



TUBIFEX

MANUAL

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All known issues are stored in a database searchable by product, category, keywords, or phrases. Under the section “My Stuff” you can login to check the status of your questions, download materials such as product manuals, software updates and new presets.

This site has been specifically designed to meet the needs of our users. We constantly update the database and you will find the site to be a huge resource of information. Browse through Q&A's and discover new aspects of your TC product.

If you can't find an answer online, you have the option of submitting a question to our technical support staff who will then reply to you by e-mail. The TC Support Team is on constant alert to help you in any way they can.

Tubifex is a virtual guitar amp equipped with 3 tube stages that are conceived after the classic 12AX7 warm sounding tubes. Since the tubes can be controlled individually, the possibilities of the plug-in are extremely flexible. The speaker simulator was created from an actual impulse response of a 2x12" cabinet – and via a knob on the front panel the user is able to control the microphone position.

On top of this we've added a noise reduction section with a fingerprint-based noise reduction filter plus an expander for further improvement of the over-all sound, and the settings of the noise reduction section can be saved independently from the amp settings.

A lot of expert parameters allows you to fine tune the character of each tube stage, and it is possible to create very personal sounding presets. We've also included a lot of great sounding presets, which make the Tubifex instantly usable – right out of the box.

Tubifex is a "Hybrid" plug-in, utilizing both native CPU and DSP resources. In other words, we are using the strengths of the two worlds, which ensure that we have both been able to optimize the DSP performance and been able to make a plug-in with very low latency, which is crucial for guitar players who want to interact with Tubifex in real-time.

The proprietary tube emulation technology used in Tubifex provides extremely warm and analog-sounding distortion without any audible aliasing.

Enjoy!

The TC Team

MAC OS X

- POWERCORE PCI or FIREWIRE running system 1.8 or later
- Mac OS X [10.2.4 or higher]
- G4 / 800 MHz or faster; 256 MB RAM
- VST or Audio Unit compatible host application.
- System must meet requirements of the host application

WINDOWS

- POWERCORE PCI or FIREWIRE running system 1.8 or later
- Windows XP
- PIII 1 GHz or faster, 256 MB RAM
- VST compatible host application
- System must meet requirements of the host application

POWERCORE REQUIRED!

The Tubifex Plug-In requires a POWERCORE PCI or POWERCORE FIREWIRE to be available in your system. Tubifex requires the DSP power of POWERCORE.

GLOBAL CONTROLS

KEYBOARD COMMANDS

In most host applications, Tubifex supports keyboard commands for certain functions. The following key commands are available for all Plug-In parameters:

KEY COMMANDS IN MAC OS X:

Fine Adjust = Apple
Reset To Default = Alt

KEY COMMANDS IN WINDOWS:

Fine Adjust = Alt
Reset To Default = Shift + Control

SCROLL WHEEL SUPPORT

If you are using a host application that supports this feature, all of the Tubifex knobs and faders support scrolling on both Windows XP and Mac OS X. Simply roll your mouse over a knob or slider and use the Scroll Wheel to increment / decrement the associated parameter.



In the simple non-expert mode, you will just see the “front panel” with the three gain stages, but you will not have access to the tube parameters or the built-in noise reduction.

TRIM

With the TRIM parameter, you adjust the input level of Tubifex. The four LEDs right above the TRIM knob will indicate the current input level: The optimized level will cause the yellow LEDs in the middle to light up. You should avoid going into red (the right LED lighting up).

GAIN STAGES

The three valve gain stages have by default the same character. This can be changed in expert mode, where you have access to some valve parameters. Gain 1 and Gain 2 are in front of the three band EQ, Gain 3 comes after the EQ.

WARNING: Switching gain stages ON/OFF might lead to drastic gain changes. To prevent damage of your speakers (and ears...), lower the output volume first and/or insert a limiter after Tubifex.

Tip: Think of the first gain stage as pre-gain stage, like having a distortion floor pedal between your guitar and the amp.

THREE BAND EQ

Lo

Control the bottom end of your guitar tone with this parameter.

Mid

Turning this parameter up will make your guitar sound fatter and fuller.

Hi

This parameter sets the amount of treble and makes your tone brighter as it is turned up.

MASTER OUT

This will set the output level of Tubifex. This stage is intended to adjust the level to match the return of your effect in your audio application. This stage is not intended to be driven into distortion! Please adjust the output level in a way that the red overload LED right above the MASTER OUT knob does not light up.

