head Visualizer**: Displays record head (red) and five playback heads positions/speeds.
- **Filter Output Meter**: Shows volume of filtered multi-channel signal.
- **Feedback Meter**: Displays intensity of feedback signal.

Additional Features

- **ph logo**: Click to open About box with version info and manual link.

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Service

Maintaining your instrument is as straightforward as dialing into a rotary phone: Just hop over to phasenpunkt.de whenever you remember it exists. With the luck of finding a working payphone in 2024, you might just catch an update — if the stars align and the internet gods are in a good mood.

Jokes aside, you'll receive an e-mail with a new download link whenever an update is released.

Version History

Version 1.0.0 * Initial release.

Rotomorph M4L is a product of phasenpunkt,
crafted with love, code, and a touch of analog magic.

Visit us in the digital realm: https://phasenpunkt.de

Got questions? Found a glitch in the matrix? Or just want to share your latest bass groove?

Drop us a line: info@phasenpunkt.de