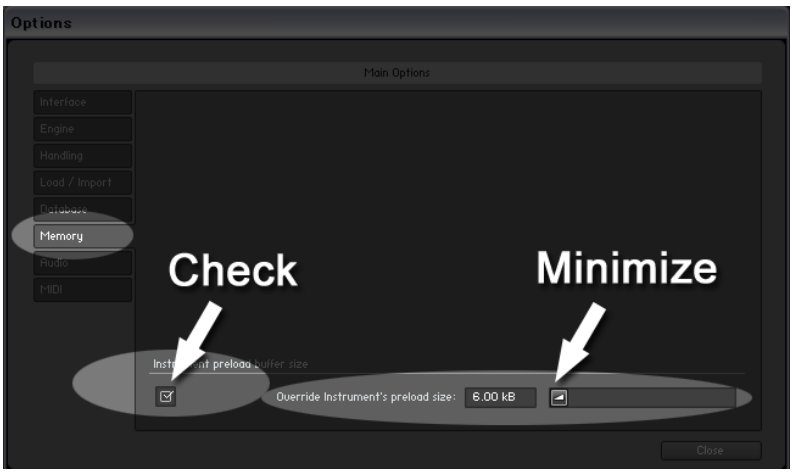
SC SPM All Strings Multi with Fretboard Monitor

[IMPORTANT] Preload buffer size configuration

Please check your preload buffer size before loading the multi / instrument.
SC is a very big instrument that loads a huge number of samples. You need to configure the preload buffer size in Kontakt's option. The default pre-load buffer size is too large. If you have not changed the preload buffer setting, decrease the pre-load buffer size.



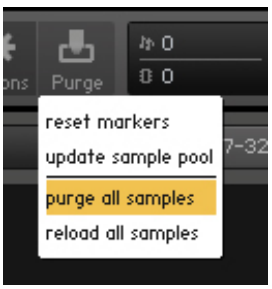
1. Click the Options button;

and select the 'Memory' tab.

2. Check the box and minimize (or set to 12kb); 'Override Instrument's preload size'.

The buffer size ('Override Instruments preload size') in the picture is 6kb, but if you load a big multi, we recommend 12kb to play the samples smoothly. If the samples are not played smoothly with 12 kb, increase the buffer size as needed unless RAM runs out. It depends on the system, but in most cases 12 kb should work fine. By decreasing the preload buffer size, loading time becomes much shorter and you can save a big RAM space.

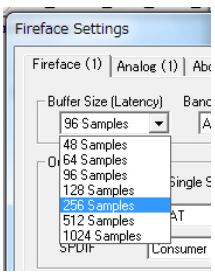
Purge All Samples and 'on the fly streaming'



Another great way to save RAM is using the 'purge all samples' feature of Kontakt Player / Kontakt (ver4.1 or later). After loading the multi / instruments, click on the 'Purge' icon and select 'purge all samples'. If your system is not so old, Kontakt Player should load previously unloaded samples on the fly when you play notes. If your RAM space is tight, it's worth trying.

If you get a noise at the beginning of the note when you play a big multi…

A big multi that includes many instruments requires a certain amount of processing power. If you get a noise at the beginning of the note, *increase* the latency size of your audio interface (not 'decrease', unlike with the preload buffer size in Kontakt Option). For detail about changing the latency size, please refer to your audio interface manual.



Tips

[Adding other SPM instruments to All Strings Multi]
Though other SPM instruments (that are not included in this multi) are not compatible with the Fretboard Monitor, you can use them with All String Multi. Just load a SPM instrument you would like to add to the multi and assign it a key switch that are not used in the multi.

[Saving RAM by unloading unused instruments]
As this is a very huge multi, if there are unused instruments for a project you are working on, we recommend you to remove them from the multi and re-save the multi with a different name. You can save RAM and time to load the unused instruments.

[Customizing key switches, high velocity threshold levels, etc.]
All key switches (Hold Key, Stop Key, Release Instruments, High Velocity Instruments), High Velocity Threshold, and etc. are customizable. For details, please see the manual; 'SC_user_manual.pdf'.

