

CONGRATULATIONS

Thank you for purchasing Orchestral Swarm. A new standard in orchestral sample library innovation, this will significantly expand your existing orchestral palette to include a huge variety of totally unique textures. As an alternative to just using straightforward long notes, this library draws upon the pointillistic effect of having multiple players perform short notes at random intervals to create an undulating swell of sound that can be performed in real time for inspiring results. Taking our Swarm approach, but adapted for the orchestra, it gives access to even greater detail by utilising the huge variety of articulations and playing styles of orchestral instruments and will give your compositions a liquid dynamic that dances alongside the picture. This library has been created exclusively in collaboration with Bleeding Fingers, and is featured in Blue Planet 2 and Hans Zimmer/Radiohead's collaboration "(ocean) bloom".

Quick Specs -

•	25	56	5	SA	M	ΡI	_ES

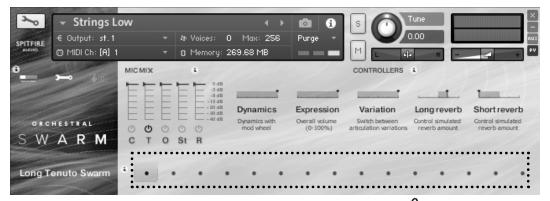
- 50.1 GB UNCOMPRESSED .WAV
- 29.7 GB DISK SPACE REQUIRED
- 59.4 GB DISK SPACE REQUIRED DURING INSTALL
- NKS Ready
- Compatible with Native Instruments hardware
- Free Kontakt Player Included
- Intuitive GUI with inline help
- Essential microphones (C,T,O)
- Other mics and mixes (ST, R, M)

Table Of Contents

CONGRATULATIONS	2
PRECAUTIONS	2
WELCOME	3
DOWNLOADING & INSTALLING	4
REGISTERING WITH KONTAKT PLAYER	5
FOLDER STRUCTURE	6
A QUICK LOOK	7
THE OVERVIEW PANEL	8
GENERAL CONTROL S PANEL	9
THE OSTINATUM	13
INSTRUMENTS	14
APPENDIX A - RECOMMENDED TECH SPECS	1.
APPENDIX B - KONTAKT vs KONTAKT PLAYER	1.
APPENDIX C - ARTICULATION LIST	10
APPENDIX D - MIC & MIX ACRONYMS	- 13
APPENDIX E - UACC	18
APPENDIX F - FAOS & TROUBLESHOOTING	- 19

PRECAUTIONS

If you've never used a Spitfire instrument before there are two very basic principles to grasp. Once you've got these, you'll be up and running and ready to go. By all means read on, but the first two rules are:



TOP TIP: The little 'i's on your GUI are 'inline' help. Click on these to find out stuff.



- 1.) Use these switches to change the articulations... they also correspond to keyswitches on the very bottom of your keyboard.
- 2.) On long notes make sure you always use your Modwheel



3.) If you don't know what something does and it has an next to it, click on it to get some help!



WELCOME

A NEW ORCHESTRAL SOUND

Orchestral Swarm is an innovative collaboration with Bleeding Fingers (Planet Earth II, Sons Of Liberty, Roman Empire: Reign Of Blood), who wanted to create a new library to use for the BBC's flagship series: Blue Planet II. Their concept was to record multiple players performing random short notes of the same pitch. The effect would be a granular "cloud" of notes - beautiful long sonic textures created from layers of micro-moments to be used in place of more traditional long notes; a perfect soundtrack to the oceanic goings-on as featured in the ground-breaking television show.

Now, we at Spitfire know this approach well - it was this technique that we use for our Swarm libraries, and this opportunity pushed us towards a new territory - to utilise the power of an orchestra in this Swarm technique. We delivered an initial library quickly and in secret for the team at Bleeding Fingers to use exclusively for the show. Hans Zimmer and Radiohead even went on to use it as part of their "(ocean) bloom" collaboration. We then later returned to the studio to capture even more with the orchestra, including short notes and expanded techniques and layers, to create the most complete tool for media composers.

If you tire of static sounding longs, or have fallen out of love with shorts ostinatos, this new textural approach to orchestral sampling will add life to your arrangements. Join the pioneers of modern concert music and scoring to explore a new league of orchestral compositions.

AN OCEAN OF VARIETY

The library consists of various string, brass and woodwind ensembles, recorded individually and with the Swarm pointillistic approach, using techniques most idiomatic for those instruments. Many of these sounds have never been sampled before. From bassoon 'pops' to horn 'flutter tongues', we've taken a wide range of techniques and combined them via the Swarm approach (where players each randomly play short notes to create a beautifully random cloud of sound) to give a vastly increased sound palette to your existing orchestra. The included individual ensemble shorts also further extend your options, enabling you to add a rhythmic element to your work. In addition, the provision of two reverbs on board - a tight 'stage' sound and a longer more lush 'hall' sound - makes blending the Swarms with your existing orchestral libraries a breeze.

THE BRITISH GROVE SOUND

We've applied the same no-expense-spared approach to these sessions as any other Spitfire library, this time at one of the most well-stocked and highly-maintained studios on the planet: British Grove. Founded by Mark Knopfler, British Grove is one of the few large-scale studios to have been built in the new millennium, and its unique vision to combine state-of-the-art technology alongside legendary original pieces (it owns two original and fully-restored EMI desks as used by Sir George Martin and The Beatles) has it marked out to leave behind a noteworthy legacy.

The signal path on the day featured the Neve 88r console, utilising both the onboard pres as well as the Broadhurst Gardens pres for room mics and the EMITG console pres for some of the mid room mics. Transducers included: Royers, Ela M, Neumanns and Coles.

The recording stage is a medium-sized, semi-reverberant room allowing for precise detail but with enough energy to maintain a character and fullness.

DOWNLOADING & INSTALLING

Thank you for buying this Spitfire product. If you are a total newbie to this kind of thing you can get up to speed here: http://www.spitfireaudio.com/info/basics/

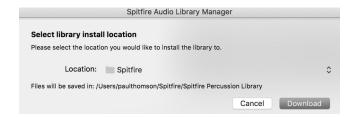
First though, grab our 'Library Manager' app from this link: http://www.spitfireaudio.com/info/library-manager/
This app will enable you to download the library



When you launch the app you will be prompted to login using the same details you use at our site. Then you'll see your available downloads:



Once you have selected what you wish to download on the left pane and clicked the 'download' button you will have the option to select a location.



A default location will be generated but you'll most likely want to change this. Here's how! Click on the two little vertical arrowheads to the right of the default location. You will be presented with the following options, and you'll want to click 'CHOOSE'.



