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## Introduction

Thank you for purchasing **JB-145 Archtop Guitar** by Straight Ahead Samples, an advanced virtual instrument offering composers, producers and arrangers extremely realistic sounds of a jazz archtop guitar made for Kontakt 6.71 or higher.

The JB-145 features Straight Ahead Samples proprietary technology called “Smart Delay” which has additional functionality beyond a conventional sample library. The JB-145 was designed with Smart Delay 2.0 which has an optional audio plugin included called “Smart Delay Offset.”

### Quick Start - Smart Delay 2.0 w/Plugin

**Recording** = Smart Delay **OFF** & Offset Plugin **ON** or **OFF**

**Playback** = Smart Delay **ON** & Offset Plugin **ON**

**Punching in** = Smart Delay **OFF** & Offset Plugin **OFF**  
(overlapping recording or inserting with prerecorded material on that track)

*Note: There is no need to move midi regions as in Smart Delay 1.0, unless you have loaded the “4 beat” version of the JB-145. Currently - Pro Tools requires the 4 beat version. AAX is in development contact Straight Ahead Samples for updates on Availability.*

**Depress Sustain Pedal to play chords, release to play single note lines. Or select one mode to use exclusively and do not use the sustain pedal.**

For any technical support questions, go to our website's contact area.  
[straightaheadsamples.com](http://straightaheadsamples.com)

# Key Features

- Classic Archtop tones guitar performed by a seasoned jazz player.
- The New Standard method of sampling. Over 2,000 samples per note for a level of detail and realism never before possible. Goes beyond simple round-robins and legato transitions to a truly unprecedented number of note variations.
- “Smart Delay” 2.0 analyzes dozens of details about the played phrase and intelligently selects the appropriate samples and generates a humanlike performance.
- New fret position selector with auto mode
- Microphone and direct/amp signals available that can be blended together for a range of sounds
- Chord and monophonic playing
- Realistic Chords and Auto-Strum speed
- Virtual amplifiers and effects

## Installation

**The JB-145 requires** that you own and have installed Kontakt version 6.71 or later by Native Instruments. It does not run on the “Free Kontakt Player.”

1. After ensuring that you have Kontakt installed, download Pulse from [www.pulsedownloader.com](http://www.pulsedownloader.com) (or if you already have Pulse, open the app on your computer). This is a free application used to download and install sample libraries.
2. Create an account or login in Pulse.
3. Click "Add a Product" in the upper right Pulse, and enter the redemption key you received in your delivery email. The product will be added to your Pulse library.
4. Then Click “Install” and choose your location on your computer or storage drives to install the product. Ensure you have a least 4.5 GB available.

Further authorization in other apps or website is not required.

5. Navigate to the place on your computer storage where you downloaded it. Look for the folder named “JB-145 Archtop Guitar.” Open that and the folder inside named “JB-145.” Open the .zip file “SmartDelayOffset” Mac users open the .pkg. Windows- open the .exe, follow the prompts to install.

