

**Vienna Instruments**  
**Solo Download Instruments**  
**Contrabassoon**  
**Full Library**

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## Introduction

Welcome to the Vienna Symphonic Library, and thank you for purchasing one of our Solo Download Instruments! This document contains the mapping information for the "Full" version of the Vienna Instruments Contrabassoon. You will find in it a comprehensive survey of the articulations/Patches content, a listing of abbreviations, and the mapping list proper which gives details for every Patch, Matrix, and Preset.

## "Full" Library

As opposed to the "Standard" versions of our Solo Download Instruments, the "Full" versions are identical with the corresponding instruments of a DVD Collection, i.e., they contain exactly the same samples, Patches, Matrices and Presets as the latter without any restrictions.

Installing a Download Instrument's Full version copies that instrument's sample content to a separate folder on your hard disk, so that it is not necessary to keep its Standard version installed – you may either delete it from your hard disk or at least remove it from the Directory Manager's list of activated instruments. In the Vienna Instruments Browser, the path of the Full version will be the same as that of the corresponding DVD Instrument, so that you can still see both versions as separate entries if you keep the Standard version installed.

## Data paths and Patch name conventions

Since the Full versions of Download Instruments conform to the corresponding DVD Instruments, the data paths in your Vienna Instruments browser will be different than those of Standard Download or Special Edition Instruments. For instance, the path of the Standard Download Library of Flute 1 is "02D Flute-1", and all Patches can be found in this folder regardless of the articulation group they belong to. The Patch number is also marked with a "D" so that you immediately know it is a Download Instrument. In the Vienna Special Edition, Flute 1 is located in the folder "11 Flutes" together with the other flutes. Here, the Patch number is marked with an "S". The Full Download of Flute 1 is located in the subfolder "32 Flute" of the section "Woodwind Patches", which again contains subfolders grouping the Patches according to type, e.g., "01 SHORT + LONG NOTES", "02 DYNAMICS", etc. Patch names of the Full Download Library may differ from the corresponding ones of the Standard Download Library.

While Full Download Instruments contain all articulations of the corresponding DVD Instruments, their Patches are not divided into Standard and Extended content. The list of articulations further down which gives a summary of the Library's contents.

Special Patch configurations which sometimes are part of a Standard Download Instrument may be found in a reserved folder called "98 RESOURCES" in the Full Instrument. E.g., Flute 1 Standard contains the Patch "22D FL1 legato-sus"; in Flute 1 Full, this Patch is called "01 FL1\_perf\_leg\_sustain" and is located in the Resources' subfolder "03 Perf Speed variation". (Apart from that, it also contains more samples.) Other articulations that can be found in the Resources folder are isolated dynamics repetitions in the subfolder "01 Perf Rep dyn" – e.g., the five repetitions of a legato crescendo, divided into separate Patches – and extracted velocity layers of sustained notes in the subfolder "02 Long Notes – Single Layer".

## Patch information

The Patch information includes articulation type, playing range, number of samples used, RAM requirements, the number of velocity layers and alternations, AB switching possibilities, etc., as well as Patch specific information if necessary.

Where the type of articulation requires a special mapping (e.g., natural harmonics patches), the mapping layout will be shown in a detailed graphic.

**Major and minor runs** are always mapped to the keys of their scale, as are **arpeggios** to the keys of the broken chord played. **Grace notes** and **mordents** are mapped to their target note, i.e., the note the articulation ends with. Due to their nature, all **upward and downward articulations** (e.g., fixed glissandos and octave runs) have different mapping ranges – the upward movements ending the involved interval below the Patch's upper mapping range, while downward movements end the interval above its lower mapping range. (Please note that not all of the articulations mentioned above may be contained in your Collection.)

The Patch information also lists a Patch's velocity layers in detail. Velocity layer switches generally are the same for patches with the same number of layers but may occasionally be adapted to the instrument's requirements:

Layers	Layer 1	Layer 2	Layer 3	Layer 4	Layer 5	Layer 6
2	1–88	89–127				
3	1–55	56–88	89–127			
4	1–55	56–88	89–108	109–127		
5	1–24	25–55	56–88	89–108	109–127	
6	1–24	25–55	56–88	89–108	109–118	119–127

## Interval performances

Interval performances are one of the outstanding features of our Vienna Instruments. They allow you to play authentic legato without any programming tricks. In our Silent Stage, all intervals from minor second to the octave were recorded for every instrument – up and down, of course; that makes 24 interval samples per note for one velocity alone! When you load an interval performance Patch and play a line on your keyboard, the software automatically joins the right samples with their interval transitions again, and you hear a perfect legato. By the way, this technique is not only used for legato but also for other articulations like the strings' portamento, marcato, or détaché and spiccato articulations.

