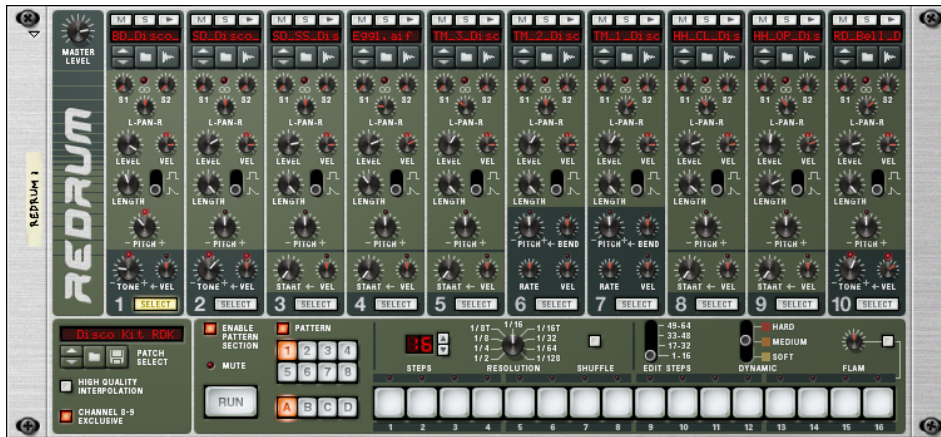# Chapter 35
Redrum Drum
Computer

Introduction

At first glance, Redrum looks styled after pattern-based drum machines, like the legendary Roland 808/909 units. Indeed, it does have a row of 16 step buttons that are used for step programming patterns, just like the aforementioned classics. There are significant differences, however. Redrum features ten drum "channels" that can each be loaded with an audio file, allowing for completely open-ended sound possibilities. Don't like the snare - just change it. Complete drum kits can be saved as Redrum Patches, allowing you to mix and match drum sounds and make up custom kits with ease.

In addition, Redrum also has sampling capability. This means that you can sample your own sounds straight into each of the ten drum channels with just a click of a button!

Sampling in Redrum

The sampling procedure is generic for all devices that can sample (NN-19, NN-XT, Redrum and Kong). The sampling and sample editing procedures are described in detail in the "Sampling" chapter.

→ **To sample your own sound and automatically load it into a drum channel in the Redrum device, click the Sample button for the desired drum channel.**

Refer to the "Sampling" chapter for details on how to set up and use the sampling feature.

Reason

About file formats

Redrum reads two basic types of files:

Redrum Patches

A Redrum patch (Windows extension ".drp") contains all settings for all ten drum sound channels, including file references to the used drum samples (but not the actual drum samples themselves). Switching patches is the same as selecting a new drum kit.

Drum Samples

Redrum can read and play back sample files of the following formats:

- **Wave (.wav)**
- **AIFF (.aif)**
- **SoundFonts (.sf2)**
- **REX file slices (.rx2, .rex, .rcy)**
- **Any bit depth**
- **Any sample rate**
- **Stereo or Mono**

Wave and AIFF are the standard audio file formats for the PC and Mac platforms, respectively. Any audio or sample editor, regardless of platform, can read and create audio files in at least one of these formats, and some of them in both formats.

SoundFonts are an open standard for wavetable synthesized audio, developed by E-mu systems and Creative Technologies.

SoundFont banks store wavetable synthesized sounds, allowing users to create and edit multi-sampled sounds in special Soundfont editing programs. The sounds can then be played back in wavetable synthesizers, typically on audio cards. The samples in a SoundFont are stored hierarchically in different categories: User Samples, Instruments, Presets etc. The Redrum allows you to browse and load single SoundFont samples, not entire soundfonts.

REX files are files created in ReCycle – a program designed for working with sampled loops. It works by "slicing" up a loop and making separate samples of each beat, which makes it possible to change the tempo of loops without affecting the pitch and to edit the loop as if it was built up of individual sounds. The Redrum lets you browse REX files and load separate slices from it as individual samples.

Using patches

When you create a new Redrum device it is loaded with a default kit. If you like you can program a pattern and play back using the default kit - or you can load another Redrum patch (or create one from scratch, by loading individual drum samples). A Redrum patch contains settings for the ten drum sound channels, complete with file references to the drum samples used.

