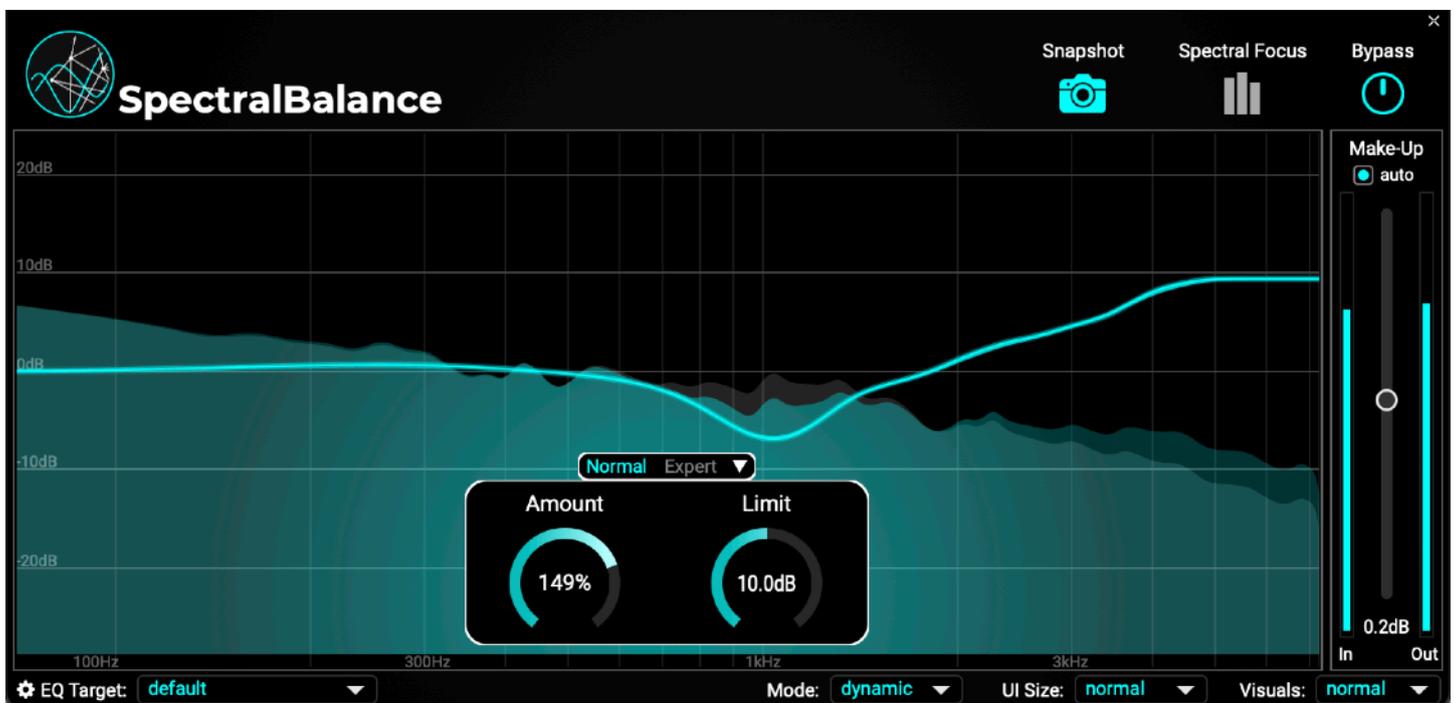




SpectralBalance

ADAPTIVE SPEECH EQUALIZER

SpectralBalance is an intelligent equalizer plugin for dialogue recordings. By continuously analysing the audio signal it automatically adapts its EQ-curve to correct spectral imbalances in order to achieve clear neutral sounding speech. This manual guides you through the installation and activation steps and explains all parameters and different processing modes of the plugin.



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Specifications and system requirements

Supported sample rates: 44.1kHz,48kHz,88.2khz,96kHz,192kHz

Supported channel layout: Mono/Stereo

Plugin formats: AAX, VST3, AU

Generally, the plugin should work with most plugin host softwares. It has been tested and is officially compatible with: Reaper, ProTools 11 or higher, Nuendo, Cubase, Ableton Live.



