FabFilter One

User Manual

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About FabFilter One

In the last few years, more and more people have started to use software synthesizers, software samplers and effect plug-ins instead of good old hardware. However, it seems almost impossible to recreate those fat, warm-sounding analog synths and effects in digital form. Many companies have tried and failed, giving their plugins vintage-look interfaces, tons of features, and crappy effects, diverting you from the real issue: the sound.

FabFilter does things differently. We don't compromise on sound quality and ease of use. We give you the tools you need to create your music. After years of intensive research and development, we present our first product: FabFilter One.

FabFilter One is a simple yet awesome sounding synthesizer, based on analog classics like the Korg MS-10. It has the fattest filter you've ever heard in a digital synth. And we've invested lots of time in the little things that make all the difference: smooth and sexy portamento, perfectly fine-tuned knobs and interpolation algorithms that are responsive and smooth at the same time.

Of course, the FabFilter One also supports everything you've come to expect from modern plugins, like an extensive preset system, sample accurate parameter changes, and a complete MIDI interface with MIDI Learn.

FabFilter One is available in VST, VST3, CLAP, AU (Audio Units) and AAX Native formats.

Windows requirements	**macOS requirements**
Windows 11, 10, 8, 7 or Vista	macOS 10.13 or higher (64-bit only)
64-bit or 32-bit	VST 2/3, AU or CLAP host, or Pro Tools
VST 2/3 or CLAP host, or Pro Tools	Intel or Apple Silicon processor

Next: Key features

See Also
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Key features

FabFilter One stands out on many points:

- **Best cut-off filter**
  We have put tremendous effort in creating the best cut-off filter ever. No useless features and options here: it's just the fattest and smoothest self-oscillating digital filter you've ever heard. It sound is inspired by the analog Korg MS-series from the late seventies: raw but never cheap, going crazy with high peak values, but never over the top. Even at full resonance, there are none of the zippery digital artefacts that are so common among other plugin filters.
- **Great oscillator**
  The oscillator sounds strong, pure, and clean. Again, we've invested a lot of time to get just the right analog feel, custom-shaping the waveforms and fine-tuning the sound. You get pure fatness in the low regions and total clarity in the high regions! There are extensive pulse width modulation options and it's also possible to mix white or pink noise into the signal, which is great for percussive sounds.
- **Smoothest portamento**
  Most synthesizers just slide from one note to another without giving it another thought. We understand that good portamento is one of those things that give your play just that little bit extra. Good portamento is magic. So we've fine-tuned it until it was just right, and added polyphony support as well. Feel it yourself!
- **Smart parameter interpolation**
  Parameter changes are interpolated by smart algorithms, ensuring both responsiveness and smooth transitions without clicks or 'zipper' effects. This is especially important with MIDI controller changes.
- **Polyphony and velocity sensitivity**
  FabFilter One now supports 10-voice polyphony, volume and filter velocity sensitivity, and filter keyboard tracking. As an extra bonus, the modulation generator can now also be synchronized to the plug-in host.
- **Straightforward user interface**
  The user interface is simple, modern, and easy to use. The knobs are large and can be dragged up and down as well as turned around for precise adjustments. You can tweak and tune your sounds to your hearts' content without having to hunt for impossible little knobs and sliders.
- **Presets**
  FabFilter One comes with a standard set of dozens of great sounds and enables you to create and save your own presets. You can share your sounds with other FabFilter One users and the preset files are the same in the macOS and Windows versions.
- **Sample accuracy and high sample rates**
  Naturally, the FabFilter One plug-in handles all parameter changes at sample accuracy and it can be used with arbitrary sample rates.

Next: Quick start

See Also
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Quick start

The installer will copy the FabFilter One plug-in into the common VST, VST 3, CLAP, AU (macOS only) and Pro Tools plug-in folders on your computer. On macOS, 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.

- **Pro Tools**
  Choose an empty insert slot on one of your audio tracks, instrument tracks or buses and select FabFilter One from the pop-up menu in the Instruments section.
- **Studio One**
  Click the '+' button next to the Inserts tab of an audio track, instrument track or bus and select 'One' from the drop-down menu.
- **Logic Pro**
  Choose an empty insert slot on one of your audio tracks, instrument tracks or buses and select FabFilter One from the pop-up menu. You will find FabFilter One in the *Audio Units* > *FabFilter* section (named One).
- **Ableton Live**
  In Session view, select the track you would like to place FabFilter One 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 > One, or drag it onto the track.
- **Cubase**
  Choose an empty insert slot, for example in the Mixer, and select Instruments > One from the menu that appears. To use the MIDI features in One, create a new MIDI track and set its output to the One instance you have just created.

