

Emotional Cello

by Harmonic Subtones
Kontakt Instrument

Quickstart

Emotional Cello

MANUAL 1.5.0

HARMONIC
SUBTONES



Epilogue

HARMONIC SUBTONES or:

THE UNUSUAL ASPECTS OF AN USUAL SUSPECT

While we were looking at the harmonic highs and the subtonical lows of sample libraries in our daily work as composers, we realized that there weren't any solostrings on the market that were inspiring, easy to play or at least convincing - even after a huge amount of deep forensic programming. After having edited a plenty of commercial library patches to our personal liking we thought: „why not record the solostrings ourselves?“

That was the beginning which led to our first sample library, the critically acclaimed EMOTIONAL CELLO.

We were enthusiastic to create the next Instrument, the EMOTIONAL VIOLIN within a short amount of time. To push the limits of what is possible, a completely new contact script was developed and the violin was enhanced with many new features and playing possibilities.

With the new update, the EMOTIONAL CELLO 1.5 now follows this concept and also benefits from everything we've learned from EMOTIONAL VIOLIN. The new features include, besides the GUI with its numerous editing options and improvements in playability, many new articulations such as trills, frog madness shorts, martele and even some new sustains. In addition, the cello now includes the possibility to use ornament MKS (momentary keyswitches) and opens up many exciting ways to create realistic melody lines.

EMOTIONAL CELLO 1.5 is compatible with NKS

Be inspired!





The library structure:

The **Emotional Cello Library** consists of **3 masterpatches** with up to 25 articulation keyswitches and 18 ornament - articulations. The masterpatch covers the main range of articulations. The complete library covers far over 50 different articulations and variations.

Masterpatch:

- Emotional Cello** with 25 articulations via keyswitch & 18 ornament keyswitches
- Sulponticello** with 15 articulations via keyswitch & 17 ornament keyswitches
- Harmonic Cello** with 5 articulations via keyswitch

Individuals:

Accompanying the masterpatches you'll find the "**Individuals**" patches.

These are keyswitch patches with **different articulations of the same category**

like Sustains, Shorts, Trills

While the masterpatch is a workhorse, giving you instant access to almost every playing style that you might expect for a Cello performance, single patches are packed together in the „**Individuals**“ in categories to let you select specific articulations at a time.

These patches don't offer legato functions. Some of these articulations are contained in the masterpatches, but there is also additional material.

Tip: Choose the single articulation that fits your needs and purge or unload the unused articulations.

Specials:

The „**Specials**“ - patch contains some unusual articulations and effects.

The **Stackable patch** contains the Core Articulations with standardized keyswitching to fit with the stackable patches of EMOTIONAL VIOLIN & VIOLA

The Main GUI Page - A Quickstart:

The masterpatches contain the main articulations combined into one patch.

TIP: Every control in the GUI can be assigned via midi-learn to your individual Midi CCs.

The screenshot shows the main GUI for 'Emotional Cello' by Harmonic Subtones. The interface is divided into several sections:

- Top Panel:** Displays '1. Masterpatch', 'Output: st. 1', 'Voices: 0', 'Max: 1024', 'Purge', 'Tune: 0.00', and 'Memory: 1.69 GB'.
- Articulations List:** A scrollable list of articulations such as 'Spiccimo & frog', 'Stacc', 'Fast Spiccato', 'Frog Madness', 'Pizzicato', 'Delicate', 'Delicate fast', 'Proud Vibrato', 'Hero Vibrato', 'Martele half NV BRR', 'Martele Half Vib 4 RR', 'Pickup', 'Fortepiano', 'Vivid', 'Paganini Run', 'Moderate 2', 'Sustain Non Vib XFDc', 'Expressive XFDc', 'Pastorale', 'Pastorale slow', 'Tremolo', 'Trill HT', and 'Trill WT'. Each item has a checkbox and a MIDI note name.
- Ornament - Mks List:** A scrollable list of ornaments such as 'Rebow 1', 'Rebow 2', 'To Dolce p', 'To Vib', 'To Sulponticello', 'Irish Slide down!', 'Slide in', 'To Sacc', 'To Short Cresc', 'Soft Ending', 'To Delicate End', 'To Swell', 'To Halftone Trill', 'To Wholetone Trill', 'To Tremolo Sus', 'Tremolo M', 'To Tremolo Siz', and 'Harmonic Short!'. Each item has a checkbox and a MIDI note name.
- Bottom Panel:** Contains four controls: 'Porta. Vel.' (34), 'Bow Change Vel.' (93), 'XFade' (a knob), and 'Dyn. Range' (28.9).