MINIMUM SYSTEM REQUIREMENTS

Windows 7 (64-bit), 4 GB RAM, Dual-Core CPU 2GHz

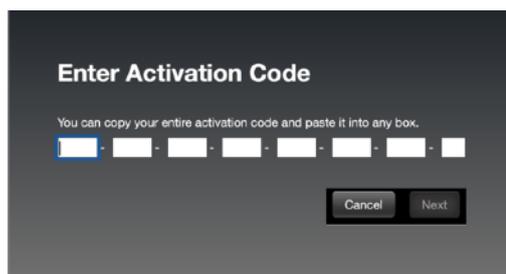
Max OS X 10.12, 4 GB RAM, Dual-Core CPU 2GHz

Installation and activation

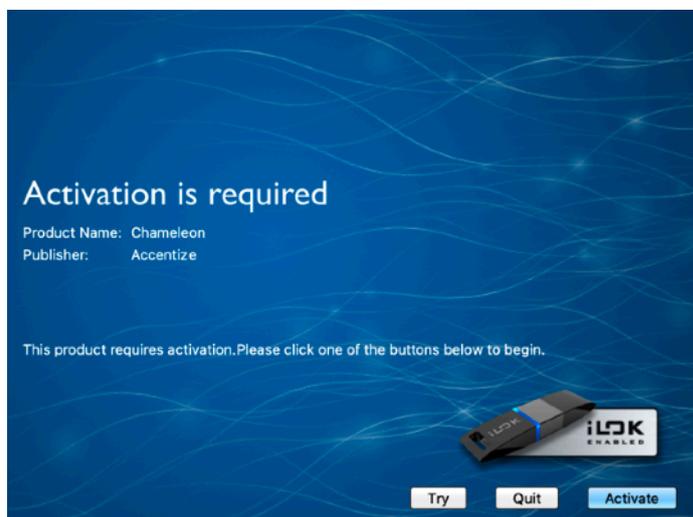
The plugin is distributed with an easy to use installer. In the installation process the usual audio plugin paths are set as a default. If you aren't using any custom path for your plugins you can leave everything as it is and just let the installer do its job. After the installation Chameleon should appear in the list of available plugins in your DAW.

To use Chameleon you will need to have a free iLok account and install the iLok license manager.

After opening the iLok license manager app login to your account. Navigate to licenses and click "Redeem Activation Code". There you need to enter the code you received after purchasing the accentize plugin.



If you launch the plugin without activating it you will also see the option to use a 7-days free trial. The plugin license can either be placed on a physical iLok dongle (2nd generation or higher) or directly on a machine.