! **Redrum patterns are not part of the patch! If you want to save Redrum patches complete with patterns, create a Combinator containing the Redrum and save the Combi patch.**

Loading a patch

To load a patch, use one of the following methods:

→ **Use the browser to locate and open the desired patch.**
To open the browser, select "Browse Redrum Patches" from the Edit menu or device context menu, or click the folder button in the patch section on the device panel.

→ **Once you have selected a patch, you can step between all the patches in the same folder by using the arrow buttons next to the patch name display.**

→ **If you click on the patch name display on the device panel, a pop-up menu will appear, listing all patches in the current folder.**
This allows you to quickly select another patch in the same folder, without having to step through each one in turn.

Checking the sounds in a patch

There are two ways you can listen to the sounds in a patch without programming a pattern:

→ **By clicking the Trigger (arrow) button at the top of each drum sound channel.**

→ **By playing the keys C1 to A1 on your MIDI keyboard.**
C1 plays drum sound channel 1 and so on. See also "Using Redrum as a sound module".

Both these methods play back the drum sample for the corresponding drum sound channel, with all settings for the sound applied.

Creating a new patch

To create a patch of your own (or modify an existing patch), you use the following basic steps:

Reason

1. **Click the folder button for a drum sound channel.**
   The Redrum sample browser opens.

2. **Locate and open a drum sample.**
   You will find a large number of drum samples in the Factory Sound Bank (in the folder Redrum Drum Kits/xclusive drums-sorted). You can also use any AIFF, Wave, SoundFont sample or REX file slice for this.

3. **Make the desired settings for the drum sound channel.**
   The parameters are described in "Redrum parameters".

4. **Repeat steps 1 and 3 for the other drum sound channels.**

5. **When you're satisfied with the drum kit, you can save the patch by clicking the Floppy Disk button in the patch section on the device panel.**
   Note however, that you don't necessarily need to save the patch - all settings are included when you save the song.

Loading REX file slices

Loading slices from within a REX file is done much in the same way as loading "regular" samples:

1. **Open the sample browser as described above.**

2. **Browse to a REX file.**
   Possible extensions are ".rx2", ".rex" and ".rcy".

3. **Select the file and click "Open".**
   The browser will now display a list of all the separate slices within the REX file.

4. **Select the desired slice and click open.**
   The slice is loaded into the Redrum.

Creating an empty patch

To "initialize" the settings in the Redrum, select "Initialize Patch" from the Edit menu or the device context menu. This removes all samples for all drum sound channels, and sets all parameters to their default values.

Programming patterns

Pattern basics

Redrum contains a built-in pattern sequencer. Unlike the main sequencer in Reason, the Redrum sequencer repeatedly plays back a pattern of a specified length. The typical analogy in the "real world" is a drum machine which plays drum patterns, usually one or two bars in length.

Having the same pattern repeat throughout a whole song may be fine in some cases, but most often you want some variations. The solution is to create several different patterns and program pattern changes (automatic switching from one pattern to another) at the desired positions in the song.

How the Redrum pattern sequencer integrates with the main sequencer

The built-in pattern sequencer in the Redrum interacts with the main Reason sequencer in the following ways:

→ **The tempo set on the transport panel is used for all playback.**
If the Tempo track (see "Recording tempo automation") is used, Redrum will follow this.

→ **If you start playback for the main sequencer (on the transport panel), the Redrum will automatically start as well (provided the pattern sequencer hasn't been disabled - see below).**

→ **You can mute and solo Redrum tracks in the sequencer.**
If the Redrum has a track in the sequencer and you mute this track, Redrum will automatically be muted as well. This is indicated by a Mute indicator on the device panel. If there are several note lanes on the Redrum track, their respective mute status will not be indicated on the device panel.

This Redrum device is muted.

→ **You can also run Redrum separately (without starting the main sequencer) by clicking the Run button on the device panel.**
This starts the built-in pattern sequencer in the device. To stop playback, click the Run button again or click the Stop button on the Transport panel.

The Run button on the Redrum.

→ **If you are running Redrum separately and start playback of the main sequencer, the pattern device will automatically restart in sync with the sequencer.**

→ **Pattern changes can be controlled by pattern change events in the main sequencer.**
In other words, you can record or create pattern changes in the main sequencer, and have them occur at the correct position on playback.

Reason

→ **The sound sources can also be played by the main sequencer, or via MIDI.**
You can combine the built-in pattern playback with playback from the main sequencer or via MIDI. For example, this allows you to add variations or fills to a basic pattern.
It is also possible to disable the pattern sequencer totally, converting the device to a pure sound module. This is done by deactivating the Enable Pattern Section switch.