Once you've selected the location you can proceed with the download. NOTE THAT THE DOWNLOADER WILL CREATE A SUB-FOLDER FOR YOUR LIBRARY IN THE LOCATION SELECTED. This is important: if you have an update, it means that the Library Manager app will look INSIDE the selected location for your library folder. If it's not there, it will create a new library folder. So, if you mistakenly select the actual library folder itself, when adding content or doing an update, instead of the location (one folder level up) that CONTAINS this library folder, you'll end up with a nested mess!!

TOP TIP: You will need approx TWICE the amount of hard drive space as the library uses (see the product page on our site for this info) to download: this is because the zip files are all downloaded, and then unzipped. This process takes a while so don't panic if it looks like it's frozen!

TOP TIP 2: If you get in a total mess you can reset the download of either the whole library or just the latest update from the 'Library' menu of the app. This is limited to a couple of downloads so please only do this if you actually need to.

REGISTERING WITH KONTAKT PLAYER

If you've never used one of our libraries before and you don't own a copy of Native Instruments Kontakt, you'll need to download the free "Kontakt Player" here:

https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/

If you'd like to find out more about the differences between Kontakt and Kontakt Player (we know, very confusing!) go to Appendix B.

If you'd also like to know what we recommend as an optimal set up please go to Appendix A.

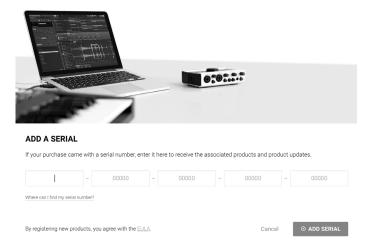
- I. Install Kontakt Player (skip this step if you already have it)
- 2. Open the player (or Kontakt 5 full version if you have that) and click on 'Manage libraries' in the library browser window:



- **3.** Clicking this button will launch Native Access. If you are not logged in with your NI account you will be prompted to log in, please take care that you use the correct NI account as the library will be connected with this account permanently.
- **4.** If you are running Kontakt 5.7 you will need to click the Add a serial button pictured below once Native Access launches:

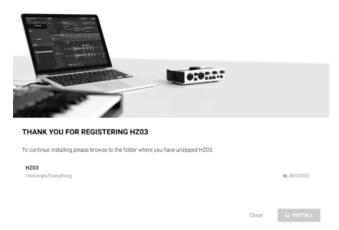


This will be done automatically in previous versions of Kontakt, and you will be presented with this:



This can be found in your 'Ready to Download' e-mail or in your Orders page when logged into our website.

6. When prompted with the window below, click on **Browse** and navigate to and select the library folder, for example: the 'Spitfire Library' folder that contains your library's instruments and samples folders, and also contains the 'nicnt' file.



If you have never used Kontakt before we wholeheartedly recommend that you familiarise yourself with the basics of patch (or instrument) loading, multi management, outputting and midi routing detailed in the Kontakt user manual and native instruments website:

https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/

If you are an established Kontakt user please make sure you absolutely have the latest version of it downloaded via the Native Access app. Our libraries are frequently updated and often simply won't work on any previous versions. We cannot describe the multitude of painful symptoms you will experience if you don't do this!

NKS COMPATIBILITY

For more information about NKS and integration with Native Instruments hardware controllers and keyboards please check-out their online instructions:

https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/

FOLDER STRUCTURE





This is the folder structure of Orchestral Swarm. The main patches are: Bones and Tubas, Brass, Horns, Strings High, Strings Low, Woods High and Woods Low.

If you click on the 'Advanced' folder you will find the individual articulations used in the main combined patches. To go back one folder level up, click on the upward arrow on the left of the Advanced folder.

OPENING YOUR FIRST INSTRUMENT

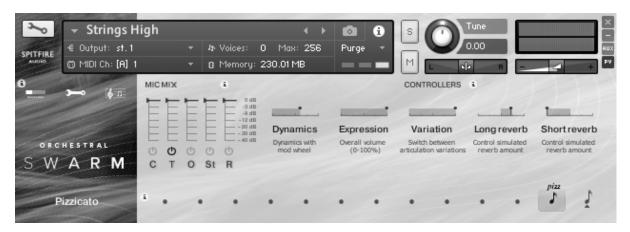


Simply double click an 'nki' file (this is Native Instruments' file extension for a Kontakt instrument) to load, or indeed drag the instrument (it'll have the little keyboard icon and the suffix .nki) from the left pane into the right pane.

If you can't hear anything double check first that the midi channel you are transmitting on with your keyboard is the same as the one in the Kontakt Instrument!

A QUICK LOOK

SWITCHING VIEWS



When you first load up a Spitfire Orchestral preset you'll be greeted with this GUI. This is one of 3 pages that you can switch between using the panel switcher...



Click on these to switch views or pages:

- I. Overview (the view shown above)
- 2. General Controls Panel
- 3. Ostinatum

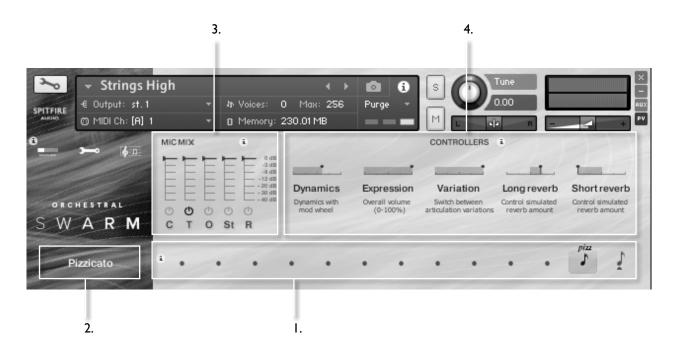
All of which are discussed in more detail over the next few chapters...

ASSIGNING CC CONTROLLERS

All GUI controls can be assigned a unique controller number so you can automate or adjust via an external controller (vital when playing in virtual orchestral parts). To un-assign, assign or just to see what CC number is assigned to any control RIGHT or CTRL CLICK.

You can then alter the controller parameters in the "Automation pane" if for example you want your mod wheel to go all the way from top to bottom but the control to have restricted bandwidth change from the default of 0-127 to 20-100. Or if you want the controller to make the GUI control in the reverse direction change from the default of 0-127 to 127-0.

THE OVERVIEW PANEL



I. ARTICULATION SWITCHER

The notes denote key articulations, display the current articulation playing and act as switches between them (alongside their associated keyswitches at the bottom of your keyboard).

If what you're playing stutters, or feels delayed or cuts out make sure everything is loaded, as some of these articulations are very deep sampled.