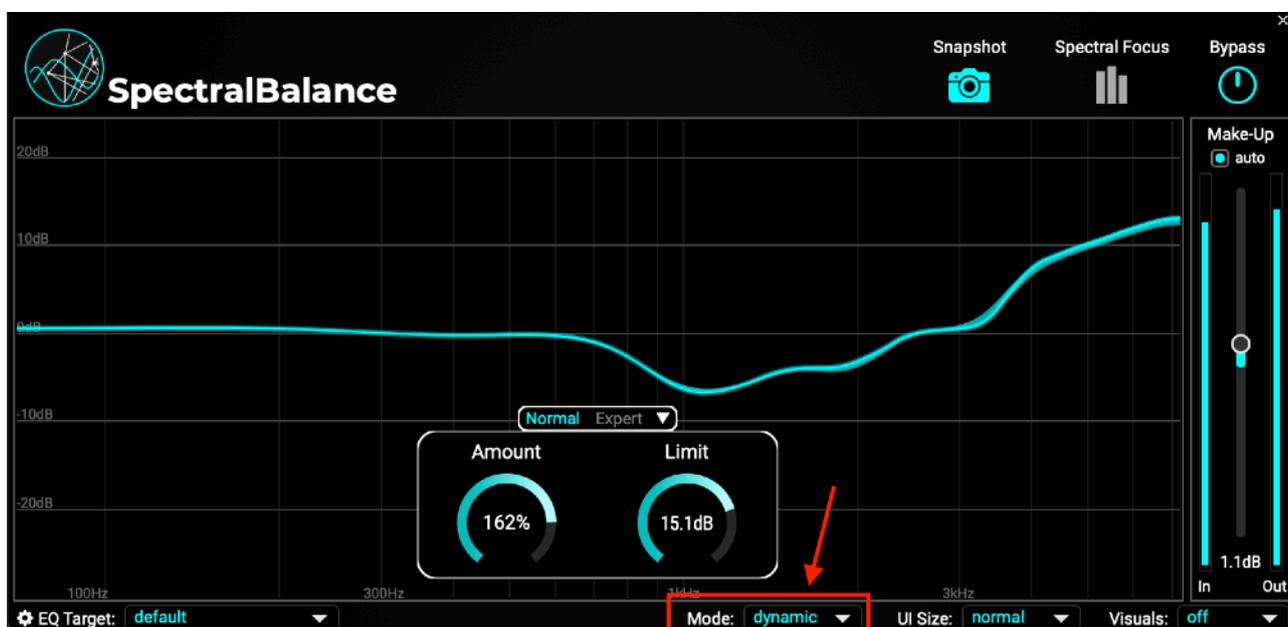


Processing Modes

SpectralBalance is a subtractive equalizer which means it only attenuates excessive frequency energy and never boosts any part of the spectrum. However, in combination with the Make-Up gain control all sorts of corrections can be achieved. Internally, a series of artificial neural networks are being used to estimate the right amount of gain reduction for every frequency.

There are two different processing modes: **Dynamic** and **Static**. The **Dynamic Mode** will continuously listen to the signal and adapt the EQ curve dynamically while **Static Mode** will apply a predefined non-changing EQ curve. **Dynamic Mode** is useful if the spectral characteristics of the recording change over time (when for example the speaking person is moving a lot or when different speakers are present in the recording). **Static Mode** should be used when it is important to be certain about the spectral correction at any time. It also introduces less latency and requires less computational resources than the dynamic adaptation.

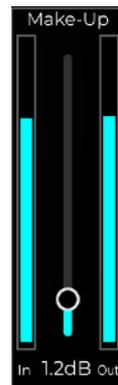
You can switch between both modes using the following switch:



Both modes have the following controls in common:

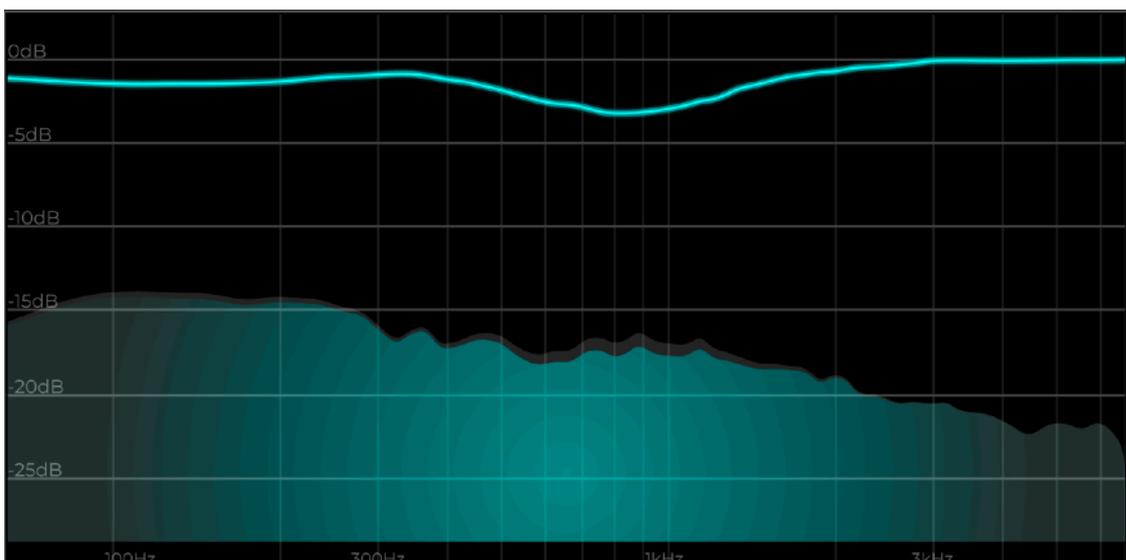
Bypass: completely deactivates the processing and the signal passes through unaffected.

Make-Up: Applies a make-up gain to the signal to compensate for level loss due to spectral corrections.



