



Introduction

This manual contains complete documentation for FabFilter Saturn in printer-friendly format. All information in this manual is also accessible via the Help button in FabFilter Saturn's user interface.

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About FabFilter Saturn

The distortion effect has played a huge role in music history. By driving and distorting a guitar amplifier, rock-and-roll was born in the 1960s! Since that day, distortion has been used in many forms, and not only to get that crunchy electric guitar sound. Today, distortion is used to color sounds in various ways while mixing, by driving vacuum tubes, saturating tape and even by reducing bit rate.

FabFilter Saturn offers various flavors of distortion, and combines it with multi-band audio processing and virtually endless modulation possibilities. From subtle, clean and warm tube or tape saturation to the wildest multi-band guitar amp effects: FabFilter Saturn delivers!



Key features include 16 different distortion styles, from subtle saturation to heavy guitar amps and bit crushing, multi-band processing (up to 6 bands), per-band drive, mix, feedback, dynamics, tone and level control, plus tons of modulation options with XLFOs, Envelope Followers, Envelope Generators, MIDI Sources and XY Controllers.

FabFilter Saturn is available in VST, VST3, AU (Audio Units), AAX Native and AudioSuite formats (all both 64-bit and 32-bit), as well as RTAS (32-bit only), for Mac OS X and Windows.

Windows requirements:

32-bit: Windows 10, 8, 7, Vista or XP
64-bit: Windows 10, 8, 7 or Vista (x64)
VST 2/3 host or Pro Tools

Mac OS X requirements:

32-bit: OS X 10.6 or higher
64-bit: OS X 10.6 or higher
AU or VST 2/3 host or Pro Tools
Intel processor

Next: [Quick start](#)

See Also

[Using FabFilter Saturn](#)

Quick start

The installer will copy the FabFilter Saturn plug-in into the common VST, VST 3, AU (OS X only) and Pro Tools plug-in folders on your computer. On Mac OS X, the global plug-in folders in /Library/Audio/Plug-Ins are used.

In most cases, your host will then recognize the plugin automatically. However, if the instructions below do not work, see [Manual installation](#) instead.

- **Cubase**

Choose an empty insert slot, for example in the Mixer, and select FabFilter Saturn from the menu that appears. To use the MIDI features in Saturn, create a new MIDI track and set its output to the Saturn instance you have just created. (The VST 3 version of Saturn can be found in the Distortion section.)

- **Logic Pro**

Choose an empty insert slot on one of your audio tracks, instrument tracks or buses and select FabFilter Saturn from the pop-up menu. You will find FabFilter Saturn in the *Audio Units* -> *FabFilter* section (named FF Saturn).

- **Ableton Live**

In Session view, select the track you would like to place FabFilter Saturn on, for example by clicking the track name. At the left top of Ableton Live's interface, click on the Plug-in Device Browser icon (third icon from the top). From the plug-ins list, double-click FabFilter/FabFilter Saturn, or drag it onto the track.

- **Pro Tools**

Choose an empty insert slot on one of your audio tracks, instrument tracks or buses and select FabFilter Saturn from the pop-up menu in the Harmonic section.

Use the Presets button at the top of the plug-in interface to try different settings from the many factory presets that are bundled with FabFilter Saturn. Have fun!

Next: [FabFilter Saturn overview](#)

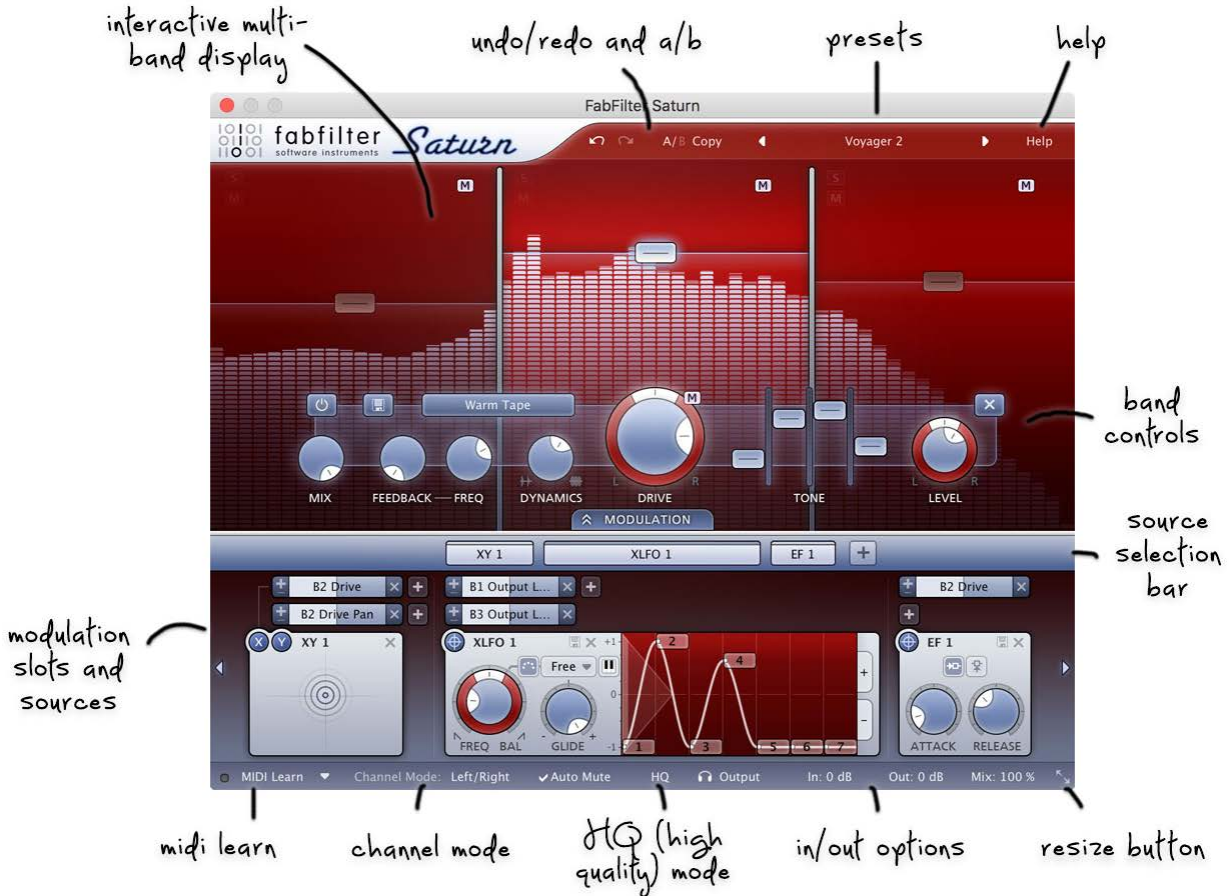
See Also

[VST plug-in versions](#)

[Loading presets](#)

Overview

FabFilter Saturn's interface is divided into multiple sections:



- **Presets, undo, A/B, help**

The Undo, Redo, A/B and Copy buttons at the top of the plug-in interface enable you to undo your changes and switch between different states of the plug-in. With the preset buttons, you can easily browse through the library of factory presets or save your own settings so you can re-use them in other songs. The Help button provides access to the help file and other information and options.

- **Interactive multi-band display**

Via the [interactive display](#), you can directly create and select frequency bands. At the same time, it's a real-time frequency analyzer, making it easy to decide where to set the cross-over frequencies.

- **Band controls**

Using the [band controls](#), you can adjust the settings of the selected bands. For each band, you can separately adjust the distortion type, drive, feedback settings, dynamics, tone, level and mix settings.

- **Modulation button**

The modulation button shows or hides the entire modulation section at the bottom of the interface. FabFilter Saturn offers virtually unlimited modulation possibilities, but all this power might be a bit intimidating. That's why the modulation section is hidden by default, and you can look 'under the hood' when you want to tweak a preset or design your own.