[Using MIDI CC to customize SPM]
Most of the parameters of SPM can be changed / controlled through MIDI CC. We recommend you to use MIDI CC to change common parameters of SPM Multi unless you would like to customize a specific instrument. You can set the common parameter of all the instruments in the multi at once by using MIDI CC. (You can customize each instrument with its interface, but you'll need to repeat the same process with all the instruments in the multi.)

[Do not use solo / mute button]

As all the instruments in the multi need to receive the same midi information to execute the auto string / fret select feature, do not use the solo / mute button, otherwise the Fretboard Monitor does not work correctly.

[Please read the manual; 'SC_user_manual.pdf' first.]
Not all of SPM's features are explained in this document. (Just the new feature is mentioned.) We recommend you to look over the 'SC_user_manual.pdf' before reading this document, especially the page 15 – 30 in the 'SPM (Super Performance Multi)' section.

Multi: **SC_SPM_All_Strings**

File name: *_SC_SPM_All_Strings.nkm (‘*’ = ‘b’ or ‘m’ or ‘n’)

located in; /Multis/*****/Super_Performance_Multi/ (‘*****’ = ‘bridge’ or ‘middle’ or ‘neck’)

SC SPM All Strings Multi with Fretboard Monitor

The new SPM multi automatically selects a proper string / fret position depending on the situation. You can also change the string manually by key switches or MIDI CC# 53. The Fretboard Monitor visualizes the current fret position / playing technique you are playing.

Includes;
SPM Fretboard Monitor
Single note Realtime Legato Slide & Realtime Hammer-on & Pull-off
Single note vibrato (deep & light)
Single note mute & picking noise
Single note gliss down, gliss up
Picking Tremolo
Trill (half step and whole step)
Pinch harmonics
5th-dyad chord Realtime Legato Slide
5th-dyad chord vibrato
5th-dyad chord mute & picking noise
5th-dyad chord whammy bar with pinch harmonics
5th-dyad chord gliss down (fast & slow)
4th-dyad chord Realtime Legato Slide
4th-dyad chord vibrato
4th-dyad chord mute & picking noise
4th-dyad chord gliss down
Octave-dyad Realtime Legato Slide
Octave-dyad picking noise
Feedback
Noises (Fret noise, Pick stop noise, Bridge mute noise, Position change noise)

instrument select Key switches (default)

G0: single note (with Realtime Legato Slide)
F#0: single note (with Realtime Hummer-on & Pull-off)
F0: single note (no legato slide)
E0: single note repetition
D#0: picking tremolo
D0: trill (whole step)
C#0: trill (half step)
C0: 5th-dyad chord (with Realtime Legato Slide)
B-1: 5th-dyad chord repetition
A#-1: 4th-dyad chord (with Realtime Legato Slide)
A-1: 4th-dyad chord repetition
G#-1: octave-dyad (with Realtime Legato Slide)
G-1: octave-dyad repetition

*You can customize the instrument select key switches.

Single note

key switch [G0]: Real time legato slide mode
With this mode, you can play legato slide by holding down one note while playing the next note to connect those notes.

key switch [F#0]: Real time Hammer-on & Pull-off
With this mode, you can play Hammer-on and Pull-off by holding down one note while playing the next note to connect those notes.

key switch [F0]: release trigger repetition mode
This mode allows you to shred notes very fast, and is good for not only making a rhythm backing part but also simulating tremolo playing technique. (This feature also allows you to play ‘measured’ tremolo.)

key switch [E0]: No legato slide

key switch [D#0]: Tremolo picking

key switch [D0]: Trill whole step (2fret)
key switch [C#0]: Trill half step (1fret)

5th-dyad Chord

key switch [C0]: Real time legato slide mode
With this mode, you can play legato slide by holding down one note while playing the next note to connect those notes.

key switch [B-1]: release trigger repetition mode
This mode allows you to shred notes very fast, and is good for not only making a rhythm backing part but also simulating tremolo playing technique. (This feature also allows you to play ‘measured’ tremolo.)

4th-dyad Chord

key switch [A#-1]: Real time legato slide mode
With this mode, you can play legato slide by holding down one note while playing the next note to connect those notes.

key switch [A-1]: release trigger repetition mode
This mode allows you to shred notes very fast, and is good for not only making a rhythm backing part but also simulating tremolo playing technique. (This feature also allows you to play ‘measured’ tremolo.)