Gain Visualisation

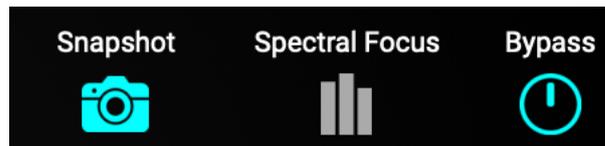
In both modes, the main visualisation of the UI is the gain and spectrum view:



The curve shows which frequency is reduced by how many dB. The spectrum at the bottom shows the input in grey and the coloured output on top of it.

Dynamic Mode

When set to dynamic mode the following additional controls appear in the top bar.



Snapshot: Copies the currently present dynamic curve to Static Mode. Can be useful if Dynamic Mode estimated a well fitting correction which you want to be applied constantly. Also the Make-Up gain will be copied to Static Mode.

Spectral Focus: Toggles between broadband and Spectral Focus mode. In Spectral Focus mode all parameters can be set for three frequency bands independently.

The Main control panel in the default setting looks like this:

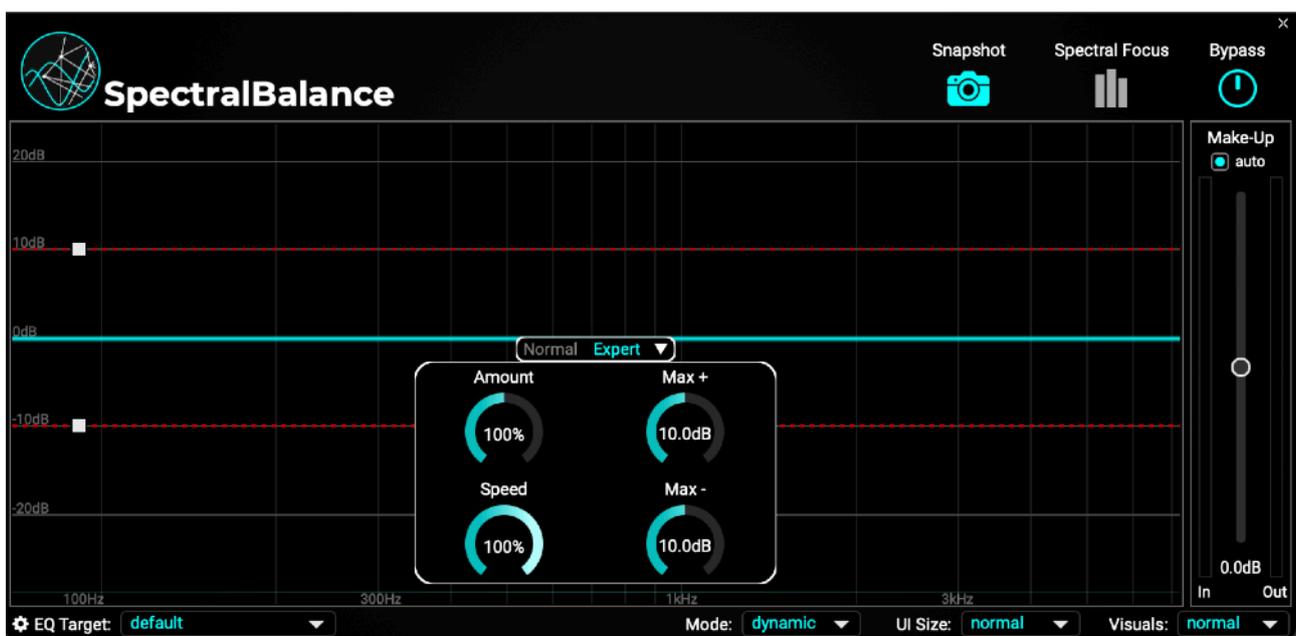


The Amount parameter defines how much of the automatically estimated gain correction should be applied to the signal. It also allows you to apply more gain than estimated by turning the control above 100%. Set to 0% no processing will happen at all.

The Limit parameter defines a maximum gain correction which is allowed. If the estimated gain is greater than this number it will stop at the defined limit.

Expert Controls:

If you switch to Expert controls the panel changes to:



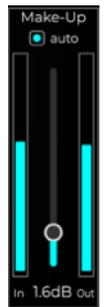
There are two additional controls:

The **Speed** parameter defines the adaption speed and can be used if slower changes of the gain are desired.