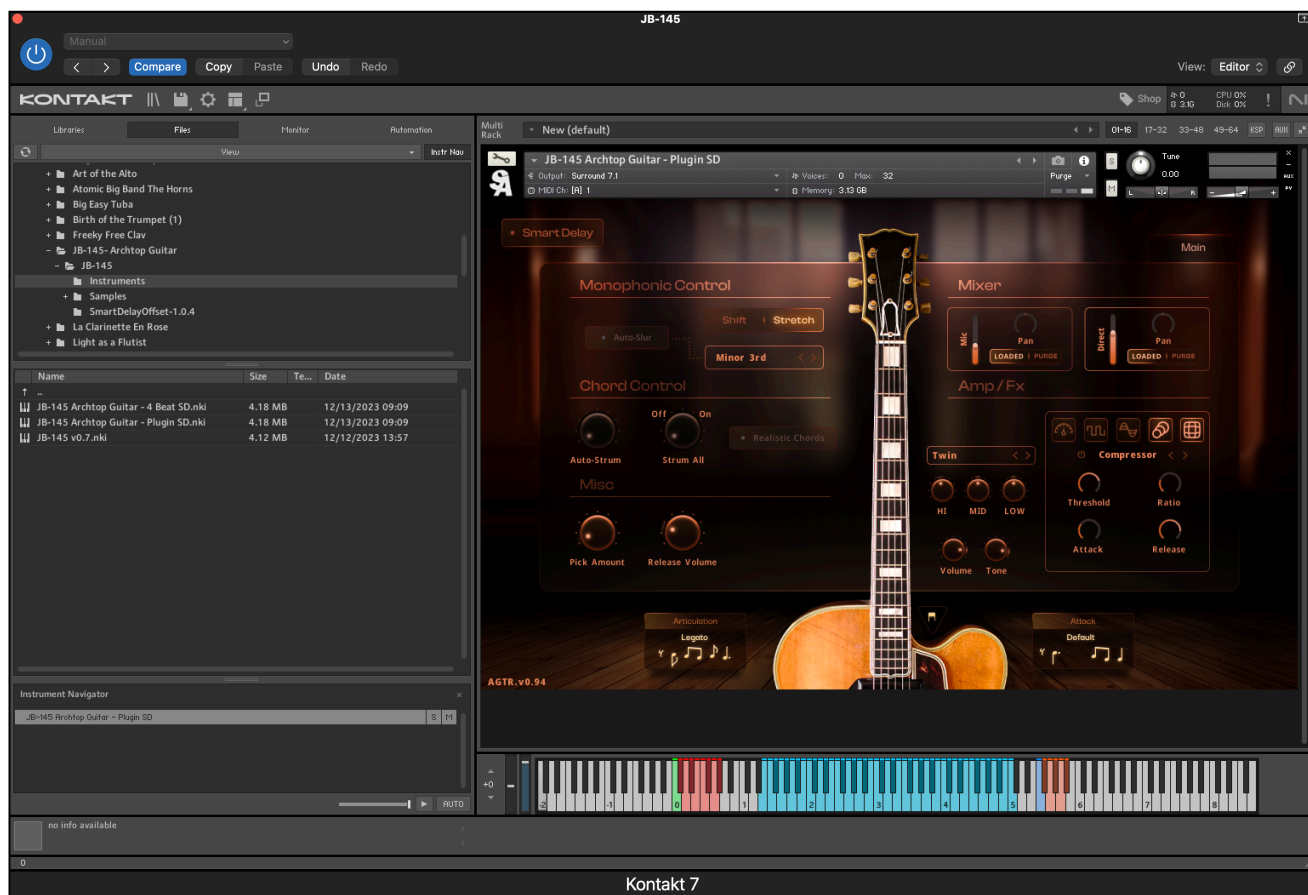
# Loading

In your preferred DAW create a software instrument track and select “Kontakt.” This library will not initially be displayed in the “Libraries” section. Native Instruments does provide instructions for adding libraries of this type to the Libraries section if desired. Inside the Kontakt window navigate to the “Files” section or the section that looks like a floppy disk in Kontakt 7 and select “load” from the drop down.

Find and open the folder where you installed it from Pulse labeled “JB-145 Archtop Guitar”.

Then open the next folder - “JB-145” -> “Instruments “ Double-click, drag in to the main window, or otherwise open the .nki file of your choice.

Decide whether you will use the “4 Beat SD” version or the “Plugin SD” version. Both versions have the exact same features and sound. The only difference is how you would prefer to account for the Smart Delay.



The 4 Beat version does not require a plug-in, rather it requires moving the MIDI region when Smart Delay is engaged and may be preferred in some contexts with other Smart

Delay 1.0 instruments or in Pro Tools. Details described elsewhere in this manual. The Plugin version requires that you also insert the “Smart Delay Offset” plugin on the same track when and if using Smart Delay. Consult your DAW instructions on how to insert affects or plugins if needed.

## Interface and Settings

There are two pages- Main and Advanced.

### Main Page:



**Smart Delay-** Toggles Smart Delay on/off

**Mode:** Mono or Chord

*This is toggled with a mouse click and/or the sustain pedal/midi cc 64*

**Mono** mode is only for one note-at-a-time melodies and musical lines. It will allow full access to the entire range across all strings, but more than one note cannot be played the same time. Engaging this mode will allow for advanced legato and other phrasing details.

