

# The Trombone v. 1.01

(For Kontakt 4)



## Important links

Technical support:

[www.native-instruments.de/support.info](http://www.native-instruments.de/support.info)

Demos, update and developers' infos:

[www.samplemodeling.com](http://www.samplemodeling.com)

Kontakt updates:

[www.nativeinstruments.com/kontaktplupgr.info](http://www.nativeinstruments.com/kontaktplupgr.info)

Kontakt Forum:

[www.nativeinstruments.com/kontaktplforum.info](http://www.nativeinstruments.com/kontaktplforum.info)

Developer's forum:

<http://www.samplemodeling.com/forum>

## Please note:

1. After installation (and proper authorisation) you may play The Trombone:
  - using the Kontakt Player 4 provided with this product.
  - loading the instrument in your Kontakt 4 sampler. (No access to the nki and script programming will be possible, though, since the instruments are locked).
2. All the MIDI note names refer to C3 as the middle C. This means: C3 is the MIDI note number 60.

## Content of the Trombone package:

The Trombone package includes four different instruments:

Two Tenor Trombones, range E1 – F4.

One Valve Trombone, range E1 – F4.

One Bass Trombone, range A#-1 – A#3.

## Quick start

This Manual explains briefly how to start playing The Trombone. This may be sufficient to get a first impression and gather some experience. However, this instrument offers a number of remarkable features which may not be readily apparent. Hence, we strongly recommend a thorough study of the main Manual. This will lead to optimal results much faster than any “trial & error” method.

### MOST IMPORTANT:

Like the real instrument, and differently from conventional sample libraries, The Trombone allows continuous transition across the dynamics (from ppp to fff), free from phasing artefacts. To accomplish this, a suitable continuous physical MIDI controller, such as an expression (CC11) or volume (CC7) pedal, a breath or a windcontroller (CC2) is absolutely necessary.

**Without this controller the instrument will not work**, displaying a warning.

Other physical MIDI controllers, like sliders, knobs or modwheel, though not recommended, can be used to this purpose.

## System requirements

**Computer.** The Trombone, like other Samplemodeling instruments (The Trumpet and the sax family) provides unprecedented realism and expressiveness. However, it’s a demanding software in terms of CPU load. A modern PC or Mac with a low latency audio hardware, MIDI or USB interface, and appropriate drivers using a buffer size of 256 to 512, are strongly recommended.

**Keyboard.** A five-octave midi keyboard, mappable from C1 to C6, with pitchwheel, modwheel, and an expression pedal or breath controller, or a programmable windcontroller, constitute the minimum requirements for real time playing. Keyboards with several mappable physical midi controllers are recommended for full exploitation of the expressiveness of the instrument.

**Sequencer.** If real time playing is not contemplated, using a sequencer may obviate the need for several physical midi controllers, while maintaining full control of the instrument’s expressiveness. “The Trombone” has been thoroughly tested under several sequencers, including Cubase, Ableton Live, Digital Performer, Logic and Sonar. Please refer to the main manual for useful tips for Logic and Sonar users.

## The drop down menu

All the main features can be accessed via the drop down Menu button in the right lower corner of the instrument GUI

Main view	
Vel. curve	
Controllers 1	external controls directly influencing the timbre in real time
Controllers 2	further sound controls
Controllers 3	advanced (pitch and time-related) settings
Mutes	
CC remapping 1	external controls directly influencing the timbre in real time
CC remapping 2	further sound controls
CC remapping 3	advanced (pitch and time-related) settings
Wind controller	
Breath controller	
Portamento time	
Transpose	

## The MIDI controllers and their function.

**CC11** Continuous controller for the dynamics of the note that is currently playing, from ppp to fff.

**Remember that the instrument cannot properly work if it does not receive CC11 values.**

**Velocity** On detached notes, controls the type and the intensity of the attack. On legato (overlapped notes), controls the transition time. Recommended velocities for “normal” legato are between 70 and 90. Very low velocities perform more glissando / portamento – like transitions.