- **Source selection bar**

The source selection bar shows all modulation sources at a glance and lets you easily scroll around and create new sources. FabFilter Saturn offers [XLFO](#), [Envelope Generator \(EG\)](#), [Envelope Follower \(EF\)](#), [MIDI](#) and [XY Controller](#) sources. See also [Modulation](#).

- **Modulation slots and sources**

The bottom section contains the modulation sources. The modulation section in Saturn is fully modular — but without the cables! We found a simple way to show you everything that is modulating, and what is modulated by what. Above each modulation source, the modulation slots show exactly what targets are modulated by this source and let you adjust the amount of modulation. You can very easily set up modulation connections with [drag-and-drop](#). All in all, we think we made sound design easier and more fun!

- **MIDI Learn, channel mode, input/output options**

The bottom bar contains the [MIDI Learn](#) feature which sets up any MIDI controller to control any plug-in parameter. Next, we find the channel mode option for [Mid/Side channel mode](#), the auto-mute feedback option, HQ mode, audition and input/output/mix controls. See [Input/output controls](#).

- **Resize**

The resize button in the lower-right corner lets you choose between normal and wide interface layouts. The wide layout eliminates

scrolling in the top part of the interface and provides more space for the modulation sources at the bottom of the interface. Most hosts support dynamic resizing of the interface; otherwise just close and re-open the interface window.

Next: [What-you-use-is-what-you-see](#)

See Also

[Quick start](#)

What-you-use-is-what-you-see

Often an impressive feature list results in an impressively difficult-to-use interface full of controls for parameters you might never even use. For almost every plug-in developer one of the greatest challenges when making a complex full-featured plug-in is to design an interface that is easy to use. And we think we did it! FabFilter's interface concept: What-you-use-is-what-you-see.

The idea is simple yet powerful. At all times, the interface only contains the modulation sources and slots that you are actually using. You can even hide the complete modulation section if you only want to browse presets, and don't feel the need to look 'under the hood'! This results in an intuitive user interface that experienced producers and novices alike will embrace.

And if you need power, it's at your fingertips. Do you want another XLFO? Just add one! Do you want an envelope generator? Just add one and start modulating things! Of course there is a limit to the number of sources you can create, but in practice it feels like you can create as many sources as you will ever need.

To give you an idea, here's a simple preset with just a single frequency band and without modulation. We've chosen to hide the modulation section with the Modulation button. It looks like this:



... while a more complex preset, with various modulation sources and frequency bands looks like this:



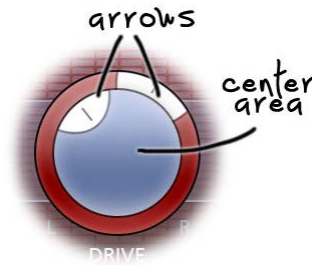
To help you understand even the most complex presets, modulation slots are grouped with each source. Each component, knob or controller that is being modulated is marked with a little **M** button. Simply click the **M** to highlight the modulation source and slots responsible for the modulation. See also [Modulation](#).

Next: [Knobs](#)

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[Overview](#)

Knobs

It is easy to control FabFilter Saturn's parameters with the large round knobs. They will light up when you move the mouse cursor around to indicate that you can adjust them. The moment you move the mouse cursor over a knob, a parameter value display will pop up, which shows the name and the current value of the parameter.



All knobs support four ways of control:

1. **Vertical mode**

Click on the center area of a knob and drag up or down to rotate it. The knob reacts to the speed with which you are dragging, so if you move the mouse slowly, you make precise adjustments.

2. **Rotate mode**

Grab the arrow of the knob and drag it around. By moving the mouse cursor further away from the knob while dragging it, you can make precise adjustments.

3. **Mouse wheel mode**

Perhaps the easiest way to make adjustments is by using the mouse wheel when you hover over a knob. This mode works for all the knobs and possible panning rings. (On Windows, you might need to click in the plug-in interface first to make sure it is the active window.)

4. **Text entry mode**

Double-click a knob to enter an exact value using the keyboard.

Tips

- To **reset** a knob to its default position, hold down the *Ctrl* key (Windows) or *Command* key (Mac OS X) and click the knob once. Note: In Pro Tools, Saturn uses the default Pro Tools keyboard shortcut for reset: *Alt*+click.
- To **fine-tune** a value when using vertical drag mode or the mouse wheel, hold down the *Shift* key while dragging or moving the mouse wheel. Note: In Pro Tools, Saturn uses the default Pro Tools keyboard shortcut for fine tune: *Ctrl*+drag on Windows or *Command*+drag on OS X.
- There are several **handy shortcuts in text entry mode**. With frequency values, you can type e.g. '1k' to set the value to 1000 Hz, and also 'A4' for 440 Hz, or even strings like 'C#3+13'. With dB values, you can type e.g. '2x' to get +6 dB (the value that corresponds to two times louder). With all values, you can also type a percentage (e.g. '50%' will put a knob exactly in the middle position).
- Sometimes, knobs in our plug-in interfaces are **linked**: these be adjusted simultaneously by holding down the *Alt* key (*Shift* key in Pro Tools) while dragging on one of them. For example, an output level and input level setting of a plug-in could be adjusted simultaneously (in the opposite direction) this way.

Next: [Interactive multiband display](#)

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Interactive multiband display

FabFilter Saturn's top section consists of a large interactive multi-band display, which makes it very easy to create and select frequency bands and adjust their level and drive settings. At the same time, it's also a real-time frequency analyzer.



- To **add** a new frequency band, simply click on the small '+' button that will appear at the top of the display when you hover the mouse over it. By clicking this button, the current frequency band splits with a crossover frequency at the current mouse position. The new band will copy its settings from the band that has just been split.
- Simply **click anywhere in a band** to select it.
- Click and drag on the display background to **select adjacent bands by dragging** a rectangle around them.
- Hold down *Ctrl* (Windows) or *Cmd* (Mac) and click in another band to **add it to the current selection or deselect it** instead. Hold down *Shift* and click in a band to **select a consecutive range** of bands.

If only one band is active, it will be selected by default and the [band controls](#) are automatically linked to that single band. Once you have multiple frequency bands available, the display highlights the level buttons of the selected bands and the [band controls](#) are linked to these bands. In the screen shot above, the middle band is selected. In addition, the band controls will slide underneath the selected band.

- Click and drag a selected level button vertically to adjust the **level** setting of all selected bands. If you have multiple bands selected, the level of all selected bands will be adjusted with the same relative change.
- Use the mouse wheel to adjust the **drive** setting of the selected bands. This works while dragging the level button or when the mouse pointer is anywhere above a band. Alternatively, hold down *Ctrl* (Windows) or *Cmd* (Mac) while dragging the level button to adjust the drive instead.
- Hold down *Shift* while dragging to **fine-tune** the settings of the selected bands.
- Hold down *Alt* to **adjust all bands** at once, regardless of the current selection.
- To change a crossover frequency, click and drag the vertical crossover split. Alternatively, click and drag a level button horizontally to change the crossover frequencies at both edges of the band.
- Double-click a level button or a crossover split to type a level value or frequency directly.

Tips

- About everything in the display can be modulated, even the cross-over splits. Simply [drag and drop](#) a modulation source to it!

Solo and mute



If you hover the mouse over the top of the display and there is more than one band, small **solo** and **mute** buttons in the left-top corner of each band will appear. The solo button lets you listen to a single band, while the mute button does the opposite and mutes the band, letting you hear all other bands. Of course, you can solo or mute multiple bands at the same time, just like it works with tracks in your DAW.

