

WarpIV Electric Bass and Guitar Users Guide

Overview

First, thank you for purchasing the WarpIV Electric Bass and/or Guitar sample libraries that were designed to work with the Kontakt 5 player. These ultra-high-end libraries do not work with the free Kontakt player. You must own the full Kontakt 5 player.

All electric guitar samples were recorded using a Paul Reed Smith Custom 22 electric guitar. All electric bass samples were recorded with an Ernie Ball Music Man StingRay 5. The recordings were performed using standard middle pickup positions with a direct line feed into the audio interface. So, to obtain a realistic sound, especially for the guitar, you will want to use an amp effects plugin such as Native Instrument's Guitar Rig. Or if you want a cleaner sound, you might consider using one of the built-in guitar cabinets that are natively provided with the Kontakt player.



Figure 1: Paul Reed Smith Custom 22 electric guitar (left) and Ernie Ball Music Man StingRay 5 (right).

What makes these libraries unique is their myriad of articulations, releases, and legato transitions between notes that are available using a primary set of articulation groups, each with a secondary set of key switch banks. Virtually every possible electric bass and guitar articulation that could be played by live performers is supported. To provide realistic sound quality and ease of use, every note for each articulation was individually sampled on the string that would most likely be used by an actual performer. These libraries were designed to support both (1) live playing with pitch bend, mod-wheel control of vibrato, automated releases, and realistic note transitions, and (2) composing with manual note entry and/or precise editing of individual notes using the full set of key switched articulations and features.

While providing an almost overwhelming number of articulations and effects, these libraries were designed to be extremely easy to use, fast in terms of performance, extremely reliable, and remarkably light on memory consumption. The electric guitar library contains a total of 9,099 carefully recorded and hand edited samples that were captured at mono in 48 KHz and 24-bit resolutions. The electric bass library contains a total of 8,237 samples, also captured at mono in 48 KHz and 24-bit resolutions. The electric guitar library requires approximately 5 GB of disk space for installation, while the electric bass library requires approximately 4 GB of disk space. The bass library uses

approximately 445 MB of RAM, while the guitar library uses approximately 420 MB to load into Kontakt.

Both libraries essentially contain the same set of articulations and key switches, which makes it very easy to copy tracks from one instrument to another and have them play correctly. As shown in Table 1, a staggering 110 articulations are provided in these libraries, represented by approximately 205 articulation groups for the bass and 185 for the guitar (when separately counting multiple dynamics, round robin multi-samples, and an assortment of slide intervals). Needless to say, these libraries are extremely capable of accurately reproducing realistic bass and guitar tracks.

Table 1: Articulations and their group counts.

<u>Articulation</u>	<u>Number of Banks</u>	<u>Bass Groups</u>	<u>Guitar Groups</u>
Sustain	5	8	9
Hammer/Pull	1	2	2
Legato Slide	2	28	26
Legato Pick	2	28	26
Short	5	29	21
Mute	2	16	8
Grace	8	8	8
Slap Grace	8	8	8
Slide Attacks	8	8	8
Mordents	10	10	10
Bends	12	4	12
Unison Bends	4	2	4
Diads	8	8	8
Slide Mordents	8	8	8
Slide Endings	6	6	6
Trills/Tremolo	6	6	6
Harmonics	6	17	6
Release	9	9	9
Totals	110	205	185

License Agreement

Please read the license agreement that is contained in the Documents directory of each library before installing this library. This library is unprotected, which allows WarpIV to maintain reasonable prices to its customers. It also makes it easy for you to install this library on multiple machines. We ask you to honor the agreement and not redistribute or sell this library to anyone else. You are also not permitted to reuse and/or distribute our raw samples in other sample-related commercial products. Other than that, you have unrestricted use of this library to produce your own musical compositions.

Installation from USB Memory Stick

All you have to do to install the WarpIV Electric Bass and Guitar libraries from a USB memory stick is drag the WarpIV Electric Bass and/or WarpIV Electric Guitar folder to your hard drive. The library is then ready to be used.

