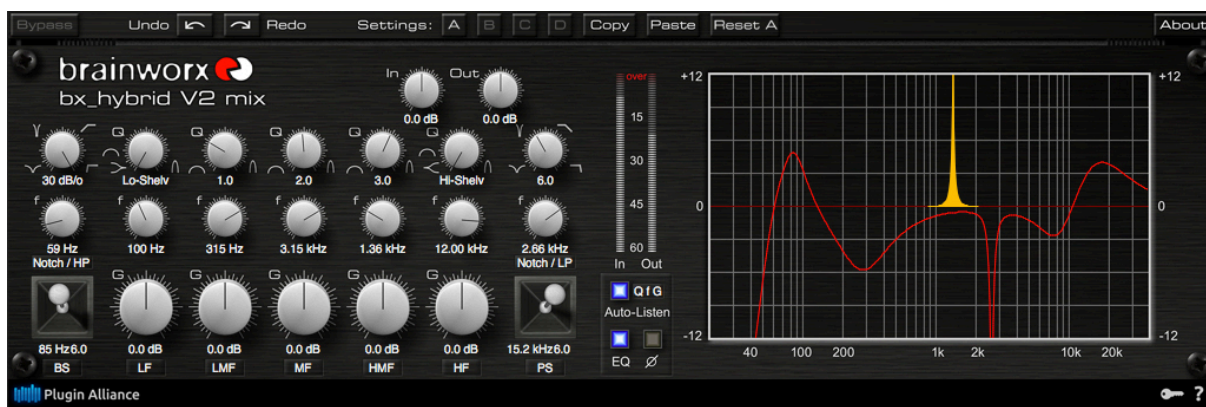


bx_hybrid V2 Manual

Hi-resolution mono, multi-mono & stereo 11-band EQ with sophisticated AUTO LISTEN MODES

Supported formats: please check www.plugin-alliance.com



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1. What is the bx_hybrid V2 EQ system?

bx_hybrid V2 is a new 11-band EQ system that we have designed for mixing & mastering purposes. Its internal high-resolution filter algorithms and some unique and innovative features make this an "engineer's weapon". bx_hybrid V2 is a set of 2 EQs, MONO and STEREO versions of the same basic EQ concept.

MIX Version: MONO & MULTI-MONO (incl. Surround)
STANDARD Version: True STEREO / Stereo only

We chose the name "hybrid" for 2 reasons: although being a LEFT / RIGHT EQ the stereo version of bx_hybrid V2 has some internal M/S features, and although being an EQ that has to be set manually it has many AUTO features that will help you to find the perfect EQ setting fast & convenient.

The bx_hybrid V2 11-band EQ comes in a mono version (MIX Version) - which also is multi-mono compatible on hosts that support this feature - and in a stereo version. You have been asking for a mono version to be able to use the critically acclaimed Brainworx filter technology in a mix session on single channels as well... so there you are... and we even improved the filter sound, enabling hi-end EQ-ing up to 26 kHz... even in 44.1 kHz sessions!

The special features of bx_hybrid V2 include internal M/S STEREO WIDTH CONTROL, M/S MONO MAKER, sweepable SHIFTER EQs, Joystick Control & AUTO LISTEN MODES.

2. What is M/S technology?

Most people who are into recording music know about the M/S microphone technique where you have 2 different microphones for mid and side signals. Recording a signal with 2 M&S microphones means to create a stereo (L/R) signal by mixing the M and the S signal together in a special way that will create a very mono-compatible stereo signal. To record in M/S you have to feed the M-signal to the left and right channel of your mix and the S-Signal will be fed phase-correct to the left channel and phase-reversed to the right channel. This means you will have to split the S-signal and use a total of 3 channels for only 2 microphones that will be mixed together to a conventional stereo-signal.

In mixing and mastering situations M/S technology can be used to individually process the mids and sides of a stereo signal, or to control the overall stereo width of a stereo signal / stereo group / stereo sum. For additional details about this technique you may have a look at our video tutorials on www.plugin-alliance.com and YouTube. M/S is great to create very mono-compatible stereo-signals, e.g. when recording classical music, choirs or acoustic instruments in general, like drums, acoustic guitars, etc.

3. Which M/S features are there in bx_hybrid V2 for MIXING & MASTERING situations?

The stereo version of bx_hybrid V2 has a built-in M/S matrix that will allow for certain M/S processing of any stereo sound. Due to this there is no specific M/S knowledge NEEDED to adjust the M/S features – but we do RECOMMEND learning a bit about M/S when you intend to use it!

While we offer the *bx_digital* system to allow for comprehensive M/S manipulations (separate EQing & de-essing of the M- and the S-part of a stereo signal) bx_hybrid V2 STEREO VERSION is NOT intended to process M- and S-signals individually, but to process stereo signals in L(left) and R(right) mode (linked and unlinked though, of course), while optimizing the low-end of any stereo signal using the internal M/S MONO MAKER - and arranging the overall stereo width of any stereo signal via the internal M/S STEREO WIDTH CONTROL.