The **Limit** parameter is now divided in a positive and a negative parameter. Here you can separately define the allowed gain or reduction. The expert mode also shows the Limit gain as a red dashed line in the gain visualisation display.

Auto Make-Up

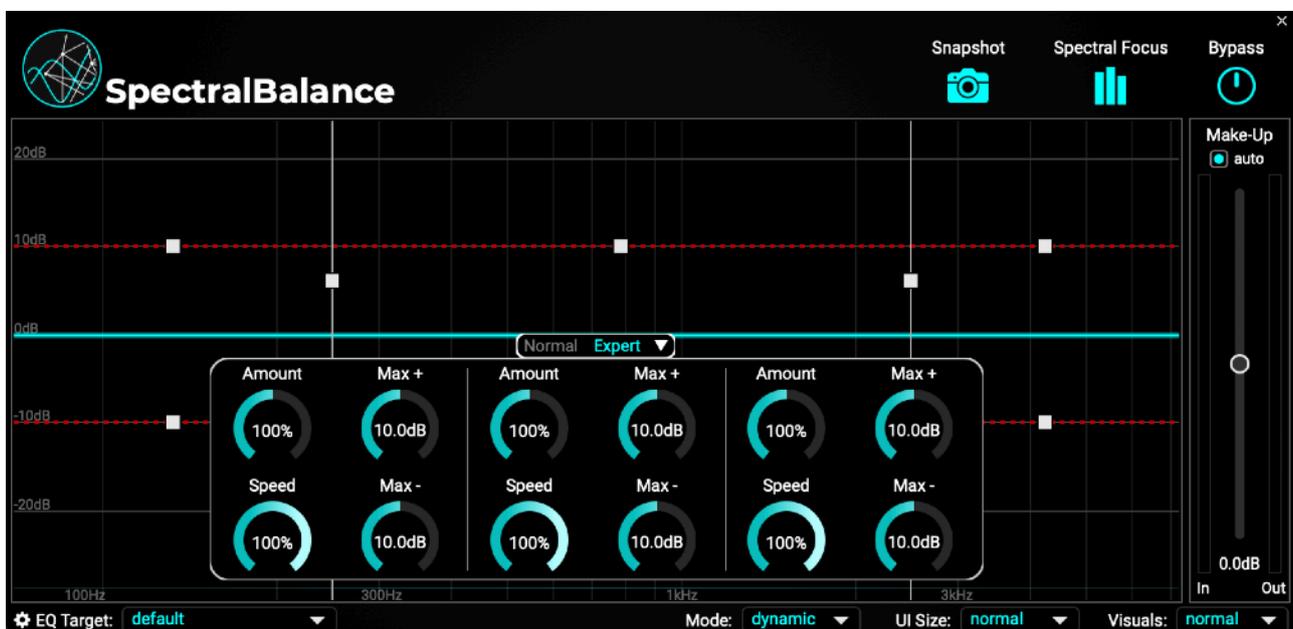
In Dynamic Mode there is also the possibility to automatically apply a make-up gain. If activated the gain slider will adjust itself according to the spectral gains which are currently applied.



Spectral Focus Mode

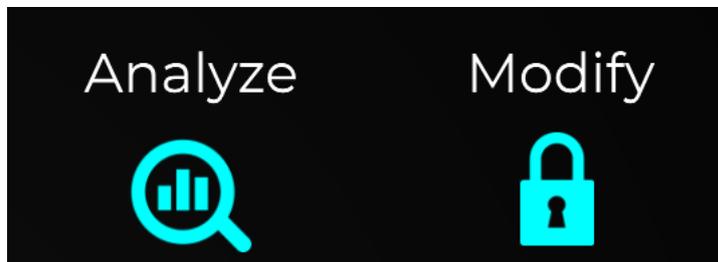
In Spectral Focus Mode you will see the same parameters three times for three different frequency bands:

You can adjust the cross-over frequencies of the bands by dragging the lines across the spectrum. It is also possible to solo listen to a single band by simply clicking on it.