Selecting patterns

The Redrum has 32 pattern memories, divided into four banks (A, B, C, D).

The Bank and Pattern buttons for the Redrum pattern sequencer.

→ **To select a pattern in the current bank, click on the desired Pattern button (1-8).**
If you like, you can assign computer key commands and/or MIDI messages to pattern selection.

→ **To select a pattern in another bank, first click the desired Bank button (A, B, C, D) and then click the Pattern button.**
Nothing happens until you click the Pattern button.

→ **If you select a new pattern during playback, the change will take effect on the next downbeat (according to the time signature set in the transport panel).**
If you automate pattern changes in the main sequencer, you can make them happen at any position - see "Recording pattern automation".

→ **Note that you cannot load or save patterns - they are only stored as part of a song.**
However, you can move patterns from one location to another (even between songs) by using the Cut, Copy and Paste Pattern commands.

Pattern tutorial

If you are unfamiliar with step programming patterns, the basic principle is very intuitive and easy to learn. Proceed as follows:

1. **Load a Redrum patch, if one isn't already loaded.**

2. **Make sure an empty pattern is selected.**
If you like, use the Clear Pattern command on the Edit menu or device context menu to make sure.

3. **Make sure that the "Enable Pattern Section" and the "Pattern" buttons are activated (lit).**

4. **Press the "Run" button.**
   There will be no sound, as no pattern steps have been recorded yet. But as you can see, the LEDs over the Step button light up consecutively, moving from left to right, and then starts over. Each Step button represents one "step" in the Pattern.

5. **Select a Redrum channel, by clicking the "Select" button at the bottom of the channel.**
   The button lights up, indicating that this channel and the drum sound it contains is selected.

6. **While in Run mode, press Step button 1, so that it lights up.**
   The selected sound will now play every time Step 1 is "passed over".

7. **Clicking other Step buttons so they light up will play back the selected sound as the sequencer passes those steps.**
   Clicking on a selected (lit) step button a second time removes the sound from that step and the button goes dark again. You can click and drag to add or remove steps quickly.

8. **Select another Redrum channel to program steps for that sound.**
   Selecting a new sound or channel also removes the visual indications (static lit buttons) of step entries for the previously selected sound. The step buttons always show step entries for the currently selected sound.

9. **Continue switching between sounds, and programming steps to build your pattern.**
   Note that you can erase or add step entries even if Run mode isn't activated.

Setting pattern length

You may want to make settings for Pattern length, i.e the number of steps the pattern should play before repeating:

→ **Use the "Steps" spin controls to set the number of steps you wish the pattern to play.**
   The range is 1 to 64. You can always extend the number of steps at a later stage, as this will merely add empty steps at the end of the original pattern. You could also make it shorter, but that would (obviously) mean that the steps "outside" the new length won't be heard. These steps aren't erased though; if you raise the Steps value again, the steps will be played back again.

Reason

About the "Edit Steps" Switch

If you set the pattern length to more than 16 steps, the pattern steps following after the 16th won't be visible, although they will play back. To view and be able to edit the next 16 steps, you have to set the Edit Steps switch to 17-32. To see and edit steps beyond 32 you set the switch to 33-48, and so on.

Setting pattern resolution

Redrum always follows the tempo setting on the transport panel, but you can also make Redrum play in different "resolutions" in relation to the tempo setting. Changing the Resolution setting changes the length of each step, and thereby the "speed" of the pattern.

Step dynamics

When you enter step notes for a drum sound, you can set the velocity value for each step to one of three values: Hard, Medium or Soft. This is done by setting the Dynamic switch before entering the note.

The color of the step buttons reflect the dynamics for each step. Soft notes are light yellow, Medium notes are orange and Hard are red.

→ **When the Medium value is selected, you can enter Hard notes by holding down [Shift] and clicking.**
In the same way, you can enter Soft notes by holding down [Option] (Mac) or [Alt] (Windows) and clicking. Note that this doesn't change the Dynamic setting on the device panel - it only affects the notes you enter.

→ **When you use different dynamics, the resulting difference in the sound (loudness, pitch, etc.), is governed by the "VEL" knob settings for each drum channel (see "Redrum parameters").**
If no velocity amount is set for a drum channel, it will play back the same, regardless of the Dynamic setting.