- Hold down the solo or mute button to solo or mute a band only temporarily, as long as the mouse button is pressed.
- To solo or mute a band exclusively, *Ctrl-click* (Windows) or *Cmd-click* (Mac) the solo or mute button.

Solo and mute changes can be automated and are saved with the other parameters, so you can also use them for creative effects.

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[Overview](#)

Band controls

FabFilter Saturn contains one set of controls to adjust the currently selected frequency bands. When only one band is used, it will be selected by default and the controls are automatically linked to that single band. Once you have multiple frequency bands available, the display highlights the level buttons of the selected bands and they are linked to all of them.



From left to right, the following parameters are available:

- The **Enabled** button lets you easily bypass the selected frequency bands. When bypassed, the dry input signal of the band is passed to the output straight away. Note that you can also solo and mute bands with the solo/mute buttons in the [display](#).
- The **Section Preset** button lets you quickly save or restore the parameters for the selected bands. See [Section presets](#).
- The **Mix** sets the combination of unprocessed (dry) signal and the processed/distorted signal for the band.
- The **Feedback Amount** knob sets the level of feedback for the band, which feeds the processed audio back into the input of the band. The **Feedback Frequency** knob sets the ringing frequency of the feedback loop. You can simply compare this to the distance of a microphone which picks up the signal of an amplifier that outputs its own signal: the closer the mic gets to the speaker, the higher the ringing frequency.
- The **Dynamics** knob can be used to either gate or compress the band signal. Turning the knob to the right will add heavily pumping compression, while turning the knob to the left will introduce great all-purpose gating/expansion.
- The **Style** button selects the type of distortion applied to the signal. You can choose between:
 - **Tube emulations**: from clean, high quality tubes to juicy or even broken tube sound.
 - **Tape emulation**: subtle, warm or extreme tape saturation.
 - **Amplifier emulation**: from smooth and crunchy amplifiers to screaming power amps.
 - **Smudge**: This creative distortion algorithm smudges and stretches the audio in weird and unexpected ways. The Drive knob sets the amount of smudging/stretching.
 - **Rectify**: A crunchy combination of rectified sound, DC offset removal and soft clipping.
 - **Destroy**: A destructive combination of bit-crushing, sample rate reduction and clipping.
- The **Drive** knob is obviously one of the most important parameters, setting how much the clipping stage is driven with input signal. While increasing the drive, the output level will be adjusted automatically, to ensure that the overall sound level doesn't get out of control. With the **pan** ring, you can change the balance of the drive amount between the stereo channels (see also [Mid/Side processing](#)).
- The **Tone controls** set the bass, mid, treble and presence of the processed band signal, allowing you to tweak the harmonics generated by the distortion algorithm.
- The **Level** knob sets the output level of the selected bands between minus infinity and +36 dB. With the **pan** ring, you can change the relative levels of the left and right audio channels (or mid/side when Mid/Side processing is active).
- The **Remove** button deletes the currently selected bands.

Tips

- If there is more than one band, you can also easily adjust the level or drive settings of any band via the [interactive multiband display](#).
- All continuous band parameters can be [modulated](#), of course!
- When adjusting band settings with a continuous range (for example Drive, Level, Dynamics) for multiple selected bands at once, the relative differences between the bands will be preserved. When adjusting discrete parameters (HQ, Distortion Style), the parameter for all bands will be set to the same new value. If you double-click a knob to enter a value, this value will be applied to all bands directly as well.

Next: [Modulation](#)

See Also

[Overview](#)
[Interactive multiband display](#)

Modulation

The real fun with FabFilter Saturn starts with the incredible modulation options. Almost any parameter can be modulated. These are called **modulation targets**. They can be modulated by any of the available **modulation sources**: [XY controllers](#), [XLFOs](#), [envelope generators](#), [envelope followers](#) and [MIDI sources](#). The modulation signal always flows via a **modulation slot** that allows you to vary the extent of modulation.



Use the **Modulation button** at the top to show or hide the entire modulation section, which consists of the following elements:

- **Source selection bar**

The source selection bar shows a schematic overview of all modulation sources at all times. Simply click on a source button here to scroll the source into view. The highlighted section of the bar shows the currently visible part, and it can be dragged to scroll the sources as well. The top segment of each source button lights up according to the modulation signal it is currently sending.

- **Modulation slots**

As said before: every modulation source uses a modulation slot to send its signal to the target. Saturn always groups all modulation slots above the source that they're connected to. Each slot displays the destination, graphically shows the amount, and you can quickly turn it on or off, or reverse its output.

- **Modulation sources**

The modulation sources are organized in a horizontally scrolling strip below the source selection bar. There are 5 different kinds of sources available: The [XLFO](#) can generate almost any waveform you can imagine and can be synchronized to the host tempo. The [Envelope generator](#) is of the usual ADSR kind and triggered by audio or MIDI. The [Envelope follower](#) will follow the loudness of the incoming audio or side-chain signal. The [MIDI source](#) transforms any incoming MIDI data into a modulation signal. Finally, the [XY controller](#) lets you modulate two targets using horizontal and vertical mouse movements.

To **add** a modulation source, click the + button in the source selection bar.

To **delete** a modulation source, click the remove button X in the top right corner in the source interface. When a source is deleted, modulation slots that use that source will also be deleted automatically.

Tip: You can scroll the modulation source section with the mouse wheel. On Windows, most mouse wheels only work vertically, but you can hold down the *Ctrl* and *Shift* keys for horizontal scrolling in that case.

Next: [Drag-and-drop modulation slots](#)

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[Overview](#)

Drag-and-drop modulation slots

One of the best features of FabFilter Saturn is undoubtedly the ability to set up modulation connections with drag-and-drop. There is no need to search through long drop-down menus containing dozens of sources and targets or to find your way in cluttered and obscure matrix views. This simple method of making modulation connections makes sound designing become fun, easy and, above all: fast. So how does it work?

Grab a source...



... drag it to a target...



... and drop it.



First, grab the source drag button that you would like to use as a modulation signal, for example XLFO 1. The moment you click on the source drag button, the interface dims and all modulation targets are highlighted.

The moment you start dragging, you will see a line from the source drag button to the icon that you are dragging. If you hover the mouse over the bands in the display or source selection buttons they will automatically be activated. The mouse cursor will snap to any available modulation target.

Now drop the icon on the highlighted knob of the parameter that you would like to modulate, for example the *Drive* knob of Band 2. That's all there is to it!

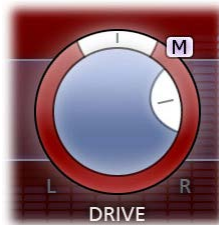
If you wish, you can also **add a slot manually** using the small plus button above each modulation source. You can also modulate slot level knobs, which makes incredibly complex modulation setups possible. To **sort the slots** click the + button in the source selection bar and select *Sort Slots* from the menu that pops up.



Once a slot has been added, you can edit it:

- Use the Level slider to adjust the amount of modulation. Like with [knobs](#), hold down *Shift* for fine-tuning; hold down *Alt* to adjust all slot levels for the same source; *Ctrl-click* (Windows) or *Command-click* (OS X) to reset the level to the default value.
- To the left of the Level slider, you can invert the modulation signal with the +/- button.
- When you hover over the slider on the left an on/off button appears. Use this to temporarily disable the slot. On the right a menu is accessible that gives direct access to all available modulation targets.
- To delete the slot, click the Remove button **X** to the right of the Level slider.

Our what-you-use-is-what-you-see interface makes complex programming very easy. Saturn uses **dynamic slot highlighting** to visualize all the sources that modulate a specific target. When a parameter is modulated a small **modulation indicator "M"** appears:



Click the **M** modulator indicator to highlight all slots that modulate this target. In the source selection bar the sources that modulate the target are also highlighted.

