

bx_tonebox



Plugin Manual

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1. Welcome to bx_tonebox

bx_tonebox is a modular multi-effect designed to add color, movement, and personality to your music. Build your own custom rack using six creative modules and reshape your sound with the warmth, movement, and imperfections that defined the early digital era of music. Fast, flexible, and surprisingly deep, bx_tonebox is your new go-to for shaping character in seconds.



- ⓘ Download and install your plugin using our Installation Manager:
<https://www.plugin-alliance.com/pages/installation-manager>

2. Overview

bx_tonebox consists of the following areas and main controls:



- 1. Top toolbar:** Additional global controls relevant to the plugin's processing
- 2. Module Rack** - The Module Rack has 6 slots for Modules
- 3. Global Controls:** - Controls that apply to the whole plugin
- 4. Bottom toolbar:** Preferences, license information, and documentation

3. Modules

Think of a module as one device in a 19" rack. You can add, move or delete modules to create your own processing chain.

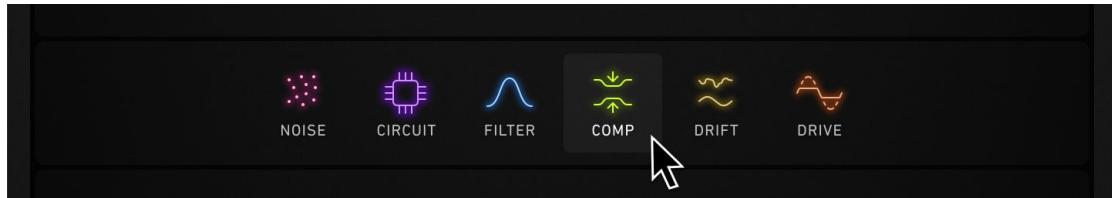
There are 6 available modules:

-  DRIVE
-  COMP
-  FILTER
-  DRIFT
-  CIRCUIT
-  NOISE

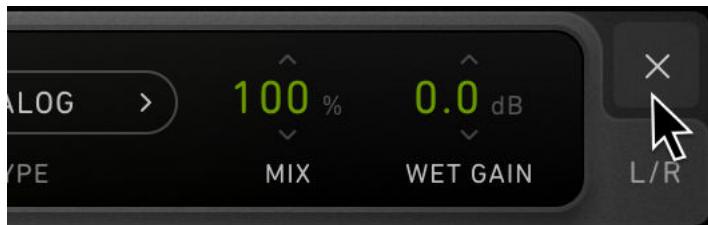
Adding, Removing and Moving Modules

Adding and removing a Module

- **Add** a module by hovering the cursor over an empty slot and click on the desired module type icon.

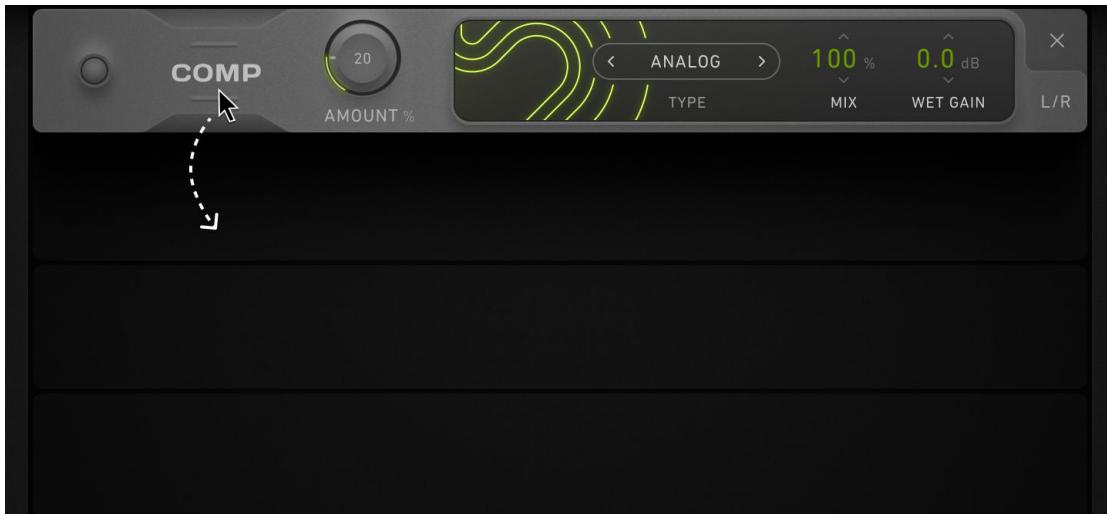


- **Remove** a module by clicking the "X" icon on the top right corner of a module to remove it.



