

Vienna Instruments
Solo Download Instruments
Bassoon
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 Bassoon. 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.

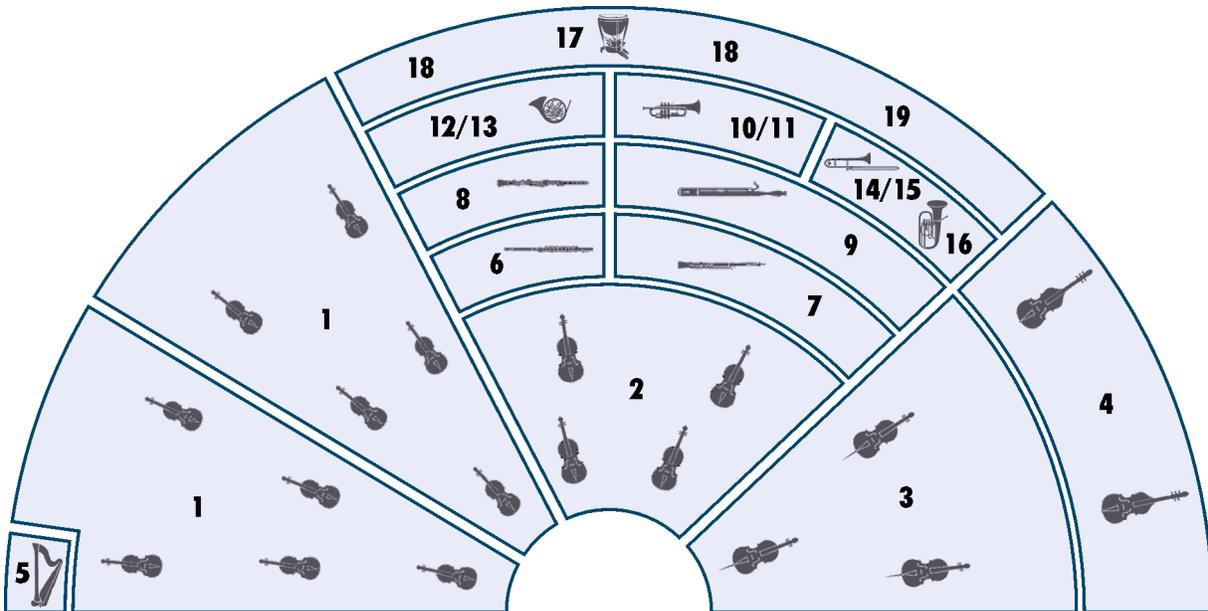
Abbreviation	Meaning	Abbreviation	Meaning
+	faster articulation (runs and arpeggios)	li	light
150, 160, ...	150, 160, ... BPM (beats per minute)	lo	long
1s, 2s, ...	tone length 1 sec., 2 sec., ...	ma	major
acc	accelerando	me	medium
all	combination of all Patches of a category	mi	minor
arp	arpeggio	mord	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

42 Bassoon	Full Content
01 SHORT + LONG NOTES	Staccato Portato short and medium Portato long without vibrato, normal and marcato Sustained with normal, progressive, and without vibrato
02 DYNAMICS	Medium crescendo and diminuendo with vibrato 2, 3 and 5 sec. Medium crescendo and diminuendo without vibrato 1.5, 2, 3, 4 and 6 sec. Strong crescendo and diminuendo with vibrato, 3 and 5 sec. Strong crescendo and diminuendo without vibrato, 3, 4 and 6 sec. pfp with vibrato, 3, 5 and 8 sec. fpf with vibrato, 5 sec. pfp without vibrato, 4, 6, 8, and 10 sec. fpf without vibrato, 6 and 8 sec. Fortepiano, sforzato, sforzatissimo without vibrato
03 FLATTER + TRILLS	Flutter tonguing Trills, minor to major 2nd, normal and dynamics
10 PERF INTERVAL	Legato Marcato Grace notes
11 PERF INTERVAL FAST	Legato Marcato
12 PERF TRILL	Trills, legato, minor 2nd to major 3rd
13 PERF REPETITION	Legato and portato slow and fast, staccato Dynamics for all repetitions
14 PERF UPBEAT REPETITION	1 and 2 upbeats, slow and fast, normal and dynamics
15 FAST REPETITION	Staccato, 9 repetitions, 140 to 180 BPM, normal and dynamics
16 GRACE NOTES	Grace notes, minor 2nd to octave, up and down
17 SCALE RUNS	Octave runs, legato, up and down major and minor from C to B key, chromatic and whole tone

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 | 9 Bassoon, contrabassoon |
| 2 Viola | 10/11 Trumpet |
| 3 Cello | 12/13 Horn |
| 4 Double bass | 14/15 Trombone |
| 5 Harp | 16 Tuba |
| 6 Concert flute, piccolo | 17 Timpani |
| 7 Oboe, English horn | 18 Drums, cymbals |
| 8 Clarinet, bass clarinet | 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.

