Softube

User Manual
Tonelux Tilt and Tilt Live

User Manual for Version 1.3.16

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Softube User Manual

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Disclaimer

Every effort has been made to ensure that the information in this manual is accurate. However, there are a chance that we have made mistakes, and we hope that you understand that we are only humans. Please let us know about the mistake, and we'll fix it in the mix (or in the next version of this manual).

Support

On the Softube website (`www.softube.com`) you will find answers to common questions (FAQ) and other topics that might interest you.

Support questions can be posted at `http://www.softube.com`, where we will help you as fast as we can!

Web: `www.softube.com`
E-mail: `info@softube.com`
Phone: +46 13 21 1623 (9 am – 5 pm CET)

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1 User Interface

SOFTUBE PLUG-INS ARE "what you see is what you get" products. You should be able to intuitively learn the products within minutes, so that you can work fast and efficient with them. There are a couple of things that remain the same for all of our plug-ins, such as the menu row. These will be explained in this chapter. For detailed information of a particular plug-in, please see its chapter.

Menu Row

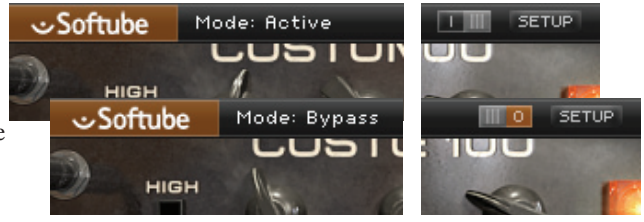
In the bottom of the plug-in interface, you will see a thin black row with some buttons. We'll use the Dyna-mite plug-in as example, but the same goes for all plug-ins.

About Box Opens the "About" Box with version info.

Value Display Displays the knob value when the mouse is hovering over a control.

Enable Enable/Activate the plug-in. Set to OFF for bypass.

Setup Changes global options for all instances of that plug-in.



Enable

When the **Enable** switch is set to ON (I), the plug-in is active and will process audio. When set to OFF (0), it will be bypassed and not process any audio. It will take considerably less CPU when it is bypassed.

Setup

In the Setup window you can change settings that will affect all instances of that particular plug-in. If you for example de-select the "Show Value Display" option in the Bass Amp Room plug-in the value display will be off for all Bass Amp Rooms on your system until you select that option again.

The different options vary between Windows and Mac, and also different formats and plug-ins. The most common options are:

SHOW VALUE DISPLAY: Enables the parameter and value display in the bottom row of the plug-in.

REVERSE MOUSE WHEEL DIRECTION: (Mac OS Only) Changes if the a knob is turned up or down when the mouse wheel is turned up or down. *(Mac OS Only)*

> You need to restart your host software (DAW) before the changes to fully take effect!

If you messed something up and manually need to set these options, you'll find them in text format in the following locations:

MAC OS: `~/Library/Application Support/Softube`

WINDOWS: `username\Application Data\`

Key Commands

All numbers and labels in the plug-in are clickable. This allows you to easy select a setting by clicking on the wanted value. Hovering above a label will turn the mouse pointer into a pointing hand.

Mouse

Up/Down or Mouse Wheel	Change a parameter, such as a knob or a switch.

Keyboard

Fine Adjust	⌘ (Mac) or CTRL (Win), while changing the parameter value.
Reset to Default	ALT, while clicking on the knob or fader.

Plug-In Specific Key Commands

In many plug-ins, you can SHIFT-click on a knob or a switch to get some extra functionality

Metal Amp Room

SHIFT-click and drag a mic will move both mics simultaneously.

All Amp Rooms

SHIFT-click in the cabinet background will change cabinet (or amp) without any animations