Interval performances also contain at least two legato repetitions for every note which alternate automatically whenever you strike a key more than once. There also are preconfigured thresholds for legato and repetition notes: The legato threshold – i.e., the maximum break between notes where legato is played – is 50 ms. Otherwise, a sustained starting note will sound so that you can easily start a new phrase without leaving the legato Patch. For note repetitions, the threshold is 200 ms: a break up to that duration will yield a legato repetition; if the break is longer, a new starting note. But of course, it's mingling legato with other articulations which makes a piece really come alive.

Due to their nature, all interval performances are monophonic; otherwise, the software would have to be able to decide which source note belongs to which target note. To circumvent this, you can open two VI instances of the same instrument on separate MIDI tracks without any additional strain on your RAM.

*Note:* the Vienna Instruments PRO player software also allows you to play polyphonic Interval performances.

Another variety of interval performance you will come across is the "perf-leg\_sus" Patch. These Patches also contain normal legatos, only the target note of each interval is crossfaded into a looped sustain. They can be used for slower pieces with long notes; however, you should use them with circumspection, since plain legatos sound more lively because they not only render the interval transitions as they were played, but also have different target samples for every interval instead of the same sustained note: When you play, e.g., c–e and then c#–e with normal legato, you will get two different "e" tones; with sus-legato you won't.

## Matrix information

Each Matrix listing contains information regarding the Patches used for the Matrix, the number of horizontal and vertical dimensions, and switching properties. A mapping table shows the Cell positions for each of the Matrix' Patches.

**A/B switching** normally is set to A0 for upward/crescendo, and B0 for downward/diminuendo. However, some bass instruments go below that range so that the A/B keys have to be adapted accordingly. For example, the A/B switches for double bass are A0 and A#0 because the instrument's lower range extends to B0.

In order to facilitate working with **MIDI controller switches** like the Modulation wheel, the switching positions are not distributed equally across the controller range if they control more than two Matrix rows or columns; generally, the switching range will be narrower at the extreme positions because they are easy to set, and wider in the middle where it is harder to find the desired setting.

**Speed controller switches** naturally are adjusted to the Patches involved, and have been tested carefully as to their playability. However, if you find that they do not fit your playing, or want to try out other settings, you can change this as well as any other controller's settings at the **Control edit** page, and save the result in your Custom Matrix folder.

## Preset information

The Preset information lists the Matrices used in the Preset as well as its keyswitches. All other information can be gathered from the Matrix and Patch listings, so there's not really much to say here. Please note that the Matrices of a Preset can also be switched with MIDI Program Changes (VI: 101–112; VI PRO: 1–127) instead of keyboard notes, and if you like to keep your keyboard free for playing instead of switching, you can disable Preset keyswitching and only use MIDI Program Changes. Vienna Instruments PRO also allows you to define a MIDI Control for Preset keyswitching.

## Abbreviations

Here's a list of abbreviations in Patch names, which will help you to determine a Patch's content even without the help of the Vienna Instruments browser. Please note that not all of the abbreviations may occur in the manual on hand.

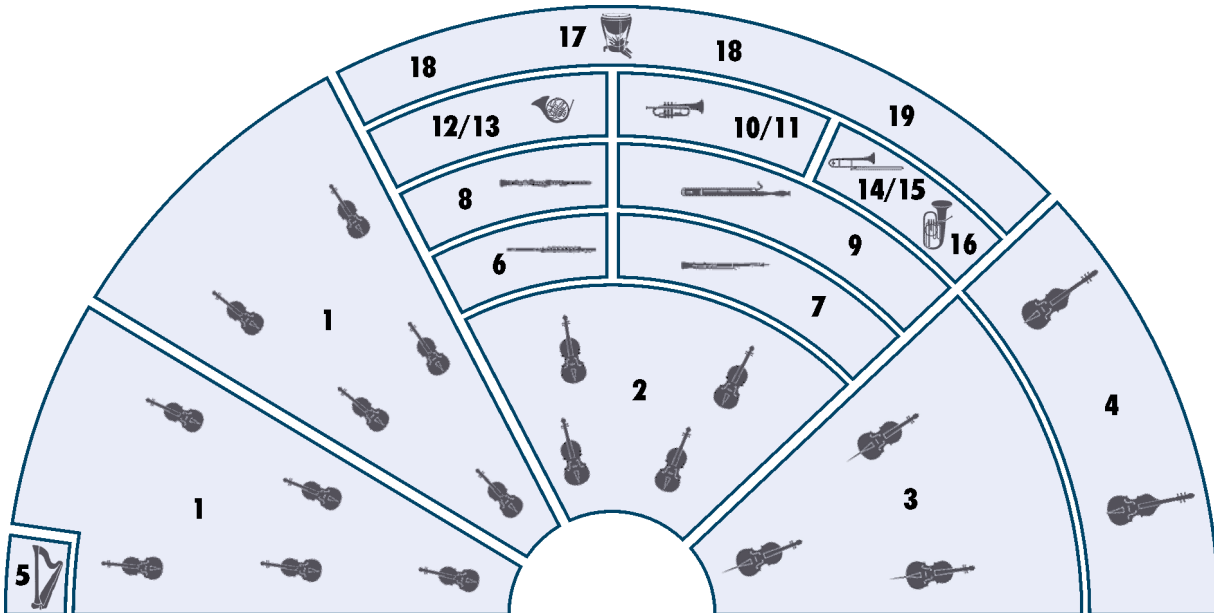
Abbreviation	Meaning	Abbreviation	Meaning
+	faster articulation (runs and arpeggios)	li	light
150, 160, ...	150, 160, ... BPM (beats per minute)	lo	long
1s, 2s, ...	tone length 1 sec., 2 sec., ...	ma	major
acc	accelerando	me	medium
all	combination of all Patches of a category	mi	minor
arp	arpeggio	mord	mordent
cre	crescendo	nA	normal attack
dim	diminuendo	noVib	without vibrato
dm	diminished (arpeggios)	perf-rep	repetition performance
dyn	dynamics (crescendo and diminuendo)	por	portato
dyn5, dyn9	dynamics, 5/9 repetitions	run	octave run
fa	fast	sA	soft attack
faT	fast triplets	sl	slow
fA	fast attack	sta, stac	staccato
fA_auto	attack automation (normal/fast attack)	str	strong
fast-rep	fast repetitions	sus	sustained
flatter	flutter tonguing	T	triplets
fx	effect – flute: tongue-ram staccato	UB	upbeat
hA	hard attack	UB-a1, -a2	1, 2 upbeats
leg	legato	v1, v2 ...	1st, 2nd, ... variation
		Vib	with (medium) vibrato
		Vib-progr	progressive vibrato
		XF	cell crossfade Matrix