LOAD STATUS:



Make sure Kontakt displays the instrument load status as pictured. If the left hand bar is illuminated and red it's in a queue and hasn't started loading yet, if the middle bar is lit and yellow the instrument is still loading up. If you try to play before it's loaded it may not be nice!

ARTICULATIONS - Click on these notes to select the different articulations, whatever articulation is live is displayed in the yellow sidebar on the left. You can also select different articulations by hitting key switches, you can do this whilst you're playing so if you want to say switch from a "long" articulation to a short, hit the key whilst you're playing your last long and the next note will be a short. For details of articulations recorded go to Appendix C.

POWER TIP: SHIFT > CLICK to select and play multiple articulations!

2. SIDE BAR

Tells you what articulation you're playing.

3. EASY MIX

The orchestra was recorded with several different mic perspectives. Move this slider up or down to change the perceivable distance from the band. NB: the first time you use this it will need to load in the samples, so give it a moment!

4. EXPRESSIVE CONTROLLERS

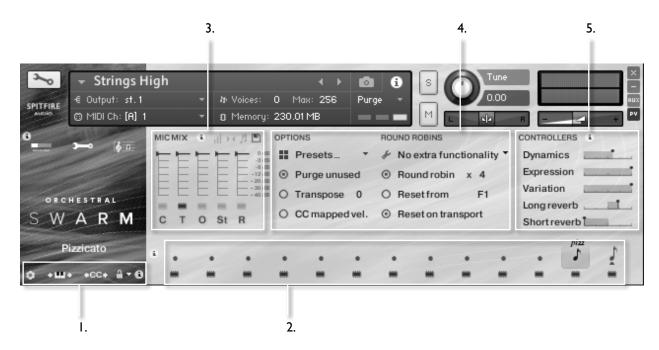
Dynamics - probably the most important controller you have. This crossfades between the different dynamic layers recorded. This is mapped to CCI (the modwheel) by default.

Expression - instrument trim (default CCII): this adjusts the volume within the instrument volume (CC7). Great when used in conjunction with Dynamics.

Variation - some articulations were recorded with two variations (such as different length of notes) and this control will crossfade between them.

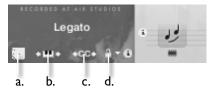
Long/Short Reverb - two different types of convolution for you to experiment with!

GENERAL CONTROLS PANEL

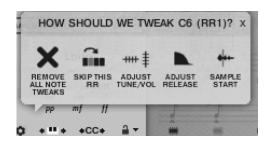


I. SIDE BAR

On the 'General Overview' page this simply displays the articulation being played. In the 'Expert View' there are some additional functions:



Ia. THE COG - a. The Cog - Awesome tool for fine tuning & tweaking your presets.



- HOW SHOULD WE TWEAK? Then your last note played will be displayed, if this is correct get tweaking.
- SKIP THIS RR Will simply make it always jump along to the next round robin in the cycle.
- ADJUST TUNE/ VOL Will adjust the tuning and or volume of the last played note.
- ADJUST RELEASE This will alter the level of the release trigger (which will affect the perceived decay of that note).
- **SAMPLE START** If it feels loose adjust to the right, tight adjust to the left (NB this is only available in full "cog" patches).
- REMOVE ALL NOTE TWEAKS This removes all custom changes you have made with the Cog.

Ib. "KEYBOARD SHIMMIER" - This shifts your bank of keyswitches left or right to suit your needs, preference or performance. Simply click on the icon and drag your cursor left or right and you'll see the pink bank of keyswitches follow! Wherever you stop, those will be the new keyswitches.

Ic. "KEYSWITCH TO CC SELECTOR" - Use this to assign a CC controller to act as articulation/ keyswitcher. RIGHT or CTRL Click on "CC" and you can assign a controller to change articulations.

d. "ARTICULATION LOCKER" - We all like to select articulations and use our templates in different ways. Many composers like to have a single articulation loaded to each instance of an instrument for example. So it's worth locking off the articulation switching once you've selected one so you don't have sounds disappearing from slaves way off in your machine rooms!

Unlocked Artic' - Is the standard setting, select articulations via the front panel or associated keyswitch.

Locked Artic' - This locks your articulation so it doesn't change either via front panel or keyswitch.

Locked Keyswitch - This locks your articulation via keyswitch but you're free to switch via the front panel.

Locked to UACC - This is a new standard being developed by Spitfire and detailed in appendix E. The default controller channel is #32 but this can be changed by right/ CTRL clicking on the padlock.

Locked to UACC KS - The functionality of UACC with the flexibility of a keyswitch. When activated, a single keyswitch is available. Pressing this key at varying velocities (according to UACC standards) changes articulation.

Shared Keyswitches - In larger libraries, this setting allows you to spread keyswitches across multiple palettes of articulations.



2. ARTICULATION SWITCHER

This works the same as it does in the 'General Overview' panel, with the addition of 'load chips' beneath each articulations. These load them in and out of memory as you wish... Remember before playing an articulation you've loaded in make sure it's fully loaded!

LOAD STATUS



LAYERING ARTICULATIONS - To layer sounds within the articulation set simply 'SHIFT' click on your next articulation. Rather than introducing a multitude of more confusing 'layered articulation' options, the front panel shows (and edits) only the most recently layered articulation.

TRIGGERING - For triggering options CTRL or COMMAND click on the articulation icon:





"By CC Range" - This will allow you to use a single controller channel to switch between artics. This allows you to fine tune on your MIDI event list, or to use a midi controller fader or indeed button with a single range assigned to select your desired artic'. Our default setting is guided by our UACC protocol.

"By KS" - The default setting. This is scripted so it won't switch mid note but wait 'til the next note-on event before switching. This means you're able to play the key switch say whilst playing a long note and have it switch to a staccato on your next note.

"By Velocity Range" - This is great for designing intelligent staccato patches that say become staccatissimo when you hit the keyboard really hard. A second menu will open up giving you options for this function.

"By MIDI Channel" - Ingeniously turns your single instance into a multi timbral instrument. MIDI channel lets the instrument change articulation based on the incoming MIDI channel. To use, pop the instrument Midi Ch. to 'Omni' mode in Kontakt. The single instance can now be configured to play based on the incoming MIDI channel. For example. Set staccatos to channel I, Combo Swarm to channel 2, Spiccato Swarm to channel 3.

"By Speed Of Playing" - A revolutionary new function that allows you to switch articulations based on the playing speed of your performance. When selected, it provides options to specify

a triggering time-range in milliseconds. (See right hand menu above). For example, you could specify that 'Shorts' should be activated if the time between playing each interval is between 0 and 300ms. Fully configurable to suit the user's playing style and needs and can be deactivated by unchecking 'Enabled' (or if not in the artic switching screen, simply holding ALT and clicking the articulation icon on the stanza).