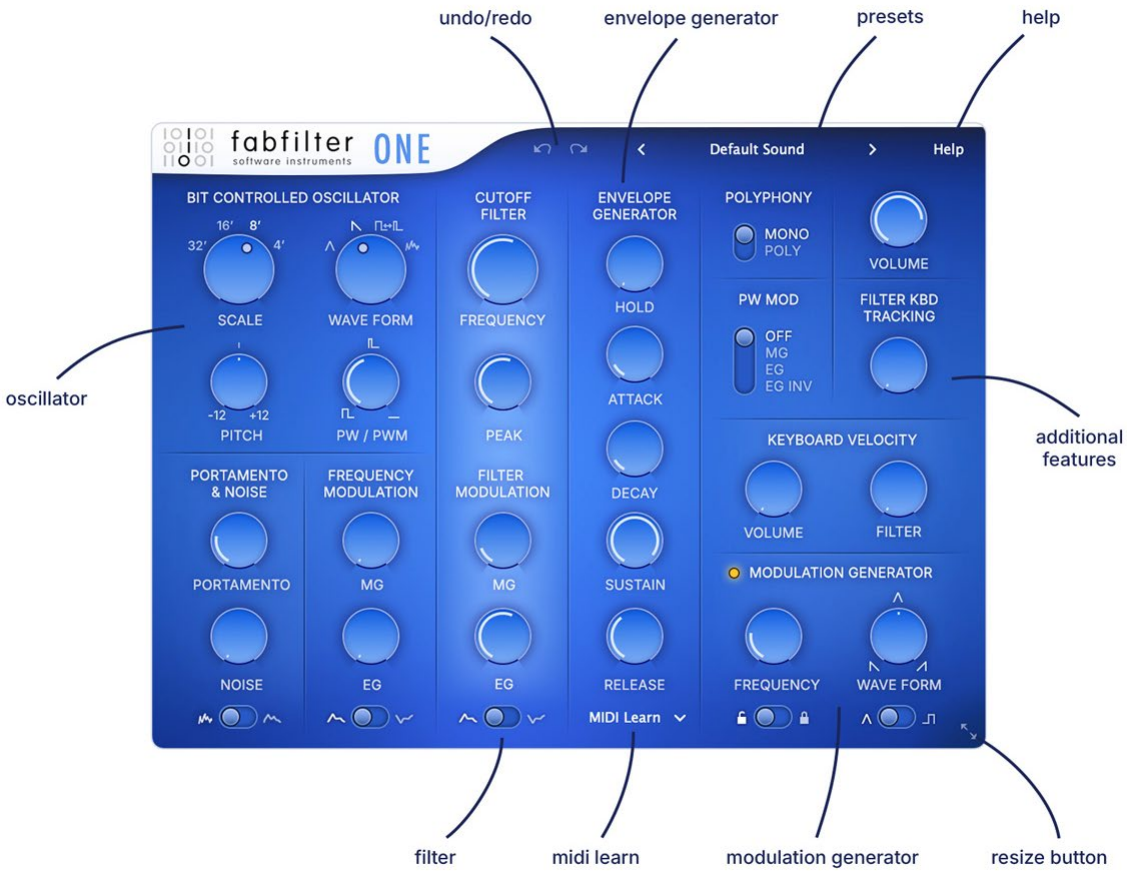
Use the Presets button at the top of the plug-in interface to try different settings from the many factory presets that are bundled with FabFilter One. Have fun!

Next: FabFilter One overview

See Also
Overview
Loading presets

Overview

The FabFilter One interface is divided into several sections, somewhat like the front panel of a traditional analogue synthesizer.



- **Oscillator**
  The oscillator is the heart of the synthesizer, producing the raw tones that are modified by the other components. It also contains portamento, additional noise settings and settings that control the amount of frequency modulation by the modulation generator and envelope generator.
- **Filter**
  The filter alters the tones from the oscillator to make them warmer and less harsh. Like a true analogue filter, it can easily be driven to self-oscillation to create completely distorted sounds, or a warm lead with a little raw edge. The filter section also contains settings that control the amount of frequency modulation by the modulation generator and envelope generator
- **Envelope generator**
  The final touch and feel of the sound is defined by the envelope generator. Tweak the various settings here to create anything between short percussive hits to long reverberating effects.
- **Modulation generator**
  The modulation generator generates a low-frequency square or triangle wave that can be used to modulate both the frequency of the oscillator and the cut-off frequency of the filter. This is where the fun starts!
- **Additional features**
  This section contains a few useful extras. You can choose between monophonic and polyphonic (10-voice) mode, set the type of pulse width modulation, set the amount of filter keyboard tracking and set the amount of keyboard velocity modulation for the volume and the filter cut-off frequency.
- **Presets**
  With the preset button, you can easily browse through the factory presets or save your own sounds so you can re-use them in other songs. See Presets.

