

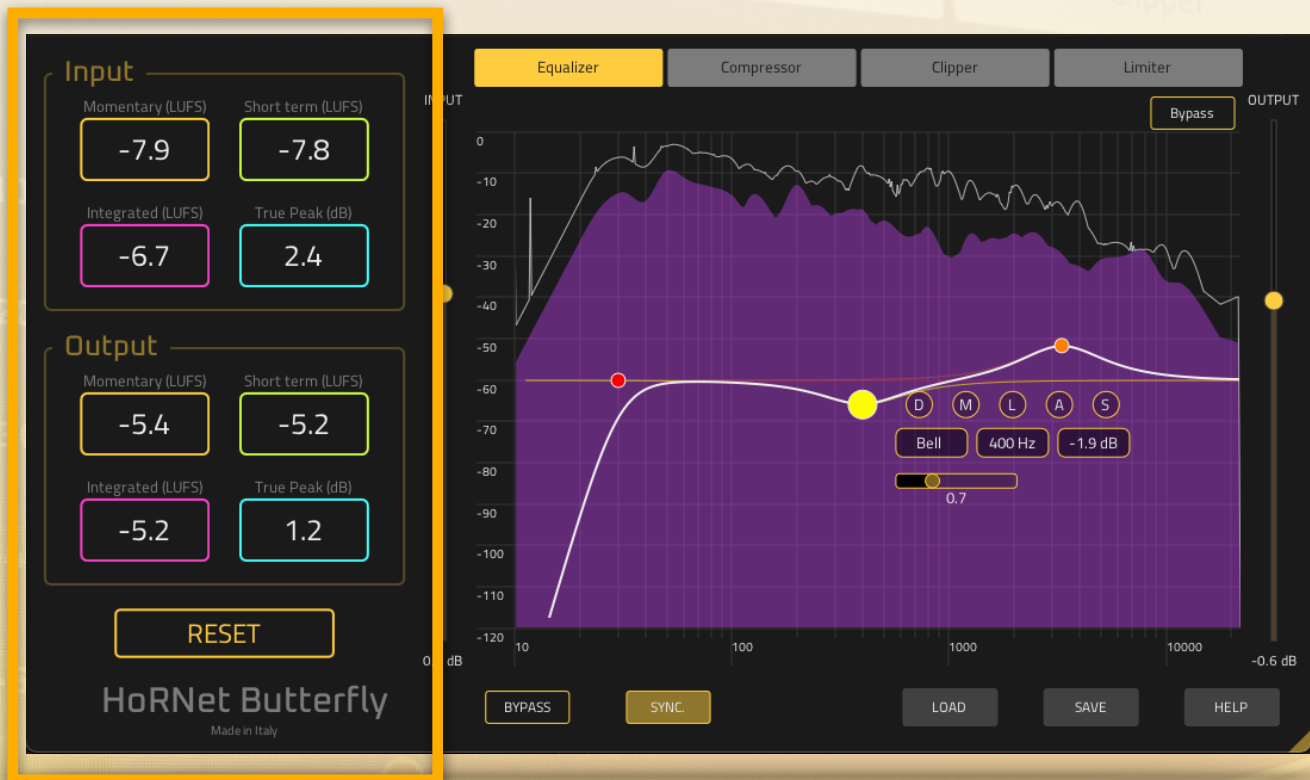
HoRNet Butterfly

Stereo Master Processor

HoRNet Butterfly is a master processor designed to give you the tools for the final touches for your stereo mix or for mastering. It borrows the same high quality processing modules found in our SAMP, the master processor for Dolby Atmos. Packaged into a single plugin you can find: an **equalizer** (using the same technology found in our TotalEQ) a **compressor** (using the same technology of our SyncPressor) a **clipper** and a **limiter** (using the same technology of our Magnus MK2). These processors guarantee a very high quality processing thanks to the intelligent oversampling designed to give the plugin enough bandwidth to process the sound without artifact at every sample rate. The order of the effect can be rearranged dragging their position in the top tabs control section and in the left part of the interface you can find a handy LUFS metering section that shows you the input and output levels with the standard "momentary", "short term", "integrated" and "true peak" readings. With its four processing modules HoRNet Butterfly can be used to master any stereo song with high precision and great results.