When an articulation has a 'trigger' assigned to it, it shows a little short-cut icon above to let you know that it has been customised.



Holding down ALT and clicking an articulation with this shortcut above it will toggle the trigger between enabled and disabled.



TRIGGER PANEL - Reset will clear the trigger for this articulation, allowing you to set it to a different type or disable it permanently.

Group allows you to group together triggers. When set, the trigger only occurs when an articulation in the same group is currently active.

OTHER WAYS TO SWITCH ARTICULATIONS

Alongside switching your articulations manually by hand, via keyswitch or via the advanced methods mentioned above you may also want to try a new system we've dubbed UACC (universal articulation controller channel). Whereby each and every possible style of articulation has been given a unique CC data number. Simply use CC#32 and the table found in Appendix E to see how this can work for you.

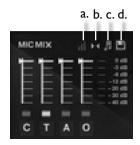
POWER TIP: Whilst there are many ways to switch between articulations, many pros still prefer to have a different articulation in a single instance per track on their DAW. This enables them to assign different reverb levels and bake helpful stems that can be used in conjunction with live instruments (to work like this it's best to load up artics from the individual articulations sub folder).

3. MICROPHONE MIXER

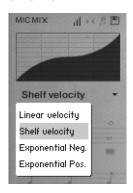
Giving you greater control over the blends of microphone positions for your work.

Use the chips beneath the faders to load & unload different microphones and the faders above to tweak the balance of them. Turning a fader all the way down will also unload the mics, conversely turning the fader back up will reload. Right click on the faders to assign CC controllers so you can mix these live for fantastic shifts in the spacial nature of the samples. Left click on the mic letters to change Kontakt channel/output assignment.

On the top right of the mixer controller section are some deeper mixing options.



3a VELOCITY RESPONSE



Pick from 4 different velocity curves to suit your controller.

3b CLOSE PAN MIC COLLAPSER



The close mics are a stereo mix and this collapser allows you to refine how the stereo image is handled. All our musicians are recorded in-situ, ie. where they would be seated on a standard scoring session, giving you a fantastic spectral spread when putting all the elements together, which helps define the detail. This panning tool helps you to manage and tweak this to your own tastes/ needs.

STEREO WIDTH - Allows you to control how far the stereo image reaches. All the way to the right would be like having your

two pan pots panned hard. All the way to the left would be like having both pots centre,

STEREO PAN - Then allows you to control where in the pan field the centre of this image is placed.

3c MIC MIX TO ARTICULATION LINKER

The small notation symbol locks the microphone mix or tweak you've made to the articulation selected. This means if you want to boost any perceived inconsistencies in volume between say pizzicato and col legno you can. Or indeed if you want to roll off some of the hall ambience for a short versus the long articulations this is how to fine tune.

3d MIXER PRESETS



A new way to transfer mixer settings between patches, or save and load presets to disk.

AUTOMATING MIXER FADERS - Each mixer fader has a dedicated #CC. To change this to suit your MIDI controller or surface, simply RIGHT or CTRL click on the fader itself to "learn" the new controller.

ROUTING MIC MIXES - To route each mic mixer channel to unique Kontakt channels simply click on the mic letter. Great for putting your ambient mics in the surround for example. Also good for tracklaying individual mics for your engineer to control in your final mix sessions.

4. GENERAL CONTROLS

OPTIONS

PRESETS - This allows you to load predetermined sets of articulations affectionately called articulation sets (see General Overview Panel) quickly and easily to optimise your system quickly for essential articulations or to start building templates using empty "shells".

PURGE UNUSED - This control keeps unloading any samples you are not using to keep your memory usage as low as possible.

TRANSPOSE - Toggle this on and tweak the number to the right to transpose your instrument. Note this is not the same as tuning, the instrument will actually offset the samples to the selected pitch.

CC MAPPED VEL(OCITY) - Click this to control note velocity with the Dynamics slider. If a user has customised the dynamics slider, that same customised CC will control velocity now.

ROUND ROBINS

NO EXTRA FUNCTIONALITY (NEIGHBOURING ZONES)-Next to this lies a pop-down menu with some amazing new functions:

- "No extra Functionality" Is the standard default where round robins are used as they were intended.
- "Neighbouring Zones" pulls from neighbouring zones, so for an '8RR' instrument, you effectively cycle through up to 24 different sounding notes when pressing a key. It's still just playing the one RR at a time, though giving you more of them. In legato mode this also alternates between 3 legato intervals to give a fake round robin.
- "2x Round Robin With Skip" plays two RR simultaneously, so you get a thicker sound, it's the equivalent of plopping two notes on top of each other in your DAW (and it drops the overall volume ~6db so that the levels remain the same but it just sounds thicker). This plays the pairs and moves ahead by 2 RR. In this mode RR is effectively halved. eg, if you press a note it would play RRI/RR2 then RR3/RR4, etc.
- "Layer 2x Round Robins With No Skip" As above but this plays a pair but doesn't move ahead by 2 so that RR isn't halved. So if you press a note it would play RRI/RR2, then RR2/RR3, then RR3/RR4.

ROUND ROBINS - This refers to the number of round robins (multiple recordings of the same notes that cycle around as you repeatedly play a note) your instrument uses, the number can be dragged up and down (1-8) to save you memory.

RESET FROM F0 - This enables you to control the round robin cycle (so it sounds identical every time you play) toggle on &

play the key selected (default F0) to reset.

RESET ON TRANSPORT - As above but resets every time you press play! Genius!

SHORT ARTICULATIONS RT - This new option allows you to toggle whether staccato/tenuto/marcato notes have a release trigger that plays on release. This lets you tighten up staccatos or end marcatos/tenutos earlier than they were recorded.

5. EXPRESSION CONTROLS

We curated some of these for the general controls view, here is the full complement, dial these cc's into your midi controller for an infinite choice of emotional and human responses.

DYNAMICS - CC#1 Displays and controls which dynamic layer is live. All modulation wheels in keyboards will be assigned to this control by default.

EXPRESSION - CC#11 Displays the overall instrument volume (0-100%). Remember you can also trim your instrument volume with CC#7.

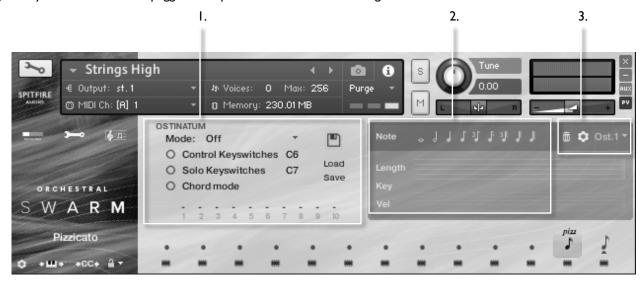
VARIATION - CC#21 Crossfades between two different versions of the same articulation. These can be slight variations in speed, density or length of the notes. Refer to Appendix C for a full list of articulations and whether they are affected by this control.

