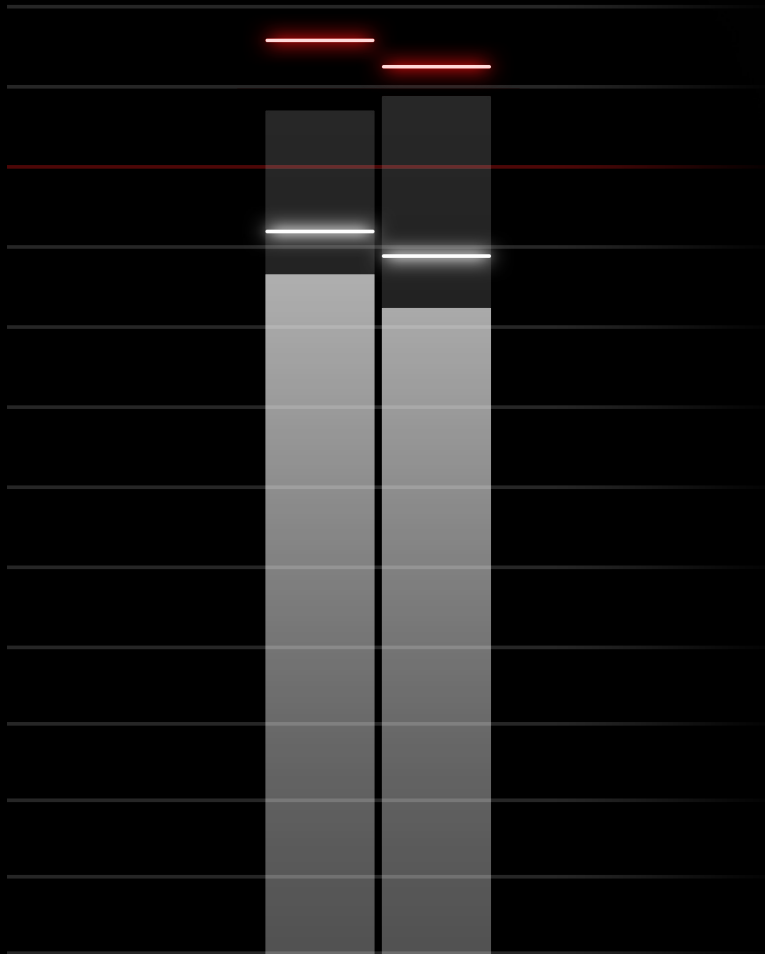


bx_limiter True Peak

The last word in limiting.

bx_limiter True Peak Plugin Manual



BRAINWORX
bx_limiter True Peak

METERING
IN OUT

BALANCE
L R
-1 +1

CORRELATION

TRUE PEAK -0.1 -0.1
RMS -9.4 -9.4

GAIN REDUCTION 2.9 2.8
DYNAMIC RANGE 5.6 5.3
LUFs -7.0

MODE
MODERN CLASSIC

GAIN dB 3.00

RELEASE ms 0.22

CEILING dB -0.10

XL %

LINK

TONES CONTROL
FOUNDATION

HPF Hz 15 LPF kHz 35

CHANNEL LINK % 75 LIMITER MIX % 100 OUTPUT DIM dB 0.00

MOMENTARY LOUD -8 LUFs

SOLO
LEFT S.I.P. RIGHT MID SIDE

Plugin Developed by Brainworx Audio, distributed by Plugin Alliance.





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Intro - One limiter to rule them all.

The new bx_limiter True Peak is the first true peak limiter you will love listening to: It took brainworx & Dirk Ulrich over 2 years to achieve the perfect blend of a tighter overall sound, punchy transients, solid bottom and a stable stereo image. All this while giving you the option to dial in more character or clarity.

This is the limiter to end all limiters: Be it on a master bus or on tricky to mix drums, the bx_limiter True Peak has your back.

Using brainworx Selective Oversampling and an advanced look-ahead technology, the bx_limiter True Peak is better sounding than all previously available limiters: Perfect transients, no clipping, no artifacts, no distortion! This is why you can crank this baby up to 11 and it will still sound solid.

And to make sure it lives up to the hype, brainworx consulted various top mastering studios making this limiter probably the last you will truly ever need.