This feature makes programming so much more fun because it's easy to see what is happening inside a patch. To return to the normal interface click anywhere on the interface background or click the modulation indicator again.

When a modulation indicator appears in a band in the [interactive multiband display](#) or [envelope generator](#), this means one or more

parameters of that band or EG are modulated. When you click that indicator it will highlight all slots that modulate a target of the band or envelope generator.

Next: [XLFO](#)

See Also

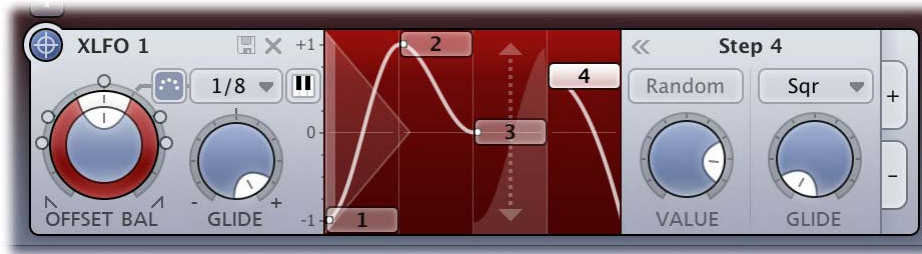
[Modulation](#)

[What-you-use-is-what-you-see](#)

XLFO

The XLFO is like a classic LFO but it can do so much more! It can also be used as a 16 step sequencer with an individual glide parameter for every step. The display shows the waveform that is used by the XLFO. Steps can be freely added or deleted to shape the funkiest of waveforms.

To add an XLFO as a modulation source, click the + button in the [source selection bar](#) and click **New XLFO**.



At the left of the XLFO interface, you find the global parameters that affect the entire waveform:

- **Frequency**

The frequency knob sets the time it takes for 1 cycle of the waveform to complete. This knob is a modulation target, so you could let one XLFO modulate the frequency of another XLFO. The XLFO can be synchronized to the tempo of the plug-in host or set to run free. With the options at the top-right corner of the frequency button you can choose the different settings:

- Free running mode will allow values from 0.02 to 500 Hz, so the minimum cycle length is 0.002 seconds.
- When using any of the synchronized cycle lengths (16 to 1/64, measured in bars) the frequency knob changes into the **Offset** knob. It now acts like a cycle length multiplier and therefore is capable of changing the cycle length relative to the host tempo, from half to two times the host tempo. Click the dots around the knob to jump to certain predefined offsets for dotted and triplet synchronization. Note: the Offset parameter is not a modulation target, but you can modulate the Phase offset instead.

- **Balance**

The outer ring of the frequency knob adjusts the time balance of the first and last halves of the step sequence. For example, when turned to the left, the first half of the wave form is generated more quickly than the last half.

- **MIDI sync**

The XLFO can be restarted at any point using MIDI if the MIDI sync option is enabled at the top-right corner of the frequency knob. When activated a note-on MIDI message (e.g. pressing a key) will restart the cycle of the waveform (to the point set by the Phase offset slider).

- **Snap**

This function makes it possible to use the XLFO as an arpeggiator. When you enable Snap, a small piano keyboard appears, the range of the XLFO turns into 2 octaves, and steps "snap" to notes on the piano keyboard. Now when you modulate a frequency parameter, turn the slot level to maximum, and the total amount of modulation will exactly correspond to 2 octaves.



- **Glide**

The global Glide knob acts like an overall glide offset. The amount of glide determines the point within a step at which the XLFO starts to interpolate to the value of the next step. The global Glide value is added to the glide value for individual steps to arrive at the final glide value for each step. The final glide value is limited between 0 (no interpolation) and 1 (full interpolation). Because the global Glide value can range from -1 to 1 it can completely overrule the individual step glide values at the extreme settings. It is also a modulation target which allows for very cool effects.

- **Phase offset**

In the step editor you can see a triangular shape. The vertical line of the shape indicates the beginning of each cycle. You can move this triangular shape, and thus change the beginning of a XLFO cycle. This phase offset is a modulation target, so when the XLFO frequency is set to 0, you can use another modulator to cycle through the different steps.

Tip: Like with [knobs](#), you can *Ctrl/Command*-click on the phase offset slider to reset it.

At the top right of the global settings, the Presets button  provides access to the XLFO [section presets](#). The Remove button  deletes the XLFO source. By default, the XLFO starts with two steps that make a sine wave. You can customize this by overwriting the predefined **Default** section preset.

Editing Steps

You can shape the waveform of the XLFO in almost any way you want by editing the individual steps.

- Drag a step up or down to **change the value** for the step.
- Click a step to **select** it.
- Hold down *Ctrl* (*Command* on Mac) and click a step to **select multiple steps**. Hold down *Shift* and click a step to **select a consecutive range** of steps.
- Click next to a step to **deselect** all steps.
- Click the + button at the end of all steps to **add** a new step. The new step is added to the right of the selected step, or at the end of all steps.
- Click the - button at the end of all steps to **remove** the selected steps. If no steps are selected, the last step is removed.

If one or more steps are selected, the XLFO expands to show the **step interface** where the parameters for the selected steps can be

edited:

- **Random**

The Random button enables random values for this step. If enabled, the XLFO will use a new random value for the step each time it encounters it. The display also changes to show that the value is chosen at random (see step 3 in the screen shot above).

- **Value**

The Value knob adjusts the value of step. This is the same as dragging the step up and down, except that with multiple selected steps, the value of all steps is set to the same value. In contrast, when you drag multiple selected steps, the relative distance is kept the same.

- **Curve**

The Curve button selects the curve that is used to interpolate to the next step when the final glide value is higher than 0: Linear, Sqr, Sqrt and Sine.

- **Glide**

The Glide knob sets the per-step glide value. This is combined with the global glide value to determine at which point the XLFO starts to interpolate towards the next step.

To start exploring the many sound shaping possibilities start with an XLFO that [modulates](#) a Drive knob or Crossover Frequency to make the sound change over time. You'll be amazed by the many possibilities. Have a look at the presets to see the XLFO in many different setups to get an idea of what it can do for you and start creating your own sequences!

Next: [Envelope generator](#)

See Also

[Modulation](#)

[Drag-and-drop modulation slots](#)

[What-you-use-is-what-you-see](#)

Envelope generator

The envelope generator (EG) generates a traditional ADSR envelope. The envelope being the way in which the level changes with time and is controlled by the *Attack*, *Decay*, *Sustain* and *Release* parameters. Its function is to modulate a parameter over time, based on MIDI input or the amplitude of the input signal or side chain signal that triggers it.



To add an envelope generator as a modulation source, click the + button in the [source selection bar](#) and click **New Envelope Generator**.

The following EG parameters are available (hold the mouse over a control point in the EG display to see which parameter it affects):

- **Trigger**

The EG can be triggered by three different kinds of input: MIDI note events, the main input signal, or the signal from the side-chain input. When MIDI is selected, the Threshold knob is hidden. Depending on the type and amplitude of the incoming signal you need to adjust the threshold for optimal functioning. Look at the top segment of the source button for the EG to see when it is in the triggered (Attack-Decay-Sustain) state. See also [External side chaining](#).

- **Delay**

The time it takes for the attack to start after the key is pressed (or triggered when the side-chain signal exceeds the threshold).

- **Attack**

The Attack portion of the envelope is the time taken for the amplitude to reach maximum value. For percussive effects, the attack time should be as short as possible.

- **Decay**

After the sound has reached its maximum level, it starts to decay until it reaches the Sustain level at a time set by the Decay time setting.

- **Sustain**

This is the level reached after the decay time. The EG will hold this level as long as a key is pressed. Note that this parameter specifies a volume level rather than a time period.