While we designed the plugin to work on stereo busses there is nothing that prevents you from using it on mono channels transforming it into a powerful channel strip and of course if you don't need a limiter or a clipper each module can be independently disabled to save CPU power, don't worry though, Butterfly it's also light on your cpu so you can add safety as many instances as you want.

LUFS metering



The highlighted area contains the metering section, on the upper side we have the input LUFS metering while on the bottom there is the output.

Each of the two sections provides "momentary", "short term", "integrated" and "true peak" readings that you can reset using the button on the bottom if you want to start a new measure.

General controls



These areas contains the general controls.

On the left of the main plugin view we find the **input slider** and on the right the **output slider**. Adjusting those two controls allows you to change the input and output levels for every instance.

On the upper part of the interface you can find the **tabs for the module selection**. Clicking on any of the tabs allows you to edit the parameters for the specified module. You can drag the tabs to change their order.

On the bottom part of the interface we find (left to right) :

- **Global bypass button:** this button completely bypasses the processing for the plugin.
- **Sync button:** this button allows you to chose the type of attack and release times found in the compressor an limiter modules, when enabled you can chose attack and release times using musical time divisions such as "1/4" or "1/8", of course relative to the DAW tempo. When this button is turned off you will be presented standard attack and release options in milliseconds.
- **Load button:** this button allows you to load a custom preset for the plugin

- **Save button:** this button allows you to save the current plugin settings in a custom preset.
- **Help button:** when this button is clicked the online help is enabled. Moving the mouse on every control will show a tooltip with a short description of the function.

Equalizer

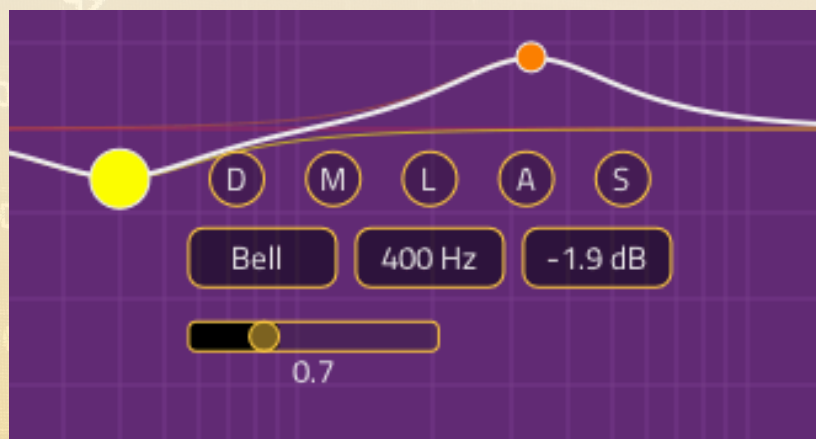


The main part of the equalizer, which is based on our TotalEQ plugin, is occupied by the spectrum analyzer, in this case it's a smoothed 1/3 octave bandwidth analyzer with an integration time of 1000ms. We have chosen these values to give you a spectrum analyzer that offers you a general overview of your master bus.

To change the equalizer curve you can create up to six different control points, to create one just double click on the white eq curve, double click a control point again to delete it.

Each eq band, represented by a control point offers a large selection of filter types and different controls for every type.

