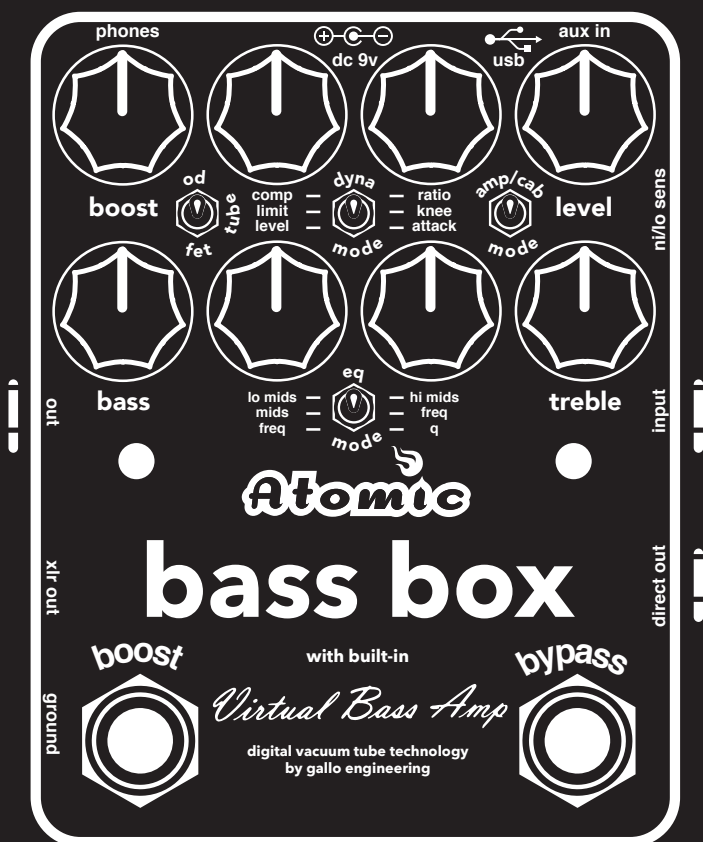


**Atomic**

# bass box



## USER MANUAL

# INTRODUCTION

Thank you for purchasing Bass Box, a world-class bass tone engine, effects processor, and impulse response cabinet loader, all integrated into a powerful and portable stomp box.

Bass guitar processing applies overdrive, compression, limiting, preamplification, equalization, tube amp simulation, DI processing, bass cabinet tone, and more to get the best possible sound. Until recently, you would need to use several pieces of studio gear and large amps and cabinets to achieve the proper signal chain to get a polished, studio-quality bass tone.

Using digital modeling technology, we've incorporated all of these elements in one small package that works great on stage, in the studio, on the road, and home...just about any place you want to play bass guitar. Featuring world class tube modeling from Studio Devil®, you can now bring tube amp tone, EQ, compression, and cabinet impulse modeling, with you anywhere from a box that fits in the palm of your hand...

Bass Box...Welcome to your new all-in-one digital solution for bass guitar..

## HERE ARE SOME HIGHLIGHTS:

- Switchable BOOST modeler with 3 modes simulating 12AX7A tube preamp, overdrive pedal, and FET distortion.
- 3-MODE COMPRESSOR modeler with studio compressor, leveler, or fast attack limiter modes, with two independent controls knobs.
- 3-MODE EQ with 4-band, parametric, and enhancer modes, with 4 controls knobs.
- World-class amp modeling from Studio Devil® featuring TUBE, SOLID STATE, SVT, DI, and BYPASS modes.
- 6 BUILT IN CABINET IMPULSES
- Custom IR (impulse response) loader using free USB utility software.
- XLR and ¼" outputs, each assignable to different output signal path locations
- Headphones output
- Aux music input
- Direct output for chaining input to other amps and effects
- BYPASS and BOOST rugged footswitches