LONG REVERB - CC#17 Long convolution reverb slider to control the amount at any given time,

SHORT REVERB - CC#18 Short convolution reverb slider to control the amount at any given time.

THE OSTINATUM

Only available on short articulations, this ever evolving device can offer instant chaotic inspiration or be used to create scientifically designed rhythms, ostinati and arpeggiated sequences as well as shimmering tremolando effects.



I. SETTINGS

MODE - Selects how the Ostinatum will interpret your playing. Ostinatum will sequence a maximum of 10 notes (one for each of your fingers). It needs to arrange them into a note order "I-10" and this determines how it does that.

OFF - The default position Ostinatum remains dormant.
ORDER PRESSED - This will organise the notes in the order you pressed them.

ASCENDING - From bottom to top. **DESCENDING -** From top to bottom.

CONTROL KEYSWITCHES - Allows you to set up a section of the keyboard that controls the state of the ostinatum. These keyswitches let you turn it off, or set the mode.

SOLO KEYSWITCHES - Allows you to dedicate a section of the keyboard to keyswitches that solo each ostinatum track. The first keyswitch turns all tracks on, the following keyswitches solo each individual track.

CHORD MODE - This ignores any note order and simply plays everything polyphonically, great for measured trem style effects.

2. RHYTHM COMPUTER

NOTE MENU - Click these to place a note into the computer at the length you desire. Click the trash can to delete, or choose a preset from the drop down on the right. The cog allows you further fine tuning and configuration tools.

LENGTH - This displays the note lengths in the sequence that you have selected from the Note Menu. Drag down here to create rest versions of the note length.

KEY - Under each note you can then select which key (displayed in real time in the Transport) this note is attached to. Scroll up and down to select.

LEVEL - Adjust these bars up and down to adjust the velocity levels of each notes, this will bring your rhythm sequence to life and provide you with all sorts of surprising syncopated accents.

LOAD/ SAVE - Allows you to store your previously made Ostinati

3. PATTERN SELECTOR

With the Ostinatum machine, there's a dropdown on the rhythm computer allowing you to switch between (and create) up to 8 different patterns.

By default these layer on top of each other, but you can also configure them to be solo using either the Ostinatum track options:



Or using the 'solo keyswitch' option. With Solo Keyswitch, 9 new (customisable) keyswitches are added to the keyboard:





The very first one unmutes all tracks so that they play together. The next eight solo each individual track respectively. When you press them, everything but that keyswitch's track is muted.

The second image shows how you could programme crazy 16ths on track 1, lazy halves on track 2, and then keyswitch between them in your DAW.

INSTRUMENTS

This library was recorded in the expected main families of a symphony orchestra, although the forces are somewhat unconventional at times (more woodwind, brass and low strings than a balanced orchestra). This is so we could achieve the amazing swarm effects we were after successfully. Below you will find a short explanation of the main instrument patches and their overall range.

BONES and TUBAS

F#I E4

(5,2)

A variety of articulations played by three C Trombones, a Bass Trombone, a Contrabass Trombone and two Tubas.



HORNS

F#2

(6

A variety of textures played by six Horns in F. Explore through this crazy list of articulations, and have as much fun as the players did recording them!



BRASS

F#1

E5

(6,5,2)

This instrument features repeated ascending and descending swells played by the full range of the Brass family across the octaves.



STRINGS HIGH C3 C7 (12,10,8)

Ranging from the C open string in the violas to a high C7 from Violins I and 2, this instrument present some wonderful string textures orchestrated evenly throughout.



STRINGS LOW CI A#5 (14,6)

Subtle but powerful blend of celli and double basses playing a similar array of fluid textures as the high strings.



WOODS HIGH D3 A#6 (4 FI, 3 CI)

Four flutes (doubling on Alto and Bass flutes) and three clarinets (one doubling on Bass CI) recorded playing a variety of extended techniques to create intricate textures in no time.



WOODS LOW B0 C5 (3 BCl, 3 Bsn)

A quirky range of articulations recorded at lib with 3 Bass clarinets and 3 Bassoons, to create some unpredictability to your low end!



NB ranges may differ between specific articulations on one same instrument. All ranges are given with middle C = C4

APPENDIX A -RECOMMENDED TECH SPECS

YOU WILL NEED KONTAKT PLAYER (or FULL VERSION) VERSION 5.6.8 OR ABOVE TO USE THIS LIBRARY

RECOMMENDED SPEC:

The better your computer, the better the performance of any Spitfire module. But not to worry if you're not spec'd up to the hilt. All programs are provided with a set of parameters that enable you to dial back the CPU demands of any given patch. But moving forward, we're confident this module will keep your computer busy for many years to come! We recommend a combination of high processor speeds, a good chunk of memory and a devoted 7200rpm eSata, USB2 or 3, or Thunderbolt audio drive. The more memory you have, the less demand placed on your drive, and having a totally devoted drive gives you the chance to load less into memory and reduce load times. The higher the speed of your CPU, the more capable your computer will be to deal with some of the amazing, but complicated scripts we've written.

PCs:

We recommend Windows 7 or later (latest Service Pack, 32/64 Bit), Intel Core Duo or AMD Athlon 64 X2, 4 GB RAM (8 GB recommended).

MACs:

We recommend Mac OS X 10.10 or later (latest update), Intel Core 2 Duo, 4 GB RAM (8 GB recommended). **DRIVES:**

USB2 or USB3, Thunderbolt, or eSata, 7200 rpm. Ask your dealer for drives that are suitable for "AV use". If you can afford an SSD drive, this will massively increase the power of your system. Instead of 7-9ms seek time, the usual seek time is <0.1ms. These are fast enough to run a patch 'Purged' of all its samples, and they can load on the fly as you play the notes. You can also reduce your sampler's "pre-load" buffer tenfold meaning you'll be able to load enormous orchestral palettes into a single machine.

HOST:

The Kontakt 5 platform should work comfortably on most commonly found platforms and DAWs. As always make sure you're as up-to-date as you can afford! If your main DAW is not a newish machine, or has a limited spec, and you're planning on building or adding Spitfire to an already large orchestral palette, you could consider running your library independently of your DAW, either on your host computer (e.g. via Re-Wire) or on a slave device (e.g. via Midi or MOL). This will assist your loading times, and will allow your DAW to do what it does best, sort out all your note ons and note offs! We heartily endorse Plogue Bidule (http://www.plogue.com) as a virtual rack/ routing sys-

APPENDIX B -KONTAKT VS KONTAKT PLAYER

Kontakt Player is a free version of the Kontakt sample playback engine available to download:

https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/downloads/

It works with libraries that the developer has paid a license fee for. Essentially, you've bought this playback engine along with your library.