Octave-dyad

key switch [G#-1]: Real time legato slide mode
With this mode, you can play legato slide by holding down one note while playing the next note to connect those notes.

key switch [G-1]: release trigger repetition mode
This mode allows you to shred notes very fast, and is good for not only making a rhythm backing part but also simulating tremolo playing technique. (This feature also allows you to play ‘measured’ tremolo.)

Mute / Picking noise (CC# 1 or Velocity switch)

Mute and picking noise are available using Modulation wheel (CC#1) or velocity switch.

default setting

mute mode: mod wheel (MIDI CC# 1)

mute MIDI CC# 1 threshold: 31

picking noise MIDI CC# 1 threshold: 126

How to change and check the mute mode setting...

Go to options menu by clicking the 'options…' button.

Click the 'mute mode' button.

Mute mode: mod wheel (MIDI CC# 1)

With this mode, mute and picking noise can be played using modulation wheel (MIDI CC# 1). Mute samples are triggered if the value of MIDI CC# 1 is larger than the MIDI CC# 1 threshold level. Picking noise samples are triggered if the value of MIDI CC# 1 is larger than the picking noise threshold level.

Mute mode: velocity

With this mode, mute and picking noise can be played using velocity switch. Mute samples are triggered if the note velocity is lower than the mute velocity threshold level. Picking noise samples are triggered if the note velocity is lower than the mute velocity threshold level and the value of MIDI CC# 1 is larger than the picking noise threshold level.

Mute mode (mod wheel / velocity switch), and the threshold levels can be changed through the following MIDI CC numbers.

MIDI CC# 48	**mute mode** 0 - 63: modulation wheel (MIDI CC# 1) / 64 - 127: velocity
MIDI CC# 49	**picking noise MIDI CC#1 (mod wheel) threshold level**
MIDI CC# 50	**mute MIDI CC#1 (mod wheel) threshold level**
MIDI CC# 51	**mute velocity threshold level**

[Hint]

We recommend you to change the mute mode setting using the MIDI CC numbers above unless you would like to customize a specific instrument. (You can customize the mute mode setting with the interface, but you'll need to repeat the same process with all the instruments in the multi.)

You can also play picking noise using Hold key or Stop Key.

1. Click the 'options…' button.
2. Click the 'play keys' button.
3. Assign picking noise to a Hold Key or Stop Key.

Vibrato (Aftertouch)

Vibrato sound is available using Aftertouch (except when tremolo or trill is active). If your keyboard doesn't have Aftertouch function but has an assignable slider or a knob, you can assign Aftertouch to the slider / knob. (You can also handle Aftertouch data using your sequencer.)

If one of the single note instruments is active, you can select a vibrato type using cc#5. (This controller is not effective unless Aftertouch is ON)

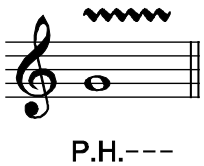
MIDI CC# 5:

0 - 63: deep

64 - 127: light

High Velocity Instruments

Pinch Harmonics (High Velocity Instrument)



You can play the pinch harmonic sound if one of the key switches; G0, F#0, F0, E0, D#0, D0, C#0, B-1, A#-1, A-1, G#-1, G-1 is active and the velocity of the note is higher than 125.

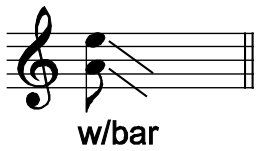
harmonics 1 / harmonics 2 (MIDI CC# 4)

(2 types of harmonics are available.)

0 - 63: harmonics 1

64 - 127: harmonics 2

5th-dyad chord whammy bar with pinch harmonics (High Velocity Instrument)

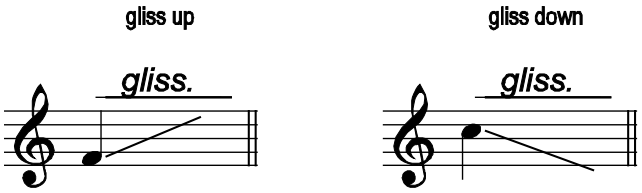


You can play the 5th-dyad chord whammy bar bend down if the key switch; C0 is active and the velocity of the note is higher than 125.