- **Hold**



Once the key is released, the value will remain at the sustain level for a time set by the hold parameter.

- **Release**

After the hold time the sound resumes its decay, this time at a new rate determined by the Release setting.

Tips

- When adjusting the EG control points, you can hold down the *Shift* key to fine-tune a setting, just like with regular [knobs](#).
- To let a sustain pedal control the EG, you can hook it up to the Hold setting. The recommended way to do this is via a [MIDI source](#).

At the top right of the EG interface, the Presets button  provides access to the EG [section presets](#). The Remove button  deletes the envelope generator. You can customize the default EG settings (used when creating a new EG) by overwriting the predefined **Default** section preset.

Next: [Envelope follower](#)

See Also

[Modulation](#)
[Drag-and-drop modulation slots](#)
[What-you-use-is-what-you-see](#)



Envelope follower

The envelope follower modulation source outputs an envelope signal based on the plug-in input or side-chain audio level. You can set the *Attack* and *Release* parameters to 'smooth out the bumps'.

To add an envelope follower as a modulation source, click the + button in the [source selection bar](#) and click **New Envelope Follower**.



The two buttons at the top of the EF source interface select which signal is used to trigger on: the main input signal or the signal from the side-chain input. See also [External side chaining](#).

At the top right of the source interface, the Presets button  provides access to the EF [section presets](#). The Remove button  deletes the envelope follower. You can customize the default EF settings (used when creating a new EF) by overwriting the predefined **Default** section preset.

Next: [MIDI source](#)

See Also

[Modulation](#)

[Drag-and-drop modulation slots](#)

[What-you-use-is-what-you-see](#)

MIDI source

The MIDI source is a powerful modulation source if you want more control over FabFilter Saturn using a MIDI keyboard or MIDI control knobs. Note that you first need to route data from a MIDI track to Saturn in your host.

To add a MIDI source as a modulation source, click the + button in the [source selection bar](#) and click **New MIDI Source**.



- **MIDI Input**

Normally the MIDI source lets you use MIDI input such as velocity, pitch bend and modulation wheel to influence any parameter that can be modulated.



- **Controller number**

... but when you set the input selection to Controller, it lets you use any MIDI controller as a modulation source.

- **Response curve**

The response curve can be adjusted to get the desired control over the MIDI source output. For example, when used with velocity as MIDI source the linear, exponential, logarithmic, square, square root or sine curves make great dynamic differences.

Using a MIDI source is different from [MIDI Learn](#) because there is no direct control of a knob via MIDI but it uses a modulation slot instead. This way you can add modulation to an already modulated destination. Or you can use the full rotation of a knob while actually modulating a smaller range. This can be a good way to control say, a band level or EG attack for which you sometimes want to make small changes with great precision.

At the top right of the source interface, the Presets button  provides access to the MIDI source [section presets](#). The Remove button  deletes the MIDI source. You can customize the default MIDI source settings (used when creating a new MIDI source) by overwriting the predefined **Default** section preset.

Tips

- To let a sustain pedal control an [envelope generator](#), use a MIDI source. Set the input to Controller, and the controller number to 64. Now, [drag](#) the source drag button for the MIDI source to the hold control point of the envelope generator, and set the slot level to maximum. Of course, you can also set up more sophisticated behavior of the sustain pedal, for example by modulation the release setting instead of hold: the possibilities are endless.
- The VST 3 version of FabFilter Saturn doesn't support per-note aftertouch modulation.

Next: [XY Controller](#)

See Also

[Modulation](#)
[Drag-and-drop modulation slots](#)
[What-you-use-is-what-you-see](#)
[MIDI learn](#)

XY Controller

The XY Controller makes for more tweaking fun. It's a classic, and we didn't dare to leave it out! It can control two parameters with one mouse movement. When browsing presets don't forget to listen to the sound mangling possibilities provided by these controllers.

To add an XY controller as a modulation source, click the + button in the source selection bar and click **New XY Controller**.



Because the XY controller has two "outputs", it also has two source drag buttons labeled X and Y. The slots for the XY controller are grouped in two rows, with the X-slots at the top. For example, in the screen shot above, the X axis controls the output panning, while the Y axis controls the level.

The Remove button **X** deletes the XY Controller.

Tips

- To reset the XY Controller to its default position, hold down the *Ctrl* key (Windows) or *Command* key (OS X) and click once.
- When you want to adjust only one parameter on one axis, holding *Shift* will make it easier to do so while keeping the other parameter constant.
- With [MIDI learn](#), you can set up a hardware MIDI controller to control the XY controller. So if your MIDI controller has XY-functionality you can directly control FabFilter Saturn with it.

Next: [Mid/Side processing](#)

See Also

[Support](#)

Mid/Side processing

The Channel Mode button in the bottom bar selects between normal Left/Right processing and Mid/Side processing.



Mid/side is a representation of stereo sound as the sum and difference of the two channels. The concept has its origin in stereo microphone techniques using two microphones (more about that [here on Wikipedia](#)) but also gives us many options to change a stereo audio signal.

When you set the Channel Mode to Mid/Side, the incoming stereo signal (normal left and right audio) will be converted to *mid* (mono information; audio that's equally present in both channels) and *side* (pure stereo information; audio only present in either the left or right channel). The mid information is processed by the internal left channel, and the side information by the right channel. Of course, after the internal audio processing, the mid/side signal is converted back to stereo again.



Any conventional stereo signal can be converted to Mid/Side stereo, and back again, with no loss of information. Using the Mid and Side channels to treat them differently gives many creative opportunities, providing tremendous amount of control over the stereo spread.

You can use mid/side processing in FabFilter Saturn to achieve various useful and creative effects. For example, with the Pan ring around the Drive knob, you can drive the stereo image of a sound while keeping the mono/mid signal intact. Anything is possible!

Next: [Input/output controls](#)

See Also

[Band controls](#)

Input and output controls

Besides the [MIDI learn](#) and [Channel Mode](#) buttons, the bottom bar controls various input/output options and settings.



- **Auto Mute Feedback**

The Auto Mute Feedback option reduces the feedback used in the distortion bands if there is no incoming audio signal. Depending on the amount of feedback and type of distortion processing, the plug-in can start to self-oscillate endlessly. The auto-mute feature enables you to use extreme feedback settings while ensuring that the continuous ringing will stop when you stop playback in your host.

- **HQ**

The HQ (high quality) mode controls oversampling of the internal distortion algorithms. Adding distortion to a signal introduces digital aliasing effects, especially when applying a lot of drive. Enabling HQ mode will drastically reduce aliasing artifacts by oversampling the internal saturation section 8 times, at the cost of using more CPU power and introducing a very small latency.

Note: The HQ setting is not changed when you skip presets, but you can save its initial setting by overwriting the [default preset](#).

- **Audition**

The audition switch (recognizable by its headphones icon) lets you listen to either the normal output signal (default setting), the input signal (bypassing the entire plug-in) or the side chain signal. When setting up side chaining in your host this is very useful to confirm that the correct side chain signal is routed to the plug-in.

- **Input**

The input button shows the current input gain and lets you adjust it from -36 dB to +36 dB. To change the gain, simply drag the button up and down. For precise adjustments or to change the panning, click the input button once to open a pop-up window with the actual input/pan knobs. Click the button again to let the pop-up window disappear. The input and pan knobs are also [modulation targets](#).

- **Output**

The output button shows the current output gain, also adjustable from -36 dB to +36 dB. It works the same as the input button and is also a modulation target. Note that you can overdrive the filters by increasing the input gain and reducing the output gain at the same time.

- **Mix**

You can use the mix button to mix some of the original (dry, unprocessed) input signal back into the output signal, reducing the amount of filtered (wet) signal. Like the input and output buttons, this is also a modulation target.