The Kontakt player gives you full access to all the sounds and all the editable parameters on the front panel. Also, unlike non-Player libraries, these libraries will also have a banner that appears on the Kontakt Libraries pane.

If you want to go deeper into editing you'll need a full version. As you will already own the free Kontakt player and have bought one of our 'player' libraries you will be eligible for a discount upgrade to Kontakt via the NI website. See here for more details:

https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/pricing/crossgrade-offer/

If the library you want to use is NOT a 'Player' library then you need to buy the full retail version of Kontakt.

Then you can also load 'non-Player' libraries like some of our other ranges, Spitfire LABS, Harp, Piano, Harpsichord, Solo Strings etc. Please note that non-Player library instruments will not appear on the Kontakt libraries pane and so can't be added as a library as Player libraries need to be. Instead, these libraries will simply need to be loaded via the Kontakt files browser or alternatively you can add the library as a favourite to the Kontakt Quick Load window.

APPENDIX C - ARTICULATION LIST

BONES AND TUBAS

Flutter Swarm Muted Swarm Short

Staccatissimo Swarm* Tenuto Swarm* Tongued Swarm

Upper Mordent Swarm (Semitone)
Upper Mordent Swarm (Tone)

BRASS

Swells Cresc. Swells Dim.

HORNS

Flutter Swarm Muted Swarm Short

Staccatissimo Swarm* Tenuto Swarm* Tonguing Swarm

Upper Mordent Swarm (Semitone)
Upper Mordent Swarm (Tone)

STRINGS HIGH

Combo Swarm
Combo Swell
Flautando Swarm
Pizzicato Swarm*
Short Pizzicato
Short Spiccato
Short Swarm I*
Short Swarm 2*

Short Swarm Harmonics Spiccato Molto Sul Pont* Tenuto CS Tasto Swarm*

Tenuto Swarm* Whisper Swarm

STRINGS LOW

Combo Swarm
Combo Swell
Flautando Swarm
Pizzicato Swarm*
Short Pizzicato
Short Spiccato
Short Swarm I*
Short Swarm 2*

Short Swarm Harmonics Spiccato Sul Pont*

Tenuto CS Tasto Swarm*

Tenuto Swarm*
Tenuto Trem Swarm*
Whisper Swarm

WOODS HIGH

Air Swarm

Clari Whisper Swarm Combo Swarm Flute Whisper Swarm Flutter Swarm*

Short

Staccatissimo Swarm Tenuto Swarm I* Tenuto Swarm 2* Tongued Swarm

Upper Mordent Swarm (Semitone)
Upper Mordent Swarm (Wholetone)

WOODS LOW

Bassoon Pop Combo Swarm Flutter Swarm Slap Staccatissimo Sparse Swarm Stacc. Tenuto Swarm* Tongued Swarm

^{*}These articulations will have two different variations, controlled with the Variation slider on the GUI. These can include changes in the length of the notes, the density of the articulation or the speed.

APPENDIX D - MIC & MIX ACRONYMS

- C Close mics, a selection of valve mics placed for optimum focus close to the instruments. This mic control is great to add in for added definition and at times a bit of "rounding of sound", in isolation it can be a way of achieving a more intimate or pop-music style sound.
- **T Tree.** This refers to the "Decca" tree of three mics placed above the conductor's podium.
- **O Outriggers.** A set of vintage mics placed wide apart to the left and right of the tree. These give a similar balance of room and band but with a broader stereo spread. The effect of this mic is somewhere between the tree and ambient mics.
- **ST Stereo Mic.** These are totally different mics in a totally different position to the tree (closer to ground level) and have a more direct and immediate sound than the tree.
- **R R88 Ribbon**. This will allow you to add some extra warmth with this wonderful stereo ribbon mic.
- **M Mid Room**. A great mic option on Brass, adding some extra stereo panning. Not available on Strings.

APPENDIX E - UACC

With the development of Spitfire's BML Sable it was proving quite difficult to standardise how to access the ever-growing number of articulations contained within instruments and libraries. While they worked adequately, Keyswitches and CC32 were inconsistent between sections and instruments and it could prove a pain to do something as simple as substituting a Viola for a Violin section.

To address the problem, Spitfire developed UACC, a specification that hopes to standardise articulation control between instruments and libraries. UACC is turned on via the Keyswitch locking option () and utilises the same CC as above (and can be customised identically). When UACC is activated you can change articulation by setting CC32 to specific values that correlative with different articulations. Here's the latest (v2) spec:

Long (sustain)		34	Detache	80	Synced - 120bpm (trem/trill)
1	Generic	35	Higher	81	Synced - I50bpm (trem/trill)
2	Alternative	36	Lower	82	Synced - 180bpm (trem/trill)
3	Octave				, , , ,
4	Octave muted	Short		Phrases &	Dynamics
5	Small (1/2)	40	Generic	90	FX I
6	Small muted	41	Alternative	91	FX 2
7	Muted	42	Very short (spicc)	92	FX 3
8	Soft (flaut/hollow)	43	Very short (soft)	93	FX 4
9	Hard (cuivre/overb)	44	Leisurely (stacc)	94	FX 5
10	Harmonic	45	Octave	95	FX 6
П	Temolo/flutter	46	Octave muted	96	FX 7
12	Tremolo muted	47	Muted	97	FX 8
13	Tremolo soft/low	48	Soft (brush/feather)	98	FX 9
14	Tremolo hard/high	49	Hard (dig)	99	FX 10
15	Tremolo muted low	50	Tenuto	100	Up (rips/runs)
16	Vibrato (molto vib)	51	Tenuto Soft	101	Downs (falls/runs)
17	Higher (sultasto/bells up)	52	Marcato	102	Crescendo
18	Lower (sul pont)	53	Marcato Soft	103	Decrescendo
19	Lower muted	54	Marcato Hard	104	Arc
		55	Marcato Long	105	Slides
Legato		56	Plucked (pizz)		
20	Generic	57	Plucked hard (bartok)	Various	
21	Alternative	58	Struck (col leg)	110	Disco up (rips)
22	Octave	59	Higher	111	Disco down (falls)
23	Octave muted	60	Lower	112	Single string (Sul C/G/etc.)
24	Small	61	Harmonic		,
25	Small muted				
26	Muted	Decorativ	re		
27	Soft	70	Trill (minor2nd)		
28	Hard	71	Trill (major 2nd)		
29	Hramonic	72	Trill (minor 3rd)		
30	Tremolo	73	Trill (major 3rd)		
31	Slow (port/gliss)	74	Trill (perfect 4th)		
32	Fast	75	Multitongue		
33	Run	76	Multitongue muted		

Because the articulations in this library are very complex textures created by many specific articulations, UACC32 values are mainly assigned to the first few numbers (I to 8) with the exception of the Short playable articulations which follow the usual value specified in the spec above.