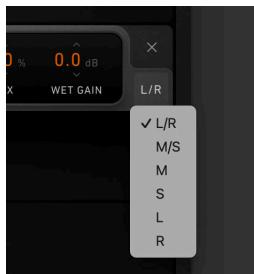
Changing the position of a Module

- **Change** the position of a module by dragging the title area to the desired destination slot. If the slot is already occupied by a Module, it will swap positions.



Routing Modules

This option lets you choose the channel routing of each module.



Click on the latched button on the bottom right corner of a module to select a routing. You can change the configuration of a module by clicking on the bottom right and selecting from the dropdown menu.

Routing Options

The following configurations are available:

- **L/R** - Sets the module to L/R processing (default)
- **M/S** - Sets the module to M/S processing
- **M** - Sets the module to only process the MID signal
- **S** - Sets the module to only process the SIDE signal
- **L** - Sets the module to only process the LEFT signal
- **R** - Sets the module to only process the RIGHT signal



If the input signal is in mono it will still be processed as a stereo signal

Bypassing a module

- To bypass a single module, click on the bypass button on the left side of the module.

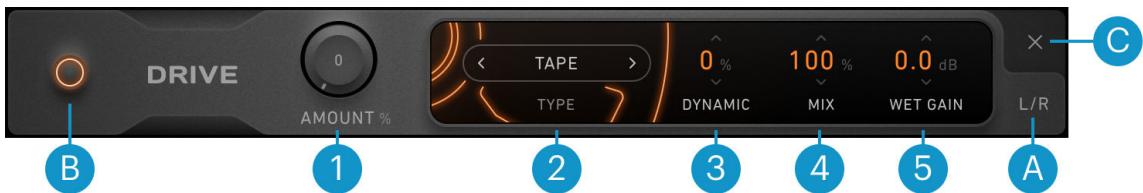


DRIVE Module



The DRIVE Module adds saturation to your signal with 10 different types available.

DRIVE Parameters



- Amount** - Controls the amount of drive applied and is linked to [Intensity](#).
- Drive Type** - Click on the arrows or the dropdown menu to access different saturation types. See [DRIVE Types](#)
- Dynamic** - Positive values will lead to more drive being applied when a loud signal is detected. When set to negative values, "Dynamic" will reduce the amount of saturation on louder signals.
- Mix** - Mixes the original with the processed signal.
- Wet Gain** - Adds or reduces the gain of the processed signal.
 - A Routing** - See chapter "[Routing Options](#)".
 - B Bypass** - See chapter "[Bypassing a module](#)"
 - C Remove** - Removes the Module from the slot

Drive Types

- Tape** - Smooth and warm tape saturation, works on almost everything.
- Overdrive** - Smooth but aggressive mid-focused sound similar to a green guitar pedal.
- Tube Triode** - Warm, organic, and less harmonically complex distortion or gentle overdrive that is often described as sweet or musical.
- Tube Pentode** - Similar to Tube Triode it is a complex and rich harmonic saturation that works on most material.
- Aura** - Based on the type C overdrive algorithm used in bx_aura. With its aggressive filtering it is especially great for bass tracks.
- Fuzz** - Fuzzy and very aggressive, works great on vocals and effects.

- **Sine** - Aggressive experimental waveshaping using a sine wave.
- **Digital Clip** - Digital clipping causes the waveforms peaks to be instantly squared off, which introduces a loud, brittle, and destructive buzz
- **Wavefolder** - The loudest peaks are folded back over themselves instead of being clipped, which creates rich, bright, and metallic harmonics and complex timbres.
- **Crossover** - Crossover distortion occurs when an incorrectly biased push-pull amplifier's signal crosses zero, introducing high-frequency harshness and grit that makes the audio sound gritty and metallic. Even at low drive amounts or low volume this type introduces distortion.

COMP Module



The COMP Module enables you to change the dynamics of your signal by compressing the signal. Each type has its own characteristics and applications.