Callout boxes provide the following instructions:

- Choose your playing articulation by pressing the assigned keyswitch or by clicking on the name** (points to the Articulations list).
- Click to assign your custom keyswitch note via MIDI - learn** (points to a checkbox in the Articulations list).
- Choose an ornament - articulation by pressing the assigned keyswitch while playing a note.** (points to the Ornament - Mks list).
- Click to assign your custom keyswitch note via MIDI - learn** (points to a checkbox in the Ornament - Mks list).
- Unload/load articulations and purge/unpurge the respective samples** (points to the Purge button).
- Monitors the actual playing articulation and legato style** (points to the 'Delicate' label at the bottom of the Articulations list).
- Unload/load articulations and purge/unpurge the respective samples** (points to the Purge button).
- Set your velocity split point value for portamento below the actual shown number** (points to the 'Porta. Vel.' control).
- Set your velocity splitpoint value for bowchange legato above the actual shown number** (points to the 'Bow Change Vel.' control).
- Volume & crossfade control with CC1.** (points to the 'XFade' knob).
- Set your desired dynamic range** (points to the 'Dyn. Range' control).

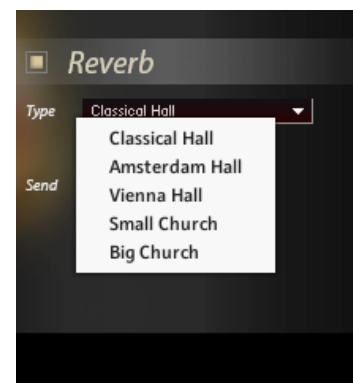
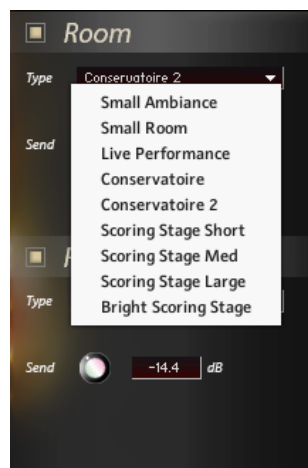
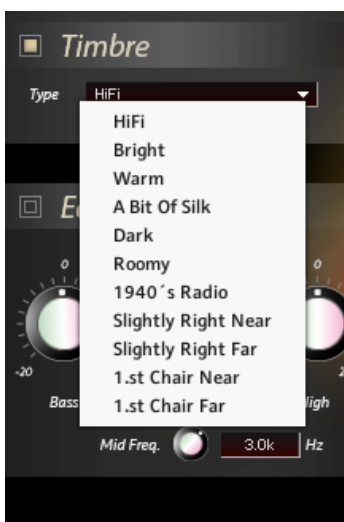
The FX page:



There are 11 different timbres:

There are 9 different room settings:

There are 5 different reverb settings:



Add an additional attack to non legato notes, it will be kept in memory, when switching to other keyswitch articulation.

Adjust the volume of the attack notes



Look for a microtuning Preset

Set how much % of the microtuning will be used.

