



SONALKSIS

Über Compressor



Operation Guide

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Introduction

This guide describes the features, operation and applications of the Sonalksis Über Compressor. For detailed installation instructions, please refer to the *Sonalksis Plug-in Manager User Guide*. You can read more about general features common to all Sonalksis plug-ins in the *Universal Plug-in User Guide*.



The Sonalksis Über Compressor

The Sonalksis Über Compressor is a dynamics processor unlike any other. Beneath its simple interface lies a radical analogue modelled compressor that can be pushed much further and harder than you ever imagined possible. In essence the Über Compressor is analogue compression taken to the extreme.

The Über Compressor uses Sonalksis proprietary 'State Space Analog' technology to model real analogue circuit elements, but it also takes advantage of the digital domain to extend analogue circuit designs far beyond their normal physical capabilities, enabling a level of creativity not normally associated with this type of processor. Subtlety is definitely not a feature of this compressor!

The Über Compressor can be used to simply bring lackluster sound back to life, or to mutate audio into apocalyptic soundscapes. A true Creative Element.

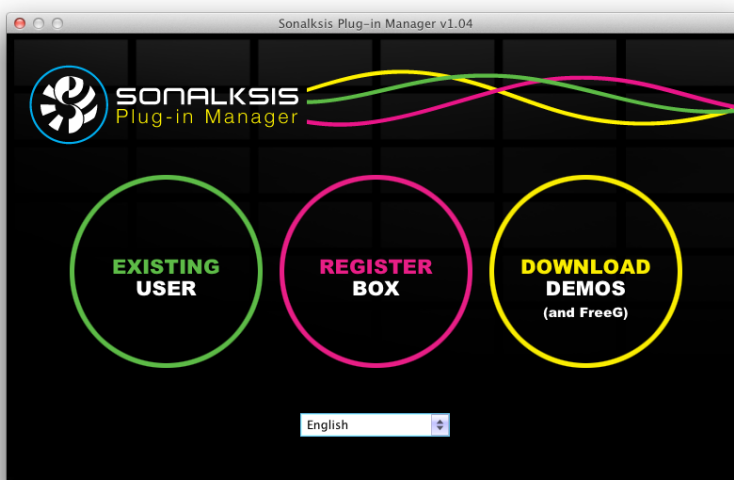
Like the other plug-ins in the Sonalksis Creative Elements range, the Über Compressor is efficient, intuitive and direct - and therefore very simple to use, providing great results with minimal effort.

Installation



All Sonalksis plug-ins are installed using the 'Plug-in Manager'. The Plug-in Manager simplifies the task of managing multiple Sonalksis plug-ins, and takes care of downloading, installing, authorising and updating your Sonalksis plug-ins.

Detailed instructions can be found in the *Plug-in Manger User Guide*.



Authorisation

If your computer is internet enabled, all license authorisation takes place automatically. When you install Sonalksis plug-ins, any plug-ins for which you have licenses will be authorised by the Plug-in Manager.

If your audio computer is not internet enabled, you must go to the 'Product Activation' section on the Sonalksis website in order to obtain an authorisation file. You will need the 'Activation Code' that is displayed when you run the Plug-in Manager on your offline system. You can then download your authorisation file which you simply need to drag-and-drop onto the Plug-In Manager window.

Unlicensed Sonalksis plug-ins will function for 14 days after installation without authorisation, after which the plug-ins will no longer process audio. After this period, you can still reactivate a plug-in by obtaining a valid license.

Operation

This section describes the functions of the Über Compressor. You can read more about general features common to all Sonalksis plug-ins in the *Universal Plug-in User Guide*.

Compression is one of the most commonly used effects in audio processing. Standard compressor designs aim to tame the dynamics of the audio signal while either being as transparent as possible, or adding subtle colouration that improves the character of the audio.

It should be understood from the outset however that the Über Compressor is not in any way a standard compressor. The Über Compressor uses the essence of dynamic compression and then takes the effect to absolute extremes, with the aim of enabling a wider range of creative uses for a process that may otherwise be overlooked as a purely practical effect.