Installation from FTP Download

Installing the WarpIV Electric Bass and Guitar libraries from FTP download links is straightforward on both Mac and Windows platforms. After purchasing the library, you will be sent an email containing the ftp link, which you will copy into your browser. Download all of the files that appear. After downloading, simply move the WarpIVElectricBassGuitar.zip and/or WarpIVElectricGuitar.zip files to any directory you desire and then double click those files to unzip their contents. This will create new directories named WarpIV Electric Bass Guitar and/or WarpIV Electric Guitar. These directories contain everything necessary except for one thing, the actual Native Kontakt Instrument (NKI) files that you will load into the Kontakt player when using the libraries. These NKI files, named ElectricBass.nki and ElectricGuitar.nki, are individualized for your use only and will be emailed to you upon purchase with your FTP download links. When you receive these files, it is best to save them (after unzipping the downloaded files) in the Instruments directory under Kontakt shown below.

- WarpIV Electric Bass/Kontakt/Instruments/ElectricBass.nki
- WarpIV Electric Guitar/Kontakt/Instruments/ElectricGuitar.nki

The library is then ready to be used.

Loading Instruments

The WarpIV Electric Bass and Guitar directories created from zip files contain the following subdirectories:

- Demos
- Documentation
- Kontakt
- Samples

The *Demos* directory provides various mp3 demos. The *Documentation* directory contains this users guide and other documents such as the license agreement. Make sure you understand and agree to the basic terms of the license agreement before using the library. The *Kontakt* directory contains the Instrument and Resource directories that provide the files used by the Kontakt player. Finally, the *Samples* directory contains all of the actual wav file samples.

There are two ways to load an instrument into Kontakt. The first way is to navigate using the Browser in Kontakt to select the instrument (see Figure 2). The second way is to

drag and drop the instrument into Kontakt directly from a window on your desktop. If Kontakt cannot find samples when loading an instrument or patch, simply direct it to the Samples directory. Resaving the instrument will prevent this from happening again.



Figure 2: Loading an instrument (ElectricBass) into Kontakt from the Browser panel. Notice that the Browser is activated in Kontakt by clicking on the Browse icon (upper left) in Kontakt. Select the Files tab and then navigate to view directory structures and various files that are stored on your machine.

Controls

The graphical electric bass and guitar *Instrument* interface is very easy to use. Most of the time, you will just use the default settings. However, each control is very easy to set. Two interface tabs are provided at the bottom left corner of the instrument interface: (1) Instrument and (2) Help. The Instrument tab (shown in Figure 2) provides the primary interface to the instrument. Clicking the Help tab (shown in Figure 3) provides help on all of the primary features of the library. Various topics (KeySwitch, Release Trigger, Legato,

Voice Shifting, Pickup Position, Mod/Bend Control, and General Info) are selected from the combo box above the WarpIV logo for assistance.



Figure 3: Accessing help.

The first Instrument control is the *KeySwitch* combo box. Clicking this box shows all of the primary key switched articulation groups that are provided by the library. A variety of articulations within each group can be selected from the *Bank* combo box that is right below it (see Figure 4). The set of bank articulations changes when you choose a different key switch. To maximize performance, the *KeySwitch* and *Bank* combo boxes do not reflect key switches that are set during live performances or playback.

For auditioning the sound of a particular articulation, you can select the primary articulation group from the *KeySwitch* list and then select the actual articulation within its *Bank* using the combo box that is right below it. This articulation selection is temporary because when you actually play key switches in your musical composition, they override graphical interface settings. Banks are always represented as a second note in half step increments above the primary key switch. So, for example the Sustain articulation group

has five articulations in its bank. Pressing the C-2 key (lowest note on a full 88-note keyboards) enables the standard *Finger* articulation for the bass. Simultaneously pressing C-2 and C#-2 enables the *Vib* articulation. In the same manner, simultaneously pressing C-2 and D-2 enables *WideVib*, C-2 and D#-2 enables *Pick*, and C-2 and E-2 enables *Slap*. Note that the electric guitar library reverses the Finger and Pick bank selection articulations because guitar is normally picked while bass is normally fingered.