And did we mention it has a sleek new user-interface that you can even customize? Yes it does!

Pro Tip

You can use the bx_limiter True Peak in combination with bx_masterdesk and tools like ADPTR Audio Metric AB or SPL HawkEye to get a perfect in-the-box mastering solution! For even more mastering goodness, why not add the HG-2MS tube saturation plugin?





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Overview

Although it was designed as the ultimate mastering limiter, the bx_limiter True Peak can also be used on single tracks to get more balance and control. Especially with drum tracks or guitar busses it can really deliver some heavy hitting bottom end with great overall volume without distortion or changing the overall sonic signature.

The Foundation control even allows you to further shape your sound towards the character you want: Turn it up to enhance the bass response. This is very useful for kick drums as well as bass tracks.

With a flick of the MODE switch you can turn on the modern mode which features even faster response times and is well suited for more modern genres of music like EDM or Hip-Hop.

The metering section allows you to precisely monitor the output.

And last but not least, the brand new brainworx user interface has been designed in order to accommodate a modern and easy workflow and looking good while doing it. Also included is the new UI Color feature which offers 9 different colors to change the controls and meter indicators according to taste. Although we definitely like red the most.

In Use

The bx_limiter True Peak is a very versatile plugin with an easy-to-grasp parameter-set. A lot goes on in the background so you can focus on your task.

The limiter plugin provides two distinct Limiter Modes:

CLASSIC is the original and safe behaviour of the limiters like the classic bx_limiter, while MODERN being a faster and louder approach more suited to towards genres with harsh transients like EDM.

The Tone Control Section (HPF, Foundation, LPF) offers you a wide variety of filter controls while the Foundation feature lets you fine tune the frequency response and general coloration of the sound. All these features give you a clear and punchy sound while never sounding harsh and keeping things in control.

We also have your monitoring needs covered: Featuring M/S Solo (mid-side), Left/Right Solo and a highly accurate output meter, gain reduction metering, true peak metering and industry compliant loudness metering to evaluate your final output.





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Features

1 Gain

Gain increases or decreases the input signal to bring the level towards the threshold and works in conjunction with the ceiling control.

2 Ceiling

Determines the True Peak level to which the processed signal will be limited.

3 Link

This powerful feature lets you adjust Ceiling and Gain Boost proportionally from just a single control.

4 Limiter Mode

CLASSIC is a safe and less punchy mode, whereas MODERN is a faster, more punchy mode, suited very well for many modern music genres.

The „Link” knob is another powerful new feature that allows you to adjust Ceiling and Gain Boost proportionally from just a single control. This creates some powerful options to maximize loudness while maintaining an even sounding mix.

Additionally the added XL Saturation control will not just help to get tighter sound and add colour to the mix but also to get vocals, bass, acoustic guitars and many other elements sticking out in mixes without having to raise their volume in the mix.



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1 Release

Determines the Release time which the limiter takes to smoothly return from a limiting state to applying no gain reduction.

2 XL Active

Activates or deactivates the well-known XL Saturation section.

3 XL Saturation

This parameter determines the amount of XL Saturation blended in to the signal before it hits the limiting stage.

4 Channel Link

Channel Link sets the continuously variable linking of the channels in the limiter's sidechain. With the control set to 100%, the sidechain of both channels is fully linked, so that the channel with highest level determines the gain reduction for both channels. This will keep the stereo image intact.

With a fully unlinked sidechain (0%) the limiter will work independently for both channels, each channel just affecting the gain reduction for itself.

*The DEFAULT setting and our recommendation for this parameter for music mastering is 75%

5 Limiter Mix

The Limiter Mix parameter continuously blends in the dry input signal with the processed output of the limiting stage.

Please note that clipping can occur with Mix values below 100% (if the INPUT level is clipping already, for example).

6 Output Dim

The Output Dim defines the final output level of the plugin.

Use this control if you want to safely hit a (or multiple) True Peak target value(s), while retaining the same dynamics and sound determined by the other Parameters.

*Some streaming services or TV stations may require masters to be delivered at -1dB peak. In this case dialing back the OUTPUT DIM to -1dB will do the trick without altering the limiting and sound of the signal.