The threshold velocity level to play the High Velocity instrument is adjustable using MIDI CC# 55.

Release Instruments

Single note Gliss down / up

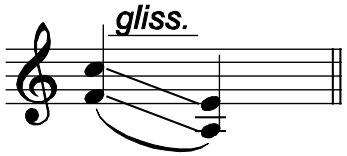


You can play the single note gliss down / up if one of the key switches; G0, F#0, F0, E0, D#0, D0, C#0, G#-1, G-1 is activated and the note is released while the Hold key; A0 is held down.

MIDI CC# 4

(You can switch gliss down / gliss up through MIDI CC# 4)
0 - 63: gliss down
64 - 127: gliss up

5th-dyad chord Gliss down

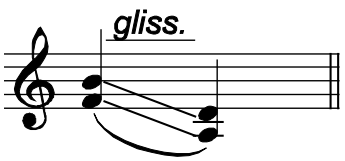


You can play the 5th-dyad chord gliss down / up if one of the key switches; C0 or B-1 is active and the note is released while the Hold key; A0 is held down.

MIDI CC# 4

(The gliss down speed can be selected through MIDI CC# 4.)
0 - 63: gliss down (fast)
64 - 127: gliss down (slow)

4th-dyad chord Gliss down



You can play the 4th-dyad chord gliss down / up if the key switch; A#-1 or A-1 is activated and the note is released while the Hold key; A0 is held down.

Fret noise
The fret noise is triggered anytime the note is released while the Hold Key; G#0 is held down.

Position change noise
The position change noise is triggered anytime the note is released while the Hold Key; G#0 is held down.

Bridge mute noise
The Bridge mute noise is triggered anytime the Stop Key; A#0 or B0 is pressed.

Pick stop noise
The Pick stop noise is triggered anytime the Hold Key; G#0 is pressed.

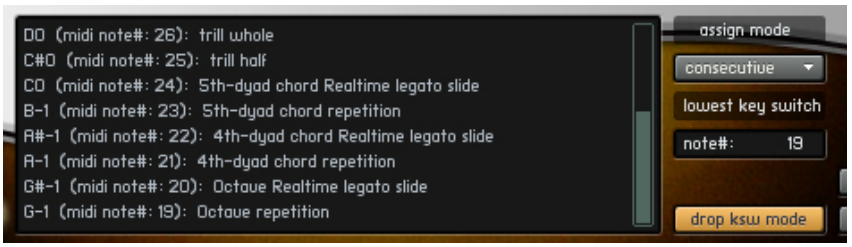
[Customizing instrument select key switches via MIDI CC]

How to change and check the instrument select key switches…

Go to options menu by clicking the ‘options…’ button.

Click the ‘key switches’ button.

The list of instrument select key switches is shown.



assign mode (MIDI CC# 45)
You can select the assign mode through MIDI CC# 45.

Instrument select key switch MIDI note number (MIDI CC# 44)
You can select the note number of the key switch through MIDI CC# 44.

MIDI CC# 45	select mode	Inst. #	target instrument
0	consecutive	0	All instruments in the multi
1	separate	1	single note realtime legato slide
2	separate	2	single note realtime hammer-on & pull-off
3	separate	3	single note no legato
4	separate	4	single note repetition
5	separate	5	single note tremolo
6	separate	6	single note trill (whole tone)
7	separate	7	single note trill (semi tone)
8	separate	8	5th-dyad chord realtime legato slide
9	separate	9	5th-dyad chord repetition
10	separate	10	4th-dyad chord realtime legato slide
11	separate	11	4th-dyad chord repetition
12	separate	12	Octave-dyad realtime legato slide
13	separate	13	Octave-dyad repetition

MIDI CC# 45 = 0 (consecutive mode);
Send the MIDI note number you would like to use for the lowest key switch (= 13: Octave-dyad repetition) through MIDI CC# 44, and thirteen consecutive MIDI note numbers are assigned to the instruments automatically. You can not select higher than MIDI note number 23; B-1 (or 19; G-1 when ‘drop ksw mode’ is active) because the instrument select key switch range is limited to MIDI note number 35; B0 (or 31; G0 when ‘drop ksw mode’ is active).