Figure 4: KeySwitch (left) and Bank (right) combo boxes can be used to manually select articulations from the interface or as a reference that is used to look up articulation key switch and bank settings.

As you can see, there are so many articulations in the WarpIV Electric Bass and Guitar libraries that without having an articulation group and bank mechanism, you would quickly run out of key switches on the keyboard. With this two-key articulation-group/bank selection system, anything can be selected within about an octave and a half. Notice that the red keys on the Kontakt keyboard indicate the primary articulation groups, while the green keys indicate the extended key switch range to include banks.

Because some keyboards do not cover the full 88-key range, the WarpIV Electric Guitar library (not the bass) allows you to move the key switches up an octave using the *KeySwitch Range* combo box. If you do this, you will notice that the red and green keys move up an octave, just barely below the first playable note in the library.

The *Default Release* control allows you to select how sustained notes automatically end when no other notes immediately follow. Options are: none, normal, slide down, smooth slide down, slide up, slide up down, slide up down heavy, fret noise, pick slide, and thump. To avoid producing doubly released endings, automatic releases do not apply to short

notes, mutes, slide endings, and manually selected releases. You will probably want to select either none or normal releases most of the time.

The *Voice Shifting* control combines pitch shifting with note corrections in half step increments. So for example, voice shifting a half step up modifies the pitch of all samples to shift a half step higher, while the actual wav sample is chosen a half step lower to compensate. This allows you to play different samples when overlapping multiple electric guitars. This technique allows you to achieve a very convincing stereo bass or guitar effect from two standard instruments. Five voice shifting options are available ranging from a whole step below to a whole step above.

The *Pickup Position* control applies different EQ settings to mimic *Bridge* (brighter tone) or *Neck* (darker tone) pickup positions. The default setting is the *Middle* pickup position, which does not apply EQ during playback. The middle position provides a very clean, vibrant, and universal tone that fits most electric bass and guitar musical styles.

The *Legato* dial specifies the maximum time gap in microseconds between successive notes required for automatically triggering legato (a) hammer-on/pull-off, (b) slides, or (c) slide-pick articulations when selected by their key switches. If a time gap longer than the specified amount occurs between successive notes, a normal sustain articulation is used. Unlike some libraries, there is no need to overlap notes when triggering legato. This makes the WarpIV Electric Bass and Guitar libraries much easier to use, especially when playing live. The minimum time gap is 5,000 microseconds, which translates to 0.005 seconds.

The *Release* dial allows you to specify the relative velocity of default or triggered releases. Note that a value of 100% means that the release sample is played at the same velocity as the currently played note. Values less than 100% provide a more subtle and smoother sounding release. The Release dial does not affect manually selected release velocities (for the Bass, this is KeySwitch F-1) where you will want more control over how the release is played.

Pitch Bend and Mod Wheel

The pitch bend controller can be used to bend pitches up or down by as much as a whole tone. The mod wheel enables a slightly delayed vibrato that has been configured to combine a slight tremolo (loudness) with pitch bending at a realistic rate to produce a convincing sound. If necessary, pitch bend and mod wheel parameters can be directly changed in the Kontakt player. To keep things simple, the mod wheel only controls the amount of vibrato used.

Constructing Stereo Instruments

As shown in Figure 5, stereo bass and guitar instruments are easily constructed by (a) loading two identical instruments and then (b) applying the following settings.



Figure 5: Creating a stereo instrument.

1. Pan the top instrument hard left and then pan the bottom instrument hard right. The pan control is located right under the Tune knob in the instrument.
2. Modify the bottom instrument Voice Shifting to anything other than Natural. Probably the best choices are either Half Step Up or Half Step Down.
3. Make sure that the second instrument Midi Ch: setting is the same as the first instrument (i.e., set it to [A] 1) so that both instruments use the same MIDI input channel.