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Tone Control

1 High-Pass Active

Activates or deactivates the high-pass filter, so it only affects the signal when you want it to.

2 High-Pass Frequency

This control determines the Frequency of the tone shaping high-pass filter that feeds into the limiter section.

3 Low-Pass Active

Activates or deactivates the low-pass filter, so it only affects the signal when you want it to.

4 Low-Pass Frequency

This control determines the Frequency of the tone shaping low-pass filter that feeds into the limiter section.

5 Foundation Active

Activates or deactivates the Foundation feature, so it only affects the signal when you want it to.

6 Foundation

A tone shaping tool that increases or decreases the foundation of your signal before hitting the limiter stage.

This parameter lets you fine tune the frequency response in accordance to changed perception that might come with the limiting process.

With the Foundation control you adjust the overall tonality of your mix (Low End vs Treble), and set a nice bass foundation which you will build your master upon. Higher values give you a more bass heavy foundation which sounds pretty BIG for most genres.

Pro Tip

Foundation can be used to really alter the character of a track. Maybe even add it on a kickdrum to give it some extra heavy bottom end?





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Metering

1 True Peak L+R

Shows Peak values as True Peak measurement in dBTP according to EBU/ITU standards. The readout will hold the maximum True Peak value that occurred in the signal until the meter is manually reset.

Switches between input or output signal with Meter Position control.

Click anywhere on the metering area to reset the meters, including the maximum True Peak and maximum Momentary Loudness value.

The True Peak (dBTP) measurement is a standard specified by EBU R 128 and ITU BS.1770 resolutions. It is used to anticipate real world Intersample Peaks (ISPs) that can occur when converting back from the digital to analog domain. As the technical of True Peak detection is not rigidly defined, there will be some variance between dBTP values in meters by different manufacturers.

2 RMS L+R

Shows RMS value of the signal selected with the Meter Position Control (input/output)

3 Gain Reduction L+R

Shows the amount of gain reduction in dB that the limiter is causing.

4 Dynamic Range L+R

Displays the dynamic range or crest factor of the signal at the selected position (input or output). This is a helpful tool to determine the density and dynamics of the material in addition to the newer standardized loudness measurement.

5 Loudness

Displays the perceived loudness of the selected source signal (input/output) in LUFS (Loudness Units Full Scale) according to EBU/ITU recommendations. The selected Loudness Target determines a white "safe zone" and red overshoot range to monitor the real time loudness.

The time scale can also be switched between momentary with a window of 400ms or short term, averaging over 3 seconds. With momentary selected, the readout will hold the maximum momentary value that occurred in the signal until the meter is manually reset.





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1 Balance

This meter shows the position of the signal in the stereo field.

2 Correlation

This meter shows the correlation of the left and right channel.

+1 means both sides are completely in phase and there is no difference between listening in mono and stereo. The Track has no stereo width.

0 means there is the same amount of „In-phase“ signal and „Out-of-phase“ signal in the left and right channel. The track fills the complete stereo field, while still being mono-compatible.

-1 means the left and right channel have opposite phase and would cancel each other out when listening in mono so in other words the track would not be mono compatible at all. The material is positioned outside of the stereo field.

3 Loudness Time Scale

This menu provides the option to switch between the 2 EBU recommended scales for real time loudness measurement.

4 Loudness Target

The Loudness Target menu offers different options to add a visual guideline to the LUFS meter depending on the purpose and destination of your material. The custom option lets you specify a target loudness to aim for.

5 Meter Position

Switches the position of the metering section (naturally excluding Gain Reduction) in the signal chain. This determines whether you are viewing the corresponding values for the input signal before the limiter section (In) or the output signal after the limiter section (Out).

6 Monitoring

The Solo buttons control which part of the output signal is monitored. Either one of the channels L, R, as well as the mid (M) or side band (S) can be selected.

With a second click on the active button, the current solo option will be deactivated and return to default Stereo monitoring.

Pro Tip

For a fully featured EBU-mode compliant loudness meter, use ADPTR Audio Metric AB or SPL HawkEye in addition to this plugin.