Please see chapter 7 for details!

→ Note that the stereo version of bx_hybrid V2 is a perfect “team mate” for more comprehensive M/S manipulations when used in unlinked mode and in cooperation with *bx_control V2*, our separate M/S matrix!

Check www.plugin-alliance.com for more info about Brainworx M/S tools.

4. But what´s so NEW about the bx_hybrid V2 system then?

Well, there are several features in bx_hybrid V2 that no other EQ system offers, and there are several features in bx_hybrid V2 that we have optimized for you, the user, compared to other EQs available in the market. And to be totally honest there are also a few features that can be considered as “basic” for any EQ. In the end bx_hybrid V2 is supposed to be a “basic tool” for any advanced audio engineer – namely the ones concerned about PRECISION, ACCURACY & WORKFLOW SPEED.

AUTO LISTEN MODES:

You will find “tuning” your EQ settings with bx_hybrid V2 faster and easier yet more precise than with any other EQ system available. Its AUTO LISTEN MODES make finding the right settings for your EQ easy like never before - while literally saving you hundreds (!) of mouse-clicks, controller moves and adjustments per session.

Please don´t get us wrong:

bx_hybrid V2 will not SET the filters automatically, but it will enable you to always LISTEN to what you need to hear at every stage of the editing process automatically – so YOU can find the best setting for your signals.

Internal M/S processing: (Stereo Version only!)

bx_hybrid V2 Stereo Version has a built-in M/S processor to adjust the overall STEREO WIDTH of your signals. In addition it comes with our innovative MONO MAKER tool which will “cut” your low-end mono from 0 Hz up to any desired frequency (user adjustable up to 26 kHz!). While making your mix mono in the low end. Then it automatically compensates for any potential loss of overall bass amount in your mix / stereo signal. The result is a more defined, dryer and much tighter low end.

Sweepable SHIFTER EQs – joystick controllable!

Taken from bx_digital we have implemented SHIFTER EQs in bx_hybrid V2, and we have even improved their functionality! The SHIFTER EQs are fully sweepable now within certain frequency ranges, and they have well balanced algorithms to filter out the maxxx out of any stereo mix or single signals (bass drums, bass, voices, guitars, etc.).

If you own a modern DAW controller (like a DIGIDESIGN ICON controller) with surround panner joysticks you may map the SHIFTER EQs to these joysticks! This way you can actually control BASS SHIFT and PRES SHIFT simultaneously (if your controller offers 2 joysticks), allowing for intuitive EQ tweaking like never before – up to 4 EQ bands at a time!

SOLO BUTTONS L & R: (Stereo Version only!)

Ever ran into noise sounds in a stereo mix / signal that you couldn't track down? Or wanted to EQ left and right channels individually, finding it hard to really HEAR what you were EQ-ing? Use our SOLO BUTTONS and bx_hybrid V2 Stereo Version will play you only the left or the right channel of a mix, but centered on BOTH speakers.

Hearing the individual channels individually sometimes makes EQ-ing stereo signals much easier. The same goes for finding noise sounds in a mix that might all in a sudden be heard much clearer when appearing only on one channel of your mix.

EXTENSIVE METERING & CONTROL TOOLS: (Stereo Version only!)

bx_hybrid V2 enables you to VISUALLY control the BALANCE between left and right speakers, making it easier to place stereo signals of a complex mix right in the “sweet spot” and to make sure that whole mixes are evenly balanced on both speakers. L/R and M/S meters for total control!

The on-board PHASE CORRELATION meter allows you to not only control the phases of a mix but to check the phases of any stereo signal in your mix individually, which is very important when using the M/S STEREO WIDTH control on multiple channels!

5. Features of the bx_hybrid V2 EQ system:

- 11 band mono & stereo EQs for mixing and mastering purposes
- new BRAINWORX Hi-Resolution filters for unrivaled sound quality
 - 20 Hz – 26(!) kHz, even in 44.1 k sessions.
- Low Shelving & High Shelving filters
- Bell filters, Low-Pass and High-Pass filters, Notch filters.
- Handling ALL of AVID ICON´s center section EQ features PLUS:
 - Sweepable Bass- and Presence-Shifter EQs
 - Shifters can be controlled by JOYSTICKS (i.e. AVID ICON surround panners)
- NEW and innovative AUTO LISTEN MODES
- M/S inside! M/S STEREO WIDTH control and M/S MONO MAKER (Stereo Version only)
- Dual Mono layout for LINKED & UNLINKED control of each individual feature (Stereo Version only)
- Individual BYPASS switches for almost every feature
- Extensive individual metering for L/R & M/S levels (Stereo Version only)
- BALANCE & PHASE CORRELATION meters (Stereo Version only)
- SOLO L & R Buttons – listen to only the L(ef) or R(igh) channel of a stereo mix / signal on BOTH speakers (Stereo Version only)
- Switchable EQ panel with multi-mode EQ display (actual EQ-curves, bypassed curves, L&R channels and AUTO LISTEN MODES).
- Phase reverse switch (MIX Version only)
- Fully automatable

6. How do I get started with bx_hybrid V2 in a typical mixing or mastering-session?

EQ-ing mixes or individual elements of a complex mix is all about HEARING OBJECTIVELY... and enhancing musical performances or “fitting” additional elements into an existing mix... and (often enough...) it is about correcting mistakes that have been made during the recording process (it wasn´t you, of course! ☺) ...