You should now hear two different guitar samples activated for every note played, creating a stereo guitar effect.

Example of a Track

Figure 6 illustrates how the electric bass and guitar libraries are typically used in musical compositions. The important thing to notice is the key switch and bank settings (i.e., when two non-musical notes on the lower part of the keyboard are played simultaneously), which are used to specify the articulation for the musical notes played in the upper part of the keyboard. The velocities are shown in the lower controller lane.

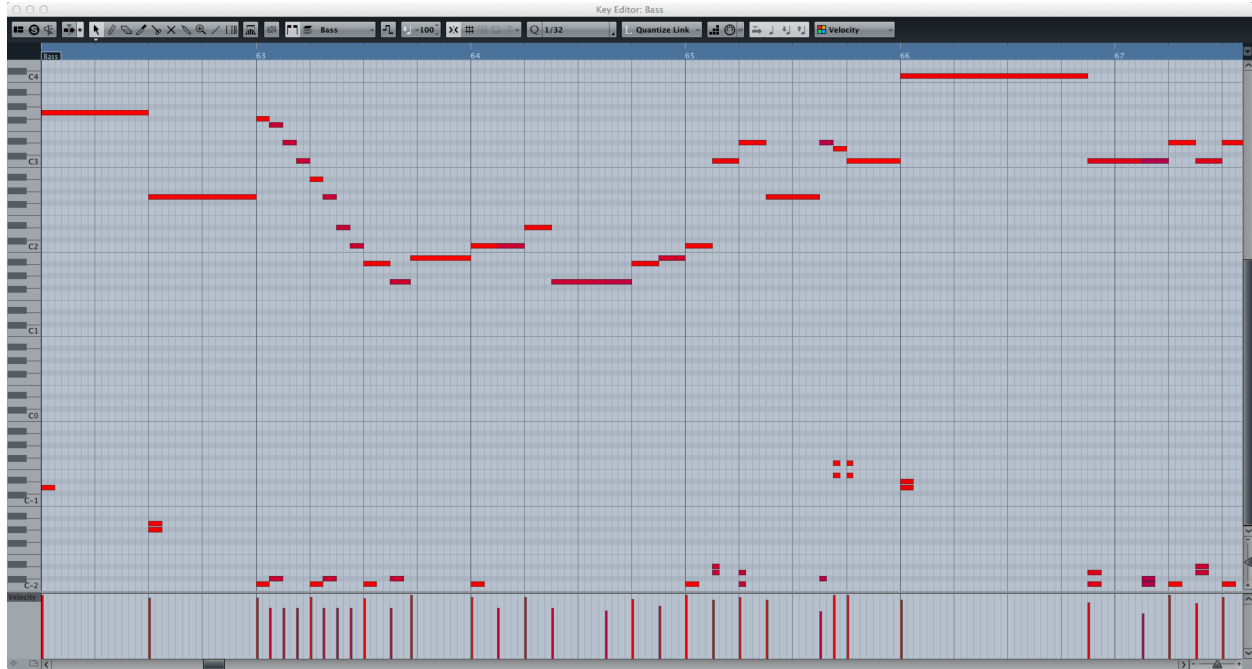


Figure 6: An example of an electric bass guitar track in Cubase.

Articulations

The extensive list of articulations provided by the WarpIV Electric Bass and Guitar libraries are summarized in Table 2. Remember, the articulations are selected by simultaneously playing the articulation group and bank key switches together. The first articulation in a group (i.e., bank 0) requires only playing the articulation group key switch.

Table 2: Articulation List.

