



RDS-16

RACK DRUM SEQUENCER

Welcome

RDS-16 is a sixteen-channel step sequencer Player device. It sits above an instrument in the Reason rack, such as a drum machine, sampler or synth, and plays it via MIDI.

Each of the sixteen channels is one voice, playing a single note. One channel might be your kick, another your snare, another a hat. A channel has a row of up to 64 steps, and the steps you switch on are where it fires.

RDS-16 holds eight patterns. Each pattern stores the steps for all sixteen channels, a complete part you can call up, edit and arrange. Every step can play soft, medium or hard, and each channel has its own length and probability, so a part can stay steady or shift as it repeats.

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The front panel



Global

The controls under **MASTER**, together with **POWER** and **RUN**, affect the whole device, they apply to every pattern equally.

POWER switches the device on and off.

RUN starts and stops RDS-16's playback. With Reason's transport stopped, it plays on its own from the first step. With the transport playing, it follows the song position and any pattern clips on the Pattern Lane. The lamp shows when Run is active.

SHUFFLE adds swing, from 0 to 100%. At zero, steps land square on the grid; turn it up and the off-beats ease later for a looser feel. It applies to every pattern.

PROB (probability) sets how likely any triggered step is to sound, from 0 to 100%, across all channels at once. At 100% every step plays; lower it and steps drop out at random, thinning the part a little differently on each pass. It combines with each channel's own probability, a channel at 80% under a master of 50% sounds about four times in ten.

Resolution. RESOLUTION sets the step rate. Nine values run from slow to fast: 1/2, 1/4, 1/8, 1/8 triplet, 1/16, 1/16 triplet, 1/32, 1/64 and 1/128. The default is 1/16.

Pattern

Each pattern stores the steps for all sixteen channels along with its own length. There are eight patterns, and only one plays at a time.

Choosing a pattern. The **1-8** buttons select the active pattern. If automated the pattern follows the Pattern Lane in the song, so you can arrange patterns along the timeline; where the lane has no clip, nothing plays.

Copy and Paste. The Copy button takes a snapshot of the current pattern. Select another pattern and the button becomes Paste; click it to drop the snapshot in. Cmd/Ctrl-click the button to cancel.



Channels

A channel is one voice, one note, with its own steps, length, and probability. The controls here always act on the selected channel.

Channel Select. The numbered row (**1-16**) chooses which channel you're editing; its button stays lit while selected. Each button also lights briefly when its channel fires, so the row doubles as a live view of the whole kit.

Play. The triangle auditions the channel, a note at the medium level.

Note # / Learn. Shows the channel's MIDI note number. Drag it up or down to change the note. Click it once, without dragging, to start **LEARN**: it flashes "L" and register the next note played on your keyboard. Click again to exit learn mode.

M Mute silences a channel without changing its steps.

Labels. The channel header text fields is user editable, use them to label your setup.



Programming steps

The 16 **Step buttons** shows the trigs of the selected channel by the blue LED in the button. Click a step to switch it on, click again to clear it, or drag across several to toggle them in one move.

STEP EDIT

Sets the full pattern length, up to 64 steps.

EDIT RANGE

A pattern can run to 64 steps, shown sixteen at a time. Edit range selects which block you see; 1-16, 17-32, 33-48 or 49-64. A small LED next to the selector shows which block the playhead is currently passing through.

DYNAMIC

Every step plays at one of three levels: Soft, Medium or Hard, which send velocities 40, 100 and 127. You can also override it as you go: hold **Shift** for a **Hard** step or **Alt/Option** for a **Soft** one, regardless of the switch. Clicking a step that already matches that level clears it.

STEP COUNT (per channel) sets how many steps this channel plays, from 1 to 64. Set it shorter than the pattern length and the channel loops within the pattern, falling in and out of step with the others, a simple way to get parts that shift as they repeat.

PROBABILITY (per channel) sets how likely this channel's steps are to sound. It works together with the master **PROB**, so you can let one channel breathe while the rest stay solid.



The backside



STEP STYLE chooses how long each played step lasts. Trig sends a short pulse, the usual choice for drums. Gate holds the note until the next step, which suits sustained sounds. It shapes both the notes sent to the instrument and the trigger outputs.

MASTER RESET COUNT set pattern repeat times 1 to 32 times, or endlessly (INF), before all channels jump back to step 1. Channels with odd step counts keep running across the pattern boundary for longer polyrhythms. X1 plays exactly as before.

The jacks

Trig outputs (16). One per channel. Each sends a signal the moment its channel fires, following the Step Style setting. Patch them into the CV inputs of other devices to trigger or modulate them in time with the part.

Gate inputs (16). One per channel. A signal here fires that channel's note, layered with whatever the sequencer is playing, and works whether or not RDS-16 is running. Useful for triggering a channel from another sequencer, a clock, or an external module.

Patches

RDS-16 comes with a set of starting points. Loading one sets the sixteen channels' notes to suit a particular instrument or scale.

Reason devices: Kong, Redrum, Rytmik, Umpf Retro and Umpf Club.

General MIDI: sixteen kit variants (Standard, Brush, Metal, Latin, Samba, FX and numbered kits), all following the General MIDI drum map.

Rack Extensions: note maps for Ekssperimental Sounds DM-888, Ekssperimental Sounds DM-999, Ekssperimental Sounds Transistor Drum Machine, Quadelectra QASIC RZ-i and Quadelectra L1m.

VST instruments: note maps for D16 Drumazon, D16 Nepheton, D16 Nithonat, Roland TR-606, TR-707, TR-808 and TR-909, and Sonic Charge Microtonic.

Note scales: major and minor modes, pentatonic, blues, and a variety of more exotic scales (e.g. Hungarian, Persian, Hirajoshi, Pelog), in every key, plus chromatic, for playing melodic instruments.

Beats: programmed rhythms for DM-888, Redrum, Kong, Rytmik, Umpf Retro and Umpf Club.

Thanks!

Ekssperimental Sounds Studio is a one man project driven by the passion for experimental electronic sounds, new and old synthesizers and music gear.

As a Reason user since 2001 it truly is a dream come true to finally be able to create my own synthesizers and effects for the Reason rack. Thanks to all of you who buy my products I can continue to learn and develop more fun and inspiring devices for our beloved rack.

I hope you will enjoy **RDS-16**!

Cheers,
Erik Söderberg 2026

<https://ekss.se>