The Über Compressor is a dynamics processor that can be turned to when creativity is required. The analogue modelled circuit design uses digital enhancements to enable more extreme processing that would be possible with real world circuit designs, while maintaining what is essentially a true analogue character. The Über Compressor extends the possibilities of creative dynamics processing.

The Über Compressor is based on the underlying principles of classic overcompressing analogue designs, and uses two attack and two release stages to achieve unique and highly characteristic curves. One feature of vintage analogue compressors is that they raise the noise floor, but in digital environments this noise floor is often too quiet to be audible. However the modelling methods used in the Über Compressor design mean that a 'true analogue noise' is intrinsic and can audibly add breath into your compression.

Another feature of the Über Compressor is an 'under the hood' transient designer that kicks in like a supercharger on an engine. While you could certainly use the Über Compressor at mild settings to keep a track safely under control, or even use it at moderate settings to invoke total audio destruction, reminiscent of favourite vintage over-compressors, it is the extreme settings (in particular the Fierce mode) which make the Über Compressor utterly unique. The sonic abominations that result from extreme usage of the Über Compressor just don't exist without it. At extreme settings, the Über Compressor doesn't just destroy dynamic range, it turns it inside-out!



The Compress dial is the primary control for the Über Compressor. At the full anticlockwise position, the depth of the compression effect is minimal. The full clockwise position applies maximal compression.

The indicator bar around the Compress dial displays the relative amount of gain reduction taking place. Note that due to internal automatic make-up-gain circuitry, this is not a true indication of input/output level differential, but a reference to the amount of 'effect' being applied.



The TIMING switch determines to a great extent the character of the compressor, as this setting controls the rate at which the compressor reacts to the audio signal. All four attack/release modes are fully adaptive, meaning that the actual timings will vary according to the characteristics of the audio signal. The Instant setting will apply extremely fast attack and release characteristics, while Pop and Slap generally have longer attack times, and Pump has longer release characteristics.



The Side-Chain BIAS switch selects one of four filter circuits controlling the input to the compressor gain reduction element. In simple terms this controls how much of an influence certain frequency characteristics of the input signal will have on the compression. This will have a more subtle effect on the character of the compression than the Timing parameter.

The Über Compressor has internal circuitry to automatically compensate for the large level discrepancies that occur due to the extreme amounts of compression taking place. However The OUTPUT knob may nevertheless be required to fine tune the output level, because signal level and 'perceived loudness' are two very different things. The CLIP indicator selects the threshold above which the integrated clipper-limited circuit activates. The clipper-limiter produces a tight, clip-like limiting effect, and is post-output-gain meaning that if CLIP is active then the output gain will not be able to push the signal level beyond the indicated clip level.



The FIERCE option enables the Über compression mode. When selected, any compression taking place will be extreme. The analogue circuits modelled in designing the Über Compressor have a natural element of noise, and given the extreme nature of the Über Compressor processing this noise can reach relatively high levels. The NOISE button gives users the option of disabling the naturally occurring true-analogue-noise colouration from the circuit modelling.

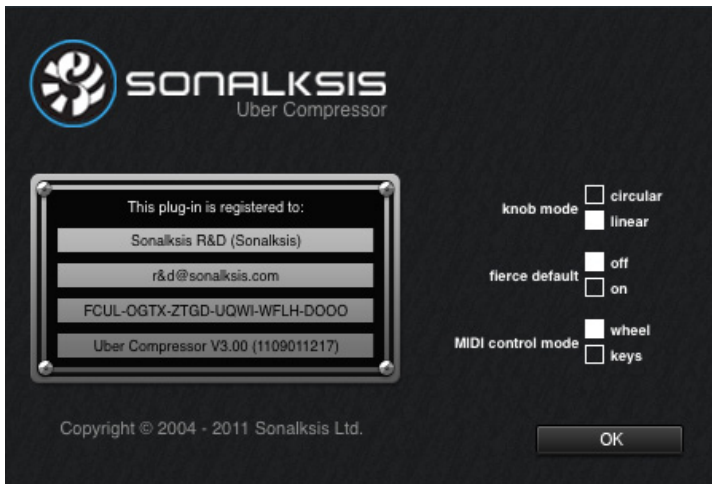


The INPUT Gain fader is used to change the level of the input signal. Under normal circumstances it should not be necessary to use the input fader to 'drive' the compressor, however if the input signal is exceptionally low (or high) then adjustments can be made using this fader to ensure the Compress knob then provides a more appropriate range of compression.