Legato speed automation ON/OFF

Define your own microtuning

Poly Legato ON/OFF

Monophonic when turned off

Choose portamento speed

left: slow right: fast

Trim the portamento volume

Choose legato speed, when „Auto Mode“ is off

Setup your pitchbend range from microtuning to wholetone step

Detailed Information:

Masterpatches:

Articulations	
<input type="checkbox"/>	C-2 Spiccato & frog
<input type="checkbox"/>	C#-2 Stacc
<input type="checkbox"/>	D-2 Fast Spiccato
<input type="checkbox"/>	D#-2 Frog Madness
<input type="checkbox"/>	E-2 Pizzicato
<input checked="" type="checkbox"/>	F-2 Delicate
<input type="checkbox"/>	F#-2 Delicate fast
<input type="checkbox"/>	G-2 Proud Vibrato
<input type="checkbox"/>	G#-2 Hero Vibrato
<input type="checkbox"/>	A-2 Martele half NV 8RR
<input type="checkbox"/>	A#-2 Martele Half Vib 4 RR
<input type="checkbox"/>	B-2 Pickup
<input type="checkbox"/>	C-1 Fortepiano
<input type="checkbox"/>	C#-1 Vivid
<input type="checkbox"/>	D-1 Paganini Run
<input type="checkbox"/>	D#-1 Moderate 2
<input type="checkbox"/>	E-1 Sustain Non Vib XFDe
<input type="checkbox"/>	F-1 Expressive XFDe
<input type="checkbox"/>	F#-1 Pastorale
<input type="checkbox"/>	G-1 Pastorale slow
<input type="checkbox"/>	G#-1 Tremolo
<input type="checkbox"/>	A-1 Trill HT
<input type="checkbox"/>	A#-1 Trill WT

The masterpatches contain the main articulations combined into 3 patches. These articulations can be chosen by keyswitch or by clicking on their articulation-names.

There are two types of articulations :

1. Shorts
2. True Legato

Unload / Load articulations by clicking on the rectangle besides the keyswitch note name

Customize the keyswitch notes by clicking the notename. A „Learn“ sign appears and by playing the note on the keyboard the keyswitch will be set to the specific note. If a note is chosen which is already in use, the latter will be deactivated.

The Load/Unload and MIDI-Learn feature work the same way for the Ornament - MKS

The Ornament - MKS:

The Ornament keyswitches are momentary keyswitches that trigger a new articulation as long as they remain pressed. These momentary keyswitches are designed:

- to blend into another articulation (like trills, tremolos....)
- lead to a different ending (like soft end, crescendo end....)
- rebowing a sustain
- crossfade to vibrato
- crossfade to effects (rise, fall, harmonic short.....)

There are two ways to use it:

- 1.) press the MKS **after** you have played a note in the instrument range. It will crossfade to another articulation. When releasing the MKS, it crossfades back to the articulation played before.
- 2.) press the MKS **before** you play a note in the instrument range, hold it and then play a note. It starts with the MKS-articulation and crossfades to the main articulation when released. (e.g. start with tremolo sfz-MKS and crossfade back to normal sustain)

Ornament - MKS	
<input type="checkbox"/>	C#5 Rebow 1
<input type="checkbox"/>	D5 Rebow 2
<input type="checkbox"/>	D#5 To Dolce p
<input type="checkbox"/>	E5 To Vib
<input type="checkbox"/>	F5 To Sulponticello
<input type="checkbox"/>	F#5 Irish Slide down!
<input type="checkbox"/>	G5 Slide in
<input type="checkbox"/>	G#5 To Cresc
<input type="checkbox"/>	A5 To Short Cresc
<input type="checkbox"/>	A#5 Soft Ending
<input type="checkbox"/>	B5 To Delicate End
<input type="checkbox"/>	C6 To Swell
<input type="checkbox"/>	C#6 To Halfnote Trill
<input type="checkbox"/>	D6 To Wholetone Trill
<input type="checkbox"/>	D#6 To Tremolo Sus
<input type="checkbox"/>	E6 Tremolo Move fast
<input type="checkbox"/>	F6 To Tremolo Sfx
<input type="checkbox"/>	F#6 Harmonic Short!

HARMONIC
SUBTONES

The Legato Mode:

In legato mode the script will automatically detect if you play legato or not. It chooses starting notes when playing non legato and legato transition notes and innerphrase sustains when playing legato.