Next: Knobs and switches

See Also
Quick start
Creating sounds

Knobs

It is easy to control FabFilter One'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 three ways of control:

1. **Vertical mode**
   Click on 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. **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.)
3. **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 (macOS) and click the knob once. Note: In Pro Tools, One 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, One uses the default Pro Tools keyboard shortcut for fine tune: *Ctrl*+drag on Windows or *Command*+drag on macOS.
- 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 can 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: Oscillator

See Also
Overview

Oscillator

At the heart of the synthesizer, the oscillator produces the raw tones that are later modified by other components, such as the filter and the envelope generator.

You control the oscillator with the following settings:

- **Wave Form**
  Selects the wave form that the oscillator produces: **triangle** (a soft, warm tone), **sawtooth** (a sharp bright tone that is ideal for filtering), **square** (a more metallic sound, adjustable with the pulse width setting), and **white noise** (which is great for percussive sounds and effects).
- **PW/PWM**
  Adjusts the pulse width of the square wave form, from an even square to an infinitely thin pulse (which is inaudible). In combination with the **Pulse Width Modulation** switch in the Patching Features section, this knob also adjusts the amount of pulse width modulation. See Modulation: I can't stop.
- **Scale**
  Transposes the tones that are produced by the oscillator by full octaves. The oscillator produces rich bass tones at the 32' position and high whistles at 4'. The 16' and 8' settings are good for lead sounds.
- **Pitch**
  Slightly detunes the oscillator, which can be necessary if you want to play along with a record, or with live instruments. To reset this setting, hold down Ctrl and click the Pitch knob once.
- **Portamento**
  Adjusts the amount of portamento or glide, which makes the oscillator slide from one note to another. A little portamento is great for smooth keyboard solos, or when playing large bass intervals. The portamento feature in FabFilter One is unique because it also works in polyphonic mode, so you can play sliding chords!
- **Noise**
  Adds extra noise to the oscillator signal. Use the **Noise Type** switch at the bottom to choose between white and pink noise. A small amount of noise makes instruments sound more natural, and you can create thundering sound effects with lots of pink noise. (Try the **Pink Noise** preset in the **Basic** submenu for a good starting point.)

Next: Filter

See Also
Overview

Filter

The 12 dB/octave low-pass filter is one of the most important components in the synthesizer. Especially when using the modulation features, it is the key to creating great sounds.

The **Frequency** knob adjusts the cut-off frequency. Basically, all sounds below the cut-off frequency will go through the filter, but sounds with higher frequencies are damped. At position 10, the cut-off frequency is far above 20 kHz and therefore the filter will allow all frequencies to go through unchanged. At position 0, the cut-off frequency is just a few Hz and the filter will block almost all sound from the oscillator.

The wave forms produced by the oscillator contain many harmonics: high frequencies that are multiples of the fundamental tone. Therefore, they sound bright and a little harsh. By turning the Frequency knob to the left, you reduce the number of harmonics to change the character of the wave forms and create warmer sounds.

The **Peak** knob adjusts the filter resonance. A little resonance will cause the filter to create warmer and more characteristic tones. Around position 8, the filter starts to self-oscillate at the cut-off frequency which creates terrific effects in combination with the sound from the oscillator. At these high peak values, the filter produces deep, ringing bass tones if you set the Frequency knob around position 3 or 4.

We've carefully tuned the filter to avoid the whistles and other digital artefacts that are common with other digital filters when you change the cut-off frequency at maximum resonance. Our filter sounds crazy but never over the top!

You can modulate filter cut-off frequency with the modulation generator (the **MG** knob), the envelope generator (the **EG** knob), and with keyboard velocity. Read the modulation basics section to learn more about the modulation features of the FabFilter One.

Next: Envelope generator

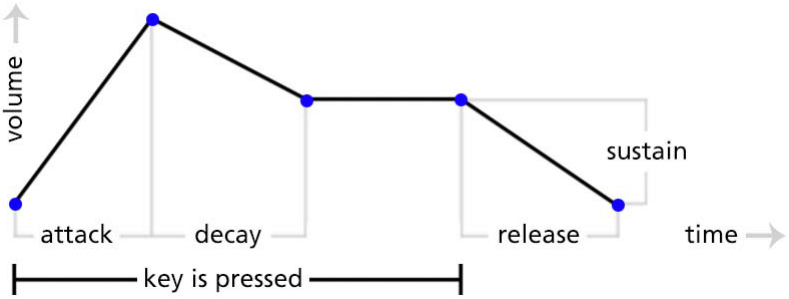
See Also
Modulation basics
Overview

Envelope generator

The envelope generator changes the volume of the sound dynamically when you press and release keys. It shapes your sounds, adjusting the timbre and release. It's also frequently used to modulate the filter for dynamically changing sounds.