COMP Parameters



1. **Amount** - This main parameter changes the amount of compression by adjusting different parameters like threshold and ratio under the hood of each COMP type. This is linked to [Intensity](#).
2. **Comp Type** - Click on the arrows or the dropdown menu to access different compression types. See [COMP Types](#).
3. **Mix** - Blends between original and processed signal.
4. **Wet Gain** - Increases the gain of the processed signal. This is useful to compensate for any gain changes from compression.
 - **A Routing** - See chapter "[Routing Options](#)".
 - **B Bypass** - See chapter "[Bypassing a module](#)"
 - **C Remove** - Removes the Module from the slot

COMP Types

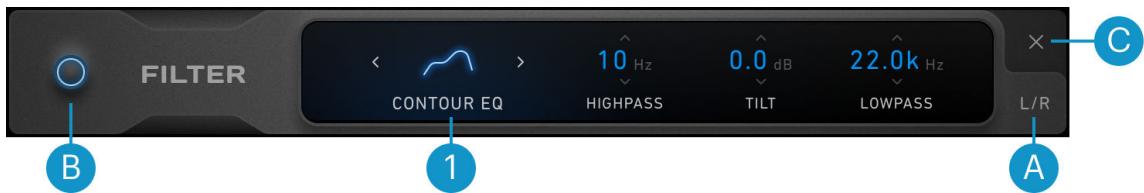
- **Analog** - Based on an analog optical compressor this type is an allround compressor with a fixed ratio and a sidechain HP filter at 90Hz. Works great on almost anything.
- **Digital** - Clean, fast and precise compression and a bit more aggressive than Analog. The ratio ranges from 2:1 to 6:1 depending on the set amount. This type also uses a sidechain HP filter at 90Hz.
- **Bus** - Great for instrument groups or master tracks with slow release, quick attack and fixed ratio of 2:1. Bus uses a sidechain HP filter at 120Hz.
- **Limiter** - The Limiter type is limiting the signal with a fixed release time of 300ms followed by hard clipping.
- **2-Band** - 2-band version of the Analog type using a crossover frequency of 300Hz. This type can help to control an overly energetic bass range without unnecessarily squashing the clarity or perceived volume of the high band.

FILTER Module



From Lowpass filters to a simple console-style EQ, the FILTER module allows for different filtering and EQ options to further shape your signal.

FILTER Parameters



Each FILTER type has slightly different parameters. See [FILTER Types](#)

1. **Filter Type** - Click on the arrows or the dropdown menu to access different [FILTER Types](#).
 - **A Routing** - See chapter "[Routing Options](#)".
 - **B Bypass** - See chapter "[Bypassing a module](#)"
 - **C Remove** - Removes the Module from the slot

FILTER Types

- **Lowpass 6** - Gently removes the high frequencies above the cutoff point with 6db slope.
- **Lowpass 12** - Removes the high frequencies above the cutoff point with 12db slope and added resonance/Q.
- **Lowpass 24** - Removes the high frequencies above the cutoff point with 24db slope and added resonance/Q.
- **Highpass 6** - Gently removes the low frequencies below the cutoff point with 6db slope.
- **Highpass 12** - Removes the low frequencies below the cutoff point with 12db slope and added resonance/Q.
- **Highpass 24** - Removes the low frequencies below the cutoff point with 24db slope and added resonance/Q.
- **Low Shelf** - Boosts or cuts all frequencies below a set frequency.
- **Hi Shelf** - Boosts or cuts all frequencies above a set frequency.
- **Tilt** - Simultaneously gently boosts one side of the spectrum (lows or highs) while gently cutting the other side or vice versa.
- **Bell** - Boosts or cuts a specific, focused range of frequencies, forming a bell-like curve.
- **Bandpass** - Allows only a specific, narrow range of frequencies to pass through, cutting both the lows and the highs.
- **Notch** - Deeply cuts a very specific, narrow frequency to remove an annoying hum or resonance without affecting much else.
- **Comb FF (Feed Forward)** - Creates a series of fixed peaks and dips in the frequency spectrum, resulting in a unique, hollow or metallic sound.
- **Comb FB (Feed Back)** - Creates a series of fixed peaks and dips in the frequency spectrum, but with a more resonant and sustained sound due to the output being fed back into the input.

- **Contour EQ** - Flexible Tilt EQ with a tilt center frequency of 700 Hz and added Lowpass and Highpass Filters.
- **Console EQ** - Easy to use fixed 3-Band EQ (Low Shelf 120Hz, Bell 700Hz, High Shelf 5kHz) as found in small mixing desks.

DRIFT Module



The DRIFT Module lets you add volume and/or pitch modulation. There are two modulation sources: "Wow" for slow and "Flutter" for faster modulations and can be either a sine- or a random waveform. This can be used to add tape-like modulation effects or much more.