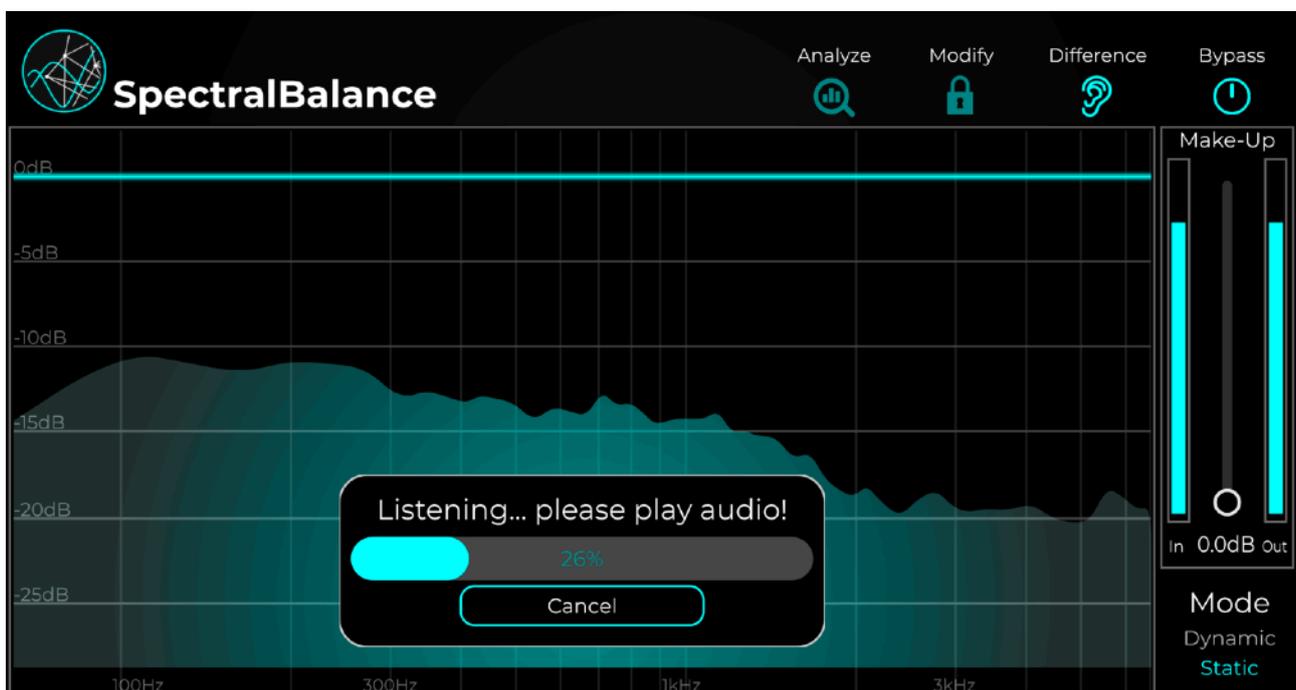


Static Mode

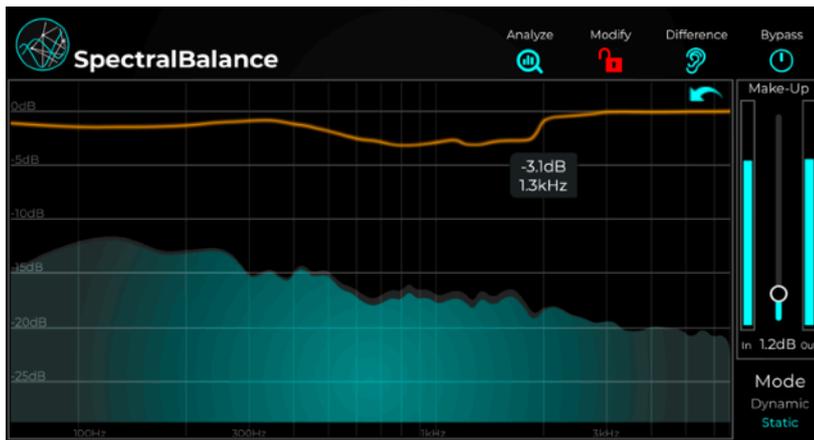
In Static Mode the top bar has two additional buttons:



By clicking the Analyze button a new learning process is initiated. After listening to the audio for a few seconds a static gain correction curve will be estimated and also the make-up gain will be adapted accordingly.