- **Hold**
  Sets the extra time that a key appears to be held down after you have released it. After releasing a key, the envelope generator pretends it is still down for the duration of the hold time. This enables you to press new keys while the previous note is still playing.
- **Attack**
  Sets the attack time, which controls how long it takes for the volume to increase when you press a key. The volume always increases from zero to the maximum value. Set this to 0 for staccato instruments and drums. Use larger values for more natural sounds, such as flutes and pads.
- **Decay**
  Sets the decay time, which controls how long it takes for the volume to decrease after the maximum value has been reached at the end of the attack stage. The volume always decreases from the maximum value to the sustain level. The effect of the decay setting depends on the sustain level. With a low sustain level and short attack and decay times, the envelope generator produces a sharp tick whenever you press a key. With the sustain level at its maximum, the volume does not decrease at all, so the decay setting has no effect.
- **Sustain**
  Sets the sustain level: the volume that is produced when both the attack and decay stages are over, but the key is still held down. If you want a sharp attack (especially when you also use the envelope generator to modulate the filter), you have to use a low sustain level. If you set the sustain level to 0, the sound will be inaudible after the attack and decay stages, which is often useful for drums and percussion.
- **Release**
  Sets the release time, which controls how long it takes for the volume to decrease from the current level to zero when you release a key and the hold time has elapsed. When playing the synthesizer live, it's often nice to have a little longer release time because this gives you time to play a new note while the current note still fades away.

This diagram illustrates the stages that the envelope generator goes through when you press and release a key:



Tips

- When you work with short attack, decay, and release times, it's often easier to adjust the knobs using the rotational drag mode. To do this, drag the knob arrow around, and move the mouse cursor further away from the knob for more precise adjustments.
- If you use a short decay time, a low sustain level, and a long release time and a key is released when the envelope generator is not yet in the sustain stage, it enters the release stage immediately which can cause the sound to last much longer. Although this can be a nice effect, you can avoid it by choosing a larger hold time.

Next: Modulation basics

See Also
Overview

Modulation basics

So far, we've discussed how to use the oscillator, the filter, and the envelope generator to create basic sounds. To make things more interesting, you can also let the synthesizer adjust the oscillator frequency and the filter cut-off frequency dynamically while playing a sound. This is called **modulation**.

You can modulate the oscillator frequency and filter cut-off frequency with the modulation generator and the envelope generator. The filter cut-off frequency can also be modulated by velocity.

The **modulation generator** generates a low-frequency square or triangle wave. Use this to adjust the oscillator frequency and the filter cut-off frequency periodically. The amount of modulation is controlled with the **MG** knobs. The modulation generator contains the following settings:

- **Wave form**
  Adjusts the balance between rising and falling ramps in the wave form. To reset the balance, hold down the Ctrl key and click the knob once.
- **Sync mode**
  Chooses between arbitrary frequency settings and synchronizing with the tempo and song position of the plug-in host.
- **Frequency / Sync type**
  Sets the speed of the wave form that is produced by the modulation generator. When synchronized to the host's tempo and position (the closed lock symbol), you can choose a 'frequency' in bars, between 16 bars and 1/64 bar. Otherwise, you can set an arbitrary frequency. When set to 0, very slow ramps are produced that can for example be used with white noise to imitate ocean waves rolling in.

You can also switch between square waves and triangle waves. Triangle waves are good to slowly change the filter cut-off frequency or to simulate a car siren. The square wave form is very useful to repeatedly switch between two different tones. With the frequency modulation MG knob, you can tune the two tones to be exactly one octave apart, for example.

The **envelope generator** enables you to modulate the sound dynamically while you press and release keys. The amount of modulation is controlled with the **EG** knobs. Modulating the filter cut-off frequency with the envelope generator is essential for creating percussive attack effects and simulating real instruments.

When the envelope generator is in its sustain stage, it has no effect as a modulator. In the attack or decay stage, it increases the oscillator or cut-off frequency; in the release stage, it decreases the frequency. It depends on the EG knobs how much the frequency is changed.