This sounds basic, but we do mean it literally!

We assume that most if not all people who are reading this manual are familiar with using a standard EQ, so we will skip the total basics of “how to use an EQ” and go on with less obvious points.

Let's assume we have a standard signal (e.g. a guitar recording or drum loop) with some problems that we want to correct... It's just... how can you correct problems you can't even hear exactly???

Start playing some signal through a MIX or stereo version of bx_hybrid V2 and try to make up your mind about which part of the signal does sound displaced or disturbing. Not an easy job without boosting single EQ gains, setting the Q pretty narrow before doing so, then going back to an "easier" gain setting, re-correcting the Q, fine-tuning the gain, etc.

THAT'S OVER NOW!

bx_hybrid V2 will enable you to listen to everything you need to hear to find PERFECT EQ settings – without ever going crazy with your EQ knobs again!

While playing some signal through your new EQ click on some of the EQ knobs (Gain, Frequency or Q), and just check out with your ears and your eyes (follow the EQ graphics while clicking around...) how bx_hybrid V2 can assist you to find the ideal setting for any signal.

Please see chapter 7 (pt. 12) for the details!

Adjusting the STEREO WIDTH right in your stereo EQ is as easy as never before. Make your mix wider than it originally was by increasing the output gain of the S section without losing the center of your recordings! You will NOT lose bass drum power or vocals by making your mix wider this way... and it will not sound different played back in MONO at all!

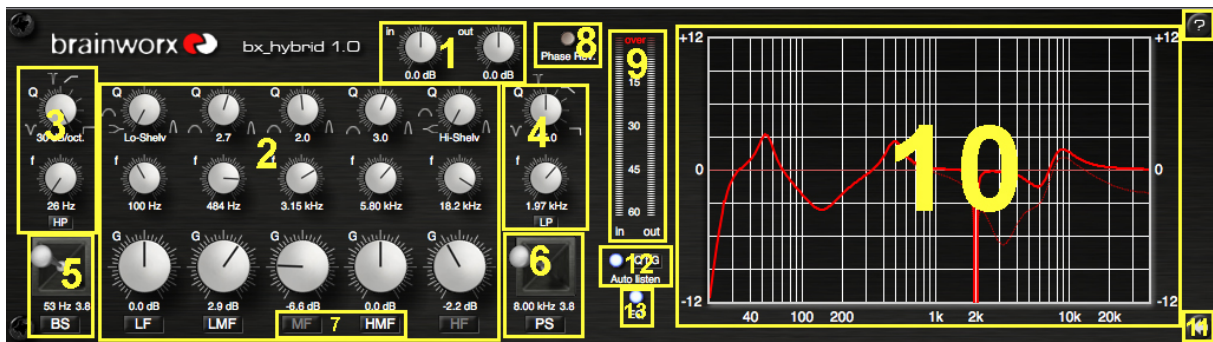
Otherwise, if you have a drum-loop that was recorded with too much ambience sounds / reverb, just get rid of it by decreasing the STEREO WIDTH!

Use bx_hybrid V2 (Stereo Version) to adjust the stereo width of EACH individual stereo signal in your mix and you will find out that mixing some elements of your mix a bit more narrow while spreading other signals (fx returns, guitar groups, keys, etc.) wider than the regular stereo field will ENHANCE the depth and stereo image of your whole mix drastically.

