Recording procedure

Keyboard
Gate output

Gate input   Gain control   Compression level

Pre-amp

Instrument

Recording state

Display shows the recording state and input signal level. The level should remain below the maximum to avoid distorsion.

Trigger mode / trigger level

The recording can be triggered by gate signal or input signal level

Gated trigger:

Record when gate is high level

Level trigger:

Record when level is louder than threshold

Audio output

How to record

1. Select user mode with *bank select* switch
2. Choose the user wavetable to record on with the *wavetable dial*
3. Select recording mode with *bank select* switch
4. Connect an input signal to *input 1* and attach an optionnal signal to *gate input*
5. Adjust input gain to adequate level
6. Select trigger mode (gate or level) with *bank select* switch and check the trigger state using the *record led*
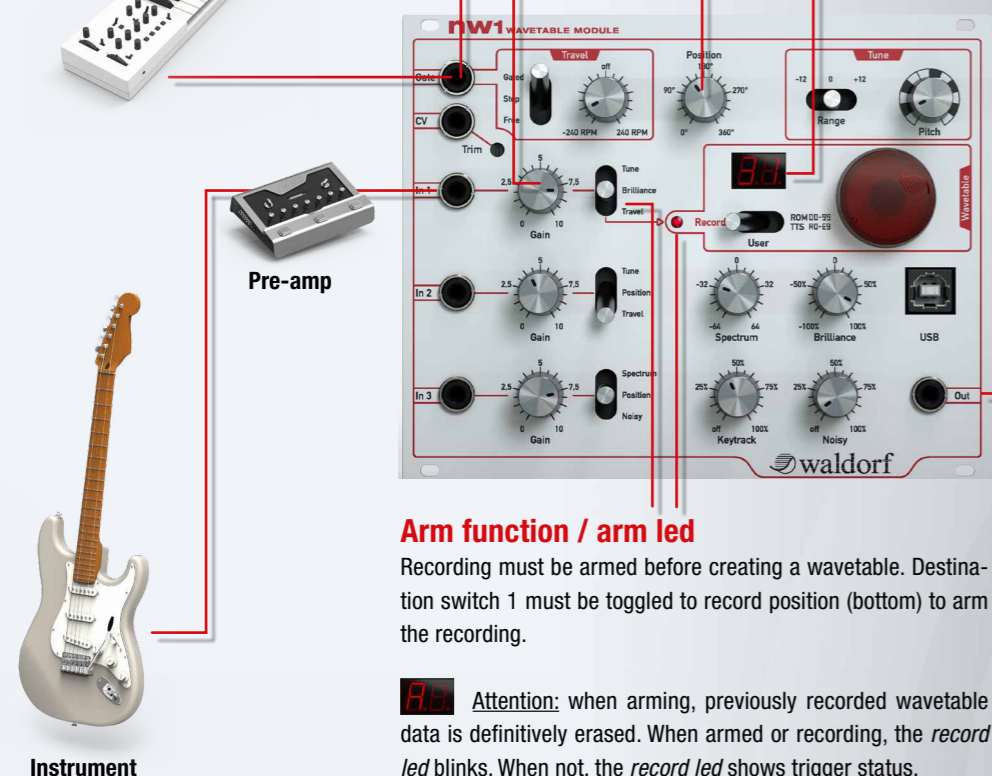7. Arm the recording
8. Record your new wavetable

Arm function / arm led

Recording must be armed before creating a wavetable. Destination switch 1 must be toggled to record position (bottom) to arm the recording.

Attention: when arming, previously recorded wavetable data is definitively erased. When armed or recording, the *record led* blinks. When not, the *record led* shows trigger status.

Advanced Wavetable Playback

A wavetable oscillator plays a single cycle wave at a selectable position in a set of waves that make up the wavetable. If the position is changed, the sound evolves according to the content of the wavetable.