Tips

- Set the modulation generator to a moderate frequency and turn the frequency modulation MG knob up slightly to create a tremolo effect. The modulation wheel on your keyboard will also have this effect.
- Set the modulation generator to a low frequency and turn up filter modulation MG knob to make sounds livelier by changing the timbre dynamically.

- In the envelope generator, set short attack and decay times and use a low sustain level. In the filter, set the cut-off frequency to about 5 and then turn up the filter modulation EG knob while pressing different keys. Also try increasing the peak value for more pronounced attack effects.
- In the filter, set the cut-off frequency to 3 and the peak to 10. In the envelope generator, set attack to 0, decay and release to 1, and sustain to 8. Now turn up the filter modulation EG knob to about 6. This will create a solid bass drum (it's best with white noise). Experiment with different sustain levels and cut-off frequency values. See also Creating drums.

Next: Modulation: I can't stop

See Also
Envelope generator
Filter
Oscillator
Overview

Modulation: I can't stop

We just can't get enough of those modulation tricks, so we've added a few extra gadgets.

The **Pulse Width Modulation** switch is only effective if the oscillator wave form is set to square, so be sure to do that first. It changes the meaning of the **PW/PWM** knob in the oscillator section. You've probably noticed that it sounds funny to turn that knob quickly, so why not modulate it? We've come up with the following options:

- **Off**
  This is the default setting. In this case, the PW/PWM knob just sets the pulse width of the square wave form.
- **MG**
  With this setting, the PW/PWM knob adjusts the amount of pulse width modulation by the modulation generator. If you set the modulation generator to triangle waves, this creates a quite nasty sound. With square wave modulation, the oscillator periodically switches between two different pulse width values.
- **EG Normal**
  With this setting, the PW/PWM knob sets the amount of pulse width modulation by the envelope generator. Because the envelope generator increases the pulse width setting during the attack phase, the sound actually gets thinner during attack, and thicker during release. This may or may not be what you're after.
- **EG Inverted**
  In this case, the PW/PWM knob sets the amount of pulse width modulation by the **inverted** envelope generator signal. This creates thicker sounds during attack/decay, and thinner sound during release, which sounds more natural. Our favorite choice.

When modulating the pulse width, it's often better not to turn the PW/PWM knob all the way to the right, because that will mute the square wave at some point. Just leave it at 8 or 9 (unless you like that, of course).

The **Frequency Mod EG** switch at the bottom of the oscillator section and **Filter Mod EG** switch at the bottom of the filter section invert the envelope generator signal before it is used to modulate the oscillator frequency or the filter cut-off frequency. You can sometimes use this to create unusual effects.

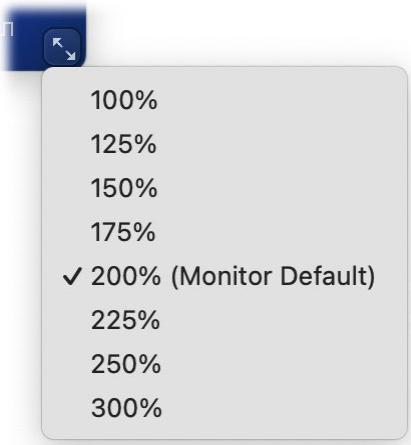
The **Keyboard Velocity** settings change the amount with which the keyboard velocity modulates the volume and the filter cut-off frequency. If the volume knob is set to 0, a tone will always sound at maximum volume.

Next: Scaling

See Also
Modulation basics
Envelope generator
Overview

Scaling

The Scaling menu lets you increase or decrease the interface scaling relative to the system default, e.g. 150% (smaller) or 300% (larger) on Retina monitors (that have a 200% scaling by default).



Tips

- The scaling options will be greyed out in the Resize button menu if the current display is too small to support them.

Next: Midi Learn

See Also
Overview

MIDI Learn

Controlling FabFilter One'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**:

- **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.
- **Load Factory Settings**
  Loads a default MIDI mapping that may be useful.

Next: Undo and redo

See Also
Overview

Undo and redo

The Undo and Redo buttons at the top of the FabFilter One interface enable you to easily undo changes you made to 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.

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: Creating sounds

See Also
Overview

Creating Sounds

The **FabFilter One** comes with a solid library of great sounds, but the real fun starts with creating your own presets. However, just randomly turning some knobs won't help you to get closer to the sounds you have in mind.