**Modwheel (CC1)** vibrato intensity

**Pitch Bend (CC128)** pitch bending yielding perfectly realistic slide effects within the interval of augmented fourth (+/- 3 semitones), corresponding to the full stroke of the real trombone slide

CC11, Velocity, Modwheel and Pitch Bend are the most important parameters. Their skilful control is essential for a realistic performance. Other parameters are:

CC5	additional controller for portamento time ( <i>no fullstops!</i> )
CC19	vibrato rate
CC20	depth of the attack pitch-modulation
CC21	growl
CC22	on-transition flutter intensity
CC23	frullato (flutter tongue) intensity
CC24	dynamics-to-pitch modulation
CC25	velocity controlled accent 7 swell.
CC26	duration of the attack pitch-modulation (and of note-on keyswitches)
CC27	duration of the default release (and of note-off keyswitches)
CC28	random detune
CC29	early reflections intensity
CC100	MIDI-loadable mutes
CC129	Channel Aftertouch

**All the controllers are mapped to virtual knobs in three GUI panels, which can be activated by a drop down menu.**

**The virtual knobs allow monitoring the incoming midi data, but can also be used to directly control the instrument. This allows users of keyboards without physical MIDI controllers or knobs, to explore the expressive capabilities of The Trombone.**

**The Trombone recognizes channel aftertouch as CC129. Very interesting effects can be obtained by mapping Growl or Flutter Tongue to CC129. Please note that CC128 (Pitchbend) cannot be remapped nor used to control other parameters. If one tries to do so, the remapper will automatically switch to CC129.**

## Mutes

Choosing the “Mutes” menu enables another drop down menu (default: “None”), providing direct access to the most common mutes. Each mute can also be loaded via MIDI using CC100.

## Performance Keyswitches

A powerful tool enabling complex articulations difficult to perform with the usual interaction of the expression pedal, pitchbend and modwheel. There are 4 types of keyswitches (KS):

- “note-on” KS modulate the subsequent detached note (should be pressed beforehand).
- “on-the-fly” KS modulate on the currently played note by adding a particular effect.
- “on-release” KS modulate the release at note-off.
- “non modulating” (NM) KS are used for special articulations and phrasing (wah-wah, falls etc).

Keyswitch	Type	Description
C0	note-on	sforzato
C#0	note-on	fast crescendo (acts also on legato notes)
D0	note-on	upwards pitchbend
D#0	on-the fly	transient vibrato
E0	on-the fly	fading-out vibrato
F0	on-the fly	vibrato-like ending (long)
F#0	on-the fly	vibrato-like ending (short)
G0	release	longer release
G#0	release	vibrato-like release
A0	release	very short, modulated release
A#0	NM, note-on	wah – wah (controlled by CC11)
B0	NM, on-the-fly	fall
C1	NM, note-on	split portamento
D#1, F#4	-	“silent” keys

**Note:** The intensity of the particular effect / modulation depends on the velocity of the keyswitch.

**Note:** Different types of split portamento and falls can be obtained by simultaneously pressing C1 and C0 – F0 (split portamento) or C1 and F#0 – A#0 (doits & falls).

**Please note that these are not sampled articulations. Advanced AI techniques using an adaptive model allow for real-time reconstruction of the phrase.**

## Velocity Remapping

It is well known that midi keyboards have different and uneven velocity response, and this may heavily influence the performance of a virtual instrument. To obviate this problem, the instrument includes automatic detection of any velocity inhomogeneities or non-linearity emitted by the keyboard, and provides automatic remapping to any desired curve.

## Controller Remapping and Channel AfterTouch

The Trombone allows to remap all the controllers for maximum flexibility. In addition, channel aftertouch is recognized and mappable to virtually any controller.

### Windcontroller mode

Virtually any existing windcontroller can now be effectively used to play The Trombone.

WC mode automatically maps the Dynamics to CC2, assigns portamento time control to a separate controller (CC5), instead of velocity (mixed mode settings are also possible), and activates a “pitch sensitivity” knob to compensate for the different pressure-to-pitch response of the various WC brands.

### Breathcontroller mode

BC mode automatically maps the Dynamics to CC2. In addition, it's now the BC which actually triggers note-on & off when overcoming or going below a certain threshold. As with the real instrument, the pressed key only determines the note which will be played. The note-on velocity is related to the steepness of the initial CC2 curve, so that a quickly rising CC2 will trigger a stronger attack.

### Flexible Portamento Time control

As a default, the duration of portamento is determined by the velocity of the overlapped note. While this represents a very convenient approach to portamento control, there might be cases where linking portamento time to a separate controller is preferable. Portamento Time can be completely controlled by CC5. A mixed-mode behaviour is also possible, partially linking the duration of portamento to both velocity and CC5, allowing even greater flexibility and expressiveness.

### Transpose

A very convenient way of transposing incoming MIDI data. Consider, for example, that the Bass Trombone (with its range from A $\sharp$ -1 to A $\sharp$ 3, and the key switches from C-2 to C-1) needs to be transposed to access all its keys even on a 7-octave keyboard.

Unlike the transpose option of the Kontakt Player/Sampler, this knob transposes both the keys and the key switches.