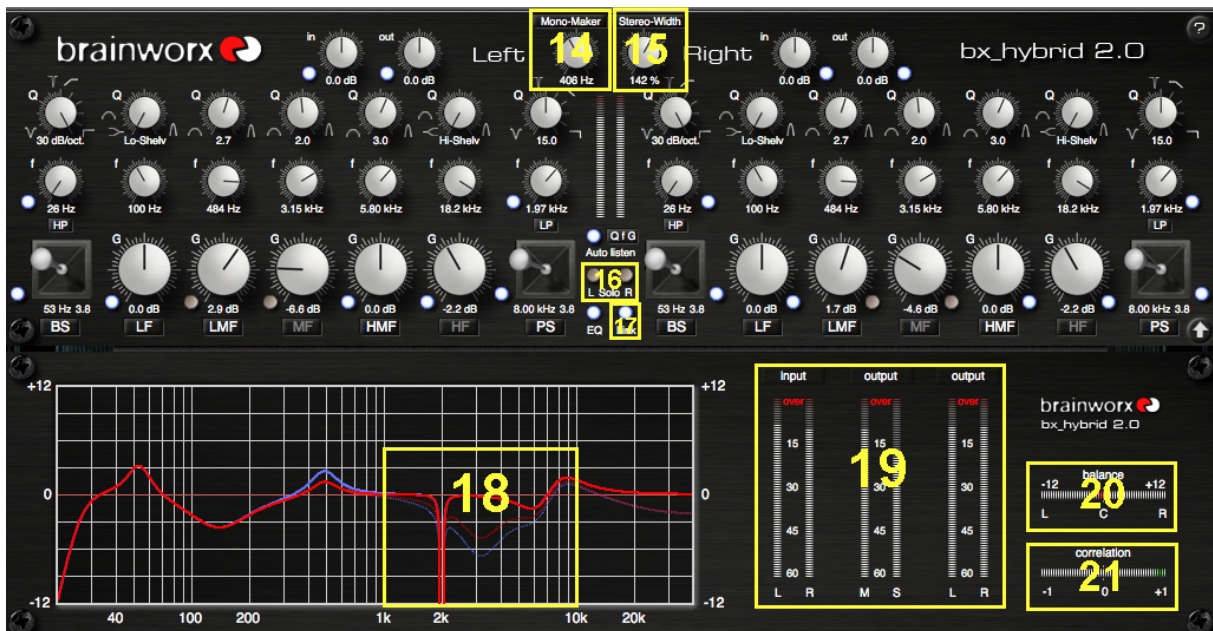
The built-in MONO MAKER will at the same time take care about the phase problems in your lowest bass frequencies. You will be surprised how wiiiiiiiide you can actually spread certain sounds without screwing up your overall mix' phases - with MONO MAKER activated!

Enjoy bx_hybrid V2 –please check the details in Chapter 7!

7. Overview and details



bx_hybrid V2 MIX version



bx_hybrid V2 STEREO version



click here to **get info** (version no etc) about bx_hybrid V2.



- Individual BYPASS: click on ANY FEATURE LABELING to switch it ON (WHITE letters!) or OFF (GREY letters!). Very handsome feature to COMPARE your settings with the unprocessed signal, e.g. to monitor the METER TOOLS while adjusting / comparing your settings.
- TYPING IN VALUES into your plug-ins will save you some time:
 - o GENERALLY TYPING:
 - 10.000 Hz can be typed in as "10k", 12.000 Hz would be "12k", etc.
 - o MONO MAKER & STEREO WIDTH:
 - 10.000 Hz can be typed in as "10k", 12.000 Hz would be "12k", etc.
 - "m" or "M" will set the STEREO WIDTH to "MONO".

1. INPUT & OUTPUT GAIN (L&R adjustable individually in Stereo Version)



Adjust the input and output levels individually (-∞ dB to +12 dB) to make sure that your signal is leveled properly - yet not clipping.

2. MAIN EQ SECTION (5 bands)



5 Bands, each with individual G (Gain), f (Frequency) and Q (Quality) pots.

- LF: switchable (SHELVING or PEAK) via Q-pot
- LMF: PEAK only
- MF: PEAK only
- HMF: PEAK only
- HF: switchable (SHELVING or PEAK) via Q-pot

3. HIGH PASS FILTER or NOTCH FILTER (switchable via Q knob)



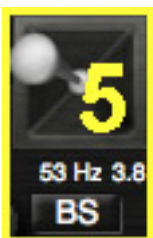
- **HIGH PASS FILTER** (initial setting)
 - sweepable from 21 Hz to 26.000 Hz (26 kHz)
 - switchable 6, 12 (initial setting), 18, 24 or 30 dB / octave
- **NOTCH FILTER** (selectable via the Q knob, turn to the left!)
 - sweepable from 21 Hz to 26.000 Hz (26 kHz)
 - Q adjustable from 15 to 0.3 in 6 steps.

4. LOW PASS FILTER or NOTCH FILTER (switchable via Q knob)



- **LOW PASS FILTER** (initial setting)
 - sweepable from 21 Hz to 26.000 Hz (26 kHz)
 - switchable 6, 12 (initial setting), 18, 24 or 30 dB / octave
- **NOTCH FILTER** (selectable via the Q knob, turn to the left!)
 - sweepable from 21 Hz to 26.000 Hz (26 kHz)
 - Q adjustable from 15 to 0.3 in 6 steps.

5. sweepable BASS SHIFT filters (=individual 2 band EQ)



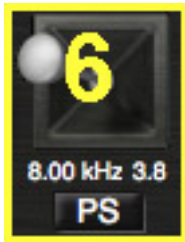
a true BRAINWORX invention...

- simply move the joystick on the screen which will result in 2 EQ bands being "shifted" against each other.
- sweepable from 40 Hz to 200 Hz (referring to the lower EQ band)
- "auto Q sweep" algorithm

This is probably the most effective kick-drum EQ out there. Try moving it to the left and upwards slowly while listening to a kick-drum. Very cool for acoustic and rock / metal guitars as well, low male voices, etc.

→ Please check your DAW controller's manual to find out how to "map" the Bass-Shift to your surround-joystick! (if available)

6. sweepable PRESENCE SHIFT filters (=individual 2 band EQ)



A true BRAINWORX invention...