The topics in this chapter will help you start creating your own sounds, explaining the best settings step by step. They're divided into the following categories:

- Bass sounds
- Lead sounds
- Drum sounds
- Sound effects

Next: Creating bass sounds

See Also
Quick Start
Using FabFilter One

Creating Bass Sounds

1. **The Oscillator**
   For bass sounds, you can use any of the first three wave forms. Using triangle waves will result in deep, sine-like sounds, great for R&B and soul. Sawtooth waves will get you a more solid, defined sound, good for funk, techno and dance sounds as well as for emulating original bass guitar sounds. If you're trying to create an electro-like bass sound, the square wave form is just what you need.
2. **The Envelope Generator**
   A good start for bass sounds as well as lead sounds is setting the attack, decay and release fairly low, the sustain value quite high and the hold time off, resulting in a 'snappy' envelope. When your sound needs to have a sharper attack, lower the sustain value.
3. **The Cut-off Filter**
   Using the cut-off filter really is essential when creating bass sounds. To get warm and deep sounds, start with the frequency and peak values around position 5. For techno and dance sounds, turn the peak value up to get those freaky filter effects.
4. **Modulation**
   One thing that definitely works great with bass sounds, is modulating the cut-off frequency using the envelope generator (the EG knob in the filter section). Slightly modulating it with the modulation generator (the MG knob) works quite well for moody, deep sounds.
5. **The Finishing Touch**
   Adding a bit of portamento often works great for funky and analog-like sounds. Also adding just a little bit of pink or white noise can give good results in combination with the cut-off filter. It can be very worthwhile to experiment with the filter modulation EG value and with keyboard velocity modulation.

Next: Creating Lead Sounds

See Also
Creating sounds
Using FabFilter One

Creating Lead Sounds

One of the things that FabFilter One excels at is producing great lead synth sounds of any type. You can create anything from the smoothest seventies analog sounds to the hardest techno sounds.

1. **The Oscillator**
   Especially the sawtooth and the square wave forms are suitable for lead synthesizer sounds. With the sawtooth wave form as a starting point, you can create smooth and soft lead sounds as well as more techno-oriented sounds. The square waveform is great for electro stuff.
2. **The Envelope Generator**
   Most lead sounds use a fairly short attack, a short decay, a high sustain and a noticable release. This will give your sound just that little bit of attack at the start and a good full sound while holding down a key.
3. **The Cut-off Filter**
   Adjust the frequency and peak values to get the timbre that you're after. Modulating the cut-off filter is not essential when creating lead sounds. However, it can give your sounds that extra rawness and body they need, especially when modulating the cut-off frequency.
4. **Modulation**
   Use the modulation generator to achieve great vibrato or tremolo effects by modulating the oscillator's frequency or the filter's cut-off frequency. It also works really well to use a bit of cut-off frequency modulation by the EG. When using the oscillator's square wave form, you can also modulate the pulse width using the patching features. Modulating it with the EG or with the MG can both get you awesome results.
5. **The Finishing Touch**
   One thing that will definitely give wonderful results with almost all your lead sounds, is **FabFilter One**'s great and smooth portamento. Even using it just a little bit really brings your sounds alive. Experiment with it!
   To get those awesome raw seventies synth sounds, push your filter to the limit, using high peak values and combining different types of cut-off frequency modulation. Try changing the cut-off frequency while playing, to really adapt it to your play. (See MIDI controller messages to change the cut-off frequency with the slider on your keyboard.)

Next: Creating Drum Sounds

See Also
Creating sounds
Using FabFilter One

Creating Drum Sounds

FabFilter One can create a whole range of different percussive sounds, like bass drums, snares, toms and hihats. The keys to success are extreme peak values and modulating the cut-off frequency of the filter.

1. **The Oscillator**
   The wave form you need really depends on the type of drum sound you would like to create. For instance, tom sounds or snare sounds could use any of the first three waveforms (triangle, sawtooth or square). To get a good hihat or brush sound, the noise type would do the trick. Creating bass drums works differently. Because great bass drum sounds heavily depend on the self-oscillation of the filter, you can experiment using any of the four wave forms. But the noise wave form usually gives the most solid results.
2. **The Envelope Generator**
   Most drum sounds, like bass drums and snares, are short and have a really strong attack. To get this effect, you can set the attack (almost) to 0, use fairly short decay and low sustain values and use a short release. Especially with bass drum sounds, the sustain level can have a huge effect on the sound. Just experiment with this value in combination with the filter modulation to get the results you're after.
3. **The Cut-off Filter**
   The cut-off filter really is the key component in the process of creating drum sounds, especially for bass drums. To create the fattest kick sounds, use the self-oscillation that occurs with the highest peak values, in combination with extreme cut-off frequency modulation by the envelope generator (turn up the EG knob in the filter section).
4. **Modulation**
   As mentioned before, modulating the cut-off frequency with the EG is what you want to do here. For a good bass drum, start with maximum EG filter modulation and fine-tune if needed, adjusting the sustain value as well. For other percussive sounds, most of the time just a bit of EG modulation is enough.
5. **The Finishing Touch**
   A great trick for giving snare drums that little extra kick, is adding some white or pink noise to the signal (using the oscillator's noise knob and noise type switch). Also inverting the EG cut-off frequency modulation can give great effects.
   Try to experiment with the envelope generator, expecially when creating bass drum sounds. For example, using higher release values and slightly higher sustain values will give you great results.