The Speaker Simulation is based on measurements made on a Marshall 2x12” cabinet. The default setting is ON, and we recommend to keep it there.

PRES (Presence)

The presence knob lets you select the amount of overtones introduced by the speaker cone. At higher values, the Speaker Simulation will sound a little crisper.

DIST (Distance)

Choose the distance between the microphone and the speaker. The mic can be placed either directly in front of the speaker (“close”), or a little bit away from it (1 cm).

AXIS

With this control, you define the position of the “virtual Microphone” in front of your 12” speaker. At “ON” it is placed in the center of the speaker cone, “OFF” is at the edge. “MID” is in between.

SETUP

Smoothing

The Smoothing parameter will define, how fast the controls on the user interface will follow on changes. At 100%, the parameters will slowly adjust to the set values, whereas with the setting “OFF”, they will immediately jump to the new position.

Gliding

The Parameter Gliding will soften the sound changes to avoid (unwanted) digital distortion (zipper noise) while changing parameters. A high value will however cause changes not to be effective immediately. The gliding time can be set between 500ms and 2 seconds.



LoFi / HiFi

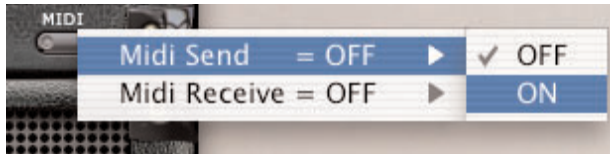
The LoFi/HiFi control has great impact on the sound of Tubifex, but also on the required CPU load. The most “analog” sound you will get with the HiFi setting. This is the setting we recommend to use when rendering Tubifex into a file.

Setting this parameter to the mid position is a compromise between sound and processing power. Use this setting, in case your machine is not powerful enough for the HiFi setting.

“LoFi” is more an effect setting and will not give you the “analog” feeling you can get with Tubifex. If you prefer “true guitar amp sound”, do not use this setting. However, this is very CPU efficient.

MIDI

Tubifex can be setup to send and receive MIDI data on all its controls. Controller numbers #20 and above are taken for this.



NOTE: Switching on “MIDI Send” and then changing presets will cause a huge amount of MIDI data to be sent! This might cause problems.

When you click on the “Expert” button, Tubifex’ UI will change and display additional parameters that are otherwise not accessible. Here you can adjust some valve parameters for each tube stage, as well as enable and adjust the included noise reduction unit.

The three tube gain stages are offering the same parameters per stage: On top of each stage you find a button to switch the gain stage on or off. This button has the same behavior as switching the gain stage on or off in the upper section.

Voltages

Here you can tweak the two tube voltages, Vgk and Vak. This will move the working point of the tube and therefore change the way of the linearity of the tube’s amplification. This will to a certain extent act similar to the gain parameter. Both parameters turned to the right will give you the most linear amplification.

Character

The Character parameter will change the behavior of the amplification: turned to the left, it will give symmetrical amplification, like you would find it in Power Amps and also in the Tube Screamer. Turned to the right, the behavior is asymmetrical, which is similar to typical guitar pre-amps.

Body

With the body parameters, you can adjust the tonal character for each tube stage.

Size

Slide to the left and you will get a full rich tone, with a lot of low end signal. Sliding the fader further to the left, the sound will get thinner. How much this parameter affects the sound is set with the Strength parameter.

Strength

The Strength parameter sets the amount of the Size parameter to be applied. When the slider is set fully in left position, “Size” will have no effect.

Brightness

The Brightness parameter sets the amount of high frequencies. Turned to the left, the high frequencies get damped most, whereas they will pass thru if brightness is turned to the right.

With high gain as it appears with guitar amplification, usually there will be a certain amount of noise introduced, and with extreme distorted sounds, this might become quite significant. Because of that, Tubifex features a noise reduction section that allows for effective reduction of the unwanted noise.

REDUCTION PRESETS

You can save and load settings of the Noise Reduction section independent from the other Tubifex settings. This will allow you to save the best noise reduction settings for e.g. certain guitars or audio interfaces. The preset management works the same as for the “full” presets. Please have a look at the Preset Management section in this manual.

