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# EChannel

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## User Guide

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## 1.1 About This Product

The Eventide EChannel plug-in is a powerful channel strip that provides you with a routable Gate, Parametric EQ, and Compressor. Its flexible modular design accommodates different signal processing routing, its graphical displays provide you adept precision in frequency adjustment, and its suite of controls let you generate the exact tone and frequency characteristics you're seeking. Additionally, through its support for side chaining, you can use an alternative audio source to color the characteristics of your main signal. Whatever your audio application may be, EChannel will be invaluable for its versatility.

EChannel is comprised of the following discrete components, which collectively or individually provide you a robust and precise tone-shaping and frequency-manipulation environment.

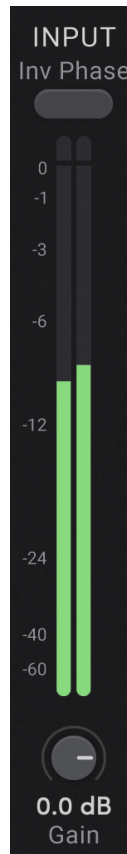
- Input
- Gate
- Compressor
- 5-Band Parametric EQ
- Output Stage

Clicking the In/Out button enables or disables that particular module. Because of its modular design, the signal processing sequence can be shuffled. For instance, you can click anywhere on the Gate module and drag it to the right of the Compressor, thereby switching the order of those functions. You can move the Gate, Compressor, and EQ modules to any position in the processing signal chain you wish. The Input and Output stages, however, are static, the input coming before, and Output coming after the routable sections. The remainder of this manual describes the characteristics of each module, their controls, their capabilities, their technical specifications, and any tips or tricks.

## 2.1 Input

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This stage is where the signal is introduced into the EChannel plug-in. Its sequence cannot be shuffled, and it cannot be disabled. The active signal is represented dynamically on the bar input meter, from -60 dB to 0 dB.



### INVERT PHASE

Click this button to invert the phase of the input signal.

### INPUT METER

The Input section contains a large mono or stereo meter which shows signal level from -60 dBfs to 0 dBfs. This meter is stretched to have more resolution at higher levels.

### OVERLOAD DISPLAY

When a signal transient peaks above -0.1 dBfs, the area directly above this point on the bar frequency graph displays red to indicate an overload. If an overload is detected, the overload light will stay lit until it is cleared by clicking on it.

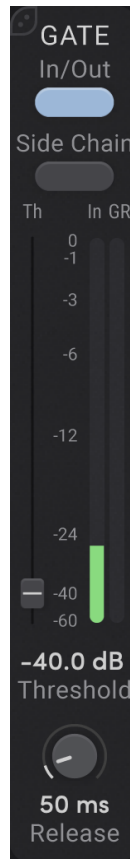
### INPUT GAIN

Drag this knob up or down to decrease or increase the input gain. Alternatively, you can enter a value directly into the text box below the knob. It can be adjusted from -60 dB to +12 dB.

## 2.2 Gate

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The Gate module allows you to effectively remove signals occurring below the designated threshold. To enable the Gate module, click the In/Out button to display green. Click anywhere on its panel and drag the module to move it to another position in the signal chain.



### **SIDE CHAIN**

Click this button to invoke the Gate's Side Chain feature. Please consult your DAW's documentation for help on routing audio to EChannel's sidechain input.

### **INPUT METER**

This meter displays the input signal exactly as it is perceived in the Gate's level detector, allowing you to set the Gate threshold by pulling it up or down alongside the meter. Any time the input meter is below the Threshold fader, the signal will be removed.

### **THRESHOLD (TH)**

Increases or decreases the threshold level for the signal, ranging -60 dB to 0 dB. The threshold value displays numerically beneath the Threshold slider. Signals below this threshold will be removed.

**GAIN REDUCTION  
(GR)**

This bar displays the gain reduction being applied to the signal as determined by your threshold setting and input level.