Next: Creating Sound Effects

See Also
Creating sounds
Using FabFilter One

Creating Sound Effects

For creating sound effects you can really exploit every option that FabFilter One offers you. Especially the modulation features can help you create the coolest sounds. Because sound effects can be very diverse, ranging from a storm sound to a raindrop, there is not one ideal initial setting that will help you on the way. To be able to create a sound effect that you have in mind from scratch, you should be comfortable with the various options that FabFilter One provides. To give you an idea how different effect sounds are created, we will discuss two basic factory preset sounds.

In the explanations, the knob settings leading to the sound will be discussed. Knobs that are not mentioned are assumed to be set to their default value. You can quickly set all knobs to the default values by loading the **Sawtooth** preset from the **Basic** category.

Rain Drop

The first thing that comes to mind when you think of a rain drop, is that it sounds quite warm and 'round', somewhat like the sound of a sine wave. This indicates that a triangle is the best wave form to use. A rain drop sound is quite high, so a 4' scale setting would be good to start with.

- Set the oscillator wave form to triangle.
- Set the oscillator scale to 4'.

The second important thing that characterizes the sound is the fast rising frequency, starting low and ending very high. To obtain this effect, we need frequency modulation by the inverted envelope generator signal (the EG knob in the oscillator's frequency modulation section and the invert switch below it) in combination with a short envelope. A rain drop sound starts right away, so an attack value close to 0 should be used. To get the correct frequency modulation effect, short decay and release values are required.

- Set the EG knob in the frequency modulation section around value 9.
- Set the invert switch below the EG know to 'inverted' (at the right-hand position).
- Set the attack almost to 0, the decay to 2, the sustain to 6 and the release to 2.5.

We now have that characteristic fast rising sound. However, it still needs some tweaking. To give the sound a little bit more body, we use the cut-off filter and some cut-off frequency modulation by the envelope generator (the EG knob in the filter section).

- Set the cut-off frequency to 4.
- Set the EG knob in the filter section to 10.

Storm

Many effect sounds use the oscillator's noise wave form. A storm sound is of course one of the best examples of such a noise-based sound. The oscillator produces white noise. This type of noise is a quite high, hissing sound. FabFilter One also offers the possibility to add white or pink noise to its signal (using the noise knob and the noise type switch below it). Pink noise has a more dark and rumbling feel. White noise mixed with a bit of pink noise would be just fine for our storm sound.

- Set the oscillator's wave form to noise.
- Set the noise knob to 3 and the noise type to pink.

A storm sound is characterized by slowly swelling and fading winds. This swelling effect can easily be achieved using the modulation generator at a low frequency to modulate the filter's cut-off frequency (the MG knob in the filter modulation section).

- Set the cut-off frequency to 6.5 and the peak to 5.5.
- Set the modulation generator's wave form type to triangle and frequency to 0 and wave form to its center position (a perfect triangle).
- Set the MG knob in the filter section to 4.

To get proper fade in and fade out effects for the storm sound, we use high attack and release values.

- Set the attack to 5 and the release to 6.

Next: Loading presets

See Also
Creating sounds
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Loading presets

The included presets give a great overview of what you can do with FabFilter One. 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 One 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 email, 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: *(0/65) My Preset*). This means that you can load that preset by first sending a Bank Select message to select bank 0 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! We recommend to create a dedicated folder in your presets folder for your program changes, and name it with two leading underscores (e.g. "__Programs") to ensure it's the first folder in your preset collection and the presets in this folder start with bank 0 and program 0.

Next: Saving presets

See Also
Using FabFilter One
Creating sounds

Saving presets

You can easily extend the included presets with new settings to build your own library of presets for FabFilter One that you can reuse in various projects. This is also a good way to copy settings across multiple instances of FabFilter One 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 macOS, this should be done with the Finder.)

Right-click shortcut menu

You can also right-click on the preset button to open a small menu with shortcuts:

- **Save**: Overwrite the currently loaded preset. You will be asked for confirmation before saving.
- **Save As**: Just like choosing the 'Save As...' item from the main menu.

See How presets are stored to determine the preset folder location and learn more about factory presets.