DRIFT Parameters



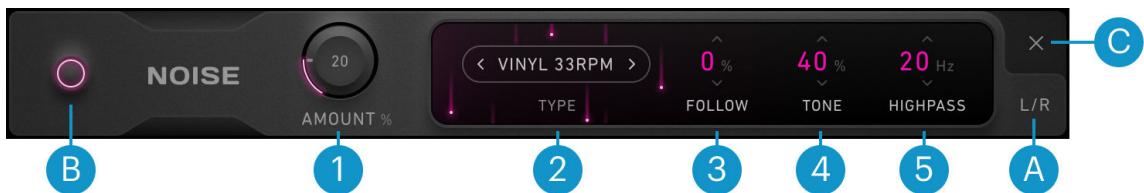
1. **Wow** - Increases the amount of modulation applied using a low frequency signal. This control is linked to [Intensity](#).
2. **Wow Waveform** - Click on the waveform to choose between sine or random waveform to modulate the signal.
3. **Wow Freq** - Select the frequency of the Wow modulation between 0.1 and 12Hz
4. **Flutter** - Increases the amount of modulation applied using a mid/high frequency signal. This control is linked to [Intensity](#).
5. **Flutter Waveform** - Choose between sine or random waveform to modulate the signal.
6. **Flutter Freq** - Select the frequency of the Flutter modulation between 5Hz and 20Hz
7. **Target (Pitch/Volume)** - Select between pitch or volume as a target of the Wow and Flutter modulation
 - **A Routing** - See chapter "[Routing Options](#)".
 - **B Bypass** - See chapter "[Bypassing a module](#)"
 - **C Remove** - Removes the Module from the slot

NOISE Module



The NOISE Module introduces artifacts, such as vinyl crackle or tape hiss, to impart a sense of texture, atmosphere, and vintage nostalgia to the track.

NOISE Parameters



1. **Amount** - Blends between noise and the original signal and is linked to Intensity.
2. **Noise Type** - Click on the arrows or the dropdown menu to access different *NOISE Types*
3. **Follow** - Increase positive values to only trigger the noise when a signal is applied or set it to negative values to only have the noise triggered when there is silence.
4. **Tone** - Shifts the tone of the noise signal using a tilt filter. Positive values will make it sound brighter while negative values will lead to a more muted, dark sound.
5. **Highpass** - Additional Highpass filter to clean up the noise signals if need.
 - **A Routing** - See chapter "[Routing Options](#)".
 - **B Bypass** - See chapter "[Bypassing a module](#)"
 - **C Remove** - Removes the Module from the slot

NOISE Types

- **White** - A uniform sound that contains equal power across all audible frequencies, often described as a steady hiss or static.
- **Pink** - Deeper, more balanced sound than white noise.
- **Brown** - A deep low-frequency rumble type of noise.
- **Vinyl 33** - Noise typical for old vinyl record played at 33 1/3 RPM.
- **Vinyl 78** - Noise of an old dusty 78 RPM single vinyl record.
- **Vinyl Hum** - Classic vinyl noise with a little more motor noise and hum.
- **Vinyl Static** - Dusty old vinyl noise with added static hum.
- **British Console Line** - Gentle and musical noise of a legendary british console line input.
- **British Console Pre** - Sizzling noise of a legendary British console preamp.
- **Vintage Compressor** - Noise of a vintage compressor unit.
- **Cassette** - Noise from an old chrome cassette tape.
- **Cassette Hum** - Old cassette tape with a bit of natural ground hum.
- **Tube Amp** - A classic british guitar amp turned up.
- **Tube Pre** - Noise of a legendary tube preamp pedal without a match.
- **Radio** - Static noise from german radio, captured at 89.0 MHz.
- **Drone** - Experimental tuned drone noise in C Minor. Use at your own risk.

CIRCUIT Module



The CIRCUIT Module degrades the digital quality of the signal by reducing its bit depth and sample rate, resulting in a harsh, distorted, and lo-fi sound often used to emulate vintage digital gear or create glitch effects.

CIRCUIT Parameters



- Amount** - Controls the general amount of the effect applied by mixing the original with the processed signal. This is linked to [Intensity](#).
- Sample Rate** - Controls the sample rate from 1kHz to 44.1kHz.
- Bitrate** - Controls the bit rate from 4 to 16bits. Please note that when this module is active, it will reduce the bitrate to at least 16bit (highest setting).
- Lowpass** - Additional lowpass filter as used in many old signal processors and samplers to tame the effect of sample rate reduction but cutting off high frequencies.

- A Routing** - See chapter "[Routing Options](#)".
- B Bypass** - See chapter "[Bypassing a module](#)"
- C Remove** - Removes the Module from the slot

4. Global Controls

Global controls apply to the whole plugin.