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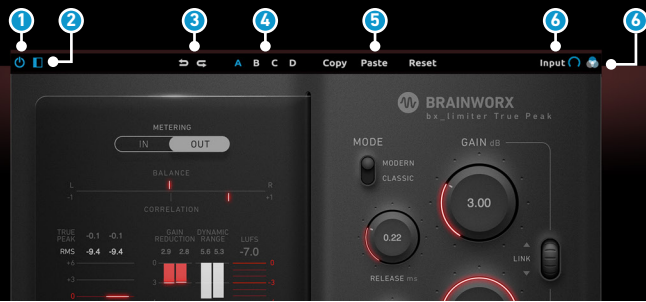


1 Stereo Swap

The Stereo Swap parameter will invert the channels of monitored Stereo signal, when the “L<>R” button is active. This can be useful to better evaluate the stereo balance or possible flaws of a mix and listen to the same material with fresh ears. Only affects the signal with Monitoring control set to Stereo.

2 S.I.P. - Solo in Place

With the “In Place” control activated, the output signal from L or R solo settings (see Monitoring parameter) will appear in the respective speaker only, otherwise the signal will be centered.



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Top Toolbar

1 Power

This serves as an additional input gain control.

2 Compact Mode

This feature turns off the Metering section of the plugin.

3 Undo / Redo

You can undo and redo changes you made to the controls of the plugin at any time. The Undo / Redo will work for as many as 32 steps.

4 Settings (A/B/C/D)

The plugin offers four internal settings (A/B/C/D) which will be stored with every preset. So, one preset can contain up to four settings. You may use similar settings with more or less compression in one setup / preset. Now, the SETTINGS can be automated in your DAW! This way it's possible to use different sounds for your lead vocals or drums in various sections of the song. Automate the A/B/C/D settings, and you can still tweak knobs of the individual settings without overriding multiple parameters in your DAW, which would be time-consuming.

5 Copy / Paste

To set up variations of similar sounds you don't have to dial in the settings several times. Let's say you like your setting A and want to use the same sound, just with less compression, as setting B.

- Simply press Copy while you are in setting A.
- Switch to setting B by pressing 'B' in the settings section.
- Press PASTE, now setting B is identical to setting A.
- Reduce the compression on the B setting.

Now you can switch between A & B and decide which one sounds best or automate different settings for various sections of your session.

6 Input Trim

Attenuates the input signal to the plugin even before the input meter. Use this for proper gain staging, so the Gain and Ceiling controls can be used as intended even on exceedingly hot mixes.

7 UI Color

Changes the primary color of controls and meter indicators.

In the "about" window the currently selected color can be applied as system default, so new instances will open up with your favorite color first.



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Bottom Toolbar

1 PA Logo

Clicking the Plugin Alliance logo takes you to the Plugin Alliance website via your web browser, that's if your computer is online.

2 License Type

The toolbar displays information about the type of license you're running: Trial licenses will be displayed along with the number of days until expiration; there is no note for full licenses as these are unlimited.

3 \$ (Icon)

If you are using a demo / trial version of our products, you can always click this icon to open a browser that redirects you to the respective product page in the Plugin Alliance store. This is where you can easily purchase a product without having to look it up on our website.

4 Key (Icon)

Clicking on the key icon brings up the activation dialog, allowing you to manually reauthorize a device in the event of a license upgrade or addition. You can also use this feature to activate additional computers or USB Flash Drives.

5 ? (Icon)

Clicking the ? icon opens up a context menu that links to the product manual PDF, as well as other helpful links, e.g. to check for product updates online. You must have a PDF reader installed on your computer to be able to read the manual.

System Requirements & FAQ (Links)

For latest System Requirements & Supported Platforms

<https://www.plugin-alliance.com/en/systemrequirements.html>

Particular details for your product

<https://www.plugin-alliance.com/en/products.html>

Installation, Activation, Authorization and FAQ's

<https://www.plugin-alliance.com/en/support.html>



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Artist Presets

No two mixes sound the same, so it's hard to make presets for mastering plugins without hearing your music. But we have made some for you as a suggestion or a starting point and to demo some of the tones and features you can get out of the Plugin

Based on the level of your mix you may have to adjust at least the VOLUME knob with some of our presets, to adapt them to your mix.



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