2 Tonelux Tilt

Foreword by Paul Wolff

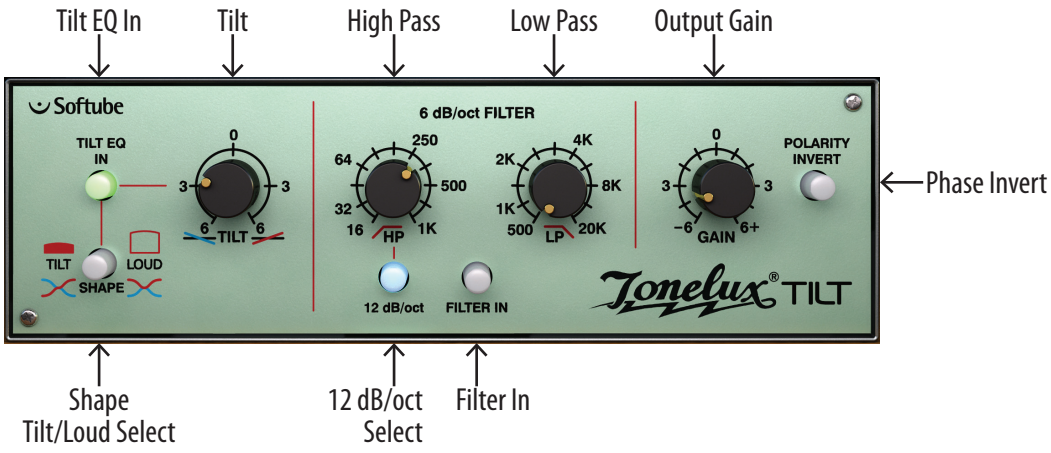
After the success of the TILT control on the MP1 and MP1a Mic Preamps, I felt that a rack mount unit would be a nice addition to the Tonelux product line. The decision was made to make it an 8 channel unit, with polarity, in/out and access with D-subs for ease of use.

After using the TILT rack unit on a few sessions, I was shocked at how useful it was, and how smooth and sweet it made tracks. I tried it on everything from Bass to Overheads, Guitars, Vocals etc. It did so much with only one knob that the only logical move was to make a plug in. While designing the features, Softube and Tonelux thought that having a few extra options would really fill out the module.

We decided to model the transformer in the Tonelux products, and added a very smooth high and low pass filter, not to fix problems, but to have the ability to use a filter that sounded like it wasn't there. On top of that, we added a loudness feature to the TILT knob, allowing the engineer to boost both low and high at the same time, much like a loudness control used in post production, to simulate near and far positioning. So far, the few friends that we have sampled it to have loved it, with comments like "it's just smooth" or "beautiful on over heads, just enough sheen".

After showing the TILT rack unit at a trade show, it was suggested that we consider a live version, which might include some different features, one of which was a way of limiting the boost, but retaining the TILT effect, to prevent feedback in wedges and side fills, so Softube came up with a unique "BOOST CEILING" control, where you can set the amount of maximum boost above normal, to prevent feedback, but when using in-ear monitoring you can still have the original effect. It works really well to compensate ear fatigue without altering a complex EQ or certain individual channel EQs. It never really gets "louder", it just gets "clearer".

Paul Wolff
Designer and Founder of Tonelux



Introduction

THE TONELUX TILT PLUG-IN IS a joint development effort between Tonelux designer Paul Wolff and Softube, bringing the famous Tonelux sound to the digital world. The innovative Tilt design was first featured on the Tonelux MP1a discrete mic preamp module and has been a godsend for engineers and producers that need to take control of their sound in a fast and effective manner. Often, the Tilt knob is all you need to make a track sit better in a mix or to make a track "warmer" or "cooler" and it's perfect in a live situation where you need to tweak the whole mix to adjust for ear fatigue.

The TILT plug-in features not only the original Tilt design but also adds a couple of new features. A special "Live" version of the TILT plug-in is included which is optimized for the DIGIDESIGN VENUE system and contains features requested by live sound engineers. The TILT also includes modeling of the transformer found in the MP1a mic preamp, which adds a subtle distortion for bass frequencies that fattens up the low end of a track.

User Interface

TheTILT is all about getting the sound you want fast and easy. The interface is made up of three sections which will give you flexible and powerful control of your sound.

First section: **Tilt Eq In**, **Shape** and **Tilt**.

Second section: **High Pass**, **Low Pass**, **12 dB/oct** and **Filter In**.

Third section: **Gain** and **Polarity Invert**.

> Want to do a fast mix? Try inserting a TILT on each track of your mix and you'll find that often the **Tilt** knob is the only EQ you'll need.