**Chord** mode is a polyphonic setting that allows for multiple notes and strings to be played at the same time.

**Chords** Chord mode (described above) must be engaged to use this feature. If so, this allows the choice between the sound of a pick or fingers with the strumming hand. This can be automated with midi CC#20 by default, or right click and select “Learn MID CC automation” and then turn a knob on your controller you wish to use instead.

**Position** sets the fretting hand position. The numbers are the fret number at which the index finger of the fretting hand plays. Select from 0-12 to Auto (slanted line, activated by sliding past 12 to the right.) The lower the number, the further towards the head stock the hand; the high the number, the further towards the body. The guitar allows for the same note to be played in different positions on different strings. The tone of the guitar varies significantly depending on

where the note is fretted. If a note is played that is outside the selected position, the closest option will be played.

Auto (default) position intelligently and evenly moves the fretting hand up and down

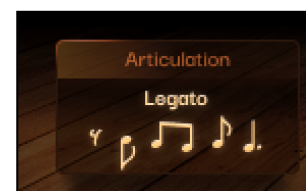
the neck automatically for the most common positioning of that note in a jazz style.

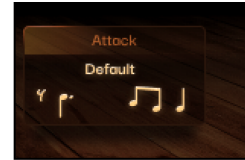
However, setting this to a fixed position temporarily may be useful in some circumstances for a specific tone or when auto-slur is enabled, see Auto-Slur feature.

This can be automated with midi CC#21 by default, or right click and select “Learn MID CC automation” and then turn a knob on your controller you wish to assign instead.

**Articulation** displays the active articulation which is selected with the keyswitches listed in the Key Layout section of this manual. Articulations are the stylistic way in which a note is attacked, held or otherwise manipulated. Play or write in the desired key switch note immediately before the note or phrase to which it is to be applied. Detailed listing is below.

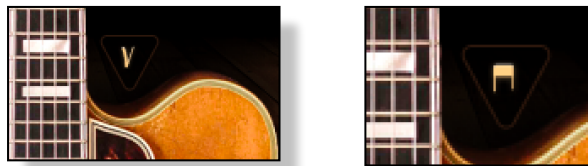
Articulations stay in effect until another articulation is set.





**Attack** is similar to articulation but with additional options. Some can be combined with articulations. Attacks are only in affect while the keyswitch is held down. All fall back to default after release. Detailed listing below in the Key Layout section of this manual

The symbols show below display whether down (left) or up (right) pick/pluck is active. This is automatic be can be overridden with the Attack keyswitches.



## Advanced Page:



**Smart Delay-** Toggles Smart Delay on/off

**Monophonic Control:** only takes affect when in Mono Mode.

**Auto-Slur** on/off - only takes affect when Mono Mode and Smart Delay is on. This will add hammer-ons, pull-offs and other types of human like slurs a jazz guitarist



would likely perform if playing that phrase. If a slur is performed that is not desired, it can be overridden by implementing the desired articulation or attack key switch before that note. note: If position (main panel) is set to auto you may here an occasional slur-like position change. If this not desired, turn off auto position or temporarily change to a set position.

Interval selector under auto-slur. Sets the maximum interval up or down to which a slur may be applied. Half-Step to Major 3rd



**Shift | Stretch** -When a note is played that is out of range of the current position “Shift will simulate the player stretching their hand to reach the note

**Chord Control** only takes affect when in Chord Mode and Smart Delay is on.

**Realistic Chords** is available when in Chord Mode and Smart Delay is on. Turning on allows for the below settings to take affect and also limits the number of notes that can be played to 6. If playing more than 6 notes or playing a chord voicing that is not actually possible on guitar, some notes will automatically be omitted, if these notes must be included, either turn off realistic chords, or try moving one of the inner notes up or down and octave.