→ **To change the dynamics for an already programmed step, set the switch to the dynamic value you wish to change it to and click on the step.**

! **Note that if you are triggering Redrum via MIDI or from the main sequencer, the sounds will react to velocity like any other audio device. The Dynamic values are there to offer velocity control when using the built-in pattern sequencer.**

Pattern Shuffle

Shuffle is a rhythmic feature, that gives the music a more or less pronounced swing feel. It works by delaying all sixteenth notes that fall in between the eighth notes. You can activate or deactivate shuffle individually for each Redrum pattern by clicking the Shuffle button on the device panel.

The amount of shuffle is set globally with the Global Shuffle control in the ReGroove Mixer - see "The ReGroove Mixer".

Flam

A flam is when you double-strike a drum, to create a rhythmic or dynamic effect. Applying flam to a step entry will add a second "hit" to a drum sound. The flam amount knob determines the delay between the two hits.

To add a flam drum note, proceed as follows:

1. **Activate flam by clicking the Flam button.**

2. **Click on a step to add a note (taking the Dynamic setting into account as usual).**
   A red LED is lit above the step to indicate that flam will be applied to that step.

3. **Use the Flam knob to set the desired amount of flam.**
   The flam amount is global for all patterns in the device.

→ **To add or remove flam to or from an existing step note, click directly on the corresponding flam LED.**
   You can also click and drag on the LEDs to add or remove several flam steps quickly.

→ **Applying flam to several consecutive step entries is a quick way to produce drum rolls.**
   By adjusting the Flam knob you can create 1/32 notes even if the step resolution is 1/16, for example.

The Pattern Enable switch
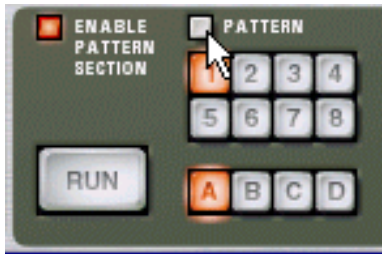
If you deactivate the "Pattern" button the pattern playback will be muted, starting at the next downbeat (exactly as if you had selected an empty (silent) pattern). For example, this can be used for bringing different pattern devices in and out of the mix during playback.

▸ **You can also mute Redrum devices in the sequencer using the Mute button for the track connected to the Redrum. If you do so, this will mute the Redrum output instantly, and the Mute indicator on the Redrum panel lights up. Note that all tracks connected to this Redrum device must be muted for this to work.**

The Mute indicator

The Enable Pattern Section switch
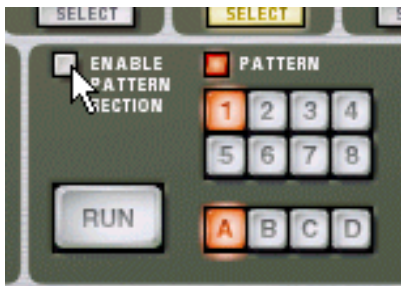
If this is off, Redrum will function as a pure "sound module", i.e. the internal Pattern sequencer is disengaged. Use this mode if you wish to control Redrum exclusively from the main sequencer or via MIDI (see "Using Redrum as a sound module").

Reason

Pattern functions

When a Redrum device is selected, you will find some specific pattern functions on the Edit menu (and on the device context menu):

Function	Description
Shift Pattern Left/Right	These functions move all notes in the pattern one step to the left or right.
Shift Drum Left/Right	The Shift Drum functions move all notes for the selected drum channel (the channel for which the Select button is lit) one step to the left or right.
Randomize Pattern	Creates a random pattern. Random patterns can be great starting points and help you get new ideas.
Randomize Drum	Creates a random pattern for the selected drum sound only - the notes for the other drum sound channels are unaffected.
Alter Pattern	The Alter Pattern function modifies the selected pattern by "shuffling" the current pattern notes and redistributing them among the drum sounds at random. This creates a less chaotic pattern than the "Randomize Pattern" function. Note that there must be something in the pattern for the function to work on - using an Alter function on an empty pattern will not do anything.
Alter Drum	Works like the "Alter Pattern" function, but affects the selected drum sound only.

Chaining patterns

When you have created several patterns that belong together, you most probably want to make these play back in a certain order. This is done by recording or inserting pattern changes into the main sequencer. See "Recording pattern automation".