42 Bassoon

The Instrument

Description

The bassoon is a woodwind instrument in the tenor and bass register. It is a double-reed instrument like the oboe. Due to the U-shaped bend of the bassoon tube however it sounds mellow and velvety and lacks the penetrating and brilliant shawm-like sound.

Modern woodwind sections usually use two bassoons.

Range and notation

The bassoon has a range from Bb1–Eb5 (forced up to F5).

It is a non-transposing instrument (actual pitches are notated). Notation is in bass clef, with tenor clef being used for the higher registers. Notation in treble clef is rare.

Sound characteristics

Mellow, gentle, velvety, mild, sonorous, warm, smooth, picturesque, tense, active, penetrating, plaintive, long, light, delicate, full, round, slender, narrow, sensitive.

The differences between the registers are very pronounced, which is one of the instrument's most striking characteristics: full and sonorous in the lower register, slender, elegant and melodious in the middle and narrow and compressed in the upper register.

The bassoon's low notes with their substantial, compact and unobtrusive sound are often used as a bass foundation. The notes of the middle register sound sonorous, rich, clear and stately. They possess a wide range of expression; they can be gently caressing or sharply austere, merry and bright or melancholy and despondent. They are equally well suited for mysterious, demonic and eerie effects.

In all its registers, the notes of the bassoon – especially staccato notes – are well suited for the performance of humorous, comic effects and the depiction of musical caricatures.

Combination with other instruments

The fascination of the bassoon's sound lies in two qualities:

On the one hand, it achieves a good blend with most of the other instruments in the orchestra, as does the horn; This capability to blend with the sound of other instruments allows the bassoon to merge with the overall sound of the orchestra as an unobtrusive bass voice.

On the other hand the bassoon's sound is also clearly defined and therefore suitable for thematic and solo tasks.

Patches

01 SHORT + LONG NOTES	Range: A#1–F5	
01 BA_staccato		Samples: 328 RAM: 20 MB
Staccato 4 velocity layers		
02 BA_portato_short		Samples: 328 RAM: 20 MB
Portato, short 4 velocity layers		
03 BA_portato_medium		Samples: 328 RAM: 20 MB
Portato, medium 4 velocity layers		
04 BA_por_lo_Vib		Samples: 328 RAM: 20 MB
Portato, long, with vibrato 4 velocity layers Release samples		
05 BA_por_lo_Vib-strong		Samples: 164 RAM: 10 MB
Portato, long, strong vibrato 2 velocity layers Release samples		
06 BA_por_lo_noVib	Range: A#1–A#4	Samples: 300 RAM: 18 MB
Portato, long, without vibrato 4 velocity layers Release samples		
07 BA_por_lo_noVib-marc		Samples: 287 RAM: 17 MB
Portato, long, without vibrato, marcato 3 velocity layers Release samples		
11 BA_sus_Vib		Samples: 246 RAM: 15 MB
Sustained, with vibrato 3 velocity layers Release samples		
12 BA_sus_Vib-progr		Samples: 246 RAM: 15 MB
Sustained, progressive vibrato 3 velocity layers Release samples		

13 BA_sus_noVib	Samples: 328	RAM: 20 MB
Sustained, without vibrato 4 velocity layers Release samples		

02 DYNAMICS**Range: A#1–D#5**

01 BA_dyn-me_Vib_2s	Samples: 156	RAM: 9 MB
Medium crescendo and diminuendo with vibrato, 2 sec. 2 velocity layers AB switch crescendo/diminuendo		

02 BA_dyn-me_Vib_3s	Samples: 156	RAM: 9 MB
Medium crescendo and diminuendo with vibrato, 3 sec. 2 velocity layers AB switch crescendo/diminuendo		

03 BA_dyn-me_Vib_5s	Samples: 156	RAM: 9 MB
Medium crescendo and diminuendo with vibrato, 5 sec. 2 velocity layers AB switch crescendo/diminuendo		

04 BA_dyn-str_Vib_3s	Samples: 79	RAM: 4 MB
Strong crescendo and diminuendo with vibrato, 3 sec. 1 velocity layer AB switch crescendo/diminuendo		

05 BA_dyn-str_Vib_5s	Samples: 82	RAM: 5 MB
Strong crescendo and diminuendo with vibrato, 5 sec. 1 velocity layer AB switch crescendo/diminuendo		