**Auto-Strum** - sets the speed at which the pick travels across the strings in a strum. Turning it “up” gives the chord a slower strum and down is faster. Notes can start at the same time or very close to the same time in the midi editor and auto-strum will order them from bottom to top for a down strum, or top to bottom on an up strum (selected with the attack key switch)

**Strum-All** Turning on will create a strum on every note or chord across all the strings muting the ones not in use. While off a strum will start on the lowest note and end on the lowest note adding muted strings only between.

note: if Realistic chords is not performing as expected, be sure the speed is not set too slowly for the tempo and that Chord mode is on in the main page.

## Misc

**Pick Amount** is takes affect in Real-Time Mode. It sets the amount of the pick sound that is heard before the pitch, Turning up will give more pick sound but will delay the perceived attack. Smart Delay will automatically include the full sound of the pick before the start of the note and no delay is perceived.

**Release Volume** sets the level of finger and string noise heard when a note is released (ends)

## Mixer

**Mic** sets the volume of the microphone on the guitar itself (acoustically) no amp

**Direct** sets the volume of the microphone on the amplifier or the level of the signal from the instrument cable when No Amp is selected.

**Pan** moves the sound in the stereo image from Left to Right.

**Loaded** - The samples for that microphone are loaded in CPU RAM and ready

**Purge** - Drops the samples from the CPU RAM and disengages their use.

**Twin, Roland JC, AC30, Bassman, UK 0s 4x10, Bass 4x10, Leslie, No Amp** - These are the options for the type of amplifier used.

**HI MID LOW** These are the EQ knobs and settings for the ampler.

**VOLUME TONE** These are the knobs on the guitar itself that set the volume and tone setting that comes from the pickup (before it feeds the amp)

The effects section is displayed with various graphics as on/off buttons for each type of effect. When illuminated the effect is on. Common controls for each type of effect are available. If explanation is needed for these controls a quick internet search will yield thorough explanations of each.

Compressor - Overdrive - Chorus - Delay - Reverb (left to right)





**VIBRATO** - The Modwheel (Modulation cc1) adds Vibrato when above 0.

## Keyswitch List

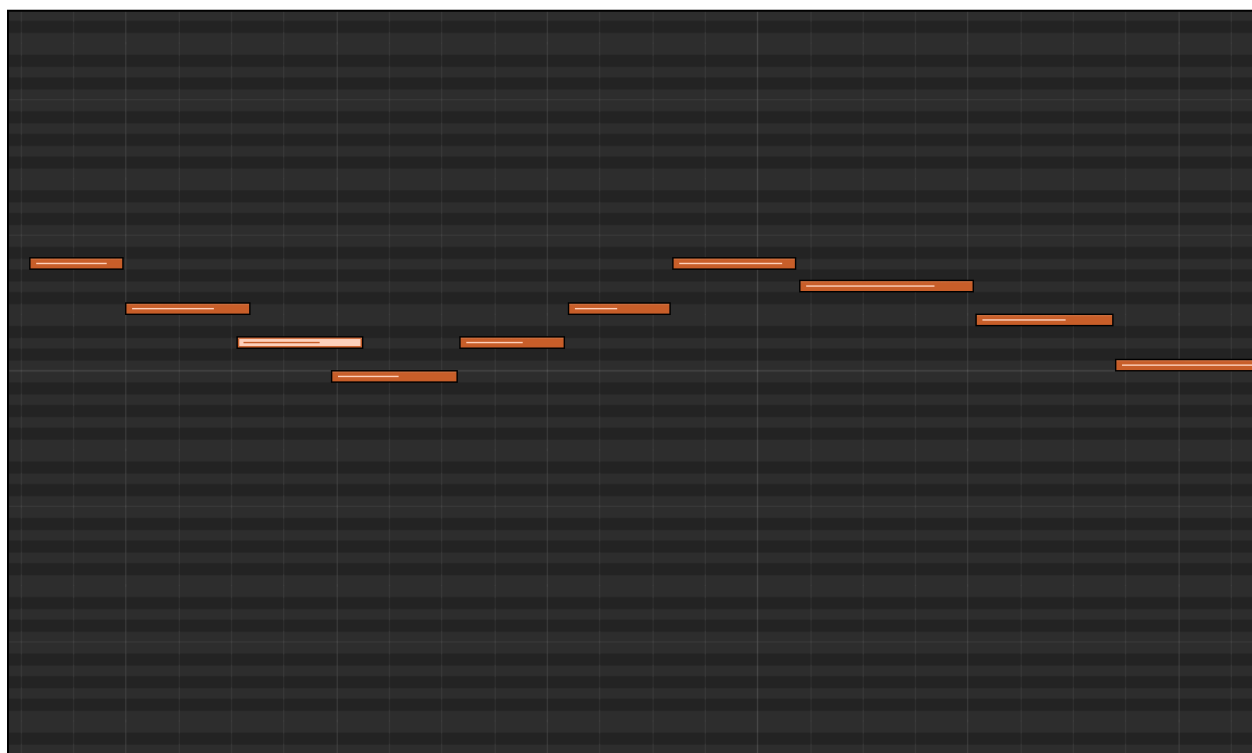
**Articulation** keyswitches need only be placed before the desired note and then all following notes will be played with that articulation, the length of the keyswitch is irrelevant.