Reason

Converting Pattern data to notes in the main sequencer

You can convert Redrum Patterns to notes in the main sequencer. This allows you to edit the notes freely, create variations or use Groove quantizing.

The "Copy Pattern to Track" function

This function useful when you have created a single pattern in the Redrum device and want to render individual note events on the sequencer track. You could also use this if you e.g. have created a drum pattern and want to have the pattern play back some other type of device.

Proceed as follows:

1. **Set the Left and Right Locators to encompass the section you want to "fill" with the notes in the pattern.**
   You may want to make sure that the space between the locators is a multiple of the pattern length, to avoid "cutting off" the pattern.

2. **Select the device in the rack and select "Copy Pattern to Track" from the Edit menu or the device context menu.**
   The pattern is converted to a single note clip on the track (see the notes below). If the space between the locators is greater than the pattern length, the pattern will be repeated in the clip to fill up the space.
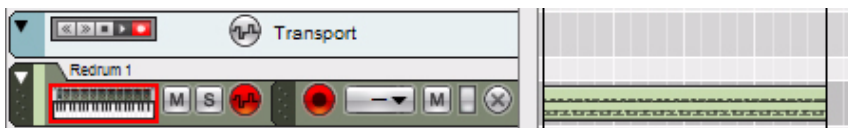
An internal Redrum drum pattern converted to note events on the track

When you use the "Copy Pattern to Track" function with the Redrum, you should note the following:

- **The notes will have the pitch of the corresponding drum sound (see "Using Redrum as a sound module") and the velocity depending on the "Dynamic" parameter value in the device.**
  "Soft" notes get velocity 30, "Medium" notes get velocity 80 and "Hard" notes get velocity 127.

- **You probably want to turn off the "Enable Pattern Section" switch on the Redrum device panel.**
  Otherwise, the drum sounds will be double-triggered during playback (by the pattern section itself, and by the rendered notes on the sequencer track).

The "Convert Pattern Automation to Notes" function

If you have recorded or drawn pattern changes on a Redrum track, you can have the whole track converted to notes, in the following way:

1. **Select the track with the pattern automation.**

2. **Select "Convert Pattern Automation to Notes" from the Edit menu or the context menu for the track.**
   For each pattern clip, the corresponding pattern is converted to note clips on the track (following the same rules as for the "Copy Pattern to Track" function). The track will play back just the same as when you played the pattern device with the pattern changes.

→ **After the operation, the Pattern Select lane is switched off.**
  The "Enable Pattern Section" button on the device is automatically turned off.

Redrum parameters

Drum sound settings

Redrum features ten drum sound channels that can each be loaded with a Wave or AIFF sample or a sample from a SoundFont bank. Although they are basically similar, there are three "types" of drum sound channels, with slightly different features. This makes some channels more suitable for certain types of drum sounds, but you are of course free to configure your drum kits as you like.

On the following pages, all parameters will be listed. If a parameter is available for certain drum sound channels only, this will be stated.

Mute & Solo

At the top of each drum sound channel, you will find a Mute (M) and a Solo (S) button. Muting a channel silences its output, while Soloing a channel mutes all other channels. Several channels can be muted or soloed at the same time.

You can also use keys on your MIDI keyboard to mute or solo individual drum sounds in real time.

→ **The keys C2 to E3 (white keys only) will mute individual drum channels starting with channel 1.**
  The sounds are muted for as long as you hold the key(s) down.

→ **The keys C4 to E5 (white keys only) will solo individual drum channel, starting with channel 1.**
  The sounds are soloed for as long as you hold the key(s) down.
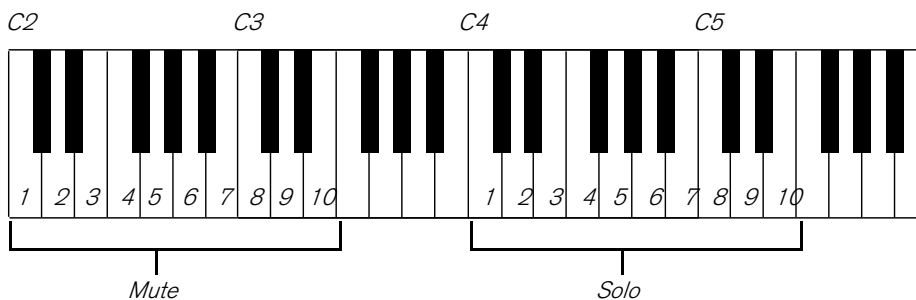
This is a great way to bring drum sounds in and out of the mix when playing Reason live. You can also record the drum channel Mutes in the main sequencer, just like any other controller (see "Recording parameter automation").