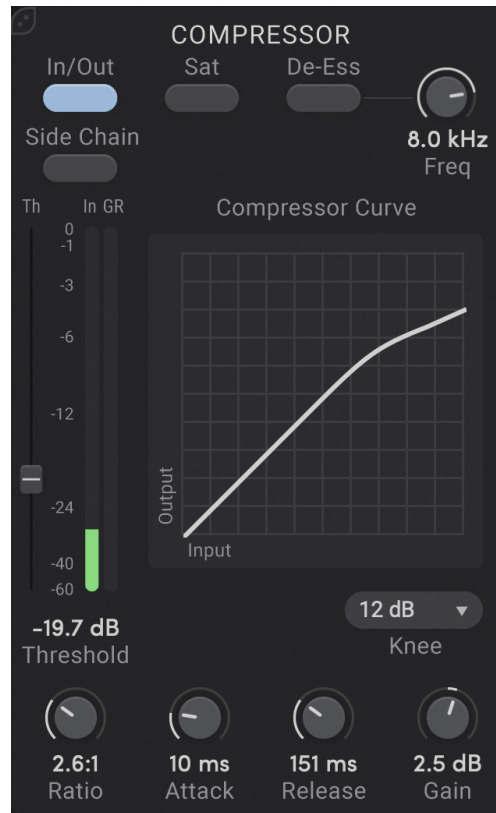
**RELEASE TIME**

The Release control determines how long the gate is triggered, ranging 1 ms to 500 ms.



## 2.3 Compressor

The Compressor allows you to alter the dynamics of your input signal. To enable the Compressor module, toggle on the In/Out button. Click on the upper left corner and drag the module to move it to another position in the signal chain.



### SIDE CHAIN

Activates the Compressor's Side Chain feature. Please consult your DAW's documentation for help on routing audio to EChannel's side chain input.

### SATURATION (SAT)

Activates soft saturation at the Compressor's output. This soft saturation sits after the Compressor's gain control and allows will introduce a nonlinearity which will keep the output from going above 0 dBfs. This can also be used to add character to your peaky audio.