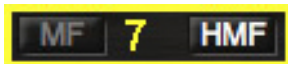
- simply move the joystick on the screen which will result in 2 EQ bands being "shifted" against each other.
- sweepable from 8 kHz to 20 kHz (referring to the higher EQ band)
- "auto Q sweep" algorithm

A great hi-end EQ for vocals. Try moving it to the right and upwards slowly while listening to a female voice.

Very cool for acoustic guitars and strings as well.

→ Please check your DAW controller's manual to find out how to "map" the Presence-Shift to your surround-joystick! (if available)

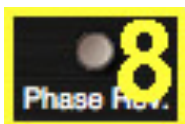
7. individual BYPASS SWITCHES (for almost every feature)



You can BYPASS every feature of the bx_hybrid V2 EQ system except for the input gains by simply clicking on the labeled names of each respective feature.

In the example above the MF band would be set to OFF (inactive, bypassed) and the HMF band would be ON (active, not bypassed).

8. PHASE REVERSE switch (MIX Version only)



You can phase reverse any mono signal with this switch, which might be necessary when mixing together multiple drum mics, bass-signals, or simply correcting / changing phase settings intentionally.

→ Be CAREFUL with this feature. You may cancel out certain signals of your mix if you set wrong phase settings on individual channels!

→ Please check any decent book about audio technology basics if you want to learn more about phases.

9. HIGH RESOLUTION PEAK LEDs (located in the EQ section)



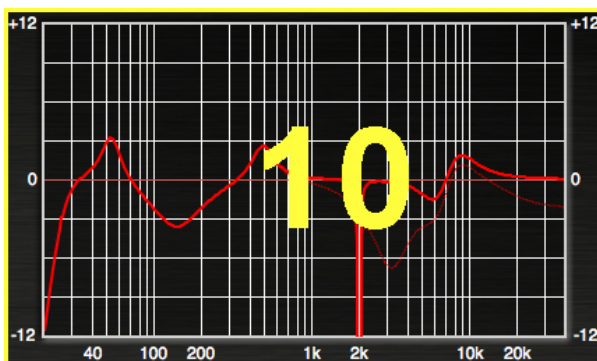
These 2 meters will display PEAK levels of the INPUT & OUTPUT (MIX Version) or PEAK levels of the L&R OUTPUT (Stereo Version).

Stereo Version has ADDITIONAL meters in the lower graphic panel, these meters will show individual INPUT & OUTPUT meters for both, LEFT and RIGHT channels.

OVER means "too much"... clipping.. turn it down... ☺

10. EQ graphic panel

This display will SHOW you up to 11 bands of your EQ settings for up to 2 individual channels (=L&R - Stereo Version only)



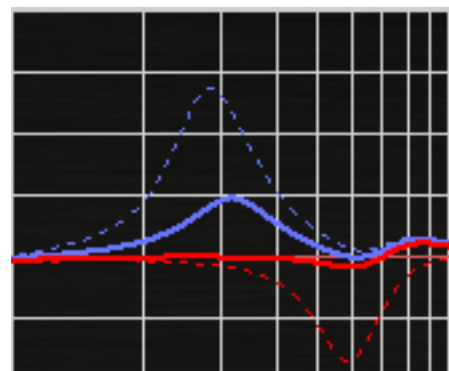
5 band main EQ
 BASS SHIFT (= **2** EQ bands)
 PRESENCE SHIFT (= **2** EQ bands)
 HIGH PASS or
 NOTCH FILTER A (**1**)
 LOW PASS or NOTCH
 FILTER B (**1**)

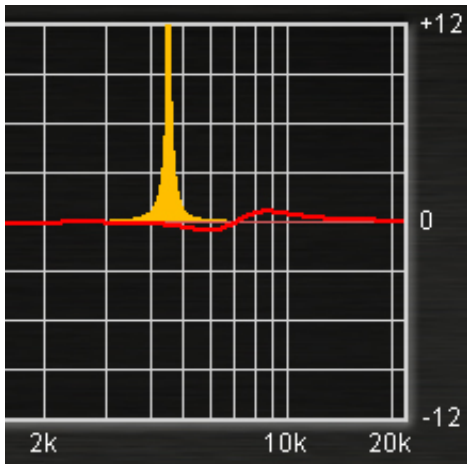
= 11 bands...

When certain bands are **UNLINKED** (Stereo Version only) the display will show **RED** and **BLUE** EQ curves for the **LEFT** and **RIGHT** channel.

BYPASSED EQ bands will still be displayed, but with **DASHED lines**. (see graphics)

2 individual EQ settings and some inactive bands:





(AUTO listen EQ curve "f")

The display will also show you several **TEMPORARY EQ** settings in **ORANGE** color to visualize the AUTO LISTEN MODE EQ curves. Check pt. 12 for the details!

These temporary curves will appear whenever you click on press active AUTO LISTEN EQ knobs with your mouse or activate touch-sensitive controller.

One or several of the following knob types can be preset in the menu:

Q, F & G - and they will disappear as soon as you release your mouse click or controller knob.