The Bypass button switches the entire filter in or out of circuit. When bypassed, the meter will become inactive as an indication of the bypassed state. The Bypass control may be used for simple 'In/Out' comparisons, or automated to effectively switch the filter on or off during use. The Bypass in the Über Compressor should be used in preference to any 'audio host' bypass as it will guarantee glitch-free in/out transitions, thanks to the use of high quality cross-fade circuitry.

Preferences



The user preferences and registration page is accessed by clicking the SETUP button on the bottom left of the interface. To exit the setup screen click the OK button.

All preferences are stored and recalled according to the current system user, therefore a unique set of preferences is maintained for each system user.

The setup page also displays the software version.

Control Preferences

- knob mode - sets the default knob mode.

Processing Preferences

- fierce default - when set to 'ON' the default mode of the plug-in is 'fierce' mode; when set to 'OFF' the plug-in will start up in standard mode.

MIDI Options

- MIDI control mode - selects whether the plug-in responds to control wheel midi data or key (note on) midi data.

The Über Compressor can react to MIDI messages. The MIDI specification for the plug-in is defined in Appendix B.

Note that in order to feed MIDI into the plug-in, you should refer to your audio host software documentation. [It may be necessary to instantiate the plug-in as a software instrument].

Support



You can visit the Sonalksis website to find the latest product information. If you are a registered user you will automatically receive relevant information about new releases and updates, unless you unsubscribe from this service.

All Sonalksis plug-ins are installed, authorised and updated using the 'Plug-in Manager' application. You can download this application from the Sonalksis website.



If you encounter any difficulties when installing or using our products, please ensure that you have read all appropriate documentation, including the relevant user guides and FAQ on our website before contacting us.



If you are unable to resolve your issue after reading all appropriate documentation, you can log in to your Sonalksis user account on our website and access the 'Support' section where you can request direct assistance.

www.sonalksis.com/support

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Appendix A: Technical Specifications

Sonalksis Über Compressor Supported Sample Rates:

- 44.1 kHz
- 48 kHz
- 88.2 kHz
- 96 kHz
- 176.4 kHz
- 192 kHz

Sonalksis Über Compressor Control Ranges:

Clip values	Compression Ratio Values	Sidechain Bias	Timing Modes
0 -3 -6	0 - 11	none Top, Bottom, Lump, Scoop	'Instant' 'Pop' 'Slap' 'Pump'

Appendix B: Midi Specifications

WHEEL MODE

	Function	Transmitted	Recognised	Remarks
Basic Channel		X	1-16	
Mode		X	X	
Note Number	48-50 60-64 72-77 84-89	X X X X	O O O O	NOISE ON/OFF TIMING BIAS CLIP
Velocity		X	X	
After Touch		X	X	
Pitch Bend		X	X	
Control Change	0 1 (MODWHEEL) 2 3 4 5 6 7 8	X X X X X X X X	O O O O O O O O	INPUT GAIN COMPRESSION NOISE TIMING BIAS CLIP BYPASS OUTPUT GAIN FIERCE
Program Change		X	X	
System Exclusive		X	X	
System Common		X	X	
System Real Time		X	X	
Aux Message		X	X	

KEYS MODE

	Function	Transmitted	Recognised	Remarks
Basic Channel		X	1-16	
Mode		X	X	
Note Number	0 - 127	X	O	MIN COMPRESSION = 0 MAX COMPRESSION = 127
Velocity		X	X	
After Touch		X	X	
Pitch Bend		X	X	
Control Change	7 16 17 18 19 20 21 22	X X X X X X X	O O O O O O O	INPUT GAIN NOISE TIMING BIAS CLIP BYPASS OUTPUT GAIN FIERCE
Program Change		X	X	
System Exclusive		X	X	
System Common		X	X	
System Real Time		X	X	
Aux Message		X	X	

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