Tilt Section

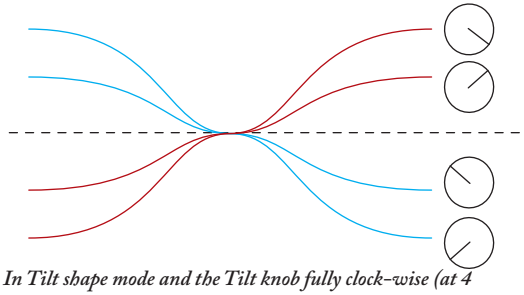
The Tilt section consists of **Tilt Eq In**, which engages the Tilt/Loud equalizer, the **Shape** switch, which lets you select between a Tilt style equalizer or a Loudness equalizer, and finally the **Tilt** knob, with which you adjust the amount of the equalization

> When using the **Tilt** knob less is more! Remember that when for example cutting high frequencies, the perception can be that you're boosting low frequencies. Thus you will have double effect when turning the **Tilt** knob.

Tilt Equalization

The **Tilt** control rebalances the whole sound of a track with just one twist of a knob, going from a bright and shimmering top to a warm and wide low-end.

The filter of the **Tilt** is shaped so when one end of the frequency spectrum goes down, the other end goes up, thus cutting frequencies in one end while boosting in the other. The center frequency of this

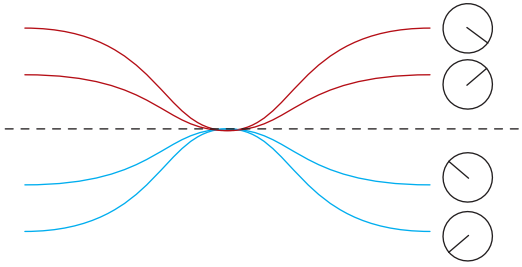


In Tilt shape mode and the Tilt knob fully clock-wise (at 4 o'clock), you will get a high frequency boost and a low frequency cut.

equalizer has been carefully selected to work on a wide range of material and provides a safe way of altering your sound without it getting too harsh or too boomy. The gain of the filter goes from 0 to 6 dB.

Loudness Equalization

By pressing the **Shape** button, making it unlit, the function of the **Tilt** knob is changed from TILT to LOUD. The LOUD setting changes the shape of the filter to that of a loudness control, meaning that when you turn the **Tilt** knob clockwise you will get more bass and more treble and turning it counter-clockwise will give you less of both.



In Loud shape mode and the Tilt knob fully clock-wise (at 4 o'clock), you will boost both high and low frequencies.

> Turning the **Loud** control from min to max can give the illusion of a sound going from far away to up close. This is a handy effect for post production.

The **EQ In** button will engage or disengage the TILT/LOUD filter making A/B comparisons easy.

> Try using the **Loud** filter with different settings on different sounds that needs to be separated. For example, imagine a guitar track and drum track getting in the way of each other. Boost the **Loud** filter on the drums and cut it on the guitar will place the two in the mix with less clashing frequencies.

Filter Section

The filter section with its two filters will further shape the sound or help you get rid of problematic frequencies in a track. The **Low Pass** filter cut-off frequency goes from 16 Hz to 1 kHz and will attenuate the signal 6dB per octave. When the **12 dB/Oct** switch is engaged the signal will be attenuated 12 dB per octave.

The **High Pass** filter cut-off frequency goes from 20 kHz to 500 Hz and is set to attenuate the signal 6 dB per octave.

By engaging/disengaging the **Filter In** button the **HP** and **LP** filters will be enabled or in bypass respectively.

Output Section

Depending on what version of the TILT you are running, the TILT or TILT LIVE, the knob in the output section will be either a **Gain** control (TILT) or a **Boost Ceiling** control (TILT LIVE). The **Boost Ceiling** is explained below in the TILT LIVE section.

The **Gain** control is a standard make up gain going from -6 dB to +6 dB.

The **Polarity Invert** button inverts the phase when pressed (lit up).

Tilt Live

The TILT LIVE plug-in is optimized for the Avid VENUE system and contains features requested by live sound engineers. The TILT LIVE version does not include the transformer modeling to preserve DSP power and features the **Boost Ceiling** control.

The TILT LIVE is perfect for in-ear systems when you want to tweak the mix to adjust for ear fatigue, without changing the actual volume of the mix.