Next: [MIDI learn](#)

See Also

[Overview](#)

[Modulation](#)

MIDI Learn

Controlling FabFilter Saturn's parameters directly with MIDI is very easy using the MIDI Learn feature. With MIDI Learn, you can associate any MIDI controller with any parameter.



Click the **MIDI Learn** button in the bottom bar to enter MIDI Learn mode. The interface dims and the parameters that can be controlled are highlighted. Each parameter has a small text balloon that displays the associated controller number. Now do the following to associate a controller number with a parameter:

1. Touch the control of the desired parameter in the interface that you wish to control. A red square will mark the chosen parameter.
2. Adjust the slider or knob on your MIDI keyboard or MIDI controller that you want to associate with that parameter.

That's it! The parameter will now be controlled with the MIDI controller. You can now go back to step 1 to associate a different parameter. Note that there is no warning when you associate a different knob with a controller number that is already used. It will just be replaced.

To exit MIDI Learn mode, click the MIDI Learn button again, or click Close at the top of the interface.

Click the small menu drop-down button next to the MIDI Learn button to access the **MIDI Learn menu**:

- **Enable MIDI**

This globally turns MIDI control of parameters on or off: useful in hosts that automatically send all MIDI events on a track to all effect plug-ins associated with that track as well.

- **Clear**

This submenu shows all parameter associations and lets you delete individual associations or clear all associations in one step.

- **Revert**

Reverts to the last saved MIDI mapping (or the state when the plug-in was started).

- **Save**

Saves the current MIDI mapping so Revert will go back to this state. The current mapping is automatically saved when closing the plug-in.

Routing MIDI to effect plug-ins

For MIDI Learn to work properly, the plug-in needs to actually receive MIDI of course. Depending on your host, it can be quite difficult to route MIDI data to effect plug-ins. Here's how to do it in the most important hosts:

- **Logic Pro**

Instead of adding FabFilter Saturn to one of the insert slots, create a new **Instrument Track**, and click on the Instrument slot. Then choose **AU MIDI-controlled Effects** > FabFilter > FF Saturn. Now, the plug-in receives MIDI. To get audio into the plug-in, click the '**Side Chain**' drop down menu in Logic's plug-in header and choose the actual input track. Next, you can mute that original track, so you only hear the audio through the plug-in. The only downside is that plug-ins with an external side-chain cannot use it anymore.

- **Cubase**

Simply create a new **MIDI track** and set its output to the Saturn instance you would like to control via MIDI.

- **Pro Tools**

Create a new **MIDI track**. From the MIDI input drop down menu, choose your MIDI device (if not already selected) and from the MIDI output drop down menu, choose FabFilter Saturn -> channel 1 for the instance you would like to control.

- **Ableton Live**

First of all, create a new **MIDI track**. From the 'MIDI from' drop down menu, choose your MIDI device (if not already selected). Then, in the 'MIDI to' drop down menu, choose the Audio track that has FabFilter Saturn on it. NOTE: only the first plug-in on any track can receive MIDI!

Next: [Undo, redo, A/B switch](#)

See Also

[Overview](#)

Undo, redo, A/B switch

The Undo and Redo buttons at the top of the FabFilter Saturn interface enable you to easily undo changes you made to the plug-in. With the A/B feature, you can quickly switch between two different states of the plug-in.



- The **Undo** button at the left will undo the last change. Every change to the plug-in (such as dragging a knob or selecting a new preset) creates a new state in the undo history. The Undo button steps back through the history to restore the previous states of the plug-in.
- The **Redo** button cancels the last undo command. It steps forward through the history until you are back at the most recent plug-in state.
- The **A/B** button switches from A to B and back. Before switching, the current state of the plug-in is saved, so if you click this button twice, you are back at the first state. The button highlights the currently selected state (A or B). In the example above, the A state is active.
- The **Copy** button copies the active state to the inactive state. This marks the current state of the plug-in and allows you to go back to it easily with the A/B button. After clicking Copy, the button disables itself to show that both states are equal, so there is nothing to copy anymore.

Notes

- If the plug-in parameters are changed without using the plug-in interface, for example with MIDI or automation, no new undo states are recorded.
- The Undo and Redo buttons will disable themselves if there is nothing to undo or redo.

Next: [Loading presets](#)

See Also

[Overview](#)

Loading presets

Plenty of presets are provided with FabFilter Saturn, giving a good idea of what you can do. You can either use the presets as they are, or tweak them further to create your own unique sounds.

- To load a preset, click the preset button. The presets menu will appear with all available presets. Click a menu item to load that preset. The currently selected preset is highlighted with check marks.
- To explore the presets one by one, click on the little arrow buttons to the left and right of the main preset button. This will load the previous or next preset in the menu.

The preset button shows the name of the current preset. If you have changed the preset by adjusting one or more parameters, the name is dimmed to indicate that this is not the original preset anymore.

Tips

- The **Default Setting** preset is loaded automatically when FabFilter Saturn is started. To change the default settings, simply overwrite this preset by clicking **Options > Save As Default** in the presets menu.
- To open a preset outside the [presets folder](#), click **Options > Open Other Preset**. This might be useful if someone sends you a preset by e-mail, for example.
- If somehow the factory presets are lost or not installed properly, click **Options > Restore Factory Presets** in the preset menu to restore them.

MIDI Program Change and Bank Select

Loading a presets can also be done via MIDI, using Bank Select and Program Change messages. Click **Options > Enable MIDI Program Changes** in the preset menu to enable or disable this feature. When enabled, the corresponding bank/program numbers are shown in front of the preset name (for example: *(2/65) My Preset*). This means that you can load that preset by first sending a Bank Select message to select bank 2 and then sending a Program Change message to select program 65.

Important: All the presets in your preset folder are numbered automatically, starting with bank 0 and program 0. This way, you are able to access any of the presets via MIDI. However, this also means that when you add new presets to the menu, bank/program numbers of other presets might change. Be aware of this when recording program changes in a session!

Next: [Saving presets](#)

See Also

[Overview](#)

[Acknowledgements](#)

Saving presets

You can easily extend the included presets with new settings to build your own library of presets for FabFilter Saturn that you can reuse in various projects. This is also a good way to copy settings across multiple instances of FabFilter Saturn in a session.

To save the current setting as a preset, click the preset button, and then click *Save As*. A standard Save dialog will appear. Type a name for the new preset and click *Save* to finish.

In the Save dialog, you can also rename and delete existing presets and create a new folder to store presets in. New folders will show up as new categories in the preset menu. (On Mac OS X, this should be done with the Finder.)

See [How presets are stored](#) to determine the preset folder location and learn more about factory presets.


Next: [Section presets](#)

See Also

[Loading presets](#)

[Overview](#)

Section presets

To make designing sounds for FabFilter Saturn easier, you can save section presets for different sections of the plug-in. In this way you can, for example, easily re-use certain settings. To load and save section presets, click the Presets  button that appears in each section. This will display a presets menu for that section. FabFilter Saturn comes with a selection of ready-made section presets, but we encourage you to save your own presets to build a custom library of sound building blocks.

Supported sections are:

- [Band controls](#)
- [XLFO](#)
- [Envelope generator](#)
- [Envelope follower](#)
- [MIDI source](#)

When you add a new modulation source, it loads its **Default** section preset. You can customize the initial settings just by overwriting that preset using the Save dialog.

Section presets are stored in the *Application Data* folder (Windows) or *Application Support* folder (OS X) for the current user. For example, the full path to the presets for the filter section on Windows XP is *C:\Documents and Settings\<User>\Application Data\FabFilter\Saturn\Component Presets\Filters*. You cannot change the section preset paths.