All legato notes of the KSW except short articulations are connected with transition notes.

The Legato articulations have 3 different legato transition types :

1. **Bowchange Legato:** Two notes were played legato by changing the bow direction while moving from the first note to the second.
2. **Finger Legato:** Two notes were played legato by putting on / or releasing one finger on the fretboard while moving from the first note to the second.
3. **Portamento:** Two notes were played legato by sliding the finger up or down from the first note to the second.

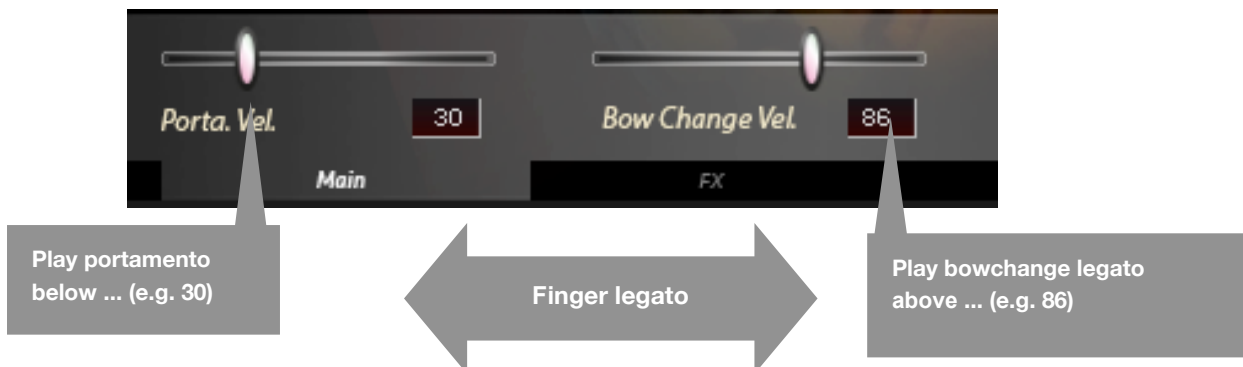
The different legato styles are addressed by velocity when playing legato:

High velocity triggers **bowchange legato**

Middle velocity triggers **finger legato**

Low velocity triggers **portamento**

The **trigger switch point** can be set with the faders in the **transition velocity windows** on the bottom left and right of the user interface:



Portamento Velocity: sets the highest velocity value of the portamento range from 0 – your choice. (The lowest velocity value for the finger legato range is defined by this choice.)

Bowchange Velocity: sets the lowest velocity value of the bow change range from your choice to 127. (The highest velocity value for the finger legato range is defined by this choice.)

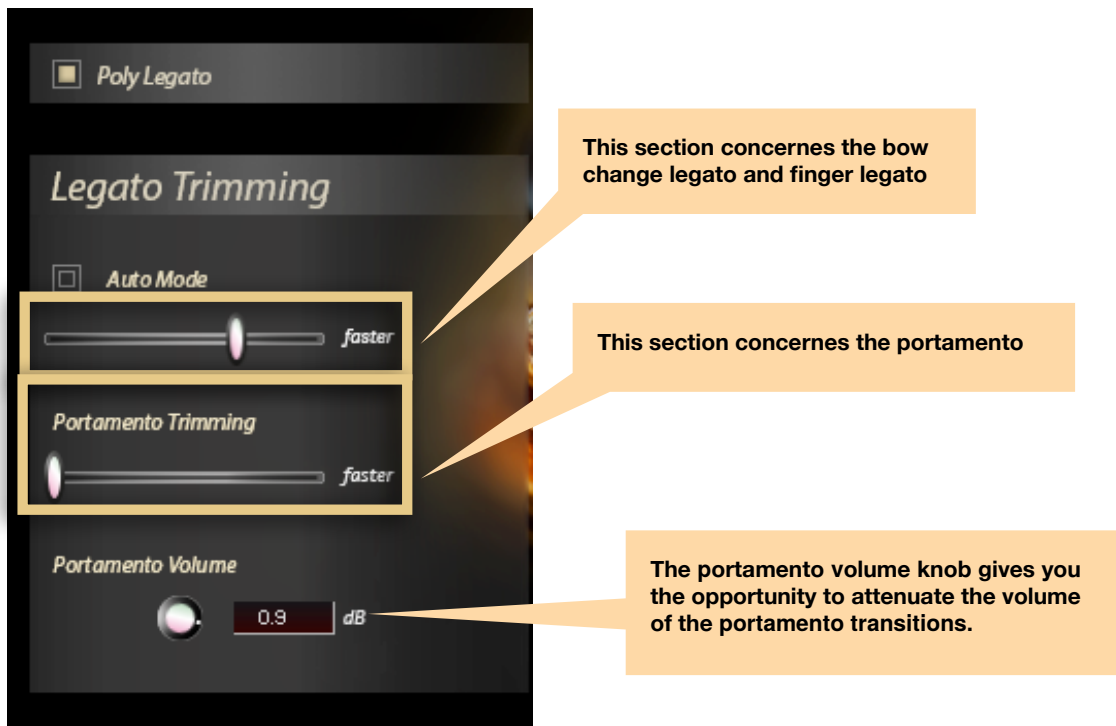
Tip:

you can deactivate any legato transition type by changing the velocity ranges in these two windows:

- Portamento only: move the Portamento Velocity slider to 127
- Finger legato only: move the Portamento Velocity slider to 0 and the Bow change Velocity slider to 127
- Bow change legato only: move the Bow change Velocity slider to 0

Legato Speed: (legato transition speed)

On the **Expert Page** of the GUI you'll find the transition speed trimming.

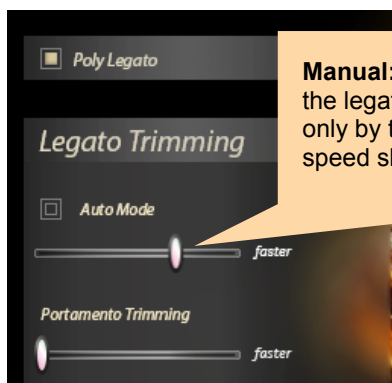


There are two options:

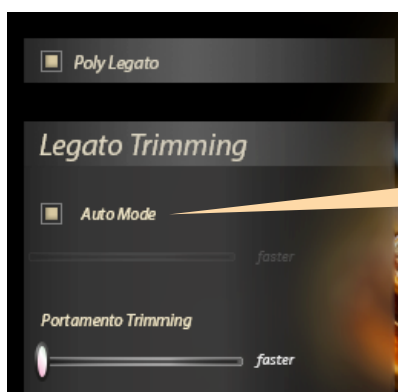
- **Legato trimming:** this affects the speed of **bow change - and finger legato**
- **Portamento trimming:** this affects the **portamento only**

Drawing the slider knob to the left the legato gets slower

The **Legato Trimming** offers additional options:

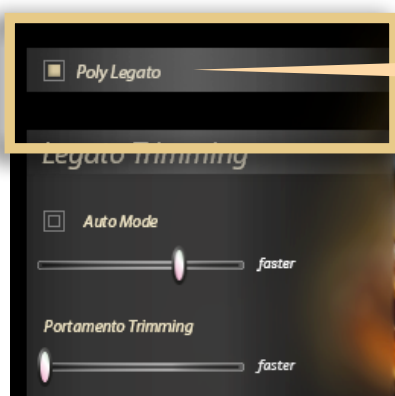


Manual:
the legato speed is determined only by the manual setting of the speed slider.



Auto Mode: the script will adopt your playing speed. When playing faster the legato gets faster automatically.