In nw1, Travel allows continuous change of position, forward or backwards. At start and end, the position will wrap around.
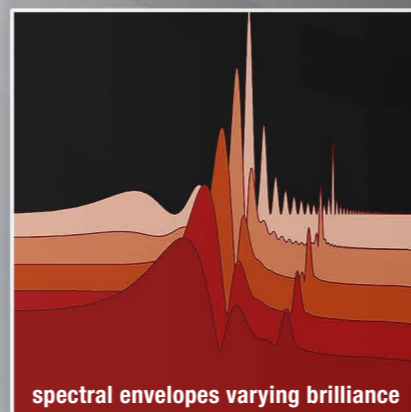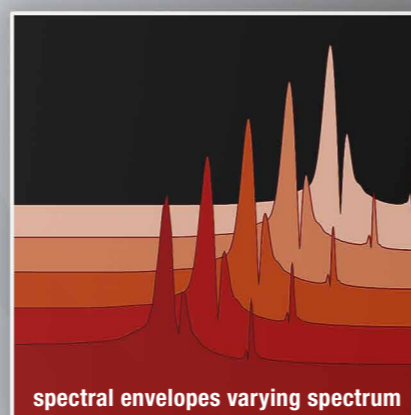
The Spectrum pot allows transposition of the spectral content without affecting pitch.

Brilliance sets the amount of detail in the spectral envelope.

As a couple, Spectrum and Brilliance act in a similar way as Cutoff and Resonance for traditional filters, with the difference that the spectrum is far more complex and variable here because it is defined by the wavetable.

Keytrack sets the amount the spectrum depends on pitch. Set to 100 % for classic wavetable synthesis. Switched off, the result resembles a filterbank defining the spectral contour.

Wavetable playback has adjustable noisyness, simply called Noisy here. Switched off, waves are rendered perfectly periodic. With higher settings, playback becomes more noisy, but the spectral content is still defined by the active wave position.

spectral envelopes varying spectrum

spectral envelopes varying brilliance

waldorf
From Germany with Love

nw1 WAVETABLE MODULE

The User panel

nw1 WAVETABLE MODULE

Travel Mode
Gated: play wavetable from start position on each gate pulse
Step: advance wavetable position on each gate pulse
Free: let wavetable run freely

Travel Speed
Set the wavetable playback speed

Position
Set wavetable playback start position

Gate / Record LED
Show state of gate signal or recording

Pitch Range
Select the base octave

Pitch
Select the base tune

Gate Input
Move the travel cursor or start the wavetable recording

CV Input
Unipolar 1V / octave
Set the oscillator base pitch

CV Trim
Fine-adjust the octave scaling for the CV input

Input 1
Modulate Tune, Travel or Brillance setting by input signal
Use as audio input for user wavetable recording

Input 2
Modulate Tune, Position or Travel setting by input signal

Input 3
Modulate Spectrum, Position or Noisy setting by input signal

Input Gain
Adjust the gain of the respective CV input and set the amount of modulation