Keyswitch	Articulation	More Info
C0	<b>Legato</b>	Main Articulation
C#0	<b>Staccato</b>	Short notes
D0	<b>Staccatissimo</b>	Very Short Notes
D#0	<b>Palm -muted</b>	The strumming hand rests on the strings while playing.
E0	<b>LH-Muted</b>	The fretting hand mutes the string by not fully depressing the note
F0	Harmonics	plays a harmonic up one octave
F#0	Falls	The note is pluck the the greeting finger slides lower before being released
G0	Scoop	The note is pluck the the greeting finger slides higher before being released
G#0	Doit	The note is pluck the the greeting finger slides higher before being released

**Attack** keyswitches must begin and overlap the note they are to affect and should be sustained for as long as that attack type is desired on subsequent notes. Releasing will return to the default.

\*The Attacks in *Italics* will only take affect with the *Legato Articulation*. The Attacks **bold** will work with the Bold Articulations. Default in Bold and Italic will work with all.

Keyswitch	Attack	More Info
F5	Default	Main Articulation
F#5	<b>Down</b>	forces a downward pick
G5	<b>Up</b>	forces an upward pick
G#5	<i>Hammer/Pull</i>	place between two overlapping notes to forces an unpicked note
A5	<i>Slide</i>	place between two overlapping notes for a quick up or down slide between them up
A#5	<i>Slide to Pick</i>	place between two overlapping notes for a quick up or down slide between them up with target target note repacked



For proper legato phrasing the single notes must abut one another or slightly overlap.

Repeated notes should only abut and not overlap.

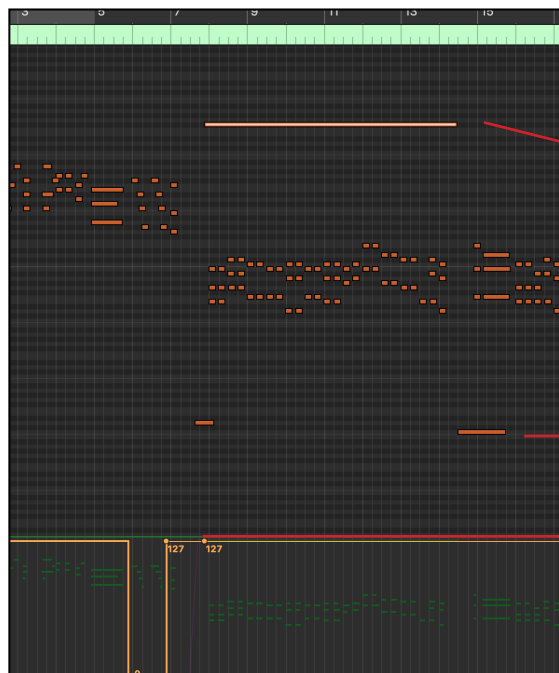
# Key Layout

The key layout is divided into 3 main areas:

1. **Articulation Keyswitches (Red)** Below the playing range is where one selects which articulation is currently active. The once engaged that key will turn **Green**.
2. **Playing Range Keys (Blue)** - The middle of the keyboard represents the playing range of the saxophone.
3. **Attack Keyswitches (Red)** Above the playing range is where one selects which attack is currently active. The one engaged that key will turn **Blue**.
4. **Smart Delay Keyswitch C6-** Changes between Real-Time and Smart Delay modes.