F#-1	Auto Release	Bank 8 (D0) – thump Bank 7 (C#0) – pick slide Bank 6 (C0) – fret noise Bank 5 (B-1) – slide up down heavy Bank 4 (A#-1) – slide up down Bank 3 (A-1) – slide up Bank 2 (G#-1) – slide down smooth Bank 1 (G-1) – slide down Bank 0 (N/A) – normal
F-1	Manual Release	Bank 8 (C#0) – thump Bank 7 (C0) – pick slide Bank 6 (B-1) – fret noise

		Bank 5 (A#-1) – slide up down heavy Bank 4 (A-1) – slide up down Bank 3 (G#-1) – slide up Bank 2 (G-1) – slide down smooth Bank 1 (F#-1) – slide down Bank 0 (N/A) – normal
E-1	Harmonics	Bank 5 (A-1) – tap (guitar), tap8 (bass) Bank 4 (G#-1) – pinch vibrato C (guitar), tap5 (bass) Bank 3 (G-1) – pinch vibrato B (guitar), tap4 (bass) Bank 2 (F#-1) – pinch vibrato A (guitar), pinch (bass) Bank 1 (F-1) – pinch Bank 0 (N/A) – natural (guitar), natural 12-way round robin (bass)
D#-1	Trills	Bank 2 (G#-1) – fast tremolo Bank 1 (G-1) – fast half Bank 0 (F#-1) – fast whole Bank 2 (F-1) – tremolo Bank 1 (E-1) – half Bank 0 (N/A) – whole
D-1	Slide Endings	Bank 5 (G-1) – up down heavy Bank 4 (F#-1) – up down Bank 3 (F-1) – up Bank 2 (E-1) – down vibrato Bank 1 (D#-1) – down smooth Bank 0 (N/A) – down
C#-1	Slide Mordents	Bank 3 (G#-1) – fast down/up whole slide Bank 2 (G-1) – fast down/up half slide Bank 1 (F#-1) – fast up/down half slide Bank 0 (F-1) – fast up/down whole slide Bank 3 (E-1) – down/up whole slide Bank 2 (D#-1) – down/up half slide Bank 1 (D-1) – up/down half slide Bank 0 (N/A) – up/down whole slide
C-1	Diads	Bank 9 (A-1) – sixth Bank 8 (G#-1) – augmented Bank 7 (G-1) – fifth Bank 6 (F#-1) – diminished Bank 5 (F-1) – fourth Bank 4 (E-1) – third Bank 3 (D#-1) – minor third Bank 2 (D-1) – fifth Bank 1 (C#-1) – fourth Bank 0 (N/A) – octave
B-2	Unison Bends	Bank 1 (C-1) – fast up half vibrato (guitar), fast up half (bass) Bank 0 (N/A) – fast up half Bank 1 (C-1) – up half vibrato (guitar), up half (bass) Bank 0 (N/A) – up half
A#-2	Bends	Bank 5 (A-1) – fast up /down vibrato (guitar), fast up / down (bass) Bank 4 (G#-1) – fast up whole vibrato (guitar), fast up half (bass) Bank 3 (G-1) – fast up half vibrato (guitar), fast up half (bass) Bank 2 (F#-1) – fast up /down Bank 1 (F-1) – fast up whole (guitar), fast up half (bass) Bank 0 (E-1) – fast up half Bank 5 (D#-1) – up /down vibrato (guitar), up / down (bass) Bank 4 (D-1) – up whole vibrato (guitar), up half (bass) Bank 3 (C#-1) – up half vibrato (guitar), up half (bass) Bank 2 (C-1) – up /down Bank 1 (B-2) – up whole (guitar), up half (bass) Bank 0 (N/A) – up half
A-2	Mordents	Bank 4 (F#-1) – fast up/down chromatic hammer on, pull off Bank 3 (F-1) – fast down/up whole pull off, hammer on