06 BA_dyn-me_noVib_1'5s	Samples: 164	RAM: 10 MB
Medium crescendo and diminuendo without vibrato, 1.5 sec. 2 velocity layers AB switch crescendo/diminuendo		

07 BA_dyn-me_noVib_2s	Samples: 164	RAM: 10 MB
Medium crescendo and diminuendo without vibrato, 2 sec. 2 velocity layers AB switch crescendo/diminuendo		

08 BA_dyn-me_noVib_3s	Samples: 164	RAM: 10 MB
Medium crescendo and diminuendo without vibrato, 3 sec. 2 velocity layers AB switch crescendo/diminuendo		

09 BA_dyn-me_noVib_4s	Samples: 160	RAM: 10 MB
Medium crescendo and diminuendo without vibrato, 4 sec. 2 velocity layers AB switch crescendo/diminuendo		
10 BA_dyn-me_noVib_6s	Samples: 164	RAM: 10 MB
Medium crescendo and diminuendo without vibrato, 6 sec. 2 velocity layers AB switch crescendo/diminuendo		
11 BA_dyn-str_noVib_3s	Samples: 79	RAM: 4 MB
Strong crescendo and diminuendo without vibrato, 3 sec. 1 velocity layer AB switch crescendo/diminuendo		
12 BA_dyn-str_noVib_4s	Samples: 79	RAM: 4 MB
Strong crescendo and diminuendo without vibrato, 4 sec. 1 velocity layer AB switch crescendo/diminuendo		
13 BA_dyn-str_noVib_6s	Samples: 79	RAM: 4 MB
Strong crescendo and diminuendo without vibrato, 6 sec. 1 velocity layer AB switch crescendo/diminuendo		
14 BA_pfp_Vib_3s	Samples: 42	RAM: 2 MB
Crescendo-diminuendo with vibrato, 3 sec. 2 velocity layers		
15 BA_pfp_Vib_5s	Samples: 40	RAM: 2 MB
Crescendo-diminuendo with vibrato, 5 sec. 2 velocity layers		
16 BA_pfp_Vib_8s	Samples: 40	RAM: 2 MB
Crescendo-diminuendo with vibrato, 8 sec. 2 velocity layers		
17 BA_pfp_Vib_5s	Samples: 20	RAM: 1 MB
Diminuendo-crescendo with vibrato, 5 sec. 1 velocity layer		
18 BA_pfp_noVib_2s	Samples: 40	RAM: 2 MB
Crescendo-diminuendo without vibrato, 2 sec. 2 velocity layers		
19 BA_pfp_noVib_3s	Samples: 40	RAM: 2 MB
Crescendo-diminuendo without vibrato, 3 sec. 2 velocity layers		

20 BA_pfp_noVib_4s		Samples: 41	RAM: 2 MB
Crescendo-diminuendo without vibrato, 4 sec. 2 velocity layers			
21 BA_pfp_noVib_6s		Samples: 41	RAM: 2 MB
Crescendo-diminuendo without vibrato, 6 sec. 2 velocity layers			
22 BA_pfp_noVib_8s		Samples: 20	RAM: 1 MB
Crescendo-diminuendo without vibrato, 8 sec. 1 velocity layer			
23 BA_pfp_noVib_10s		Samples: 20	RAM: 1 MB
Crescendo-diminuendo without vibrato, 10 sec. 1 velocity layer			
24 BA_fpf_noVib_6s		Samples: 21	RAM: 1 MB
Diminuendo-crescendo without vibrato, 6 sec. 1 velocity layer			
25 BA_fpf_noVib_8s		Samples: 21	RAM: 1 MB
Diminuendo-crescendo without vibrato, 8 sec. 1 velocity layer			
26 BA_fp_noVib	Range: A#1–F5	Samples: 41	RAM: 2 MB
Fortepiano, without vibrato 1 velocity layer			
27 BA_sfz_noVib	Range: A#1–F5	Samples: 41	RAM: 2 MB
Sforzato, without vibrato 1 velocity layer			
28 BA_sffz_noVib	Range: A#1–F5	Samples: 41	RAM: 2 MB
Sforzatissimo, without vibrato 1 velocity layer			
03 FLATTER + TRILLS	Range: A#1–D5		
01 BA_flatter		Samples: 78	RAM: 4 MB
Flutter tonguing 1 velocity layer Release samples			
11 BA_trill_1		Samples: 138	RAM: 8 MB
Trills, minor 2nd 2 velocity layers Release samples			