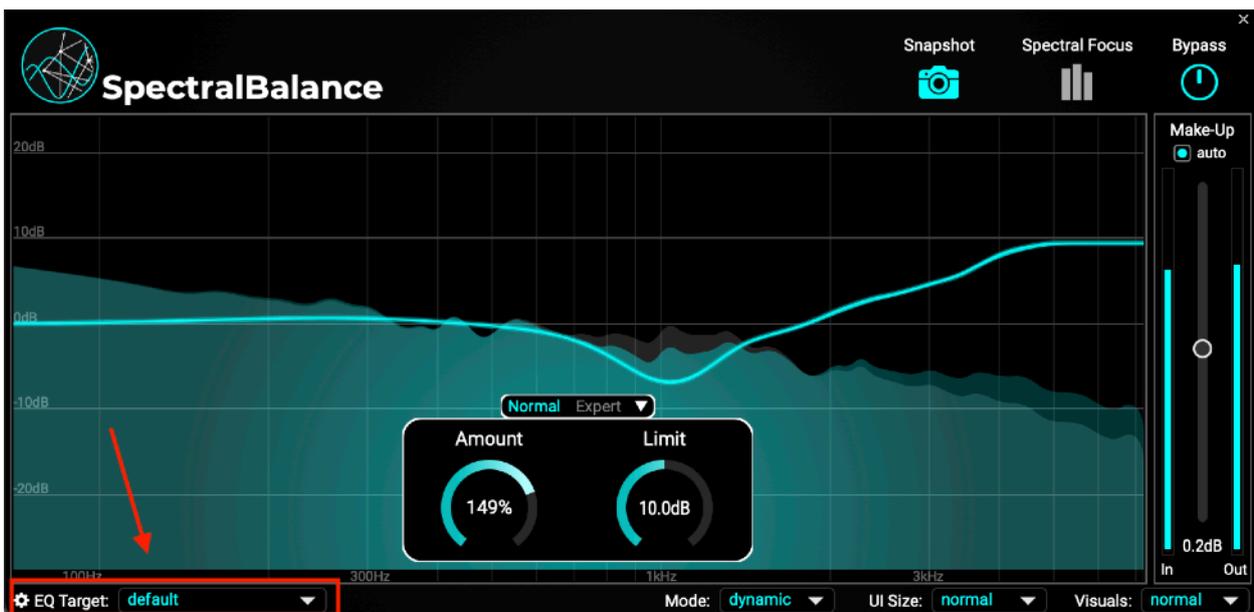
The Modify button activates custom editing of the static gain curve:



You can use the cursor to draw desired changes to the curve. In the top right corner there will also appear an arrow icon to undo changes.

Custom EQ Targets

As a default SpectralBalance will always try to achieve a natural flat spectral characteristic. It is also possible to define a custom target by letting it listen to a snippet of audio. This way you can customise the behaviour for your needs or also use it as a matching EQ. The selected target defines the ideal spectral curve which should be achieved for both static and dynamic mode.

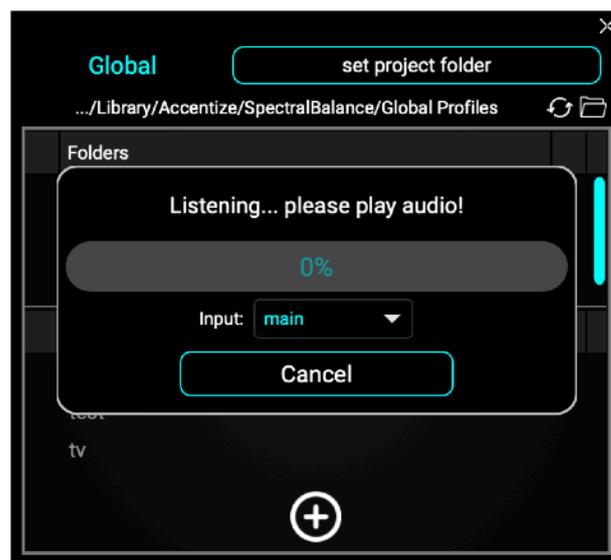


By clicking on the little gear wheel icon in the bottom left corner the Target Selector will open up:



Here all available Targets are displayed and can be selected by clicking on the little play icon which appears while hovering left to the name or by double-clicking on the name.

You can learn a new profile by clicking the + Icon at the bottom. The plugin will enter the listening mode. You can either feed in the target audio by using the main input or a side-chain signal.



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