## Articulations

<b>43 Contra Bassoon</b>	
<b>01 SHORT + LONG NOTES</b>	Staccato Portato short and medium Portato long with and without vibrato Sustained with and without vibrato Low effect tones
<b>02 DYNAMICS</b>	Medium dynamics with vibrato, 2, 3, and 5 sec. Medium dynamics without vibrato, 1.5, 2, 3, 4, and 6 sec. Strong dynamics without vibrato, 3, 4, and 6 sec. pfp with vibrato, 1.5, 2, 3, 4, 6 sec. Fortepiano, sforzato, sforzatissimo
<b>03 FLATTER 10 PERF INTERVAL</b>	Flutter tonguing, normal and crescendo Legato Grace notes Marcato
<b>11 PERF INTERVAL FAST</b>	Legato Marcato
<b>12 PERF TRILL</b>	Trills, legato, minor 2nd to major 3rd
<b>13 PERF REPETITION</b>	Legato slow and fast Portato slow, medium and fast Staccato slow and fast Dynamics for all repetitions
<b>14 GRACE NOTES</b>	Grace notes, minor 2nd to octave, up and down

## The orchestra

There are several ways of setting up an orchestra, depending on the era of the piece played, the type of the piece and the instruments it requires, and even on the preference of the conductor. The figure below shows one of the more common setups, which can be taken as a guideline for mixing a composition, properly positioning the instruments in the stereo field and adding reverb according to the size of the concert hall you want your piece to be played in.



- 1 1st and 2nd violin
- 2 Viola
- 3 Cello
- 4 Double bass
- 5 Harp
- 6 Concert flute, piccolo
- 7 Oboe, English horn
- 8 Clarinet, bass clarinet

- 9 Bassoon, contrabassoon
- 10/11 Trumpet
- 12/13 Horn
- 14/15 Trombone
- 16 Tuba
- 17 Timpani
- 18 Drums, cymbals
- 19 other percussion instruments

## Pitch

For designating pitch, the Vienna Symphonic Library uses International Pitch Notation (IPN), which was agreed upon internationally under the auspices of the Acoustical Society of America. In this system the international standard of A=440 Hz is called A4 and middle C is C4. All pitches are written as capital letters, their respective octave being indicated by a number next to it. The lowest C on the piano is C1 (the A below that is A0), etc.

You can tune your Vienna Instruments to other players, or adjust it to tunings of earlier musical periods by setting the Perform page's Master Tune option within a range of 420 to 460 Hz.

# 43 Contra Bassoon

## The Instrument

### Description

The contrabassoon, also known as the double bassoon, is the contrabass instrument in the woodwind section and, together with the contrabass tuba, the deepest instrument in the orchestra.

Its deep and dark timbre has provided the foundation in orchestral works scored for large orchestras since the first half of the 19th century. Larger orchestras use three bassoons and a contrabassoon; additionally, the third bassoonist can switch to contrabassoon if necessary.

### Range and notation

The contrabassoon has a range of B0–C4. Notation is in bass clef (only rarely in tenor clef), the sound is an octave lower than written.

### Sound characteristics

Dark, sonorous, full, resonant, heavy, grave, mighty, substantial, somber, rumbling, buzzing, rough, acerbic, husky.

The contrabassoon is used to suggest solemn, weighty and somber moods as well as emotive and stately ones. The low notes have a somewhat more precise sound than other contrabass instruments (e.g. the contrabass tuba). Effects reminiscent of the organ are possible. The sound is mellow at piano levels. At the top end the notes become progressively less loud and sustaining, the timbre becomes harder, brighter and rather acerbic.