12 BA_trill_2	Samples: 144	RAM: 9 MB
Trills, major 2nd 2 velocity layers Release samples		
13 BA_trill_1_dyn	Samples: 68	RAM: 4 MB
Trills, minor 2nd Crescendo and diminuendo 1 velocity layer AB switch crescendo/diminuendo		
14 BA_trill_2_dyn	Samples: 72	RAM: 4 MB
Trills, major 2nd Crescendo and diminuendo 1 velocity layer AB switch crescendo/diminuendo		
10 PERF INTERVAL	Range: A#1–D5	
01 BA_perf-legato	Samples: 1116	RAM: 69 MB
Legato 2 velocity layers Release samples		
02 BA_perf-legato_grace	Samples: 1441	RAM: 90 MB
Grace notes, legato Minor 2nd to octave 3 velocity layers Release samples		
03 BA_perf-marcato	Samples: 1030	RAM: 64 MB
Marcato interval performance 2 velocity layers Release samples		
11 PERF INTERVAL FAST	Range: A#1–D5	
01 BA_perf-legato_fa	Samples: 1310	RAM: 81 MB
Legato, fast 2 velocity layers Release samples		
02 BA_perf-marcato_fa	Samples: 1182	RAM: 73 MB
Marcato, fast 2 velocity layers		

12 PERF TRILL

Range: A#1–D5

**01 BA_perf-trill**

Samples: 2404 RAM: 150 MB

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

13 PERF REPETITION

Range: A#1–D5

**01 BA_perf-rep_leg-sl**

Samples: 300 RAM: 18 MB

Legato, slow
 3 velocity layers

02 BA_perf-rep_leg-fa

Samples: 300 RAM: 18 MB

Legato, fast
 3 velocity layers

03 BA_perf-rep_por-sl

Samples: 300 RAM: 18 MB

Portato, slow
 3 velocity layers

04 BA_perf-rep_por-fa

Samples: 540 RAM: 33 MB

Portato, fast
 3 velocity layers

05 BA_perf-rep_sta

Samples: 540 RAM: 33 MB

Staccato
 3 velocity layers

21 BA_perf-rep_dyn5_leg-sl

Samples: 200 RAM: 12 MB

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

22 BA_perf-rep_dyn5_leg-fa

Samples: 200 RAM: 12 MB

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

23 BA_perf-rep_dyn5_por-sl

Samples: 200 RAM: 12 MB

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

24 BA_perf-rep_dyn9_por-fa

Samples: 342 RAM: 21 MB

Portato dynamics, fast, 9 repetitions
 1 velocity layer
 AB switch crescendo/diminuendo

25 BA_perf-rep_dyn9_sta	Samples: 360	RAM: 22 MB
Staccato dynamics, 9 repetitions 1 velocity layer AB switch crescendo/diminuendo		
14 PERF UPBEAT REPETITION		
Range: A#1–D5		
01 BA_perf-rep_UB-a1_sl	Samples: 160	RAM: 10 MB
1 upbeat, slow 2 velocity layers		
02 BA_perf-rep_UB-a2_sl	Samples: 160	RAM: 10 MB
2 upbeats, slow 2 velocity layers		
03 BA_perf-rep_UB-a1_fa	Samples: 160	RAM: 10 MB
1 upbeat, fast 2 velocity layers		
04 BA_perf-rep_UB-a2_fa	Samples: 160	RAM: 10 MB
2 upbeats, fast 2 velocity layers		
11 BA_perf-rep_dyn4_UB-a1_sl	Samples: 160	RAM: 10 MB
1 upbeat, slow, dynamics 4 repetitions 1 velocity layer AB switch crescendo/diminuendo		
12 BA_perf-rep_dyn4_UB-a2_sl	Samples: 160	RAM: 10 MB
2 upbeats, slow, dynamics 4 repetitions 1 velocity layer AB switch crescendo/diminuendo		
13 BA_perf-rep_dyn4_UB-a1_fa	Samples: 160	RAM: 10 MB
1 upbeat, fast, dynamics 4 repetitions 1 velocity layer AB switch crescendo/diminuendo		
14 BA_perf-rep_dyn4_UB-a2_fa	Samples: 160	RAM: 10 MB
2 upbeats, fast, dynamics 4 repetitions 1 velocity layer AB switch crescendo/diminuendo		

15 FAST REPETITION**Range: A#1–D5****01 BA_fast-rep_140 (150/160/170/180)****Samples: 120****RAM: 7 MB**

Staccato, 9 repetitions, 140, 150, 160, 170, 180 BPM
 3 velocity layers
 Release samples

11 BA_fast-rep_140_dyn (150/160/170/180)**Samples: 40****RAM: 2 MB**

Staccato dynamics, 9 repetitions, 140, 150, 160, 170, 180 BPM
 1 velocity layer
 AB switch crescendo/diminuendo