MIDI CC# 45 = 1 to 13 (separate mode);
Send the MIDI note number you would like to use for the instrument you would like to change the key switch through MIDI CC# 44. For example; if you would like to set the key switch for ‘5: single note tremolo’, to C0 (MIDI note number 24) send the value 5 though MIDI CC# 45 and send the value 24 though MIDI CC# 44. You can not select higher than MIDI note number 35; B0 (or 31; G0 when ‘drop ksw mode’ is active) because the instrument select key switch range is limited to MIDI note number 35; B1 (or 31; G1 when ‘drop ksw mode’ is active).

[Important] You can also set the instrument key switches using the interface, but we recommend you to do it with the MIDI CC numbers above because the instrument select key switch setting of the all the instruments in the multi needs to be the same. You can finish setting the all the key switches for all the instruments at once by sending the MIDI Control Changes.

[Customizing string select key switches via MIDI CC]

String select key switch (default)

String 1: F-2 (MIDI note number 5)

String 2: E-2 (MIDI note number 4)

String 3: D#-2 (MIDI note number 3)

String 4: D-2 (MIDI note number 2)

String 5: C#-2 (MIDI note number 1)

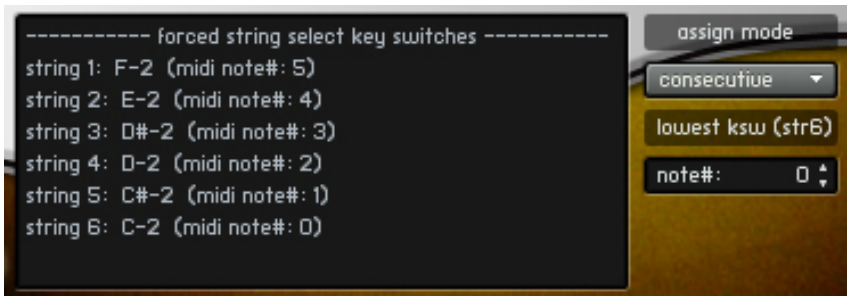
String 6: C-2 (MIDI note number 0)

How to change and check the string select key switches…

Go to options menu by clicking the ‘options…’ button.

Click the ‘forced str. select’ button.

The list of string select key switches is shown.



Send the MIDI note number you would like to use for the lowest key switch (= key switch for string 6) through MIDI CC# 53, and six consecutive MIDI note numbers are assigned to the strings automatically.

[Important] You can also set the string key switches using the interface, but we recommend you to do it with the MIDI CC numbers above because the string select key switch setting of the all the instruments in the multi needs to be the same. You can finish the all the key switches for all the instruments at once by sending the MIDI Control Changes.

Multi: **SC_SPM_All_Strings_DoubleTrack**

File name: *_SC_SPM_All_Strings_DoubleTrack.nkm (‘*’ = ‘b’ or ‘m’ or ‘n’)
located in; /Multis/*****/Super_Performance_Multi/ (‘*****’ = ‘bridge’ or ‘middle’ or ‘neck’)

A double-tracked version of the SPM multi; ‘SC_SPM_All_Strings’

Double-Tracking’ is a technique which is frequently used in recording guitar tracks. The Guitarist plays the same part twice (one for Left channel, and one for Right channel). That gives the guitar track a nice, wide-spread stereo images and a thickness. You can reproduce it very easily just by loading the multi. No identical samples are played simultaneously in both channels. You don't need a stereo delay or tweaking your midi data to emulate the double-tracking.

Tips: The multi; ‘SC_SPM_All_Strings_DoubleTrack’ already includes the non-Double-tracking instruments (assigned to the output; ‘st.1’) and the Double-tracking instruments (assigned to the output; ‘st.2’ so that each channel can be processed separately using a DAW (such as Cubase, Logic, Sonar, etc.) In other words, each channel needs to have its own amp simulator and should be panned using the DAW’s mixer.

** ‘st.1’ and ‘st.2’ are Kontakt’s output channels.*

DAW’s mixer

Insert an amp simulator to each DAW's channels from Kontakt. After being processed with an amp simulator, the st.1 needs to be panned to the Left, and the st.2* needs to be panned to the Right.