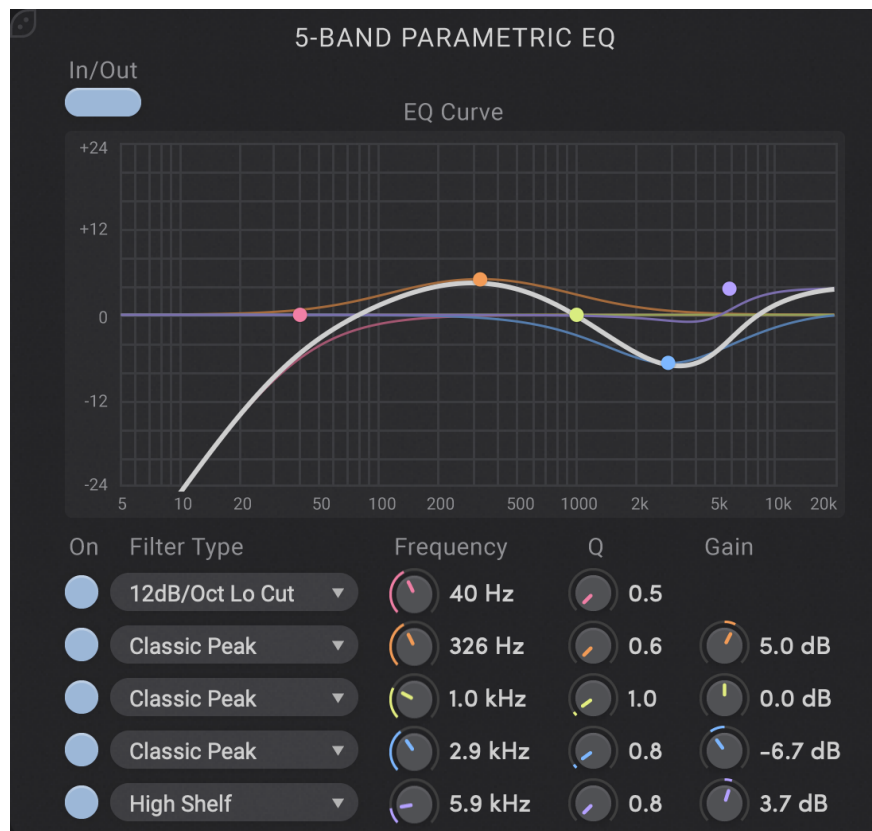
### DE-ESS

Allows you to de-emphasize the hiss associated with prominent "S"es on vocal signals. Toggle the button to activate it, and set the frequency to the midpoint frequency that the "S"es are being pronounced. Ranges 4 kHz to 9 kHz.

<b>INPUT METER</b>	This meter displays the input signal exactly as it is perceived by the Compressor's level detector, allowing you to set the Compressor threshold by pulling it up or down alongside the meter. Any time the input meter is above the Threshold fader, gain reduction will take place. Because of this, changes in the attack or release time will affect the level of this input meter - this is intentional and to be expected.
<b>THRESHOLD (TH)</b>	Increases or decreases the threshold level for the signal, ranging -60 dB to +0 dB. The threshold value displays numerically beneath the Threshold slider. Signals above this threshold will be reduced.
<b>GAIN REDUCTION (GR) BAR DISPLAY</b>	This bar graph displays the gain reduction being applied to the signal, as determined by your threshold setting, input level, and compression ratio.
<b>RATIO</b>	The Ratio control is used to select how much gain reduction occurs for each decibel of signal level above the threshold. The range is from 1:1 (no compression) up to 20:1. To create a hard limiter, set the ratio to 20:1 and the Knee parameter to 0dB.
<b>ATTACK TIME</b>	This control allows you to adjust how quickly the Compressor reacts to signals above the selected threshold. Values range from 0.1 to 50 ms. The attack value displays numerically beneath the Attack control.
<b>RELEASE TIME</b>	The Release control determines how fast the Compressor responds to decreasing signal levels. Release values range from 1 ms to 500 ms. The release value displays numerically beneath the Release control.
<b>KNEE</b>	The Knee determines a region above the threshold where the gain reduction transitions from 1:1 to the designated Ratio setting. As the input signal crosses the threshold and moves through this window, its gain reduction increases to the selected ratio value (below). Knee values can be adjusted in 6 dB increments from 0 dB to 24 dB.
<b>MAKE-UP GAIN</b>	Allows you to apply make-up gain to the compression output. The Compressor supports gain values from -24 dB to +24 dB. The gain value displays numerically beneath the Gain control.

## 2.4 Five-Band Parametric Equalizer

The Equalizer module of the EChannel plug-in consists of five parametric filter sections that collectively cover the entire audio spectrum. An editable EQ curve graphical display renders each equalization filter curve individually, as well as a composite equalization curve for the cumulative EQ setting. Like the Gate and Compressor modules, the EQ module can be docked in another position in the signal processing sequence by clicking anywhere on its panel and dragging it right or left.



### GRAPHICAL DISPLAY

The EQ curve Graphical Display allows you to edit the Frequency, Gain, and Q of each of the EQ sections 5 bands. Each EQ band is shown graphically by a colored dot whose color corresponds to that in the controls below. You can click and drag each dot and change the Frequency and Gain of the associated band. To set the Q for this band, control click and drag on the dot, or use your mouse wheel.

### ON

Each EQ band can be turned on or off by clicking ON button at the left of each filter. This can be useful for easily judging the contribution of each filter to the overall frequency response.

## **FILTER TYPE, FREQUENCY**

The following list details the type and frequency range characteristics of each filter type. Each filter type listed is available by clicking the down arrow button to the right of that filter section's name. The frequency is controlled by the knob to the right.