Equalizer controls

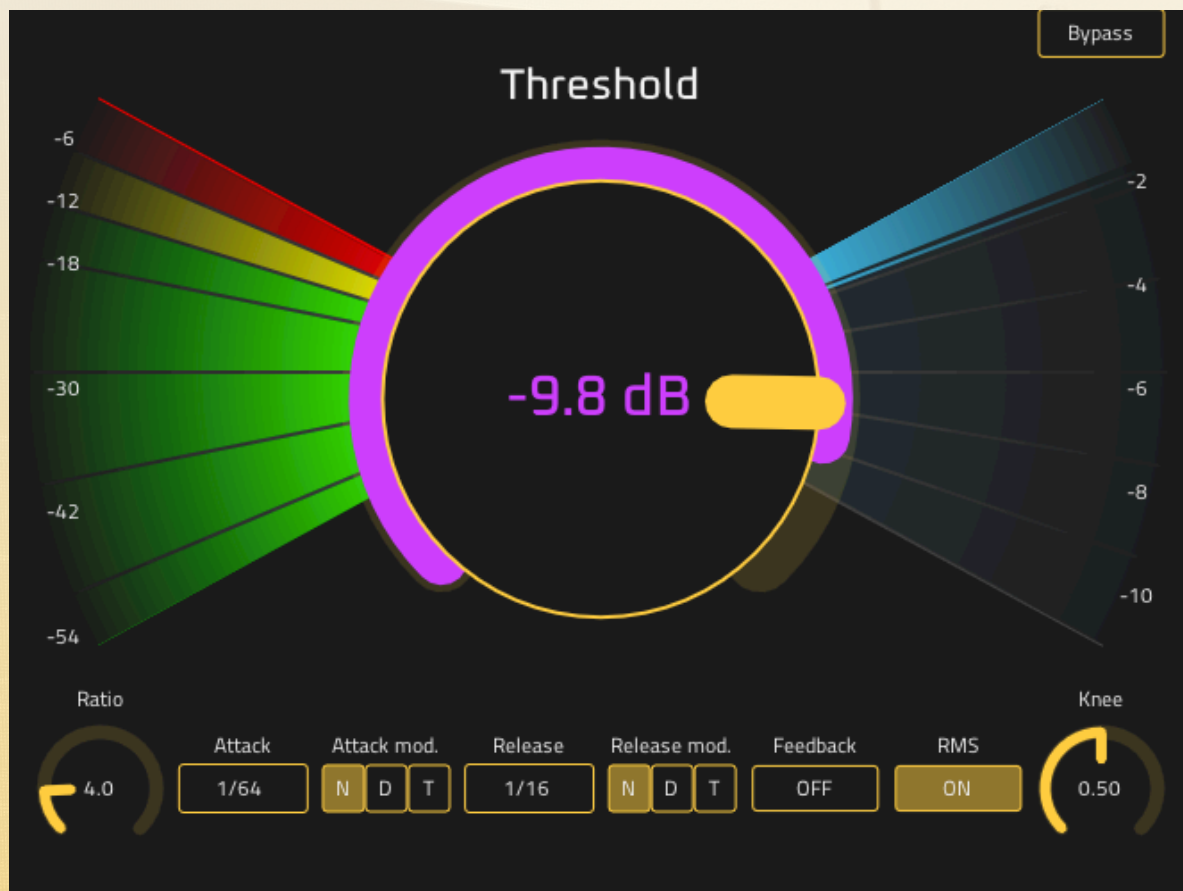


Pictured in the image above are all the controls of an equalizer band, not every control is available for every filter type, the bell one is the most complete.

The top row contains the control buttons:

- **D** : is for "dynamic", clicking this button will enable the dynamic mode of the band, threshold, attack time and release time are automatic, just move the dot around until you see the right movement in the curve
- **M** : is for "mute". Once clicked the processing of the band is bypassed.
- **L** : is for "listen". Once clicked you will only hear the processed sound from this band isolating it from the rest of the equalizer
- **A** : is for "analog", this button enables the analog behavior of the band, this translates in a slight different response curve and dynamic frequency gain and q changes when the signal is louder.
- **S** : is for "saturation", clicking this button will reveal a saturation slider that will allow you to add some distortion to the EQ band, keep in mind that bands are processed in series, so if you add distortion to the first band this will propagate to the next one until the last.

Compressor



The compressor module provides you the standard compressor controls and is based on the code of our SyncPressor, which is a clean digital compressor.