** ‘aux 1’ if you use Kontakt 3 or later*

SC SPM All String MIDI controllers

MIDI CC# 44	**instrument select key switch** (MIDI note number)
MIDI CC# 45	**instrument select select mode** 0: consecutive mode (All the key switches for all the instruments in the multi can be set at once) 1 – 13: separate mode 1: single note realtime legato slide 2: single note realtime hammer-on & pull-off 3: single note no legato 4: single note repetition 5: single note tremolo 6: single note trill (whole tone) 7: single note trill (semi tone) 8: 5th-dyad chord realtime legato slide 9: 5th-dyad chord repetition 10: 4th-dyad chord realtime legato slide 11: 4th-dyad chord repetition 12: Octave-dyad realtime legato slide 13: Octave-dyad repetition
MIDI CC# 46	**history clear key switch** (MIDI note number)
MIDI CC# 47	**history (for auto string / fret select) ON / OFF** 0 - 63: ON / 64 - 127: OFF
MIDI CC# 48	**mute mode** 0 - 63: modulation wheel (MIDI CC# 1) / 64 - 127: velocity
MIDI CC# 49	**picking noise MIDI CC#1 (mod wheel) threshold level**
MIDI CC# 50	**mute MIDI CC#1 (mod wheel) threshold level**
MIDI CC# 51	**mute velocity threshold level**
MIDI CC# 52	**string select key switch** (MIDI note number for the lowest string select key switch)
MIDI CC# 53	**string select** (by MIDI CC values) 1 - 21: string 6 23 - 43: string 5 44 - 65: string 4 66 - 87: string 3 88 - 99: string 2 100 - 127: string 1
MIDI CC# 54	**auto sustain ON / OFF** 0 - 63: ON / 64 - 127: OFF
MIDI CC# 55	**high velocity threshold level**
MIDI CC# 57	**auto alternation (auto stroke detection) resolution** 0 - 25: 8th 26 - 50: 8th triplet 51 - 75: 16th 76 - 100: 16th triplet 101 - 127: 32nd
MIDI CC# 58	**auto alternation (auto stroke detection) mode** 0 - 31: auto 32 - 63: forced 64 - 95: down only 96 - 127: up only

MIDI CC# 59	**tone control (neck pick-up)**	
MIDI CC# 60	**tone control (middle pick-up)**	
MIDI CC# 61	**tone control (bridge pick-up)**	
MIDI CC# 62	**release time adjust**	
MIDI CC# 86	**feedback pitch (semitone)**	
MIDI CC# 87	**feedback fade out time (ms) for Main Instruments**	
MIDI CC# 88	**feedback fade in time (ms) for Feedback Instrument**	
MIDI CC# 89	**feedback cancellation time (ms)**	
MIDI CC# 90	**feedback switch ON / OFF**	
MIDI CC# 105	**tone control MIDI CC # select** 0 - 42: Tone control MIDI CC # = 59 43 - 85: Tone control MIDI CC # = 60 86 - 127: Tone control MIDI CC # = 61	
MIDI CC# 106	**pickup select key switch** Send the MIDI note number you would like to use for the first Pickup Select key switch (= neck position) through MIDI CC# 106, and five consecutive numbers are assigned to the number boxes automatically.	
MIDI CC# 109	**volume of the pickup when the neck position is active**	
MIDI CC# 110	**volume of the pickup when the neck-middle position is active**	
MIDI CC# 111	**volume of the pickup when the middle position is active**	
MIDI CC# 112	**volume of the pickup when the bridge-middle position is active**	
MIDI CC# 113	**volume of the pickup when the bridge position is active**	
MIDI CC# 114	**drop key switch mode ON / OFF** 0 - 63: ON / 64 - 127: OFF	
MIDI CC# 115	**Hold Key 1**	0: All OFF 1: Picking noise - ON 2: Pick stop noise - ON 3: Finger release noise - ON 4: Picking noise + Pick stop noise - ON 5: Picking noise + Finger release noise - ON 6: Pick stop + Finger release noise - ON 7: All ON
MIDI CC# 116	**Hold Key 2**	
MIDI CC# 117	**Stop Key 1**	
MIDI CC# 118	**Stop Key 2**	

SC Electric Guitar SPM All String

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