Next: [How presets are stored](#)

See Also

[Loading presets](#)
[Overview](#)

How presets are stored

Presets for FabFilter Saturn are stored in separate files with the .ffp extension (for FabFilter Preset). All presets reside in subfolders in the main preset folder. The subfolders will show up as separate categories in the preset menu. You can also further divide the subfolders into categories.

You can manage the preset files just like other files on your computer. The easiest way to do this is in the Save dialog that appears if you are saving a preset. The preset menu will automatically reload itself with the changes when the dialog is closed.

Furthermore it is very easy to share your newly created presets with other users since FabFilter presets use the same file format on both Windows and Mac OS X.

The default location of the main preset folder is *My Documents\FabFilter\Saturn* for Windows, and *~/Library/Audio/Presets/FabFilter/FabFilter Saturn* for Mac OS X. To change this location, first copy all presets to the desired new location, and then click **Options > Change Preset Folder** in the preset menu and select the new folder.

Restoring factory presets

If you have accidentally lost the factory presets, you can easily restore them by clicking **Options > Restore Factory Presets** in the preset menu. This will install all factory presets again.

Next: [Purchasing FabFilter Saturn](#)

See Also

[Saving presets](#)

[Overview](#)

Purchasing FabFilter Saturn

Once you have downloaded and installed the evaluation copy of the FabFilter Saturn, you may evaluate it during 30 days. Every time you start the plug-in, you will see the following dialog:




While there are still days left, you can click **Evaluate** to start working with the plugin. If you want to keep using FabFilter Saturn after the evaluation period, you must buy a copy in the online FabFilter Shop by clicking the **Buy Now** button in the evaluation dialog.

- [Go to the FabFilter Shop and purchase FabFilter Saturn now](#) 

We accept credit cards from all major companies, check payments, wire payments, and PayPal. The FabFilter Shop uses secure connections and encryption: therefore your personal information is completely safe.

Within a few minutes after you have purchased your copy, you will receive an e-mail containing your personal license key. You use this license key to turn the evaluation copy into a fully registered version without the evaluation dialog and the 30-day trial restriction.

Note: If the evaluation period has expired but you didn't have the chance to properly evaluate the plug-in, you can request a new evaluation period by contacting us at info@fabfilter.com .

Next: [Entering your license key](#)

See Also

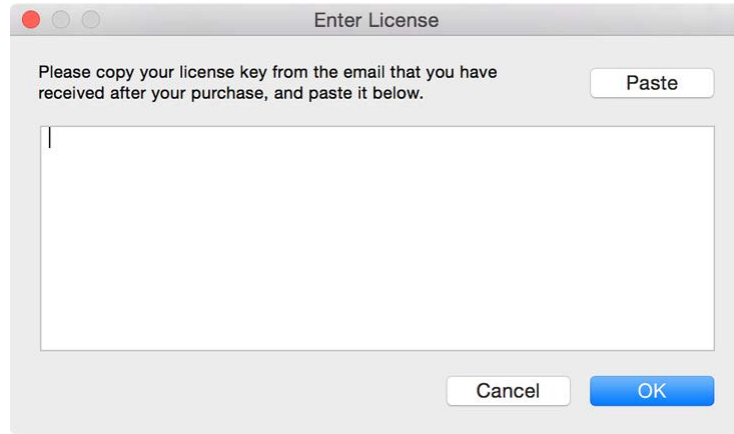
[Support](#)

[License agreement](#)

Entering your license key

After you have purchased FabFilter Saturn in the online [FabFilter Shop](#), you will immediately receive an e-mail containing your personal license key. This license key will turn the evaluation version into a fully registered plug-in.

- Start FabFilter Saturn and click **Enter License** in the evaluation dialog, or click Enter License on the Help menu if the plug-in is already running.
- Copy the license information from the e-mail you have received and paste it into the text field. Make sure that you are copying the entire license key including the *Product* and *Licensee* lines! If you are not sure what text to copy, just copy and paste the whole e-mail.



After you have entered your license information, you will need to restart the plug-in host, so make sure you save your settings if needed. From now on, you will be able to use FabFilter Saturn for an unlimited period of time with full support via e-mail.

Tips

- After your purchase, you can always retrieve your license key again by logging into your [personal FabFilter account](#). Here you can also keep track of all your orders and take advantage of great discounts when buying other FabFilter plug-ins!
- To deauthorize your license key and remove it from the computer, click **Deauthorize** on the Help menu. If you temporarily needed to install your license on another computer, or if you have transferred your license to someone else, this is the way to deinstall your personal license key safely.

Next: [Support](#)

See Also

[Purchasing FabFilter Saturn](#)
[Support](#)
[License agreement](#)

Support


If you need help with problems or questions, and the help file does not provide an answer, please visit the support pages on our web site.

- [Go to FabFilter Support](#) 

From here, you have direct access to the customer support forum, very useful tutorial videos for all FabFilter plug-ins, online and PDF versions of all our help files, and a section with extra downloads (such as presets, controller templates, older plug-in versions).

For sales-related questions and technical support, you can also contact FabFilter directly at info@fabfilter.com.

Reporting a bug

If you have encountered a bug in FabFilter Saturn, first of all make sure that you are using the latest version of the plug-in, which you can find at www.fabfilter.com/download . You can easily check the version of FabFilter Saturn that you are using by clicking Help > About in the plug-in interface. If the bug is still present in the latest version, please send us an e-mail at info@fabfilter.com and include as much technical information as possible: operation system and version, host software and version, steps to reproduce the bug, etc. Thanks in advance!

Next: [Manual installation](#)

See Also

[Overview](#)

[About FabFilter](#)

Manual installation

When installing FabFilter Saturn, the installation program will try to copy the plug-in into the appropriate plug-ins folders, and in most cases your host will recognize FabFilter Saturn automatically. Otherwise, please follow these instructions:

Windows

On Windows, most hosts have their own VST plug-ins folder. So if you are using Windows and your host does not recognize FabFilter Saturn, you need to locate the proper plug-ins folder for your host first (it is usually shown in the Preferences or similar dialog). Then, copy the file *FabFilter Saturn.dll* from *C:\Program Files\FabFilter\Saturn* (or *C:\Program Files (x86)\FabFilter\Saturn* if you are using a 32-bit host on 64-bit Windows) to the plug-ins folder that you have found and restart the host so it can reload all its plug-ins. For the AAX version of Saturn, copy the *FabFilter Saturn.aaxplugin* folder to the common Pro Tools AAX plug-in folder on your computer; for the RTAS version of Saturn, copy the *FabFilter Saturn.dpm* and *FabFilter Saturn.dpm.rsr* files to the Pro Tools RTAS plug-in folder on your computer.

You can simply uninstall plug-ins or bundles via the Control Panel.

Mac OS X

On Mac OS X, plug-ins are installed in the standard plug-in folders in the system Library folder. These are the *only* possible correct locations:

- Audio Units: */Library/Audio/Plug-Ins/Components*
- VST/VST3: */Library/Audio/Plug-Ins/VST* and */Library/Audio/Plug-Ins/VST3*
- RTAS: */Library/Application Support/Digidesign/Plug-Ins*
- AAX: */Library/Application Support/Avid/Audio/Plug-Ins*


Note: AU and VST/VST3 plug-ins may be placed in the user's Library folders under *~/Library/Audio/Plug-Ins* as well.

To uninstall the plug-ins from your Mac, you can just delete the specific FabFilter plug-in files at the above locations. Finally, if you really want to delete all data written by our plug-ins, you can remove the following folders/files from your user *~/Library* as well:

- *~/Library/Audio/Presets/FabFilter/FabFilter Saturn*
- *~/Library/Application Support/FabFilter/Saturn*
- *~/Library/Preferences/com.fabfilter.Saturn.1.plist*

Note: Since OS X 10.7 (Lion), the system and user Library folders are marked as hidden by default. To make them visible again in Finder, open Terminal (found in */Applications/Utilities*) and enter the following commands:

```
chflags nohidden /Library
chflags nohidden ~/Library
```

If you still have problems, contact [FabFilter Support](#) .