### Combination with other instruments

As the deepest instrument in the orchestra along with the contrabass tuba, the contrabassoon generally plays one octave below the bass voice.

Contrabassoon and tuba an octave higher produce a mighty and full sound that is capable of carrying an orchestra tutti. Contrabassoon and double-bass in unison produce a substantial, full composite sound.



## Patches

01 SHORT + LONG NOTES		Range: A#0–A#3		
<b>01 CBA_staccato</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Staccato 3 velocity layers 4 Alternations				
<b>02 CBA_portato_short</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Portato, short 3 velocity layers 4 Alternations				
<b>03 CBA_portato_medium</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Portato, medium 3 velocity layers 4 Alternations				
<b>04 CBA_por_lo_Vib</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Portato, long, with vibrato 3 velocity layers Release samples 2 Alternations				
<b>05 CBA_por_lo_noVib</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Portato, long, without vibrato 3 velocity layers Release samples 2 Alternations				
<b>11 CBA_sus_Vib</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Sustained, with vibrato 3 velocity layers Release samples				
<b>12 CBA_sus_noVib</b>			<b>Samples: 222</b>	<b>RAM: 13 MB</b>
Sustained, without vibrato 3 velocity layers Release samples				
<b>13 CBA_FX</b>		<b>Range: C1–A#2</b>	<b>Samples: 27</b>	<b>RAM: 1 MB</b>
Single notes: Low effect sounds, dynamics, and 1 normal 1 velocity layer AB switch: crescendo/diminuendo <b>Mapping:</b> C1: normal (A#1) A#1–A#2: dynamics				

**02 DYNAMICS****Range: A#0–A#3****01 CBA\_dyn-me\_Vib\_2s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo with vibrato, 2 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**02 CBA\_dyn-me\_Vib\_3s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo with vibrato, 3 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**03 CBA\_dyn-me\_Vib\_5s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo with vibrato, 5 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**04 CBA\_dyn-me\_noVib\_1'5s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo without vibrato, 1.5 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**05 CBA\_dyn-me\_noVib\_2s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo without vibrato, 2 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**06 CBA\_dyn-me\_noVib\_3s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo without vibrato, 3 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**07 CBA\_dyn-me\_noVib\_4s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo without vibrato, 4 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**08 CBA\_dyn-me\_noVib\_6s****Samples: 148****RAM: 9 MB**

Medium crescendo and diminuendo without vibrato, 6 sec.  
 2 velocity layers  
 AB switch: crescendo/diminuendo

**09 CBA\_dyn-str\_noVib\_3s****Samples: 74****RAM: 4 MB**

Strong crescendo and diminuendo without vibrato, 3 sec.  
 1 velocity layer  
 AB switch: crescendo/diminuendo

<b>10 CBA_dyn-str_noVib_4s</b> Strong crescendo and diminuendo without vibrato, 4 sec. 1 velocity layer AB switch: crescendo/diminuendo	<b>Samples: 74</b>	<b>RAM: 4 MB</b>
<b>11 CBA_dyn-str_noVib_6s</b> Strong crescendo and diminuendo without vibrato, 6 sec. 1 velocity layer AB switch: crescendo/diminuendo	<b>Samples: 74</b>	<b>RAM: 4 MB</b>
<b>12 CBA_pfp_1'5s</b> Crescendo-diminuendo, 1.5 sec. 1 velocity layer	<b>Samples: 19</b>	<b>RAM: 1 MB</b>
<b>13 CBA_pfp_2s</b> Crescendo-diminuendo, 2 sec. 1 velocity layer	<b>Samples: 19</b>	<b>RAM: 1 MB</b>
<b>14 CBA_pfp_3s</b> Crescendo-diminuendo, 3 sec. 1 velocity layer	<b>Samples: 19</b>	<b>RAM: 1 MB</b>
<b>15 CBA_pfp_4s</b> Crescendo-diminuendo, 4 sec. 1 velocity layer	<b>Samples: 19</b>	<b>RAM: 1 MB</b>
<b>16 CBA_pfp_6s</b> Crescendo-diminuendo, 6 sec. 1 velocity layer	<b>Samples: 19</b>	<b>RAM: 1 MB</b>
<b>17 CBA_fp</b> Fortepiano 1 velocity layer	<b>Samples: 37</b>	<b>RAM: 2 MB</b>
<b>18 CBA_sfz</b> Sforzato 1 velocity layer	<b>Samples: 37</b>	<b>RAM: 2 MB</b>
<b>19 CBA_sffz</b> Sforzatissimo 1 velocity layer	<b>Samples: 37</b>	<b>RAM: 2 MB</b>