### **Low Filter (5 Hz - 800 Hz):**

The lowest frequency filter section supports the following filter types:

- 6 dB/Oct Low Cut
- 12 dB/Oct Low Cut
- Low Shelf
- Classic Peak
- Modern Peak

### **Low Mid Filter (100 Hz - 2 kHz):**

### **Mid Filter (500 Hz - 8 kHz):**

### **High Mid Filter (1 KHz - 20 kHz):**

These filter sections each support the following preset EQ values:

- Classic Peak
- Modern Peak

### **High Filter (5 kHz - 20 kHz):**

The High Frequency filter section supports the following preset EQ values:

- 6 dB/Oct High Cut
- 12 dB/Oct High Cut
- High Shelf
- Classic Peak
- Modern Peak

## **Q**

Each filter section has its own Q settings control. These are used for determining the range of frequencies that are impacted by each band, thereby setting the shape of the filter. The bandwidth is equal to the frequency setting divided by Q. Larger Q values tend to create a narrower bandwidth; lower values affect a broader range of frequencies. Each Q setting range is from 0.5 to 20.0. The value is numerically displayed to the right of the Q control for each filter section.

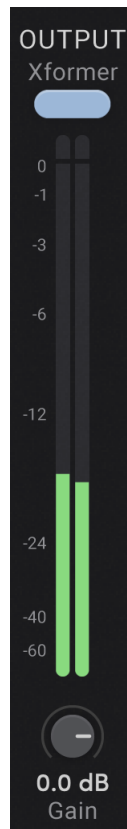
## **GAIN**

Each filter section has its own accompanying Gain control. Use these to set the gain or attenuation for each band's center frequency. Each filter's Gain may be set from -24 dB to +24 dB. The gain value is numerically displayed to the right of the Gain control for each filter section.

## 2.5 Output

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The final stage the EChannel is, fittingly, Output.



### TRANSFORMER

Model of a Transformer which can be driven into saturation. This analog model is after the output level control so that it can be driven if desired. Unless driven very hard, it is a subtle yet distinct effect which is most noticeable on signals with a lot of low frequency content.

### OUTPUT METER

The Output section contains a large mono or stereo meter which shows signal level from -60 dBfs to 0 dBfs. This meter is stretched to have more resolution at higher levels.

### OVERLOAD DISPLAY

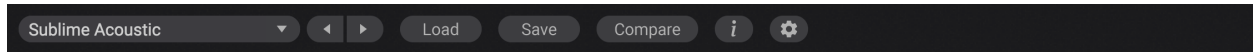
When a signal transient peaks above -0.1 dBfs, the area directly above this point on the bar frequency graph displays red to indicate an overload. If an overload is detected the Overload Display will stay lit until it is cleared by clicking on it.

### OUTPUT GAIN

The Output Gain control can be adjusted from -60 dB to +12 dB.

## 2.6 Preset Bar

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Located at the top of the EChannel Plug-In, the Preset Bar lets you load and save presets, along with several other features.

When EChannel is installed, a library of settings is placed into the <user>/Music/Eventide/EChannel/Presets folder (Mac) or the <user>/Documents/Eventide/EChannel/Presets folder (Windows). These presets have a **.tide** extension and can be saved or loaded from the EChannel preset bar in any supported DAW.

In many DAWs there is an additional generic preset bar that saves DAW-specific presets to a separate location. We recommend saving your presets using the Eventide preset bar to ensure that your presets will be accessible from any DAW. You can also create sub-folders inside the preset folders, if you wish.

<b>LOAD/SAVE</b>	Use these buttons to load and save your presets in <b>.tide</b> format.
<b>COMPARE</b>	Click to toggle between two different settings for the plug-in. This is useful for making A/B comparisons.
<b>INFO</b>	Click this button to open this manual.
<b>SETTINGS</b>	Click the gear icon to open a drop-down menu with scaling settings for changing the overall size of the plugin.

We hope you enjoy the EChannel plug-in and put it to good use in all of your mixes. Please be sure to check out Eventide's other native plug-in offerings for more unique and interesting effects.

For further questions or support, head over to the [user forums](#).