Global Parameters



- Intensity** - Intensity scales the overall amount of all Main Parameters of all modules. This feature is useful for dialing in a tone with different modules and making it more subtle or pronounced with one click.
- Movement** - Movement controls how much the value of all Main Parameters (the same as for *Intensity*) of all modules change over time using a random waveform. This introduces movement and uncertainty to your Main Parameter settings, giving it a subtle organic vibe. Movement amount controls how much its affecting each modules Main Parameters over time.

Main Parameters used for Movement and Intensity:

- For **FILTER** - see [Filter Parameters](#)
- For **DRIFT** - Wow and Flutter
- For **DRIVE** - Drive Amount
- For **NOISE** - Noise Amount
- For **CIRCUIT** - Circuit Amount
- For **COMP** - Comp Amount

3. **Movement Mode** - Movement mode lets you choose if modules are modulated independently from each other.

Uniform - All modules use the same waveform to modulate the Main Parameters amounts using movement.

Random - Each module uses independent waveforms to modulate the Main Parameters amounts using movement. This is useful if you use more than one module of a type and want it to behave differently.

4. **Input Metering** - Visualization of input gain in db.
5. **Input Gain** - Adjust between -12db and +12db of input gain before processing.
6. **Output Gain** - Adjust between -12db and +12db of output gain after processing.
7. **Output Metering** - Visualization of output gain in db.

5. Automation

Automation in bx_tonebox is handled for each slot individually.

This means when you move a module to a different slot, the automation will stay on the slot where it was written. We recommend starting to automate after you have set up the order of modules in the rack.

6. Top Toolbar

Additional global controls related to plugin settings and processing are available in the top toolbar.



1. **Power**: Bypasses the processor when disengaged.
2. **UI Size**: Sets the size of the plugin's user interface.
3. $\leftarrow \rightarrow$: Undo and redo changes made to controls up to 32 steps.
4. **Bank A B C D**: Each preset allows you to switch between four banks (A, B, C, D) of controls.
5. **Copy**: Copy the active settings to memory.
6. **Paste**: Paste the copied settings to the active bank.
7. **Reset**: Reset the current bank.

7. Bottom toolbar

Preferences, license information, and documentation are available in the bottom toolbar.



- 1. Plugin Alliance Logo:** If your computer is online, clicking the Plugin Alliance logo will take you to the Plugin Alliance website via your web browser.
- 2. License Info:** The toolbar displays information about the type of license you're running. Trial licenses are displayed along with the number of days until expiration; there is no note for full licenses, as these are unlimited.
- 3. Dollar Icon:** If you are using a demo/trial version of a Brainworx product, you can click this icon to open a browser that redirects you to the respective product page in the Plugin Alliance store. Here, you can purchase a product without searching for it on the Plugin Alliance 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. Help Icon:** Clicking the help icon opens a context menu that links to the product manual PDF and other helpful links, such as checking for product updates online. You must have a PDF reader installed on your computer to read the manual.
 - **Open Manual...** with your operation system's preferred PDF reader. A PDF reader is required to read the manual.
 - **Product Info...** will take you to the product page of bx_tonebox if your computer is online.
 - **Download Updates...** leads you to the product page's Downloads-Section.
 - **Legal Info...** opens a pop-up window declaring legal usage of third party technology.
 - **Plugin Alliance Website...** will take you to the Plugin Alliance website via your web browser.
 - **Usage Data Tracking...** will open a pop-up window to activate or deactivate *Usage Data Tracking*.

8. Additional information

Usage data tracking

Help us improve your experience.

Plugin Alliance is using data tracking to improve the user experience and usability of our products. Data tracking can be deactivated at any time in the help menu. This data is collected according to our [Privacy Policy](#).

Modifier keys

You can use the following keyboard commands to control bx_tonebox.

Function	AU	VST / VST3	AAX
Fine Control	[shift]	[shift]	<ul style="list-style-type: none"> Mac: [command] Win: [Ctrl]
Jump between default and last setting	[option]	<ul style="list-style-type: none"> Mac: [command] Win: [Ctrl] 	<ul style="list-style-type: none"> Mac: [option] Win: [Alt]
Output Link	[command]	<ul style="list-style-type: none"> Mac: [option] Win: [Alt] 	[shift]

Online resources

homepage:

System requirements & supported platforms:

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

Details about your product:

https://www.plugin-alliance.com/products/bx_tonebox

Installation, activation, authorisation and FAQ:

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

Credits

Programming and Algorithms: Florian Göbel, Joscha S. Rieber, Matthias Heinz

UI-Design & Concept: Nico Lezim

Product Management: David Stoll

Documentation: Albert Gabriel