**03 FLATTER****Range: A#0–A#3****01 CBA\_flatter****Samples: 38****RAM: 2 MB**

Flutter tonguing  
1 velocity layer  
Release samples

**02 CBA\_flatter\_cre****Samples: 19****RAM: 1 MB**

Flutter tonguing, crescendo  
1 velocity layer

**10 PERF INTERVAL****Range: A#0–A#3****01 CBA\_perf-legato****Samples: 892****RAM: 55 MB**

Legato  
2 velocity layers  
Release samples

**02 CBA\_perf-legato\_grace****Samples: 446****RAM: 27 MB**

Grace notes, legato, minor 2nd to octave  
1 velocity layer  
Release samples

**03 CBA\_perf-marcato****Samples: 965****RAM: 60 MB**

Marcato  
2 velocity layers  
Release samples

**11 PERF INTERVAL FAST****Range: A#0–A#3****01 CBA\_perf-legato\_fa****Samples: 1032****RAM: 64 MB**

Legato, fast  
2 velocity layers  
Release samples

**02 CBA\_perf-marcato\_fa****Samples: 958****RAM: 59 MB**

Marcato, fast  
2 velocity layers

**12 PERF TRILL****Range: A#0–A#3****01 CBA\_perf-trill****Samples: 2292   RAM: 143 MB**

Performance trills, legato, minor 2nd to major 3rd  
 2 velocity layers  
 Release samples

**13 PERF REPETITION****Range: A#0–A#3****01 CBA\_perf-rep\_leg-sl****Samples: 190   RAM: 11 MB**

Legato, slow  
 2 velocity layers

**02 CBA\_perf-rep\_leg-fa****Samples: 190   RAM: 11 MB**

Legato, fast  
 2 velocity layers

**03 CBA\_perf-rep\_por-sl****Samples: 190   RAM: 11 MB**

Portato, slow  
 2 velocity layers

**04 CBA\_perf-rep\_por-me****Samples: 342   RAM: 21 MB**

Portato, medium  
 2 velocity layers

**05 CBA\_perf-rep\_por-fa****Samples: 342   RAM: 21 MB**

Portato, fast  
 2 velocity layers

**06 CBA\_perf-rep\_sta-slo****Samples: 342   RAM: 21 MB**

Staccato, slow  
 2 velocity layers

**07 CBA\_perf-rep\_sta-fa****Samples: 342   RAM: 21 MB**


Staccato, fast  
 2 velocity layers

**21 CBA\_perf-rep\_dyn5\_leg-sl****Samples: 190   RAM: 11 MB**

Legato dynamics, slow, 5 repetitions  
 1 velocity layer  
 AB switch: crescendo/diminuendo

**22 CBA\_perf-rep\_dyn5\_leg-fa****Samples: 190   RAM: 11 MB**

Legato dynamics, fast, 5 repetitions  
 1 velocity layer  
 AB switch: crescendo/diminuendo

<b>23 CBA_perf-rep_dyn9_por-me</b>	<b>Samples: 342</b>	<b>RAM: 21 MB</b>
Portato dynamics, medium, 9 repetitions 1 velocity layer AB switch: crescendo/diminuendo		
<b>24 CBA_perf-rep_dyn9_por-fa</b>	<b>Samples: 342</b>	<b>RAM: 21 MB</b>
Portato dynamics, fast, 9 repetitions 1 velocity layer AB switch: crescendo/diminuendo		
<b>25 CBA_perf-rep_dyn9_sta-sl</b>	<b>Samples: 342</b>	<b>RAM: 21 MB</b>
Staccato dynamics, slow, 9 repetitions 1 velocity layer AB switch: crescendo/diminuendo		
<b>26 CBA_perf-rep_dyn9_sta-fa</b>	<b>Samples: 342</b>	<b>RAM: 21 MB</b>
Staccato dynamics, fast, 9 repetitions 1 velocity layer AB switch: crescendo/diminuendo		
<hr/>		
<b>14 GRACE NOTES</b>	<b>Range: A#0–A#3</b>	
The samples are mapped to their target note.		
<b>01 CBA_grace-1</b>	<b>Samples: 73</b>	<b>RAM: 4 MB</b>
Grace notes, minor 2nd 1 velocity layer Release samples AB switch: up/down		
<b>02 CBA_grace-2</b>	<b>Samples: 73</b>	<b>RAM: 4 MB</b>
Grace notes, major 2nd 1 velocity layer Release samples AB switch: up/down		
<b>03 CBA_grace-3</b>	<b>Samples: 71</b>	<b>RAM: 4 MB</b>
Grace notes, minor 3rd 1 velocity layer Release samples AB switch: up/down		
<b>04 CBA_grace-4</b>	<b>Samples: 71</b>	<b>RAM: 4 MB</b>
Grace notes, major 3rd 1 velocity layer Release samples AB switch: up/down		