Input Destination
Select the parameter modulated by the input signal

Spectrum
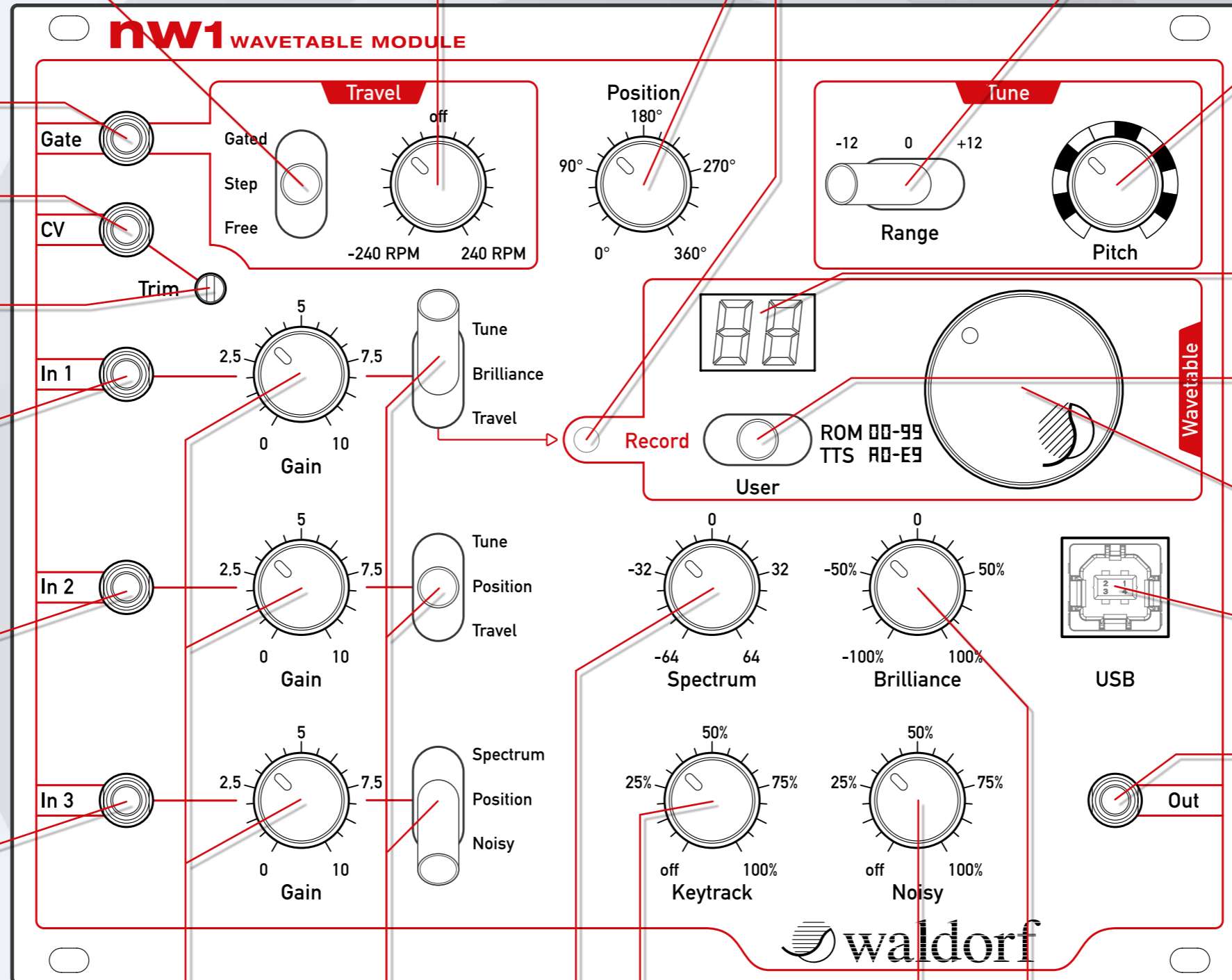Transpose spectral envelope of the tone

Keytrack
Set wave playback pitch relative to oscillator pitch

Noisy
Add phase noise to the sound

Brilliance
Sharpen or flatten the spectral envelope peaks of the tone

Display
Show wavetable in use or input level while recording

Bank Select
Select the wavetable bank or enable recording

Wavetable Dial
Choose the active wavetable

USB
Exchange wavetables with computer or update firmware

OUT
Audio Output

Panel labels

Gate
CV
Trim
In 1
In 2
In 3

Travel — Gated / Step / Free
off — -240 RPM — 240 RPM
Gain — 0, 2.5, 5, 7.5, 10

Tune / Brilliance / Travel
Tune / Position / Travel
Spectrum / Position / Noisy

Position — 180° / 90° / 270° / 0° / 360°

Tune — Range — -12, 0, +12 — Pitch

Record — ROM 00-99 TTS A0-E9 — User
Wavetable

Spectrum — -32, 32, -64, 64, 0
Brilliance — -50%, 50%, -100%, 100%, 0
Keytrack — 50%, 25%, 75%, off, 100%
Noisy — 50%, 25%, 75%, off, 100%

USB
Out

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