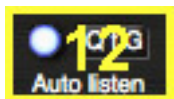
→ It is INTENDED that this display is NOT enabled to SET the EQ curves. You can ONLY set the bx_hybrid V2 EQ bands via the EQ knobs.

11. EQ PANEL SWITCH (EQ graphics ON / OFF) – Stereo Version only.

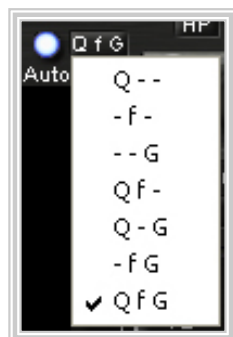


With this switch you may adjust the bx_hybrid V2 size on your computer screen by switching the EQ graphic panel ON and OFF (alternating).

12. AUTO LISTEN MODE(s)



One of the **MAIN HIGHLIGHTS** of the bx_hybrid V2 EQ system!



→ The AUTO LISTEN POP-UP MENU

When you click on the letters next to the **blue AUTO LISTEN LED** a POP-UP MENU will appear. In this menu you may choose WHICH SOLO LISTENING FEATURES of the bx_hybrid V2 EQ you want to be AUTOMATED.

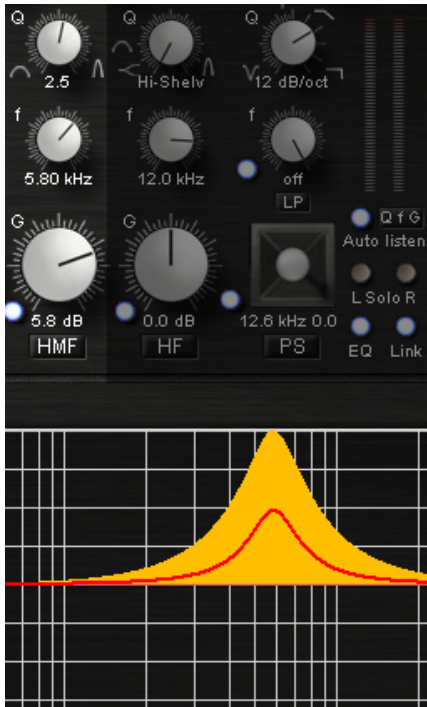
- "Q f G" (initial setting) will make bx_hybrid V2 AUTO SOLO ALL EQ features each time you click on either a G(ain), f(requency) or Q knob.

- "- f -" for example will ONLY automate the AUTO SOLO LISTEN features for the f(requency) knobs, but NOT automate G & Q, and so on...

AUTO LISTEN MODE "Q"

This auto listen mode will boost or cut the respective EQ band's GAIN to either (+12dB) or (-12dB) whenever the Q knob is being clicked or touched (via a touch sensitive controller), depending on the actual setting of the G(ain) knob of that band. As soon as you release the EQ band's Q knob the gain setting will jump back to the actual G(ain) knob setting. Clipping is avoided automatically. Notice that the temporarily EQ setting of the AUTO LISTEN MODE is always being displayed in **ORANGE** color while the actual EQ band's gain setting is still being displayed in **RED & BLUE** color.

You **HEAR** the **ORANGE** setting when it appears in the EQ panel.



Auto listen "Q" with positive gain
(see the HMF band gain at (+5.8dB))

← Whenever bx_hybrid V2 boosts AUTO bands to +12 dB temporarily the overall output volume is always being controlled and adjusted intelligently to

AVOID CLIPPINGS AUTOMATICALLY!



Auto listen "Q" with NEGATIVE gain
(see the HMF band gain at (-3.7dB))

AUTO LISTEN MODE "f"

This auto listen mode will play a very steep (narrow) and inversed notch filter sound of the actual audio signal as long as you click a knob or grab a (touch sensitive) controller pot or fader.

This lets you hear the center frequency you are searching for EXACTLY – and all this without the multiple mouse clicks or controller moves that needed to be done before bx_hybrid V2.

(Gain up to the max, Q to a very narrow setting, sweep through the frequencies, re-adjust the Q, re-adjust the gain, etc.... you know what we're talking about... ☺)



AUTO LISTEN MODE "G"



This AUTO LISTEN MODE finally is pretty easy to explain... as long as you click a Gain knob (or grab a touch sensitive controller pot or fader) all other bands of that EQ will be BYPASSED. This way all you hear is the TOUCHED EQ band SOLO, without other EQ bands eventually affecting your new setting.

This may or may not be wanted, so remember: you have the choice to activate or deactivate each and every AUTO feature (Q, f or G) or any combination of these 3 features using the AUTO LISTEN POP UP MENU. (see -12- above)

The AUTO LISTEN mode can be switched OFF completely using the **BLUE LED** switch.

13. EQ ON / OFF (EQ bypass switch)



This switch lets you COMPARE the original (un-EQ-ed) sound against the EQ-ed sound. Note that single EQ bands can be bypassed individually by CLICKING ON THE LABEL NAME of each individual band / feature.