<b>05 CBA_grace-5</b>	<b>Samples: 69</b>	<b>RAM: 4 MB</b>
Grace notes, 4th 1 velocity layer Release samples AB switch: up/down		
<b>06 CBA_grace-6</b>	<b>Samples: 69</b>	<b>RAM: 4 MB</b>
Grace notes, diminished 5th 1 velocity layer Release samples AB switch: up/down		
<b>07 CBA_grace-7</b>	<b>Samples: 67</b>	<b>RAM: 4 MB</b>
Grace notes, 5th 1 velocity layer Release samples AB switch: up/down		
<b>08 CBA_grace-8</b>	<b>Samples: 67</b>	<b>RAM: 4 MB</b>
Grace notes, minor 6th 1 velocity layer Release samples AB switch: up/down		
<b>09 CBA_grace-9</b>	<b>Samples: 65</b>	<b>RAM: 4 MB</b>
Grace notes, major 6th 1 velocity layer Release samples AB switch: up/down		
<b>10 CBA_grace-10</b>	<b>Samples: 65</b>	<b>RAM: 4 MB</b>
Grace notes, minor 7th 1 velocity layer Release samples AB switch: up/down		
<b>11 CBA_grace-11</b>	<b>Samples: 63</b>	<b>RAM: 3 MB</b>
Grace notes, major 7th 1 velocity layer Release samples AB switch: up/down		
<b>12 CBA_grace-12</b>	<b>Samples: 63</b>	<b>RAM: 3 MB</b>
Grace notes, octave 1 velocity layer Release samples AB switch: up/down		

**98 RESOURCES**

Isolated dynamics repetitions: Legato slow and fast, portato, staccato

Single layer long notes

Performance Legato with sustain crossfading

**01 Perf Rep dyn****Range: A#0–A#3****01 CBA\_rep\_cre5\_leg-sl-1 (2/3/4/5)****Samples: 19****RAM: 1 MB**

Extracted repetition

Legato slow, cres, 1st to 5th note

1 velocity layer

**01 CBA\_rep\_dim5\_leg-sl-1 (2/3/4/5)****Samples: 19****RAM: 1 MB**

Extracted repetition

Legato slow, dim, 1st to 5th note

1 velocity layer

**02 CBA\_rep\_cre5\_leg-fa-1 (2/3/4/5)****Samples: 19****RAM: 1 MB**

Extracted repetition

Legato fast, cres, 1st to 5th note

1 velocity layer

**02 CBA\_rep\_dim5\_leg-fa-1 (2/3/4/5)****Samples: 19****RAM: 1 MB**

Extracted repetition

Legato fast, dim, 1st to 5th note

1 velocity layer

**03 CBA\_rep\_cre9\_por-1 (2/3/4/5/6/7/8/9)****Samples: 19****RAM: 1 MB**

Extracted repetition

Portato, cres, 1st to 9th note

1 velocity layer

**03 CBA\_rep\_dim9\_por-1 (2/3/4/5/6/7/8/9)****Samples: 19****RAM: 1 MB**

Extracted repetition

Portato, dim, 1st to 9th note

1 velocity layer

**04 CBA\_rep\_cre9\_sta-1 (2/3/4/5/6/7/8/9)****Samples: 19****RAM: 1 MB**

Extracted repetition

Staccato, cres, 1st to 9th note

1 velocity layer

**04 CBA\_rep\_dim9\_sta-1 (2/3/4/5/6/7/8/9)****Samples: 19****RAM: 1 MB**

Extracted repetition

Staccato, dim, 1st to 9th note

1 velocity layer



**02 Long Notes - Single Layer****Range: A#0–A#3****01 CBA\_sus\_noVib\_p****Samples: 74****RAM: 4 MB**

Sustained, piano  
 1 velocity layer  
 Release samples

**02 CBA\_sus\_noVib\_mf****Samples: 74****RAM: 4 MB**

Sustained, mezzoforte  
 1 velocity layer  
 Release samples

**03 CBA\_sus\_noVib\_f****Samples: 74****RAM: 4 MB**

Sustained, forte  
 1 velocity layer  
 Release samples

**03 Perf Speed variation****Range: A#0–A#3****01 CBA\_perf-leg\_sustain****Samples: 892****RAM: 55 MB**

Legato with sustain crossfading  
 2 velocity layers  
 Release samples

**99 RELEASE**

This section contains release samples for various patches of the other sections. Please do not try to load them into a Vienna Instruments matrix – you will not be able to hear anything when you try to play them.

# Matrices

## Matrix - LEVEL 1

### L1 CBA Articulation Combi

**Samples: 946    RAM: 59 MB**

Single note articulations

Staccato, portato short, sustained with and without vibrato, crescendo-diminuendo 2 and 4 sec., fortepiano and sforzato, flutter tonguing normal and crescendo

**Matrix switches:** Horizontal: Keyswitches, C6–E6      Vertical: Modwheel, 2 zones

	H1	H2	H3	H4	H5	H6
V1	stac	sus vib.	pfp 2s.	fp	flutter	
V2	port. short	sus no vib.	pfp 4s.	sfz	flutter cres.	