UACC KEYSWITCH

UACC keyswitching is a new feature in Spitfire products and updates. It is a mixture of keyswitching and UACC to provide the advantages of both methods. When UACC Keyswitch is activated via the lock panel menu (\bigcirc) a single keyswitch is available. Using the UACC spec outlined above, this keyswitches velocity is used to switch articulation.

For example pressing the keyswitch at velocity 70 would switch to the Trill (minor 2nd) articulation while pressing at velocity 56 would switch to Short Pizzicato. As with UACC, you can manually input these velocity values but it's easier to use your DAW or tablet app's functionality.

The main advantage of UACC KS over UACC is that you can layer articulations by overlaying the keyswitch's notes on the piano roll.

APPENDIX F - FAQS & TROUBLESHOOTING

Q: HOW DO I AUTHORISE A KONTAKT PLAYER LIBRARY ON A MACHINE NOT CONNECTED TO THE INTERNET?

This is no longer possible with libraries that require Kontakt 5.6.8 or above, for which you will need to activate the libraries online via the Native Access app.

Q: HOW DO I DOWNLOAD AND AUTHORISE A KONTAKT FULL LIBRARY ONTO MY MAIN RIG IF IT ISN'T CONNECTED TO THE INTERNET?

Simply use our download manager on a computer that IS connected, transfer over either over your LAN or via a hard drive. No further authorisation is required.

Q: "NO LIBRARY FOUND" ERROR MESSAGE

If you are getting the error message "No Library Found" in Kontakt when trying to add a new library, it's because the product you have purchased isn't a "Player" library (also see appendix B) You will therefore need to load the files manually into Kontakt to load them. This can be done via the 'Files' browser, top left hand side of Kontakt, or by simply dragging the instrument files over the Kontakt window to load them.

Q: WHAT IS THE DIFFERENCE BETWEEN KONTAKT AND KONTAKT PLAYER?

See appendix B

Q: HOW CAN I REDOWNLOAD A PRODUCT?

This can easily be done via your Library Manager app. To reset both your entire library download or the latest update;

Open up the Library Manager app and log in with your account email and password.

- Select the download you wish to re-download
- \bullet In the toolbar under Library > Reset Download > Entire Download/Latest Update
- This will reset your whole download/your latest update

You can repeat this process for any of the libraries you own.

Note that there is a limit to how many times you can reset your downloads in a certain time frame. If you do exceed your reset limit please get in touch.

Q: DIFFICULTIES IN DOWNLOADING / INSTALL-ING

Customers may find that they have some difficulties in the downloading process. If you find that you are having some trouble, please check the list below for possible causes.

• The formatting of your drive: if it is FAT32 this will cause errors, because there is a maximum file size with this format of 4GB and our download files will exceed this limit. To solve this problem, reformat your drive to a more modern format, or use a different drive. We recommend NTFS on PC and Mac OS Extended (journalled) on Mac.

- Free space on your hard drive: please allow at least double the space for the respective library. This is because your library is downloaded compressed, then uncompressed into a separate location, then the original is deleted. So briefly during install, there are two copies of the library on disk. To solve this problem use a drive with more space (the size you'll need during install is listed on the website page of the product you bought). Other issues:
- Library Manager freezes in the "Extracting" stage for hours. This may be because our libraries are often very large files, and this is the stage where the compressed files are extracted and placed in their final locations on the hard drive. There could be hundreds of GB of content to unpack, so it really can take hours. If you're unsure whether it has crashed or is simply extracting files, visit the installation folder you chose when you started the install. If everything is working normally you'll see various files appearing in the folder (or one of its sub-folders).
- If you see a "Download interrupted" message, this may be caused by a change in IP, usually the case with people using a VPN, or people who for some reason started a download in one country and tried to resume it in another. In this case, please submit a support ticket and we can unblock you.
- If your download gets stuck and is continually cycling and not resuming, please get in touch with us, giving us as much detail as possible about your set up. It would be helpful if you can tell us: Your operating system, where you are downloading from (your country, and also whether you're at home or work), your ISP, and whether there are any proxy servers or firewalls between your computer and the internet.

Q: I'VE LOST MY INSTRUMENT FILES.

In some cases, instrument files may get lost when transferring libraries from one place to another, or if an update has gone wrong. If this happens, the best way forward is to re-download the library in question. It will ensure you will get all of the content you are missing

Q: I HAVE FAST INTERNET, WHY IS MY DOWN-LOAD SLOW?

We have no direct influence on your actual download speeds, our libraries are hosted on Amazon S3 servers which are normally very quick but it may well be that at certain times of the day when traffic is particularly busy, your ISP may throttle your connection speeds.

We would advise you to leave your download running overnight as speeds should ramp up at less busy times. Our Library Manager downloader aims to use as much of the available bandwidth as possible to give you the quickest possible speeds, and may take several minutes to reach its peak.

Q: CAN I INSTALL ON MORE THAN ONE COM-PUTER?

With our products you have two licenses. This means that you are allowed to download and install on two computers you own, say your main rig and your mobile rig. The best way to get your library on both of your machines is to copy it from one to another via an external HDD. It saves you from having to re-download the whole library again!

Q: CAN I TRY BEFORE I BUY?

No - it is not currently possible to demo our products. If you go to our YOUTUBE CHANNEL you'll see many many walkthroughs containing detailed info about all our products -- you can hear them being played in real time with no smoke and mirrors!

Q: MY LIBRARIES ARE NOT SHOWING UP IN MY LIBRARY MANAGER

A handful of customers may find that when they log into their Library Manager, some of their previous purchased products do not show up in the 'Installed' section or in the 'Download Ready' section either. It may be that you have purchased these under another email address. Checking other possible email addresses for your previous purchases may help to find these missing products. If this is not the case, and these missing products were purchased a few years ago, please create a support ticket telling us your account email address, and any serial numbers you may have to go with these missing products. Our support team can also merge one or more accounts together if you'd like to consolidate all your purchases in one place.

The more information, the quicker we can get you back up and running!

Q: HOW DO I UPDATE MY PRODUCTS?