In normal operating mode (**Boost Ceiling** on full), the filters in the Tilt/Loud circuit will attenuate some frequencies while boosting others, just like the normal TILT plug-in. For live performance purposes this can be a drawback, since boosting frequencies can sometimes cause feedback in a live monitoring system.

By setting the **Boost Ceiling** on min, you have limited the amount of boost to 0 dB, ie., no boost at all. Whatever setting you put on the TILT LIVE plug-in, it will never boost any frequencies.

For monitor systems on stage the TILT LIVE can help you changing the balance of a mix without having to risk getting feedback from increasing the volume.

Boost Ceiling

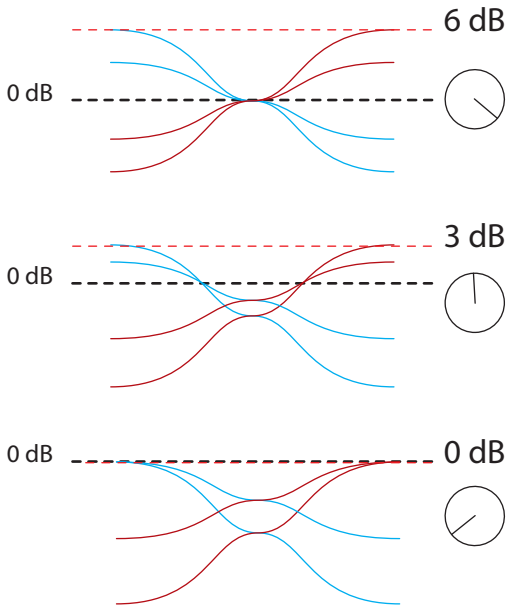
When using the TILT LIVE the **Gain** control will be replaced with a **Boost Ceiling** control.

The **Boost Ceiling** control makes the TILT filter behave differently depending on the **Boost Ceiling** setting.

When the **Boost Ceiling** is at its minimum the au-

dio level will never be amplified. The filters will have the same shape but will always be below 0 dB.

When the **Boost Ceiling** is set to its maximum it will work as the ordinary TILT. When set between, there will be some boosting of frequencies, but never more than you dialed in.

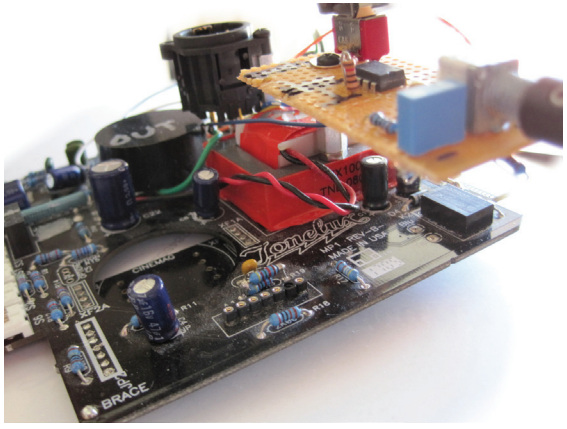


Tilt filter curves for different settings of the Boost Ceiling knob. Top: Boost Ceiling at "In Ear" setting (6 dB), middle: 3 dB, and bottom 0 dB ("Wedge" setting)

Buying Recommendations

The TILT and TILT LIVE plug-ins aren't based on a single piece of hardware. Designer Paul Wolff wanted to create some extra functionality for the plug-in version of his Tilt module, and worked night and day to design a hardware prototype that is the basis of these two plug-ins. However, if you are desperate to find the Tilt control in a hardware package, we can strongly recommend the fantastic

sounding Tonelux MP1a mic preamp module that features the Tilt filters, or the eight channel Tonelux Tilt rack unit.



Here you can see the eight channel Tilt unit by Tonelux, and below is a photo of the prototype Paul Wolff sent us. It looks like, well, a prototype, but sounds fantastic!

Credits

Niklas Odelholm – modeling, **Oscar Öberg** – DSP programming. **Torsten Gatu** – framework programming. **Arvid Rosén** – framework programming. **Ulf Ekelöf** – 3D rendering. Original hardware was designed by **Paul Wolff** at Tonelux.

Softube AB, S:t Larsgatan 10c, 582 24 Linköping, Sweden. www.softube.com