There is an option to switch between polyphonic legato and monophonic legato. In polyphonic legato the script detects polyphonic playing (with more than one voice) and will intelligently use the most logical voiceleading within. This needs a very accurate legato playing for the script to detect what is chordal playing and what is single note playing. You can turn polyphonic legato OFF. Only one note is played at a time. It's the best solution for melody lines



**Poly Legato
ON/OFF**

**Monophonic
when turned
off**

The **articulation status monitor** shows the active articulation. It will also show which legato transition is used while playing. This control is for **monitoring only**.

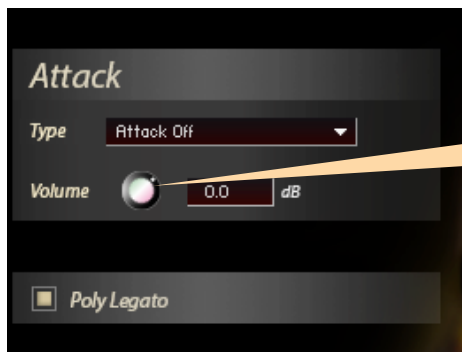


The **XFade knob** works as Volume control of the Instrument. In case of articulations that contain different dynamic layers it also works as crossfade control. With the **Dynamic Range Knob** you can adjust the amount of volume increase of the instrument.



Attack:

The **attack mode area** offers the opportunity to **add** an additional attack with round robin.

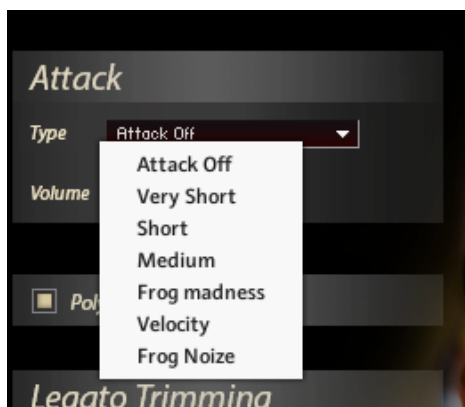


With the volume controller you can adjust the attack note volume

This attack is designed to only be added to notes that are played **non legato**.

When you have activated it in connection with a **legato - articulation** it turns off automatically when a **shorts – articulation** is chosen .

There are different **attack types** available:



The attack type chosen will be kept in memory for the specific articulation. It can be defined for each legato articulation.

This function generates an overlay of attack samples over sustains. Some articulations already have „attack mode on“ - these have been specially treated to avoid phasing in the sustains. Disabling the attack mode in these cases might cause strange behaviour.

The FX Page



The sordino impulse response:

The sordino impulse is an EQ snapshot that simulates a sordino effect.

The Timbre impulse response :

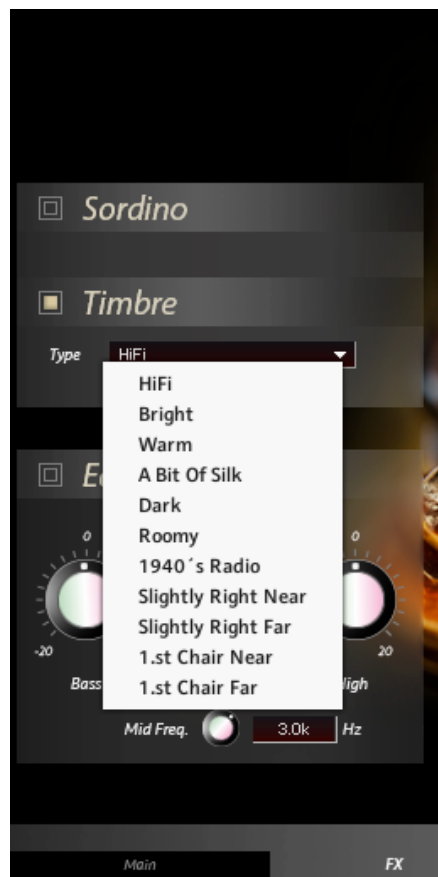
The Timbre impulse is like a mastering EQ snapshot but can also contain room information.