The main premise of downloading our products is that our library manager downloads into the folder you choose, so it is always good to choose the folder above where you want the download to go. The best file path for our products is something very simple, a long file path will cause errors as there is a character limit on how far the library manager can read. We advise a file path of something along the lines of:

Samples Drive > Spitfire Audio - always point the downloader to the folder 'Spitfire Audio' (the folder above the library) for all downloads and updates.

When it comes to downloading / updating - if you have a folder called 'Spitfire Audio' always point the library manager to the folder Spitfire Audio - never go into this folder and choose the actual library in question.

Q: HOW DO I REDOWNLOAD THE LATEST UP-DATE?

With the continuous improvements to our Library Manager app, we have incorporated the ability to reset your own downloads. This can easily be done via your Library Manager app.

Open up the Library Manager app and log in with your account email and password.

- Select the download you wish to re-download
- In the toolbar under Library > Reset Download > Latest Update
- This will reset your latest update

You can repeat this process for any other updates you wish. If you do not see the option to reset your download in your Library Manager App, we would advise downloading the latest version of the library manager from from spitfireaudio.com/info/library-manager/.

Q: I'VE BEEN WAITING AGES FOR MY DOWN-LOAD LINKS...???

We run all our orders through a fraud checking process. The automatic fraud check takes 20 minutes (but can take up to an hour during a very busy period, eg. Black Friday), but if your order gets caught at this stage, we run a manual order check, and this can delay the processing of your order for up to 24 hours (though this would be a rare and exceptional case).

You should however receive an order confirmation email IM-MEDIATELY upon placing your order. This confirms that your order has successfully been logged in our system and that your payment was successfully taken. Please check your junk folders before contacting our support. The message will come from do_not_reply@spitfireaudio.com if you'd like to add us to your whitelist.

Q: CAN I DOWNLOAD ON A PC, THEN TRANSFER TO A MAC OR VICE VERSA?

All of our libraries are compatible on both PC and Mac computers (as they run inside Kontakt). You can download all of our libraries on either PC or Mac and they will work if you need to transfer them across to the other operating system. We advise to do this by copying the library you want to move across to an external HDD and then copying it to your other machine.

Q: 'SAMPLES MISSING' ERROR MESSAGES

In some cases, samples files may get lost when transferring libraries from one place to another, or if an update has gone wrong. You may also get this error in some cases if you installed your library on a drive with just under the minimum necessary amount of space to install the library (remembering that you need DOUBLE the size of the final library to install successfully - see above). If this happens, the best way forward is to re-download the library in question. It will ensure you will get all of the content you are missing. For more information on how to re-download a product, please see the question above.

Q: HOW DO I DOWNLOAD PRODUCTS ON MAC OSX 10.6.8?

Our Library Manager only supports Mac OSX 10.9 and upwards. If you do not have a system with 10.7 upwards installed, or do not wish to update your system there is a way of creating an external boot drive that will work with our Library Manager app. Alternatively, you can download the library to any other Mac or PC that is compatible with the Library Manager and then simply copy everything over to your own machine. We suggest doing this via an External Hard drive.

Q: NON PLAYER INSTRUMENT OPENING IN 'DEMO' MODE?

If you are seeing the 'demo' button and your patches are timing out, it means you are trying to run a non-player library in the Kontakt Player software. You need to upgrade your Player to the full version of Kontakt. We try very hard to ensure at all stages of our website that everyone understands which libraries need full Kontakt and which need the Player only. Essentially our Player libraries don't need the full Kontakt because we have paid the license fee on our customers' behalf. This is more financially viable on our higher priced libraries. If you have any of our Player libraries you can qualify for a discount on the full version of Kontakt. See the following page for more information: https://www.native-instruments.com/en/products/komplete/samplers/kontakt-5/pricing/crossgrade-offer/

HOW TO BATCH RESAVE A LIBRARY

There are two main reasons to batch resave: Firstly it greatly speeds up the loading of patches once you have batch resaved them. Secondly, it can help you find missing samples and relink them to the patches so that you don't need to search every time you load a patch. Bear in mind that it can sometimes take a few attempts to batch resave, and if Kontakt crashes the first time you try, you could go into the instruments folder and batch resave a bit at a time -- go by sub folders for example, just to lessen the load on Kontakt.

Q: I WANT TO BUY A COLLECTION, BUT I AL-READY OWN ONE OR MORE OF THE PRODUCTS IN IT

Our cart will intelligently deduct the proportional cost of any products you already own from the total price when you get to the checkout.

Q: I'VE LOST MY SERIAL NUMBER FOR PRODUCT ACTIVATION

Emails get misplaced and you might find that you are out of luck when you need to find a past serial number. The best place to find all of your serial numbers is in your Spitfire Account. Log in here: https://www.spitfireaudio.com/my-account/login/ and look for your Order History. You will see a tab with your Serial Numbers.

Q: I HAVE FOUND A BUG

In some cases we can't squash them all and bugs shamefully make their way through. If you think you have found a bug, please contact us with all the relevant information;

- · A description of the bug you have found
- A screencast (video) of the bug happening, or an audio example
- The exact patch name (or patches) in question and also the library giving us as much detail as possible will help us get to the bottom of the issue.

Q: WHAT IS THE NCW COMPRESSED FORMAT?

This is Native Instrument's new lossless compressed sample format – we have managed to reduce the sample data pool by around 55% and this also shows a benefit in streaming for you, along with reduced hard disk space required.

Q: WHAT IS YOUR REFUNDS / RETURNS POLICY?

If you have NOT completed the download / installation process, then we CAN refund / return your product, please contact supportwith your account email address and order number so we can handle this quickly. If you HAVE completed the installation process (even if you've not yet registered your serial number), please see our EULA in regards to why we do not accept refunds and returns. We can refund hard drive orders up until the point when the drive is dispatched from our office. This is usually 2-4 days after you order.

Q: I'VE FORGOTTEN MY PASSWORD

If you have forgotten your password, please go to spitfireaudio.com/my-account/login, and click 'Forgotten Password'. If at some point in the past you asked us to merge two or more accounts but have since forgotten, you MAY find that the forgotten password isn't working for the email address you asked us to merge FROM. In this case, please contact support with your name, and any email addresses you think we might know about, and we'll work out what has happened.

Q: VEP - CONTROLS / GUI HAS DISAPPEARED!?

You need to 'connect' the instance of VEP to your sequencer, and send it some MIDI - then the controls will reappear. Unless the instance of VEP is 'booted up' by actually connecting it, Kontakt will not complete the setup of the instrument which includes drawing the GUI.

© SPITFIRE AUDIO HOLDINGS LTD MMXVII	