Next: [VST plug-in versions](#)

See Also

[Quick start](#)

[Support](#)

VST plug-in versions

FabFilter Saturn is available in both VST 2 and VST 3 formats. They can be installed and used both at the same time. The VST 3 format offers easy side-chaining (if the plug-in supports that of course) and is more CPU-friendly in some cases, but it can only be used by hosts that support it, for example recent versions of Cubase, Studio One or FL Studio. The VST 2 format is compatible with a larger variety of hosts.

VST 2

For the VST 2 format, there are two versions of the FabFilter Saturn plug-in, a mono and a stereo one:

- *FabFilter Saturn*: Stereo version of the plug-in
- *FabFilter Saturn (Mono)*: Mono version of the plug-in

Note: The VST 3 version of the plug-in automatically adapts itself to both mono and stereo tracks.

Next: [External side chaining](#)

See Also

[Quick start](#)

[Manual installation](#)

External side chaining

FabFilter Saturn offers the possibility of feeding an external signal to its side chain, so that you can make it trigger on a different signal than the audio it is actually processing. Feeding a signal to a plug-in's side-chain inputs works slightly different in various hosts. This topic describes the procedure for some of the most popular hosts around: [Cubase](#), [Logic Pro](#), [Ableton Live](#) and [Pro Tools](#).

To explain how it works, we use a scenario with two tracks. The first one contains the audio that we want to process with Saturn, which we'll call the *main track* from now. The second track contains the audio that we want to route to Saturn's external side-chain input and use as trigger signal. We'll call this track the *side chain track*.

After setting up everything according to the instructions below for your host, you can check whether everything is routed correctly: play the audio and enable FabFilter Saturn's Audition button to listen to the side-chain signal. Afterwards, disable the Audition mode again. Any [envelope generators](#) or [envelope followers](#) that are set to trigger on the external side chain, will now respond to the side chain signal.

Cubase

- Open Cubase and create a new empty project.
- Add two audio tracks that we'll use as main track and side chain track.
- Add audio files on both the main track and the side chain track. You can simply drag audio files from a Finder/Explorer window onto a track.
- Open the Mixer. In the main track, click on an empty insert slot and select the VST 3 version of FabFilter Saturn in the Distortion menu (note the VST 3 icon which looks like ///).
- Open FabFilter Saturn's interface and set up an [envelope generator](#) or [envelope follower](#), triggered by the external side chain signal.
- In the plug-in header, click on the Activate Side-Chain button (right of the R/W buttons) to enable the external side chain in Cubase.
- At the top of the Mixer, set the output for the side chain track to the side-chain input of FabFilter Saturn.

Logic Pro

- Open Logic Pro and create a new empty project via File > New...
- Add two audio tracks (via Track > New...) that we'll use as main track and side chain track.
- Add audio files on both the main track and the side chain track. You can simply drag audio files from a Finder/Explorer window onto a track.
- Select the main track and add Saturn in the first Insert effect slot.
- Open FabFilter Saturn's interface and set up an [envelope generator](#) or [envelope follower](#), triggered by the external side chain signal.
- In the right top corner of the plug-in interface header, in the 'Side Chain' menu, choose the side chain track. Now, the signal from the side chain track is sent to FabFilter Saturn's external side-chain input.

Ableton Live

- Open Ableton Live and start with an empty arrangement. We'll use Track 1 as the side chain track and Track 2 as the main track.
- From the folder menu's on at the left top of Ableton Live's interface, drag different audio clips to the first empty slots of Track 1 and Track 2.
- From the VST (or Audio Units) plug-in menu, also at the left top of Ableton Live's interface, drag FabFilter Saturn onto Track 2, the main track.
- Open FabFilter Saturn's interface and set up an [envelope generator](#) or [envelope follower](#), triggered by the external side chain signal.
- In Track 1 (the side chain track) in the 'Audio To' menu select 'Track 2' instead of the default 'Master'. Now, an extra menu appears right below: choose 'FF Saturn 3/4' instead of the default 'Track In' to route the track's signal to FabFilter Saturn's external side chain inputs.
- **Note:** In the scenario above, you won't hear Track 1 (the side-chain signal) anymore, since its audio is only routed to Saturn's side-chain inputs. To avoid this, use one additional track (e.g. Track 3), choose 'Track 1' from its 'Audio From' dropdown menu, and in the 'Audio To' menu select 'Track 2' instead of the default 'Master'. Now, from the extra menu below choose 'FF Saturn 3/4'. Of course, you can now leave Track 1's 'Audio To' setting to the original 'Master' so you will still hear the signal.

Pro Tools

- Open Pro Tools and start a new empty session.
- Create two audio tracks that we'll use as main track and side chain track. Add audio files to both track.
- Open the Mix window to display the tracks with their Insert slots and Sends slots.
- In the first 'Sends' slot of the side chain track, choose 'Bus 1'. The track view for Bus 1 will open: set its level slider to 0.0 dB so the bus actually produces audio!
- In the first 'Inserts' slot of the main track, choose Harmonic > FabFilter Saturn.
- Open FabFilter Saturn's interface and set up an [envelope generator](#) or [envelope follower](#), triggered by the external side chain signal.
- Now, in the 'Key Input' menu of the plug-in interface (just above the FabFilter logo), choose bus > Bus 1 instead of the default 'no key input'. Now, the audio from the side chain track is routed to Saturn's external side chain input via Bus 1.

Next: [License agreement](#)

See Also

[Input/output controls](#)

FabFilter Software License Agreement

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3. VST plugin technology

VST is a trademark of Steinberg Soft- und Hardware GmbH.

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Acknowledgements

FabFilter Saturn comes with a library of presets. Almost all of these were created by external sound designers:

- bManic (BM)
- Stephan Müsch (SM)
- Ouroboros (O)
- Dax Liniere (Dax)

Visit the [FabFilter sound designers page](#)  to read more about each sound designer.

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About FabFilter

Beautiful sound. Fantastic workflow. These are the foundations of FabFilter. We create powerful audio plug-ins with superb sound quality and innovative interfaces.

A unique perspective

At FabFilter, we make the best possible tools for music production and audio processing. To achieve this, we continually rethink and challenge industry standards: we've never been afraid of reinventing the wheel. Considering every little detail, we tune our algorithms and interfaces until they sound perfect, look amazing and feel great to work with.

It's the sound that counts

Above everything else, you need superb sound quality. That's why we put a lot of effort into developing unique audio processing algorithms, ranging from our famous resonating filters to transparent high-end EQ and dynamics processing.

Innovative interfaces, great design

Every FabFilter plug-in has an easy-to-use, well-designed interface aimed at providing unsurpassed workflow. Our plug-ins focus on the task you're performing at that specific moment: they expose the features you need, when you need them. And because of our special attention to design, you'll be delighted every time you open a FabFilter plug-in.

Don't take our word for it

We always set the highest standard for sound quality, usability and design to make truly great products that raise the bar on what audio software can do. That's why we're very happy with the praise we've received from users and press alike:

"In the decade since the release of its first plug-in, One, FabFilter has made an indelible mark on the music production landscape." — Computer Music magazine

"While many other software developers are busy trying to model hardware, FabFilter is leaving them in the dust by being visionaries and reaching into the future. FabFilter stuff is just on another level." — Jeff Sanders

"FabFilter has an enviable reputation for making easy-to-use, powerful tools." — Music Tech magazine

FabFilter was founded in 2002 by Frederik Slijkerman and Floris Klinkert, and is based in Amsterdam, The Netherlands.

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