EQ on / off will NOT bypass the whole bx_hybrid V2 system!
→ MONO MAKER & STEREO WIDTH will still be active.

Use the toolbar bypass or your host program features to bypass the whole plugin!

14. MONO MAKER (M/S tool, Stereo Version only)

Another true BRAINWORX invention... simply adjust the threshold frequency with the MONO MAKER knob and your stereo mix / stereo signal will be MONO up to that frequency automatically!

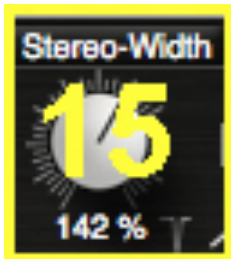


MONO MAKER will get rid of all the stereo information below the frequency you set it to - and COMPENSATE for the potential LOSS in the overall bass audio impression automatically!

In bx_hybrid V2 the MONO MAKER goes up to 26 kHz(!), so it is actually possible to make a mix MONO completely - from the bottom to the top...

MONO MAKER is an ESSENTIAL TOOL for mastering music that is supposed to be pressed on VINYL RECORDS, and it can greatly improve the phases of any stereo signal / mix that is being spread with the STEREO WIDTH CONTROL. (see pt. 15)

15. STEREO WIDTH CONTROL (M/S tool, Stereo Version only)



- Adjust the stereo width of any stereo mix or stereo signal.
- Leaving the STEREO WIDTH at 100% will not change the width of your stereo signal at all.
- INCREASING the value (101% - 400%) will make your mix / signal sound WIDER. Be CAREFUL: setting the STEREO WIDTH CONTROL too high can cause serious phase problems!
- DECREASING (99% - 1%) will make your mix / signal less wide.

Setting the MONO MAKER below 1% will display MONO. Now your mix / signal is COMPLETELY MONO.

→ Please check the next page for some insider tips & tricks about using the M/S STEREO WIDTH and the M/S MONO MAKER.

Pro Tips for STEREO WIDTH CONTROL & MONO MAKER use:

→ TRY increasing the STEREO WIDTH (see 6!) of a stereo signal (such as a guitar or keyboard sub-group or FX return!) until your CORRELATION METER (see 7!) indicates phase problems (goes into the RED...). NOW: turn the MONO MAKER up to about 300 or 500 Hz (even higher if needed, this will depend on the actual signal being "played") and watch the CORRELATION METER go back to GREEN, indicating that your phases are ok again!

→ This way it is actually possible to SPREAD stereo images much further than with any other stereo expansion tool (that we knew of before inventing the MONO MAKER ☺) – but WITHOUT running into the phase problems usually arising out of more or less "heavy" stereo image manipulations, or at least much less...

→ the bx_hybrid V2 EQ is a PERFECT WEAPON to be inserted into ANY stereo sub-group of a mix session and will drastically improve your possibilities to increase your stereo width of any stereo signal.

16. SOLO BUTTONS L & R (Stereo Version only)



- with these SOLO buttons you can listen to ONLY THE LEFT or ONLY THE RIGHT channel of your stereo mix (stereo signal), mono-ed out and centered on BOTH SPEAKERS. This makes it very easy and convenient to EQ stereo signals in unlinked mode!

- You can also "extract" certain elements of your mix with these knobs easily.

→ BE CAREFUL, leaving a SOLO BUTTON ON will cause your stereo signal play back in MONO, and you will loose either the left or the right channel of that stereo signal in the mix...

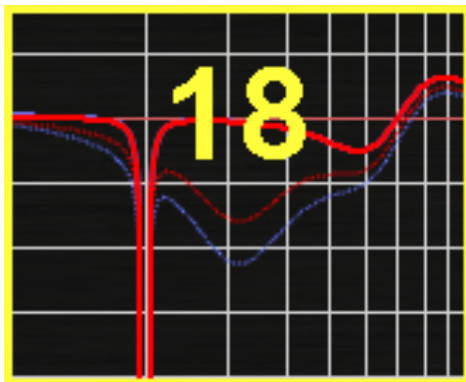
17. LINK BUTTON (Stereo Version only)



The LINK LED indicates that AT LEAST ONE feature / EQ band of the bx_hybrid V2 EQ is "linked". Any linked EQ band will show the SAME parameters as its corresponding EQ band on the other channel of the stereo EQ.

You can link / unlink ALL features by clicking the LINK button alternating.

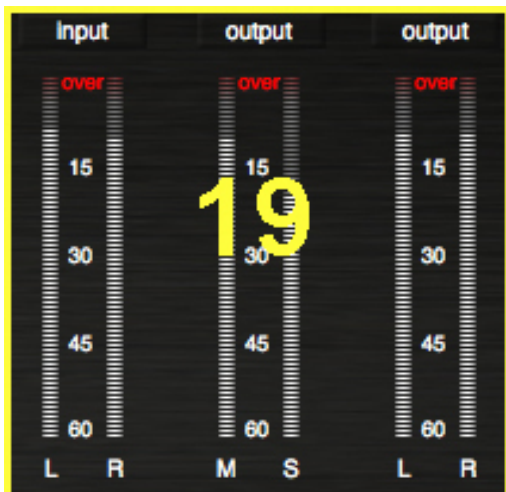
18. STEREO EQ panel - two-coloured (Stereo Version only)



The EQ panel of the STEREO VERSION of bx_hybrid V2 (Stereo Version) will use DIFFERENT COLOURS to show you the settings of the **LEFT** and **RIGHT** channel in one EQ panel. This makes it easier to compare EQ settings of the LEFT and RIGHT channels.