Next: How presets are stored

See Also
Loading presets
Using FabFilter One

How presets are stored

Presets for FabFilter One 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 macOS.

The default location of the main preset folder is *Documents/FabFilter/Presets/One* on both Windows and macOS. To change this location, first copy all presets to the desired new location. Click **Options > Change Preset Folder** in the preset menu and select the new folder.

Note: previously on macOS, presets were stored in *~/Library/Audio/Presets/FabFilter/FabFilter One*. To determine the current location of the presets folder, click **Options > Change Preset Folder** in the preset menu.

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 One

See Also
Saving presets
Using FabFilter One

Purchasing FabFilter One

Once you have downloaded and installed the evaluation copy of FabFilter One, 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 One 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 One now

We accept a wide range of payment methods, like credit cards, PayPal, wire transfer and iDeal. 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 email 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. In addition, we will automatically create a FabFilter account for you (if you don't have one already). Here, you can access all your license keys at any time.

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.

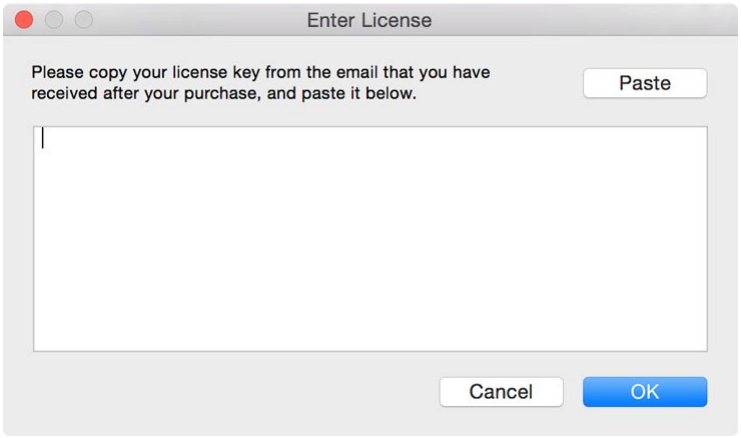
Next: Entering your license key

See Also
Support
License agreement

Entering your license key

After you have purchased FabFilter One in the online FabFilter Shop, you will immediately receive an email containing your personal license key. This license key will turn the evaluation version into a fully registered plug-in.

- Start FabFilter One 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 email 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 email.



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 One for an unlimited period of time with full support via email.

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 One
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 One, 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 One 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 One, 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 One 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 One, 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 One.dll* from *C:\Program Files\FabFilter\One* (or *C:\Program Files (x86)\FabFilter\One* 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. The VST3, CLAP, and AAX plug-ins are installed in the standard plug-in folders on your computer.

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

macOS

On macOS, 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*
- CLAP: */Library/Audio/Plug-Ins/CLAP*
- AAX: */Library/Application Support/Avid/Audio/Plug-Ins*

Note: AU and VST/VST3 plug-ins may also be placed in the user's Library folders under */Users/<username>/Library/Audio/Plug-Ins*.

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 as well:

- */Users/<username>/Documents/FabFilter/Presets/One*
- */Users/<username>/Library/Audio/Presets/FabFilter/FabFilter One*
- */Users/<username>/Library/Application Support/FabFilter/One*
- */Users/<username>/Library/Preferences/com.fabfilter.One.3.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: MIDI CC table

See Also
Quick start
Support

MIDI controller messages

All of FabFilter One's parameters can easily be controlled using MIDI. Here is a list of the default MIDI controller numbers that correspond to the parameters. You can use these controller numbers to control each parameter with the sliders on your MIDI keyboard or MIDI controller. Using the MIDI Learn feature, you can change and add CC number associations any way you like.

General
1 - modulation
7 - gain

Filter
74 - cutoff
71 - peak
26 - filter mod EG
88 - filter mod EG type
27 - filter mod MG

Oscillator
20 - scale
21 - waveform
22 - pitch/detune
23 - pulse width
85 - noise type
5 - portamento
24 - noise level
28 - frequency mod EG
87 - frequency mod EG type
29 - frequency mod MG

Envelope generator
69 - hold
73 - attack
75 - decay
79 - sustain
72 - release

Modulation generator
76 - modulation frequency
77 - modulation type
25 - modulation waveform
89 - sync mode
90 - sync type

Additional features
103 - polyphony
86 - pulse width modulation type
105 - filter keyboard track
104 - velocity volume
102 - velocity filter

Next: License agreement

See Also
Support
MIDI Learn

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Next: About FabFilter

See Also
Purchase FabFilter One
Support

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.

See Also
Support
FabFilter web site