The main part of the interface is occupied by the threshold knob, the side chain meter, the input meter and the gain reduction meter.

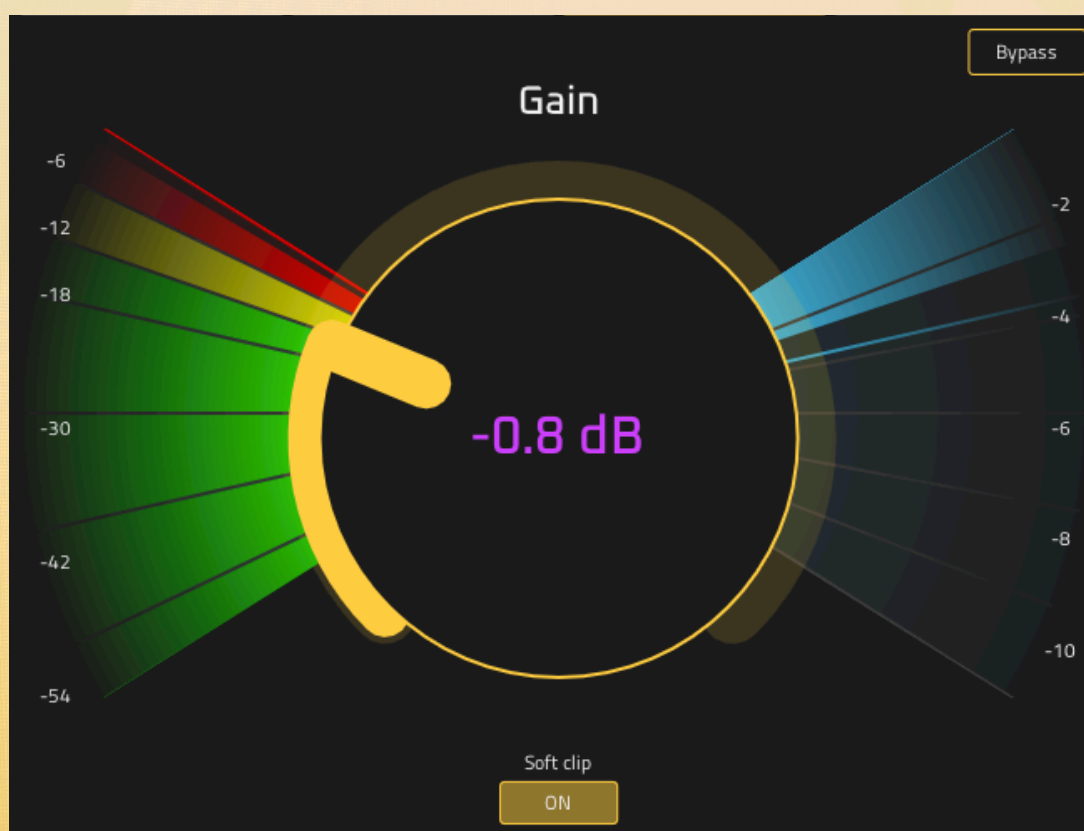
On the left we find the input meter that displays the level found on the input of the module, the side chain level (which is different from the input level since it has passed through the attack and release stages) is shown as a purple line around the threshold knob, when that line crosses the yellow indicator compression is applied. The amount of the applied compression is shown by the gain reduction meter on the right.

The bottom part of the interface contains the other controls such as the "ratio" attack and release times, a button to choose if the compressor must work as a feedforward one (default) or in feedback mode. Also we have provided a button to enable the RMS mode of the detector (so it reacts less to short transients) and a

knee knob that changes the softness of the transition area around the threshold level.

When "sync" is enabled in the general control area, attack and release times are shown as musical divisions like 1/4 or 1/8, also a "modifier" control is shown next to them, these buttons allows you to chose if you want "natural" length (**N**) "dot" length (**D**) or "triplet" length (**T**).