BYPASSED EQ bands will still be displayed – DASHED though.

19. INDIVIDUAL in/out - L/R and M/S METERING (Stereo Version only)



The graphic panel of Stereo version of the bx_hybrid V2 EQ system will give you 6 individual LEDs. The 4 outer LEDs display the PEAK levels of the left and right input and output, while the 2 inner LEDs show you the PEAK levels of the M & S signals of the respective stereo sound / mix.

The M-signal will show you the level of the MONO SUM, while the S-signal shows you the level of the STEREO DIFFERENCE signal.

→ For further info about M/S processing please refer to chapters 2 & 3.

To process M & S signals individually we recommend bx_digital.
Please check www.plugin-alliance.com for details & demos.

20. STEREO BALANCE METER LEDs (Stereo Version only)



STEREO BALANCE METER LEDs will show you if your stereo signal / mix is well balanced – or out of balance (louder on either the left or the right channel).

You can adjust the STEREO BALANCE using the GAIN knobs (input or output of either the left or the right channel) until the BALANCE LEDs show you the desired result (i.e. a CENTERED STEREO sound).

21. PHASE CORRELATION METER (Stereo Version only)



A standard CORRELATION METER tool to monitor the phases (and potential phase problems!) of your stereo mix / signal.

- 1 means your mix / signal is OUT OF PHASE (180°).

+1 means your mix / signal is IN PHASE (0°).

"0" (zero) means that there is either:

- no signal present
- a signal present on only ONE channel
- phases of L&R channels which are shifted by exactly 90°.

A regular (and proper) stereo mix will make the CORRELATIONS METERS oscillate between 0 and +1.

- → SHORT flashes of the RED LEDs (negative values) can usually be ignored.
- → PERMANENT RED LEDs will indicate heavy phase problems in the mix / signal and should be taken serious.
- → Try the MONO MAKER to cure any phase problems you might find listening to your mix or monitoring the CORRELATION METER LEDs.

The higher you set the MONO MAKER FREQUENCY the more mono your mix will be, and the less phase problems should occur in your stereo mix / signal. Usually correcting phase problems in the lowest frequencies alone will IMPROVE your overall phase spectrum, so setting the MONO MAKER to about 100 Hz will work great for most mixes without audible (negative) effects to your stereo mix!

22. The toolbar

Bypass

With the Bypass button you can bypass the whole bx_hybrid V2 plug-in to compare your original mix and your corrections/ improvements with the bx_hybrid V2.

Undo / Redo (32 steps)

bx_hybrid V2 offers 32 steps of Undo/Redo. Now you can just experiment and Undo whatever you don't like. Together with the new A/B/C/D settings and Copy/Paste/Reset this is an engineer's dream.

Settings (A/B/C/D)



You can store up to 4 Settings of the plugin without using the audio sequencer's Preset window (most of them are not really fast and intuitive to use...).

Start with one Setting (A by default), copy it to B (press "copy", click "B", click "Paste", done!), then compare A and B. The same goes for C and D, of course. Also, you can reset single settings.

Using Automation can be helpful to get the maximum out of your mixes. Maybe your mix needs different Stereo Width settings for various parts of the song? Settings are the way to go... you don't have to do it.. but you can.

Presets:

Presets can be stored in most audio sequencer host programs. All 4 internal settings (A/B/C/D) of bx_hybrid will be stored with each single preset.

About

[Click here](#) to get general info about the version number, the clever programmers behind this plugin etc.

PDF Manual

The PDF version of the manual will be saved on your computer during installation and can be accessed via the Plugin Alliance toolbar underneath the plugin graphics.

8. TROUBLESHOOTING

→ Incomplete signals

You might have clicked on one or (or more) SOLO-buttons of one section (L/R), so you only hear parts of your signal. Make sure both SOLO buttons are switched OFF to hear your full stereo mix.

→ Switch all SOLO switches OFF, and you should hear your regular stereo signal.

→ Heavy phasing

Did you spread the STEREO WIDTH toooooo faaaaaaar??

→ Try setting the MONO MAKER higher or turn down the STEREO WIDTH a bit.

→ NO sound

Do you feed any sound into the bx_hybrid V2 EQ at all??? ☺

→ Enjoy working with the bx_hybrid V2 EQ system.

For more information and a video tutorial please visit:

www.plugin-alliance.com

All BRAINWORX products can be downloaded and tested free.
14-days fully functional demo versions available for FREE at

www.plugin-alliance.com