		Bank 2 (E-1) – fast down/up half pull off, hammer on Bank 1 (D#-1) – fast up/down half hammer on, pull off Bank 0 (D-1) – fast up/down whole hammer on, pull off Bank 4 (C#-1) – up/down chromatic hammer on, pull off Bank 3 (C-1) – down/up whole pull off, hammer on Bank 2 (B-2) – down/up half pull off, hammer on Bank 1 (A#-2) – up/down half hammer on, pull off Bank 0 (N/A) – up/down whole hammer on, pull off
G#-2	Slide Attacks	Bank 7 (D#-1) – fast down whole slide Bank 6 (D-1) – fast down half slide Bank 5 (C#-1) – fast up half slide Bank 4 (C-1) – fast up whole slide Bank 3 (B-2) – down whole slide Bank 2 (A#-2) – down half slide Bank 1 (A-2) – up half slide Bank 0 (N/A) – up whole slide
G-2	Slap Grace	Bank 7 (D-1) – fast down whole slide Bank 6 (C#-1) – fast down half slide Bank 5 (C-1) – fast up half slide Bank 4 (B-2) – fast up whole slide Bank 3 (A#-2) – down whole slide Bank 2 (A-2) – down half slide Bank 1 (G#-2) – up half slide Bank 0 (N/A) – up whole slide
F#-2	Grace	Bank 7 (C#-1) – fast down whole pull off Bank 6 (C-1) – fast down half pull off Bank 5 (B-2) – fast up half hammer on Bank 4 (A#-2) – fast up whole hammer on Bank 3 (A-2) – down whole pull off Bank 2 (G#-2) – down half pull off Bank 1 (G-2) – up half hammer on Bank 0 (N/A) – up whole hammer on
F-2	Mute	Bank 1 (F#-2) – 4-way round robin at two dynamics (picked guitar, fingered for bass) Bank 0 (N/A) – 4-way round robin at two dynamics (picked for both guitar and bass)
E-2	Short	Bank 4 (G#-2) – chug up 4-way round robin Bank 3 (G-2) – chug down 4-way round robin Bank 2 (F#-2) – alternating chug up/down 4-way round robin Bank 1 (F-2) – vibrato Bank 0 (N/A) – 4-way round robin at three dynamics
D#-2	Legato Slide Pick	Bank 1 (E-2) – fast Bank 0 (N/A) – normal
D-2	Legato Slide	Bank 1 (D#-2) – fast Bank 0 (N/A) – normal
C#-2	Legato Hammer Pull	Bank 0 (N/A) – auto, hammer on going up, pull off going down
C-2	Sustains	Bank 3 (E-2) – slapped Bank 3 (D#-2) – finger (guitar) or picked (bass) Bank 2 (D-2) – wide vibrato Bank 1 (C#-2) – vibrato with two dynamic levels Bank 0 (N/A) – picked (guitar) or fingered (bass) with four dynamic levels

The three legato articulations work properly for solo note patterns only and not chords (where multiple notes are played simultaneously) because those modes determine what sample to play based on actual note transitions. Remember, there is no need to overlap notes to enable the automatic legato transitions as long as the gap between successive notes is shorter than what is selected on the Legato dial. You can always play chords whenever using a non-legato articulation.

The auto release articulation group automatically plays the selected note release type when the current note ends. This allows you to add a variety of release types to any articulation being played. If you want further control, you can actually select the manual release articulation group to play the release at the end of a note. That allows you to make fine edits to releases such as its note value, velocity, and duration. The pick slide release articulation provides a good example where you probably want to use the manual mode to select the best effect, control its velocity, and establish its duration.

Diads (two-note chords) provide a more realistic sound than simply playing two sustains simultaneously. The most common diads are fourths, fifths, and octaves, which are also called power chords. Diad key switches are easy to remember because the articulation group is C-1 and then the bank selection is just the second note of a C chord. So, a fourth power chord would be selected by playing the C-1 and an F-1. For convenience, the first three banks (default, C#-1, and D-1) play octave, fourth, and fifth power chords, which are commonly used.

WarpIV Contact Information

Please feel free to contact Jeff Steinman at WarpIV Music Production if you have any questions or issues working with the WarpIV Electric Bass and/or Guitar libraries. We will do our best to provide personal, prompt, and helpful service.

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