Clipper

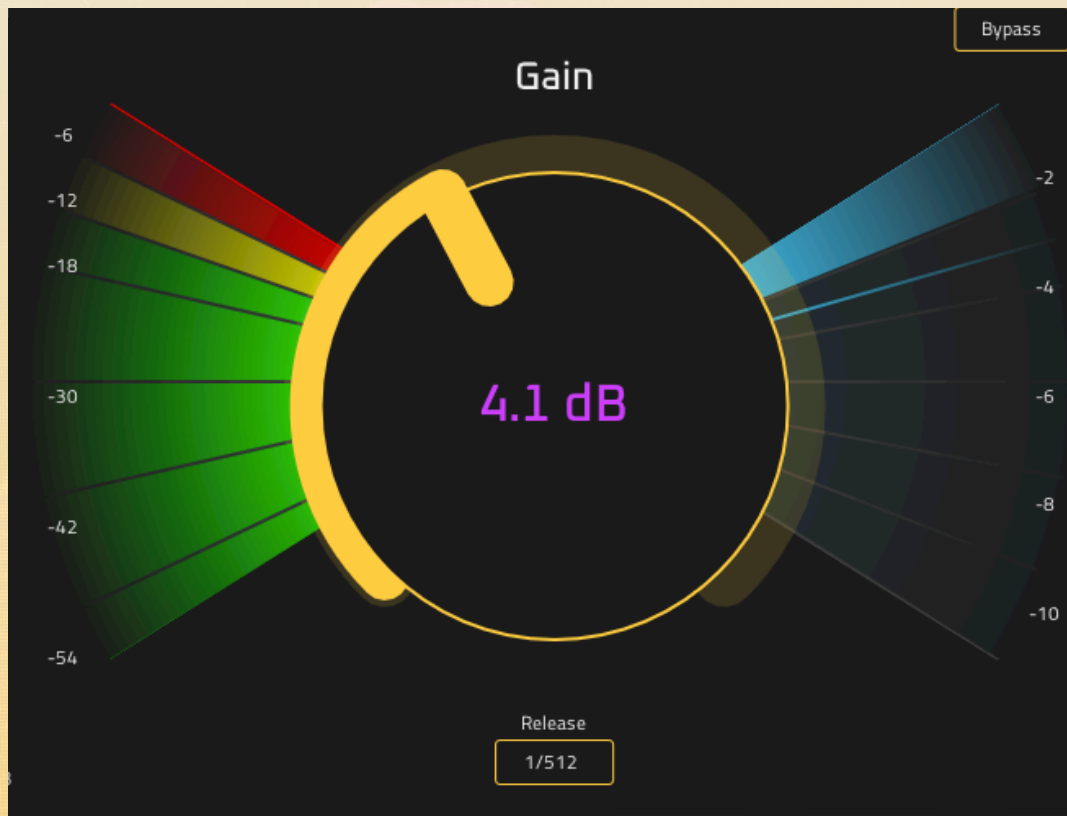


The clipper module allows you to smooth out transients in the signal. It works by allowing you to increase the gain until it hit a hard or soft ceiling that adds harmonics to the signal.

On the left you have the input meter that shows the level found on the module input. On the right there is a gain reduction meter that show the amount of signal that is being shaved off by the clipper.

The button below the main knob lets you change between a soft and a hard clipper. The soft one has a nice analog behavior while the hard one is a digital clipper.

Limiter



The limiter module is based on our Magnus MK2 plugin and is a brickwall type since it has instantaneous attack time. The release time is handled by three different envelopes that reacts with different signal types, this envelope arrangement allows the limiter module to be as transparent as possible. On the left of the interface we have the input meter that shows the level found on the input of the module, in the center we have the large gain knob that increases the signal inside the limiter. On the right we have the gain reduction meter showing you the amount of reduction being applied by the processor. Right below the gain knob we can find the release time control, when the "sync" button in the general control section is turned on, this control show musical time divisions (like 1/4 and 1/8), when the button is turned off you can enter the release time in milliseconds.