ROTARY

Software User Manual

Software Version 1.0

EN 170325

ROTARY

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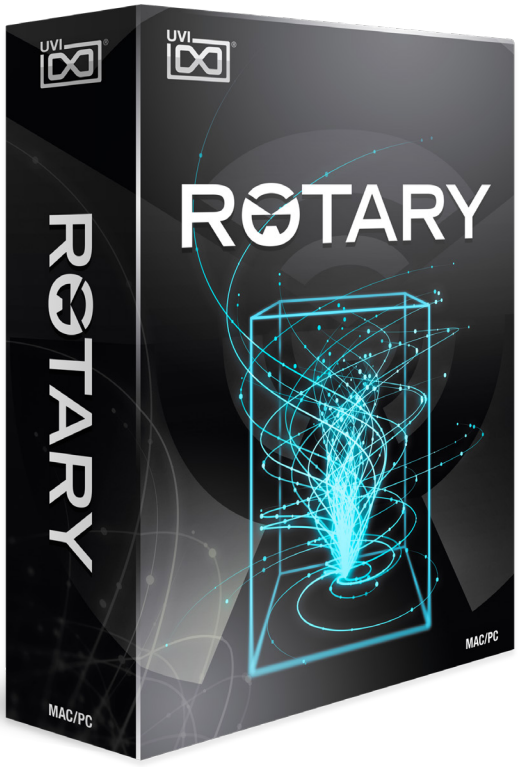
Introduction



ROTARY
THE EVOLUTION OF TONAL REVOLUTION

Overview

Originally invented in the 1940's, rotary speaker cabinets imaginatively employ the Doppler effect by firing a woofer into a rotating drum and a tweeter into a rotating horn. The results are much more harmonic than typical tremolo or vibrato effects, producing sounds ranging from rich and shimmering to gentle, dreamy and swirling. These novel speakers were quickly adopted by jazz organists, cemented by blues and rock legends such as Buddy Guy, Jimi Hendrix, Robin Trower, Pink Floyd and The Beatles, and later the effect simulated by guitar pedal manufacturers.

Taking its name and inspiration from these classic spinning speakers, Rotary represents the modern evolution of this classic design, delivering both a faithful reproduction of the original cabinets and providing a highly versatile and customizable musical tool for today's artists and audio professionals. A simple and intuitive interface provides for a workflow that's both fast and inspiring, while precise stereo mic placement and deep back panel controls allow for a huge range of tonal possibilities. Rotary can add another dimension to any sounds or instruments (even vocals), enhance harmonics and create a sensation of movement and depth.

Approach

The sound of rotary cabinets comes from the combination, mixing and balancing of numerous components including cabinet, horn and drum speakers, motor, belt, amplifier and the box diffusion itself. Our goal was not only to accurately reproduce each working part but to give complete parametric control over its internal mechanism, allowing the creation of effects well beyond what was possible on the original units.

Several rotary speaker cabinets were extensively modeled, taking into account physical construction, electronics and acoustic profiles including frequency response, harmonic distortion, diffusion and more. Careful testing, calibration and optimization of these models has yielded surprisingly efficient algorithms that are both faithful in sound to their hardware counterparts and light on CPU requirements.

A Future Classic

Rotary brings a vintage effect into the modern age with intuitive and deep controls, a fast workflow and a sophisticated engine. Explore it on a multitude of uses from keyboard and guitar setups to contemporary sounds, vocals and more, and see why Rotary is destined to become a future classic.

For system requirement and compatibility: click here

For information on the installation process, please refer to the document: Install Guide

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Interface - Main

1 Menu Toggle

Toggle the drop-down menu on/off

» Load and Save Rotary presets
» Factory Presets
» User Presets

2 Preset Name

3 A/B Snapshot

Use to store two different plugin states for A/B comparison

» Initial Click: Stores current state to memory A
» Following Clicks: Stores current state in bank A (resp B) and loads the previous state from bank B (resp A)

4 Tool Tips

Display instructions for any parameter by hovering over it with your mouse

5 Back Panel

Open the settings to access the back panel controls

6 Level Meter

Display the input (left) and the ouput (right) level of the plugin

7 Mic Placement

Click and drag to set mic placement
These positions will graphically link to the controls above

8 Mic & Cabinet settings

» **Model**
Choose the model of the speaker cabinet
» **Distance**
Set the distance of the mics from the speaker cabinet (0.1 ~ 2m)
» **Width**
Set the angular separation of the two mics (-180 ~ +180°)
» **Angle**
Set the angle between the mics and the speaker cabinet (-100 ~ +100%)
» **Skew**
Set the disparity in distance between mics and cabinet (-100 ~ +100%)
If set high, one mic will be close and the other will be far from the speaker

9 Rotation

» **Speed**
Change the speed of the rotary effect between slow (Chorale), stopped (Brake), and fast (Tremolo)
» **Chorale**
Set the rotation speed to slow (0.1 ~ 3Hz)
» **Tremolo**
Set the rotation speed to fast (3 ~ 10Hz)

10 Amplifier

» **Drive**
Changes the input gain of the amplifier which has even and odd harmonics + global saturation
» **Horn**
Controls the volume of the horn speaker
» **Drum**
Controls the volume of the drum speaker
» **Gain**
Controls amount of output gain

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Interface - Back Panel

1 Settings

» **Spherical Dampening**
Controls the amount of attenuation that is applied to reflections with propagation distance

» **Drive Preemphasis**
Controls the amount of pre-emphasis that is applied before amplifier drive

» **Reflection**
Controls the absorption of reflections within the cabinet

» **Order**
Controls the order of ray traced early reflections.
Set between 0-3, beginning with amplitude modulation (AM) + frequency modulation (FM) like a simple vibrato, as reflections are added, the sound begins to chorus and widen, while the modulation becomes more complex

» **Radius**
Changes the length of horn and drum speakers

» **Delay Compensation**
Removes latency caused by mic distance

2 Box Diffusion

» **Power**
Enable diffusion

» **Level**
Set the amount of diffusion

» **Type**
Set the Cabinet type (closed or open)

3 Horn

» **Acceleration Time**
Set the horn acceleration time

» **Deceleration Time**
Set the horn deceleration time

» **Filter**
Set the horn frequency response

» **Directivity**
Choose horn directivity type

4 Drum

» **Acceleration Time**
Set the drum acceleration time

» **Deceleration Time**
Set the drum deceleration time

» **Filter**
Set the drum frequency response

» **Directivity**
Choose horn directivity type

Directivity Type

- Horn: standard directivity with deflector
- Omni: No AM
- Cardio: Classic polar pattern (sound cancellation when horn is off-axis)
- SoftCardio: Softer version of cardioid (with no off-axis cancellation)
- Unipolar: heavy pulsating tone (pronounced AM)
- Drum : directivity with less side lobes - less wide sound (usable on horn)
- Drum Cardio: standard drum directivity (usable on horn)
- Drum Cardio 2: More pronounced off-phase sidelobes (drum exclusive)
- Drum Cardio 3: Most pronounced off-phase sidelobes (drum exclusive)

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Links

UVI

Home	uvi.net/
UVI Portal	uvi.net/uvi-portal
Effect Installation Guide	installing_uvi_effects_en.pdf
FAQ	uvi.net/faq
Tutorial and Demo Videos	youtube.com/
Support	uvi.net/contact-support

iLok

Home	ilok.com/
iLok License Manager	ilok.com/ilm.html
FAQ	ilok.com/supportfaq

ROTARY

Credits and Thanks

Produced by UVI

DSP
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UVI.NET