The Effect Sends (S1 & S2)

On the back panel of Redrum you will note two audio connections labeled "Send Out" 1 and 2. When you create a Redrum device, these will by default be auto-routed to the first two "Chaining Aux" inputs on the Mixer device (provided that these inputs aren't already in use).

This feature allows you to add effects to independent drum sounds in the Redrum.

Reason

→ **Raising the S1 knob for a drum sound channel will send the sound to the first send effect connected to the mixer.**
Similarly, the S2 knob governs the send level to the second send effect in the mixer.

→ **Note that there must be send effects connected to the AUX Sends and Returns in the mixer for this to work.**

→ **Also note that if Redrum is soloed in the Mixer the effect sends will be muted.**

→ **Another way to add independent effects to drum sounds is to use the independent drum outputs.**
See "Connections".

Pan

Sets the Pan (stereo position) for the channel.

→ **If the LED above the Pan control is lit, the sound uses a stereo sample.**
In that case, the Pan control serves as a stereo balance control.

Level and Velocity

The Level knob sets the volume for the channel. However, the volume can also be affected by velocity (as set with the Dynamic value, or as played via MIDI). How much the volume should be affected by velocity is set with the "Vel" knob.

→ **If the Vel knob is set to a positive value, the volume will become louder with increasing velocity values.**
The higher the Vel value, the larger the difference in volume between low and high velocity values.

→ **A negative value inverts this relationship, so that the volume decreases with higher velocity values.**

→ **If the Vel knob is set to zero (middle position), the sound will play at a constant volume, regardless of the velocity.**
When Vel is set to zero, the LED above the knob goes dark.

Length and the Decay/Gate switch

The Length knob determines the length of the drum sound, but the result depends on the setting of the Decay/Gate switch:

→ **In Decay mode (switch down), the sound will decay (gradually fade out) after being triggered. The decay time is determined by the Length setting.**
In this mode, it doesn't matter for how long a drum note is held (if played back from the main sequencer or via MIDI) - the sound will play the same length for short notes as for long notes. This is the traditional "drum machine" mode.

Reason

→ **In Gate mode (switch up), the sound will play for the set Length, and then be cut off.**
Furthermore, if a sound set to Gate mode is played from the main sequencer, from a CV/Gate device or via MIDI, the sound will be cut off when the note ends or after the set Length, depending on which comes first. Or in other words, the sound plays for as long as you hold the note, but the Length setting serves as the maximum length for the sound.
There are several uses for the Gate mode:

• **For "gated" drum sounds, when the tail of the sound is abruptly cut off as an effect.**

• **For when you want to use very short sounds, and don't want them to "lose power" by being faded out.**

• **For when you play the Redrum from the sequencer or via MIDI, with sounds for which the length is important (e.g. when using the Redrum as a sound effects module).**

! **Audio samples sometimes contain a "loop", which is set by editing the audio in a sample editor. This loop repeats a part of the sample to produce sustain as long as you hold down a note. Drum samples usually don't contain loops, but who is to say that Redrum should only play drum samples?**
Note that if a sample contains a loop, and Length is set to maximum, the sound will have infinite sustain, in other words it will never become silent, even if you stop playback. Decreasing the Length setting solves this problem.

Pitch

Sets the pitch of the sound. The range is +/- 1 octave.

→ **When the pitch is set to any other value than 0, the LED above the knob lights up to indicate that the sample isn't played back at its original pitch.**

Pitch Bend

By setting the Bend knob to a positive or negative value, you specify the start pitch of the sound (relative to the Pitch setting). The pitch of the sound will then be bent to the main Pitch value. Thus, selecting a positive Bend value will cause the pitch to start higher and bend down to the original Pitch, and vice versa.

→ **The Rate knob determines the bend time - the higher the value, the slower the bend.**

→ **The Vel knob determines how the Bend amount should be affected by velocity.**
With a positive Vel value, higher velocity results in wider pitch bends.

→ **The Bend and Vel knobs have LEDs that light up when the functions are activated (i.e. when a value other than zero is selected).**

! **Pitch bend is available for drum sound channels 6 and 7 only.**

Reason

Tone

The Tone knob determines the brightness of the drum sound. Raising this parameter results in a brighter sound. The Vel knob determines whether the sound should become brighter (positive Vel value) or darker (negative Vel value) with higher velocity.