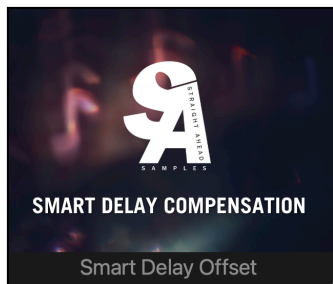
## Assigning Articulations and Attacks



# Working with Smart Delay 2.0 and the Offset Plugin

The JB-145 will initially load with Smart Delay off, which is referred to as “Real time” mode. This mode works the same as any other MIDI instrument. Simply play, record and playback with no delay compensation needed or smart processing. However, not all features will be available and this will not utilize the power processing and performance ability built-in to the JB-145 that makes it unique. If you want to hear on playback exactly the same as you heard while recording, you can leave it in this mode.

## Using Smart Delay 2.0 Plugin Version "JB-145 Archtop Guitar Plugin SD.nki"



Apply the Smart Delay Offset Plugin to your channel strip, it may appear in the “other category” for or Audio Units -> Straight Ahead Samples folder. The exact location where your DAW stores it may vary. The plugin does not have any controls itself, other than the general setting of being on or off (bypassed) which is control with your DAW.

- When Recording Toggle Smart Delay off , the Offset Plugin can be ON or OFF
- When Playback & Editing Toggle Smart Delay on keep Offset Plugin on.
- When Punching in (overlapping recording or inserting with prerecorded material on that track) turn Smart Delay off and the Offset Plugin off.

*Note: In most cases it may be considered best practice to record all of the musical material before engaging Smart Delay. But is expected that more material may be wished to be recorded at any point. In the event you need to “punch in” a phrase (between other phrases or shortly before/after) It may be necessary to also bypass the plugin while Smart Delay is off so that the pre-recorded material is not out of sync. This is not necessary if the passage played during recording does not have any preexisting material on that track to playback. When the transport (playback/recording) is stopped, the Smart Delay will allow you to play in Real-time mode without a Delay. During playback the musical phrases will be rendered to generate a human-like performance. There is no need to move the midi region like as in Smart Delay 1.0. However you should start the playback about 1 second before the desired position or the first part of the musical phrase may not be heard.*

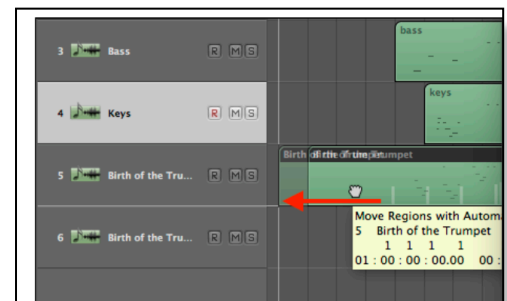
# Working with Smart Delay 1.0 the 4 Beat Version

The JB-145 will initially load with Smart Delay off, which is referred to as “Real time” mode. This mode works the same as any other MIDI instrument. Simply play, record and playback with no delay compensation needed or smart processing. However, not all features will be available and this will not utilize the power processing and performance ability built-in to the JB-145 that makes it unique. If you want to hear on playback exactly the same as you heard while recording, you can leave it in this mode.

## Using Smart Delay 1.0 version "JB-145 Archtop Guitar 4 Beat SD.nki"

This version may be preferred for in some uses where synchronization with other tracks in not required, no plugin is desired, or to have an aligned workflow with other Smart Delay 1.0 instruments. Also currently for Pro Tools users (AAX plugin currently in development)

- When Recoding Toggle Smart Delay off .  
Use Real-Time mode to compose your piece and play in your phrases.
- Before Smart Delay is turned on-  
Consolidate or merge any non contiguous midi regions. Enable the “snap to grid” feature to bars in your DAW.
- Move the MIDI region 4 beats to the left.
- You can continue to add articulations or edit the midi roll as needed. Just being aware that it will play everything 4 beats later.



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