16 GRACE NOTES**Range: A#1–D5****01 BA_grace-1****Samples: 239****RAM: 14 MB**

Grace notes, minor 2nd
 3 velocity layers
 Release samples
 AB switch up/down

02 BA_grace-2**Samples: 239****RAM: 14 MB**

Grace notes, major 2nd
 3 velocity layers
 Release samples
 AB switch up/down

03 BA_grace-3**Samples: 225****RAM: 14 MB**

Grace notes, minor 3rd
 3 velocity layers
 Release samples
 AB switch up/down

04 BA_grace-4**Samples: 225****RAM: 14 MB**

Grace notes, major 3rd
 3 velocity layers
 Release samples
 AB switch up/down

05 BA_grace-5**Samples: 219****RAM: 13 MB**

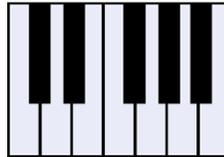
Grace notes, 4th
 3 velocity layers
 Release samples
 AB switch up/down

06 BA_grace-6	Samples: 219	RAM: 13 MB
Grace notes, diminished 5th 3 velocity layers Release samples AB switch up/down		
07 BA_grace-7	Samples: 213	RAM: 13 MB
Grace notes, 5th 3 velocity layers Release samples AB switch up/down		
08 BA_grace-8	Samples: 213	RAM: 13 MB
Grace notes, minor 6th 3 velocity layers Release samples AB switch up/down		
09 BA_grace-9	Samples: 207	RAM: 12 MB
Grace notes, major 6th 3 velocity layers Release samples AB switch up/down		
10 BA_grace-10	Samples: 207	RAM: 12 MB
Grace notes, minor 7th 3 velocity layers Release samples AB switch up/down		
11 BA_grace-11	Samples: 201	RAM: 12 MB
Grace notes, major 7th 3 velocity layers Release samples AB switch up/down		
12 BA_grace-12	Samples: 201	RAM: 12 MB
Grace notes, octave 3 velocity layers Release samples AB switch up/down		

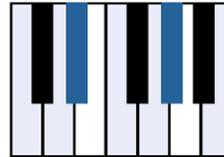
17 SCALE RUNS

Please note that upward runs can be played only to an octave below the upper play range, downward runs to an octave above the lower play range. The octave runs are mapped diatonically according to their scale. For the playing ranges and mappings of individual scales, please see the appendix.

C major



C minor

**Legato major**

Range: A#1–C#5

**01 BA_run-leg_C-ma (through to B-ma)**

Samples: 64

RAM: 4 MB

Octave runs, legato, C to B major
2 velocity layers
AB switch up/down

Legato minor

Range: A#1–D5

**01 BA_run-leg_C-mi (through to B-mi)**

Samples: 64

RAM: 4 MB

Octave runs, legato, C to B minor
2 velocity layers
AB switch up/down

Legato special

Range: A#1–D5

**01 BA_run-leg_chromatic**

Samples: 56

RAM: 3 MB

Octave runs, legato, chromatic
2 velocity layers
AB switch up/down

02 BA_run-leg_whole

Samples: 56

RAM: 3 MB

Octave runs, legato, whole tone
2 velocity layers
AB switch up/down

98 RESOURCES

Isolated dynamics repetitions, single layer long notes, interval performance variations.

01 Perf Rep dyn

Range: A#1–E5

**01_BA_rep_cre5_leg-sl-1 (2/3/4/5)**

Samples: 20

RAM: 1 MB

Extracted repetitions: Legato slow, crescendo, 1st to 5th note
1 velocity layer

01_BA_rep_dim5_leg-sl-1 (2/3/4/5)		Samples: 20	RAM: 1 MB
Extracted repetitions: Legato slow, diminuendo, 1st to 5th note 1 velocity layer			
02_BA_rep_cre5_leg-fa-1 (2/3/4/5)		Samples: 20	RAM: 1 MB
Extracted repetitions: Legato fast, crescendo, 1st to 5th note 1 velocity layer			
02_BA_rep_dim5_leg-fa-1 (2/3/4/5)		Samples: 20	RAM: 1 MB
Extracted repetitions: Legato fast, diminuendo, 1st to 5th note 1 velocity layer			
03_BA_rep_cre9_por-1 (2/3/4/5/6/7/8/9)		Samples: 19	RAM: 1 MB
Extracted repetitions: Portato, crescendo, 1st to 9th note 1 velocity layer			
03_BA_rep_dim9_por-1 (2/3/4/5/6/7/8/9)		Samples: 19	RAM: 1 MB
Extracted repetitions: Portato, diminuendo, 1st to 9th note 1 velocity layer			
04_BA_rep_cre9_sta-1 (2/3/4/5/6/7/8/9)	Range: A#1–C5	Samples: 20	RAM: 1 MB
Extracted repetitions: Staccato, crescendo, 1st to 9th note 1 velocity layer			
04_BA_rep_dim9_sta-1 (2/3/4/5/6/7/8/9)	Range: A#1–C5	Samples: 20	RAM: 1 MB
Extracted repetitions: Staccato, diminuendo, 1st to 9th note 1 velocity layer			
02 Long Notes - Single Layer			
		Range: A#1–F5	
01_BA_sus_p		Samples: 82	RAM: 5 MB
Sustained, piano 1 velocity layer Release samples			
02_BA_sus_mf		Samples: 82	RAM: 5 MB
Sustained, mezzoforte 1 velocity layer Release samples			
03_BA_sus_f		Samples: 82	RAM: 5 MB
Sustained, forte 1 velocity layer Release samples			
04_BA_sus_ff		Samples: 82	RAM: 5 MB
Sustained, fortissimo 1 velocity layer Release samples			