→ **The Tone and Vel knobs have LEDs that light up when the functions are activated (i.e. when a value other than zero is selected).**

! **The Tone controls are available for drum sound channels 1, 2 and 10 only.**

Sample Start

The Start parameter allows you to adjust the start point of the sample. The higher the Start value, the further the start point is moved "into" the sample. If you set the Start Velocity knob to a positive amount, the sample start point is moved forward with higher velocities. A negative Start Velocity amount inverts this relationship.

→ **When Start Velocity is set to any other value than zero, the LED above the knob lights up.**

→ **A negative Start Velocity amount is only useful if you have set the Start parameter to a value higher than 0.**
By raising the Start value a bit and setting Start Velocity to a negative value, you can create rather realistic velocity control over some drum sounds. This is because the very first transients in the drum sound will only be heard when you play hard notes.

! **The Sample Start settings are available for drum sound channels 3-5, 8 and 9.**

Global settings

Channel 8 & 9 Exclusive

If this button is activated, the sounds loaded into drum channels 8 and 9 will be exclusive. In other words, if a sound is played in channel 8 it will be silenced the moment a sound is triggered in channel 9, and vice versa.

The most obvious application for this feature is to "cut off" an open hi-hat with a closed hi-hat, just like a real one does.

High Quality Interpolation

When this is activated, the sample playback is calculated using a more advanced interpolation algorithm. This results in better audio quality, especially for drum samples with a lot of high frequency content.

→ **High Quality Interpolation uses more computer power - if you don't need it, it's a good idea to turn it off!**
Listen to the drum sounds in a context and determine whether you think this setting makes any difference.

Master Level

The Master Level knob in the top left corner of the device panel governs the overall volume from Redrum.

Using Redrum as a sound module

The drum sounds in Redrum can be played via MIDI notes. Each drum sound is triggered by a specific note number, starting at C1 (MIDI note number 36):
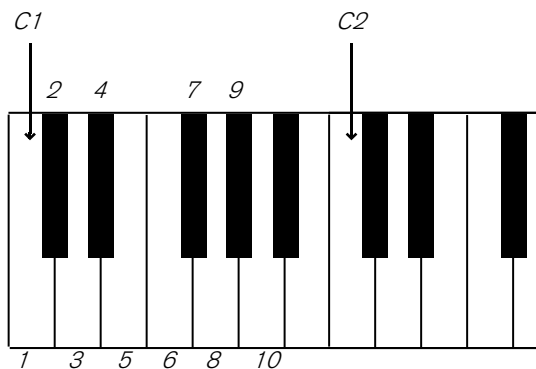
This allows you to play Redrum live from a MIDI keyboard or a MIDI percussion controller, or to record or draw drum notes in the main sequencer. If you like, you can combine pattern playback with additional drum notes, such as fills and variations. However:

! **If you want to use Redrum purely as a sound module (i.e. without pattern playback) you should make sure that the "Enable Pattern Section" button is deactivated (see "The Enable Pattern Section switch"), otherwise the Redrum pattern sequencer will start as soon as you start the main sequencer.**

Reason

Connections

On the back of the Redrum you will find the following connections:

For each drum sound channel:

Connection	Description
Audio Outputs	There are individual audio outputs for each drum sound channel, allowing you to route a drum sound to a separate channel in the mixer, possibly via insert effects, etc. For mono sounds, use the "Left (Mono)" output (and pan the sound using the Pan control in the mixer). When you use an individual output for a sound, the sound is automatically excluded from the master stereo output.
Gate Out	This sends out a gate signal when the drum sound is played (from a pattern, via MIDI or by using the Trigger button on the device panel). This lets you use the Redrum as a "trig sequencer", controlling other devices. The length of the gate signal depends on the Decay/Gate setting for the sound: In Decay mode, a short "trig pulse" is sent out, while in Gate mode, the gate signal will have the same length as the drum note.
Gate In	Allows you to trigger the sound from another CV/Gate device. All settings apply, just as when playing the drum sound conventionally.
Pitch CV In	Lets you control the pitch of the drum sound from another CV device.

Other

Connection	Description
Send Out 1-2	Outputs for the send signals controlled with the S1 and S2 knobs.
Stereo Out	This is the master stereo output, outputting a mix of all drum sounds (except those for which you use individual outputs).

Reason