NOTE: *The reduction preset is only a subset of the full preset. If you save a “full” Tubifex preset, the Noise Reduction settings are of course also saved with it.*

NOISE REDUCTION

The Noise Reduction in Tubifex is a so called ‘fingerprint denoiser’ to remove broadband noise. ‘Fingerprint’ in this context doesn’t mean that you have to press your fingers on the display: The fingerprint (or better: noise print) is a short sample of the noise that you want removed from the audio signal.

Learn

When you hit the ‘Learn’ button, the Noise Reduction will start taking your signal’s fingerprint (When Playback isn’t active while you press ‘Learn’, the fingerprint will be taken as soon as the playback is started).

When there is no fingerprint in memory, the ‘Learn’ button is gray. While the fingerprint is taken, the button is flashing red. A fingerprint in memory will be indicated by a green ‘Learn’ button.

Reduction Amount

The reduction parameter sets the noise removal’s amount. A high reduction value will reduce the noise further than a low value.

Inv

Activate ‘Inv’ to monitor to the removed signal parts. This is very helpful when checking your settings: The more you hear in ‘Inv’ mode, the more you remove from the signal. If you can hear audio fragments in ‘Inv’ mode, you are driving the Noise Reduction too hard – you should at least lower the reduction level, or even try to find a better noise print.

EXPANDER

The expander section is best suited for lowering noise in signal pauses, where noise becomes most obvious and annoying. Expanders allow to reduce unwanted noise in recordings by using the opposite dynamics process to a compressor: All signal levels below the threshold will be reduced.

Range

The amount of reduction is defined by the range parameter. With attack, hold time, and release, you will adjust the dynamic behavior of the expander.

Attack

The attack time defines how fast the signal reduction starts after the level falls below the threshold.

Hold

The hold time defines how long the expander will stay in “expand” mode after the signal exceeds the threshold.

Release

The release time determines how long it takes to return to the unexpanded signal from the end of the hold time.

Tubifex's comprehensive file based preset architecture makes archiving presets a simple process. This allows you to organize your presets the way you find most comfortable for your workflow, and to exchange presets with other users, no matter the platform or application. Presets are saved as discrete files on your hard drive. Once a preset is saved into the default location, it will automatically appear in the 'File' menu every time you use the Plug-In. The files can then be organized into subfolders, where you can delete, rearrange or create your own sub-folders to accommodate your needs. For example, you could create preset folders for projects, clients or by application and genre, such as 'Heavy Guitars'.

NOTE: A folder will not appear in the Preset File Menu unless the folder has at least one preset inside!

PRESET FILE MENU

Pressing the 'File' button will open the Plug-In's File menu. The following options are available from the File menu.

LOADING A PRESET

By selecting 'Load', you can navigate to any folder on the system that you have read access to, including any shared folder. By default, these will be loaded from the default location for Tubifex presets. Only presets located in the default file location will appear in Tubifex pop-up preset menu.

SAVING A PRESET

By selecting 'Save', you can save your preset to any folder on the system that you have write access to, including any shared folder. By default, presets are saved to the default location for the Tubifex presets.

QUICK PRESET COMPARISON

The 'A / B' function of Tubifex allows for a quick comparison of two different settings. Select 'Store' and then 'A' or 'B' to save a setting into either the 'A' or 'B' memory. After setting up both an 'A' and a 'B' setting, you can simply select either 'A' or 'B' to immediately compare the two settings. As these are meant for a quick comparison, these settings are LOST when closing the Plug-In! If you love your preset, we advise you to save it!

DEFAULT PRESET LOCATIONS:

The following locations will describe where you can find the Tubifex presets, which are stored in a folder unique to each plug-in:

MAC OS X

Files are stored in your user folder:

~ \ Library \ Application Support \ POWERCORE \ TC Electronic \ Tubifex

(~ Refers to your user folder: Users \ Your User Name)

WINDOWS

Files are stored on the Windows OS hard drive.

~ \ TCWorks \ System \ Application Support \ POWERCORE \ TC Electronic \ Tubifex

(~ \ Refers to the path for your System Hard Drive \ Program Files)

- To delete a file, simply move it to the 'Trash' or 'Recycle bin'.
- To create a new subfolder that appears in the Plug-In menu, simply create a new folder in the Plug-In folder that resides in the PRESETS folder of the Tubifex default preset location.

NOTE: A folder will not appear in the Preset File Menu unless it has at least one preset inside!