03 Perf Speed variation**Range: A#1–D5****01 BA_perf-leg_sustain****Samples: 1116 RAM: 69 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 BA Articulation Combi

Samples: 1631 RAM: 101 MB

Single note articulations

Staccato, portato short, sustained with and without vibrato, crescendo-diminuendo with vibrato 3 and 5 sec., fortissimo and sforzato without vibrato, flutter tonguing, trills half and whole tone

Matrix switches: Horizontal: Keyswitches, C6–F6 Vertical: Modwheel, 2 zones

	C6	C#6	D6	D#6	E6	F6
V1	stac	sus vib.	pfp vib. 3s.	fp no vib.	flutter	trill half
V2	port. short	sus no vib.	pfp vib. 5s.	sfz no vib.	flutter	trill whole

L1 BA Perf-Legato Speed

Samples: 2102 RAM: 131 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

L1 BA Perf-Repetitions Combi

Samples: 1380 RAM: 86 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 BA Perf-Universal

Samples: 3510 RAM: 219 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 BA Perf-Trill Speed**Samples: 3438 RAM: 214 MB**

Multi interval performances
 Legato and trills
 Monophonic, Speed controller

Matrix switches: Horizontal: Speed, 2 zones

	H1	H2
V1	legato	trills

03 BA Short+Long notes - All**Samples: 1558 RAM: 97 MB**

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

Matrix switches: Horizontal: Keyswitches, C6–D#6 Vertical: Modwheel, 3 zones

	C6	C#6	D6	D#6
V1	staccato	portato short	portato med.	sus. vibrato
V2	%	%	%	sus. prog. vibrato
V3	%	%	%	sus. no vibrato

Matrix - LEVEL 2 B - Standard**11 BA Perf-Legato Speed****Samples: 2102 RAM: 131 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 BA Perf-Marcato Speed**Samples: 1572 RAM: 98 MB**

Interval performances: Marcato normal and fast
 Monophonic, Speed controller

Matrix switches: Horizontal: Speed, 2 zones

	H1	H2
Marcato	normal	fast

13 BA Short notes - All**Samples: 1653 RAM: 103 MB**

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

Matrix switches: Horizontal: Keyswitches, C6–F#6

	C6	C#6	D6	D#6	E6	F6	F#6
V1	staccato	port. short	port. med.	port.long vib.	port.long strong vib.	port.long marcato	

14 BA Long notes - All**Samples: 574 RAM: 35 MB**

Single notes
 Sustained with normal, progressive, and without vibrato

Matrix switches: Horizontal: Keyswitches, C6–D6

	C6	C#6	D6
sustained	normal vibrato	progr. vibrato	no vibrato

15 BA Dynamics - Small**Samples: 518 RAM: 32 MB**

Dynamics

Crescendo and diminuendo with vibrato, medium 2 and 3 sec., strong 5 sec.

Fortepiano, sforzato, sforzatissimo without vibrato

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

	C6	C#6	D6
dynamics vib.	med. 2 sec.	med. 3 sec.	strong 5 sec.
fp no vib.	%	%	%
sfz no vib.	%	%	%
sffz no vib.	%	%	%

16 BA Dynamics - Large**Samples: 1435 RAM: 89 MB**

Dynamics

Crescendo and diminuendo, medium with vibrato 2, 3, and 5 sec., medium and strong without vibrato 3, 4, and 5 sec.

Crescendo-diminuendo with vibrato 3, 5, and 8 sec.

Fortepiano, sforzato, sforzatissimo without vibrato

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

	C6	C#6	D6
med. dyn. vib.	2 sec.	3 sec.	5 sec.
med. dyn. no vib.	3 sec.	4 sec.	6 sec.
strong dyn. no vib.	3 sec.	4 sec.	5 sec.
pfp vib.	3 sec.	5 sec.	8 sec.
special dyn.	fp no vib.	sfz no vib.	sffz no vib.