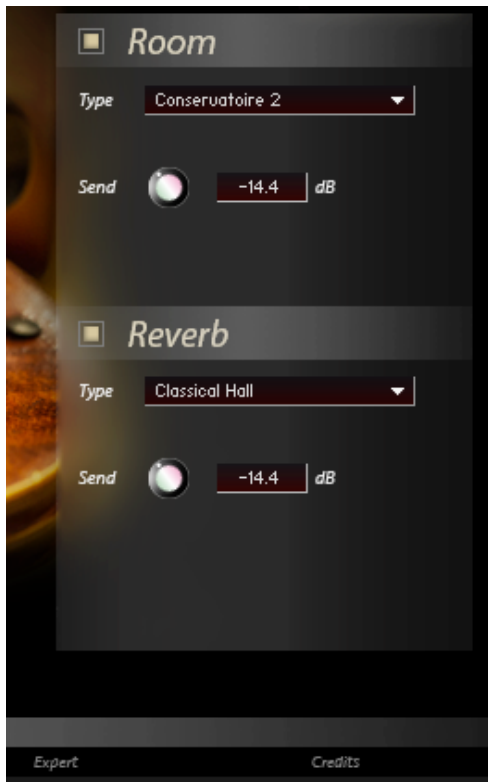
Timbre impulse can be turned **off** for the raw sound

Although it is possible to use **timbre impulse** alongside the **sordino impulse**, it is not recommended or should be used with care.

It might change the overall sound drastically.

The following timbres are available:

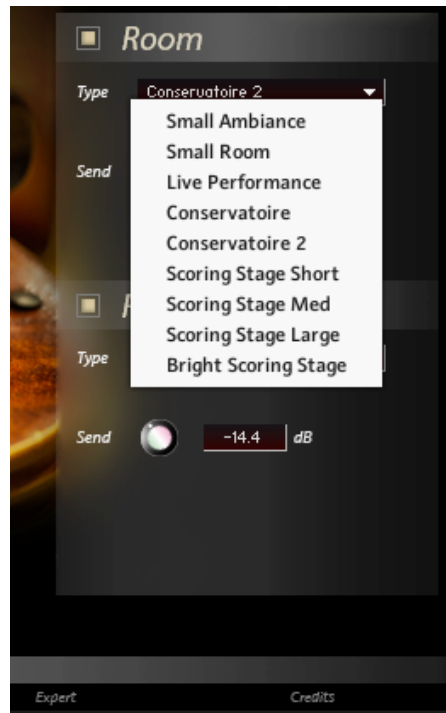




The Room FX:

Several room **impulse responses** are available

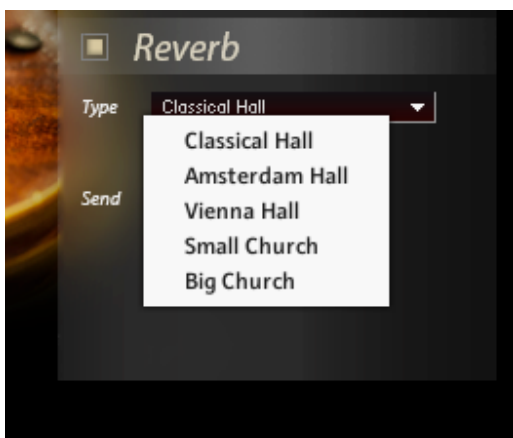
These rooms can be selected with the **type** knob. With **Send** you can adjust the amount of room to your liking.



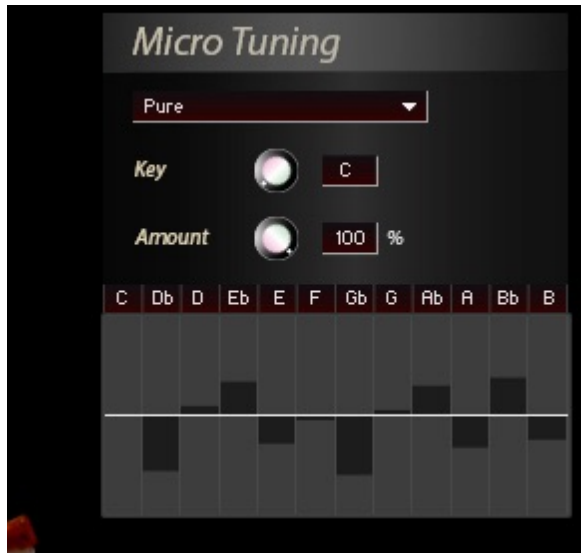
The Reverb FX:

Several **reverb impulse responses** are available.