### L1 CBA Perf-Legato Speed

**Samples: 1176    RAM: 73 MB**

Interval performances

Legato with sustain crossfading, normal without vibrato, and fast

Monophonic, Speed controller

**Matrix switches:** Horizontal: Speed, 3 zones

	H1	H2	H3
Legato	sustain XF	normal	fast

### L1 CBA Perf-Repetitions Combi

**Samples: 874    RAM: 54 MB**

Repetition performances

Legato slow

Portato fast

Staccato fast

**Matrix switches:** Vertical: Modwheel, 3 zones

	repetitions
V1	legato slow
V2	portato fast
V3	staccato fast

## Matrix - LEVEL 2 A - Advanced

### O1 CBA Perf-Universal

**Samples: 2314    RAM: 144 MB**

Interval performances

Legato with sustain crossfading, normal, and fast

Marcato normal and fast

Monophonic, Speed controller

**Matrix switches:** Horizontal: Speed, 3 zones      Vertical: Modwheel, 2 zones

	H1	H2	H3
legato	sustain	normal	fast
marcato	normal	normal	fast

**02 CBA Perf-Trill Speed****Samples: 2572 RAM: 160 MB**

Multi interval performances  
 Legato and trills  
 Monophonic, Speed controller

**Matrix switches:** Horizontal: Speed, 2 zones

	H1	H2
V1	legato	trills

**03 CBA Short+Long notes - All****Samples: 999 RAM: 62 MB**

Single notes  
 Staccato, portato short and medium  
 Sustained with and without vibrato

**Matrix switches:** Horizontal: Keyswitches, C6–D#6 Vertical: Modwheel, 2 zones

	C6	C#6	D6	D#6
V1	staccato	portato short	port. medium	sus. vibrato
V2	%	%	%	sus. no vib.

**Matrix - LEVEL 2 B - Standard****11 CBA Perf-Legato Speed****Samples: 1176 RAM: 73 MB**

Interval performances  
 Legato with sustain crossfading, normal, and fast  
 Monophonic, Speed controller

**Matrix switches:** Horizontal: Speed, 3 zones

	H1	H2	H3
Legato	sustain XF	normal	fast

**12 CBA Perf-Marcato Speed****Samples: 1286 RAM: 80 MB**

Interval performances^mMarcato normal and fast  
 Monophonic, Speed controller

**Matrix switches:** Horizontal: Speed, 2 zones

	H1	H2
Marcato	normal	fast

**13 CBA Short notes - All****Samples: 999 RAM: 62 MB**

Single notes  
 Staccato, portato short and medium, and portato long with and without vibrato

**Matrix switches:** Horizontal: Keyswitches, C6–E6

	C6	C#6	D6	D#6	E6
V1	staccato	port. short	port. medium	port.long vib.	port.long no vib.

**14 CBA Long notes - All****Samples: 360 RAM: 22 MB**

Single notes  
 Sustained with and without vibrato  
 FX notes

**Matrix switches:** Horizontal: Keyswitches, C6–D6

	C6	C#6	D6
V1	sus. vibrato	sus. no vib.	FX notes

**15 CBA Dynamics - Small****Samples: 555    RAM: 34 MB**

Dynamics

Medium crescendo and diminuendo without vibrato, 2, 3, and 4 sec.

Fortepiano, sforzato, sforzatissimo

**Matrix switches:** Horizontal: Keyswitches, C6–D6      Vertical: Modwheel, 4 zones

	C6	C#6	D6
dynamics	2 sec.	3 sec.	4 sec.
fp	%	%	%
sfz	%	%	%
sffz	%	%	%

**16 CBA Dynamics - Large****Samples: 1278    RAM: 79 MB**

Dynamics

Crescendo and diminuendo, medium with and without vibrato, strong without vibrato

Crescendo-diminuendo 2, 3, and 4 sec.

Fortepiano, sforzato, sforzatissimo

**Matrix switches:** Horizontal: Keyswitches, C6–D6      Vertical: Modwheel, 5 zones

	C6	C#6	D6
V1	dyn.med. vib. 2 sec.	dyn.med. vib. 3 sec.	dyn.med. vib. 5 sec.
V2	dyn.med. no vib. 2 sec.	dyn.med. no vib. 3 sec.	dyn.med. no vib. 4 sec.
V3	dyn.str. no vib. 3 sec.	dyn.str. no vib. 4 sec.	dyn.str. no vib. 6 sec.
V4	pf 2 sec.	pf 3 sec.	pf 4 sec.
V5	fp	sfz	sffz