17 BA Trills - normal**Samples: 422 RAM: 26 MB**

Trills

Normal and dynamics

Half and whole tone

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

	C6	C#6
half tone	normal	dynamics
whole tone	normal	dynamics

Matrix - LEVEL 2 C - Repetitions**31 BA Perf-Repetitions - Combi****Samples: 1680 RAM: 105 MB**

Repetition performances

Slow and fast legato, fast portato, staccato

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

	C1	C#1	D1	
V1	legato slow	legato fast	portato fast	staccato

32 BA Perf-Repetitions - Speed**Samples: 1680 RAM: 105 MB**

Repetition performances

Slow and fast legato, fast portato, staccato

Speed controller

Matrix switches: Horizontal: Speed, 4 zones

	legato	legato	portato	staccato
speed	slow	fast	fast	norm

33 BA Fast-Repetitions**Samples: 360 RAM: 22 MB**

Fast repetitions

140, 150, 160, 170, 180 BPM

Matrix switches: Horizontal: Keyswitches, C6–E6

	C6	C#6	D6	D#6	E6
speed/BPM	140	150	160	170	180

34 BA Perf Upbeat Repetitions**Samples: 640 RAM: 40 MB**

Repetition performances

1 and 2 upbeats, slow and fast

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

	C6	C#6
1 upbeat	slow	fast
2 upbeats	slow	fast

Matrix - LEVEL 2 D - Scale+Phrase**41 BA Scale runs-legato - Major****Samples: 368 RAM: 23 MB**

Octave runs, legato, C to B major

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
legato maj.	C	C#	D	D#	E	F	F#	G	G#	A	A#	B

42 BA Scale runs-legato - Minor**Samples: 392 RAM: 24 MB**

Octave runs, legato, C to B minor

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
legato min.	C	C#	D	D#	E	F	F#	G	G#	A	A#	B

43 BA Scale runs-legato - Special**Samples: 112 RAM: 7 MB**

Octave runs, legato, chromatic and whole tone

AB switch up/down

Matrix switches: Vertical: Modwheel, 2 zones

	legato
V1	chromatic
V2	whole tone

44 BA Scale runs-legato - all**Samples: 872 RAM: 54 MB**

Octave runs, legato, C to B major and minor, chromatic and whole tone
AB switch up/down

Matrix switches: Horizontal: Keyswitches, C6–B6 Vertical: Modwheel, 4 zones

	C6	C#6	D6	D#6	E6	F6	F#6	G6	G#6	A6	A#6	B6
major	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
minor	C	C#	D	D#	E	F	F#	G	G#	A	A#	B
chromatic	%	%	%	%	%	%	%	%	%	%	%	%
whole tone	%	%	%	%	%	%	%	%	%	%	%	%

45 BA Grace notes - All**Samples: 1255 RAM: 78 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 BA Legato slow - cre5****Samples: 100 RAM: 6 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 BA Legato fast - cre5**Samples: 100 RAM: 6 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 BA 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 BA Staccato - cre9**Samples: 180 RAM: 11 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 BA Combi - cre5**Samples: 200 RAM: 12 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 BA Combi - cre9**Samples: 351 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 BA Legato slow - dim5**Samples: 100 RAM: 6 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 BA Legato fast - dim5**Samples: 100 RAM: 6 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 BA 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 BA Staccato - dim9**Samples: 180 RAM: 11 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 BA Combi - dim5**Samples: 200 RAM: 12 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 BA Combi - dim9**Samples: 351 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**BA VSL Preset Level 1****Samples: 4748 RAM: 296 MB**

L1 BA Perf-Legato Speed
L1 BA Articulation Combi
L1 BA Perf-Repetitions Combi

Keyswitches: C7-D7**BA VSL Preset Level 2****Samples: 9455 RAM: 590 MB**

01 BA Perf-Universal
02 BA Perf-Trill Speed
L1 BA Articulation Combi
31 BA Perf-Repetitions - Combi
76 BA Combi - cre9
44 BA Scale runs-legato - all

Keyswitches: C7-F7

Appendix

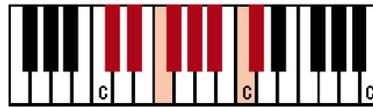
In the following, you will find notations and keyboard layout graphics for major and minor scale runs and arpeggios, as well as a list of playing ranges for the individual scale and arpeggio Patches.