These hall fx can be selected with the **type** knob. With **Send** you can adjust the amount of hall to your liking.



Microtuning (Expert Page)



In the **Micro Tuning** section you can adjust tuning of each note of the scale with the bars up and downwards.

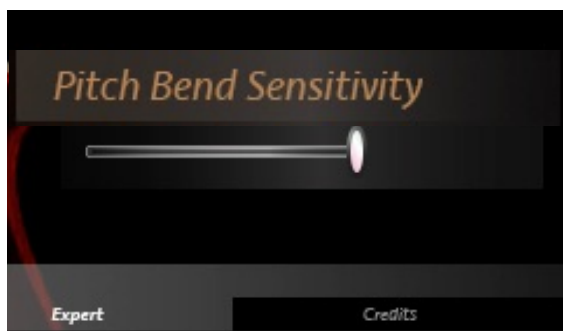
These micro tuning effects get effective at the moment when a note is played. This cannot be controlled and changed while the note is still sounding.

Therefore there is the intonation control via pitchbend that works in realtime.

Tip:

If you use more extreme detunings you can make an offset via the Amount Knob. If you assign a controller to the **amount knob** you can change the extend of the micro tuning within a phrase from note to note.

Intonation control via pitch bend



Pitch bend sensitivity:

You can assign the range of the pitch wheel with this slider. The highest value on the very right is offering a wholetone for pitchbending.

Tip:

The idea is to use the pitchwheel for **micro tuning** and **intonation** purposes. Therefore the range of the pitchbend is limited to a maximum of a wholestep. When the slider is set to the middle or lower you have subtle distinctions for the intonation via pitchbend.

List of „Individuals“ Patches

02 INDIVIDUALS

Emotional Cello Sustains		contains 15 different sustain articulations
Emotional Cello Espressivos		contains 13 different special expressive articulations: different length, NV, Vib, Sulponicello, Martele
Emotional Cello Shorts		contain 17 different short articulations Spiccato, dirty fast, Spiccato soft, Frog Madness, Martele NV & Vib, Rota Spiccato, Ricochet, Spilegno, Sulponticello Spicc, Powerchords, Frognoise
Emotional Cello Dynamics		contain 8 different articulations different Crescendos, Decrescendo, Fortepiano-Crescendo
Emotional Cello Tremolos & Trills		contain 10 different tremolo & trill articulations: Tremolo, Tremolo Sulponticello, Trills Halftone and Wholetone: Long, Hooktrill Long, Hooktrill Short
Emotional Cello Pizzicato		contains 8 different articulations: Normal Vib, Non Vib, Pizz legno, Snap, Plectrum, Harmonic Pizz

03 SPECIALS

Emotional Cello Diverse FX		Thunderous, Flageolet Glissando, Tango Glisses, Cello Percussion

Stackable Patch

FOR USE WITH EMOTIONAL VIOLIN OR/AND EMOTIONAL CELLO

EMOTIONAL CELLO TO STACK WITH VLN & VA		This patch contains the core articulation without the legato-function designed for stacking with EMOTIONAL VIOLIN and/or EMOTIONAL VIOLA to create a small Section. The keyswitches are standardized with the VLN & VA
		<ul style="list-style-type: none"> - Vibrato Sustain - Delicate Sustain - Non Vibrato Sustain - Espressivo - Soft Crescendo - Soft Decrescendo - Soft Swell - Rota Spiccato - Spiccato - Pizzicato - Flautando - Tremolo - Tremolo Sulponticello - Sordino - Harmonics