**17 CBA Flutter****Samples: 57    RAM: 3 MB**

Flutter tonguing

Normal, crescendo, and normal/crescendo with Cell crossfading

**Matrix switches:** Horizontal: Keyswitches, C6–D6

	C6	C#6	D6
flutter	normal	crescendo	Cell XF

**Matrix - LEVEL 2 C - Repetitions****31 CBA Perf-Repetitions - Combi****Samples: 1064    RAM: 66 MB**

Repetition performances

Slow and fast legato, fast portato, and fast staccato

**Matrix switches:** Horizontal: Keyswitches, C6–D#6

	C6	C#6	D6	D#6
V1	legato slow	legato fast	portato fast	staccato fast

**32 CBA Perf-Repetitions - Speed****Samples: 1064    RAM: 66 MB**

Repetition performances

Slow and fast legato, fast portato, and fast staccato

Speed controller

**Matrix switches:** Horizontal: Speed, 4 zones

	H1	H2	H3	H4
V1	legato slow	legato fast	portato fast	staccato fast

**Matrix - LEVEL 2 D - Scale+Phrase****41 CBA Grace notes - All****Samples: 409 RAM: 25 MB**

Grace notes, minor 2nd to octave

AB switch up/down

**Matrix switches:** Horizontal: Keyswitches, C6–B6

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6	A6	A#6	B6
interval	min. 2nd	maj. 2nd	min. 3rd	maj. 3rd	4th	dim. 5th	5th	min. 6th	maj. 6th	min. 7th	maj. 7th	octave

**Matrix - LEVEL 2 E - Keyswitch Vel****71 CBA Legato slow - cre5****Samples: 95 RAM: 5 MB**

Slow legato notes: Crescendo, keyswitch velocity

Keyswitches control 5 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–E6

	C6	C#6	D6	D#6	E6
velocity	1st	2nd	3rd	4th	5th

**72 CBA Legato fast - cre5****Samples: 95 RAM: 5 MB**

Fast legato notes: Crescendo, keyswitch velocity

Keyswitches control 5 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–E6

	C6	C#6	D6	D#6	E6
velocity	1st	2nd	3rd	4th	5th

**73 CBA Portato - cre9****Samples: 171 RAM: 10 MB**

Portato notes: Crescendo, keyswitch velocity

Keyswitches control 9 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–G#6

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6
velocity	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

**74 CBA Staccato - cre9****Samples: 171 RAM: 10 MB**

Staccato notes: Crescendo, keyswitch velocity

Keyswitches control 9 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–G#6

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6
velocity	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

**75 CBA Combi - cre5****Samples: 190 RAM: 11 MB**

Slow and fast legato: Crescendo, keyswitch velocity

Keyswitches control 5 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–E6 Vertical: Modwheel, 2 zones

	C6	C#6	D6	D#6	E6
legato slow	1st	2nd	3rd	4th	5th
legato fast	1st	%	%	%	%

**76 CBA Combi - cre9****Samples: 342    RAM: 21 MB**

Portato and staccato: Crescendo, keyswitch velocity

Keyswitches control 9 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–G#6    Vertical: Modwheel, 2 zones

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6
portato	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
staccato	1st	%	%	%	%	%	%	%	%

**77 CBA Legato slow - dim5****Samples: 95    RAM: 5 MB**

Slow legato notes: Diminuendo, keyswitch velocity

Keyswitches control 5 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–E6

	C6	C#6	D6	D#6	E6
velocity	1st	2nd	3rd	4th	5th

**78 CBA Legato fast - dim5****Samples: 95    RAM: 5 MB**

Fast legato notes: Diminuendo, keyswitch velocity

Keyswitches control 5 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–E6

	C6	C#6	D6	D#6	E6
velocity	1st	2nd	3rd	4th	5th

**79 CBA Portato - dim9****Samples: 171    RAM: 10 MB**

Portato notes: Diminuendo, keyswitch velocity

Keyswitches control 9 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–G#6

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6
velocity	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

**80 CBA Staccato - dim9****Samples: 171    RAM: 10 MB**

Staccato notes: Diminuendo, keyswitch velocity

Keyswitches control 9 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–G#6

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6
velocity	1st	2nd	3rd	4th	5th	6th	7th	8th	9th

**81 CBA Combi - dim5****Samples: 190    RAM: 11 MB**

Slow and fast legato: Diminuendo, keyswitch velocity

Keyswitches control 5 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–E6    Vertical: Modwheel, 2 zones

	C6	C#6	D6	D#6	E6
legato slow	1st	2nd	3rd	4th	5th
legato fast	1st	%	%	%	%

**82 CBA Combi - dim9****Samples: 342    RAM: 21 MB**

Portato and staccato: Diminuendo, keyswitch velocity

Keyswitches control 9 dynamic steps

**Matrix switches:** Horizontal: Keyswitches, C6–G#6      Vertical: Modwheel, 2 zones

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6
portato	1st	2nd	3rd	4th	5th	6th	7th	8th	9th
staccato	1st	%	%	%	%	%	%	%	%

## Presets

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**CBA VSL Preset Level 1****Samples: 2848   RAM: 178 MB**

L1 CBA Perf-Legato Speed  
L1 CBA Articulation Combi  
L1 CBA Perf-Repetitions Combi  
Preset keyswitches: C7–D7

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**CBA VSL Preset Level 2****Samples: 6198   RAM: 387 MB**

01 CBA Perf-Universal  
02 CBA Perf-Trill Speed  
L1 CBA Articulation Combi  
31 CBA Perf-Repetitions - Combi  
76 CBA Combi - cre9  
Preset keyswitches: C7–E7