Scale runs - major

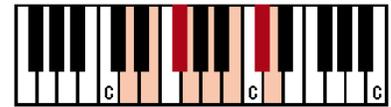
C major



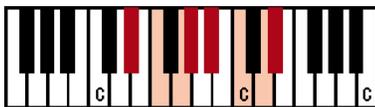
C#/Db major



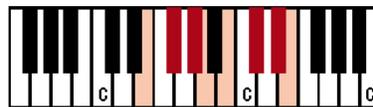
D major



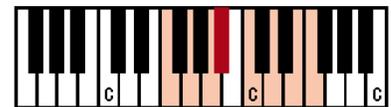
D#/Eb major



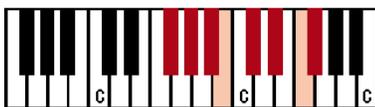
E major



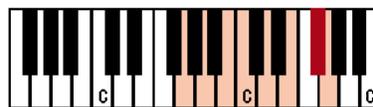
F major



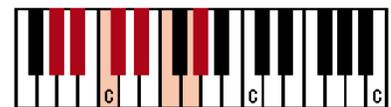
F#/Gb major



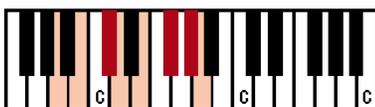
G major



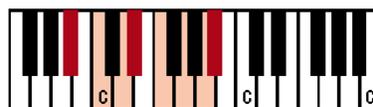
G#/Ab major



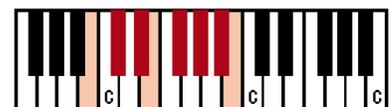
A major



A#/Bb major

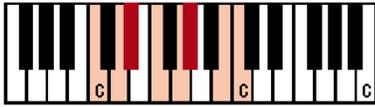


B major

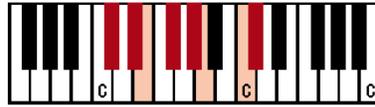


Scale runs - minor

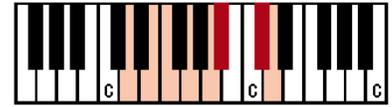
C minor



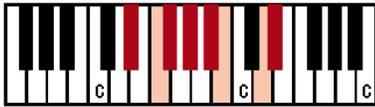
C#/Db minor



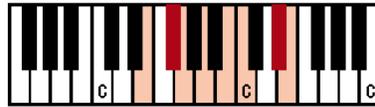
D minor



D#/Eb minor



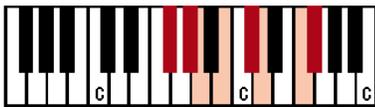
E minor



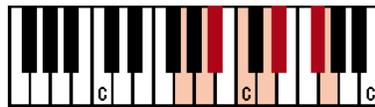
F minor



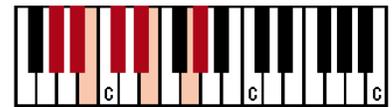
F#/Gb minor



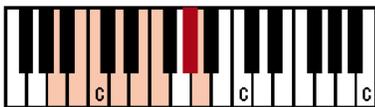
G minor



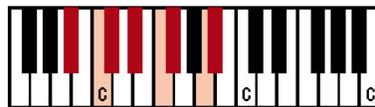
G#/Ab minor



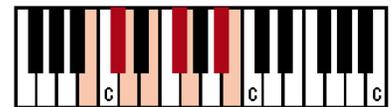
A minor



A#/Bb minor



B minor



Scale ranges

Octave runs

Legato major**play range**

01 BA_run-leg_C-ma	B1–C5
02 BA_run-leg_C#-ma	C2–C#5
03 BA_run-leg_D-ma	B1–B4
04 BA_run-leg_D#-ma	C2–C5
05 BA_run-leg_E-ma	B1–B4
06 BA_run-leg_F-ma	C2–C5
07 BA_run-leg_F#-ma	A#1–B4
08 BA_run-leg_G-ma	B1–C5
09 BA_run-leg_G#-ma	A#1–A#4
10 BA_run-leg_A-ma	B1–B4
11 BA_run-leg_A#-ma	A#1–A#4
12 BA_run-leg_B-ma	B1–B4

Legato minor**play range**

01 BA_run-leg_C-mi	B1–C5
02 BA_run-leg_C#-mi	C2–C#5
03 BA_run-leg_D-mi	A#1–C#5
04 BA_run-leg_D#-mi	B1–D5
05 BA_run-leg_E-mi	B1–C5
06 BA_run-leg_F-mi	C2–C#5
07 BA_run-leg_F#-mi	B1–C#5
08 BA_run-leg_G-mi	C2–D5
09 BA_run-leg_G#-mi	A#1–C#5
10 BA_run-leg_A-mi	B1–D5
11 BA_run-leg_A#-mi	A#1–C#5
12 BA_run-leg_B-mi	B1–D5