## AMPLI-FIREBOX SPECS

**Dimensions** . . . . 3.66" x 4.65" x 2.36" (including knobs and footswitches)  
(93mm x 118mm x 60mm)

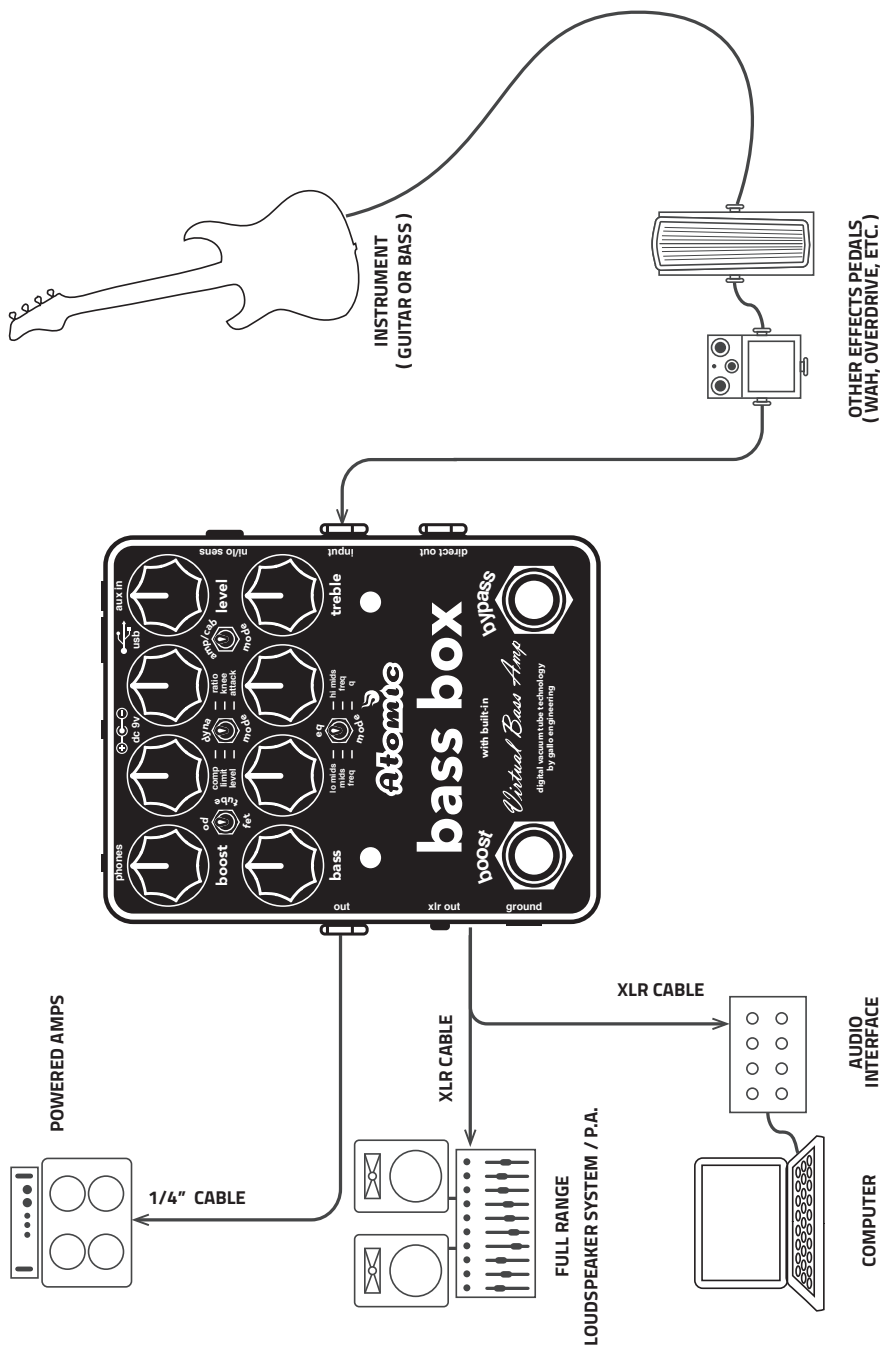
**Weight** . . . . . 15oz. (440g)

If you need service or have questions about your product please contact us:  
support@atomicamps.com

Warranty: One year parts and labor

**Enjoy!**




## CONNECTION DIAGRAM



# CONTROLS, CONNECTIONS & FOOT SWITCHES – BASS BOX



# BOOST CONTROLS

- 1 BOOST KNOB** - Adjusts the amount of gain for the selected boost style.
- 2 BOOST TOGGLE SWITCH** - Selects the style of boost. Top position OVERDRIVE (OD), middle position TUBE or bottom position FET.
-  = od       = tube       = fet
- 3 BOOST FOOT SWITCH** - The boost function is toggled between enabled and disabled when you press the BOOST foot switch. The LED above the BOOST foot switch will turn on RED when the boost is on.

## DYNAMICS CONTROLS




The dynamics modeler has two control knobs between the BOOST and LEVEL knobs. We will refer to these as Left Dynamics knob and Right Dynamics knob.

- 4 LEFT DYNAMICS KNOB**  
*(See description in MODES 1-3 below)*
- 5 RIGHT DYNAMICS KNOB**  
*(See description in MODES 1-3 below)*

Turn the left dynamics knob all the way to the left to bypass the dynamics modeler. Threshold in all 3 modes is 0dB to -40dB with auto make up gain (turning clockwise increases gain / compression). The right LED above the BYPASS foot switch will light RED when the dynamics modeler is working. This acts like a meter to assist in setting the threshold/amount knob control.

The dynamics modeler has 3 modes and the knobs change roles for each of the modes as follows... Set the mode with the dynamics toggle switch located between the dynamics knobs.

- 6 DYNAMICS TOGGLE SWITCH** - The dynamics modeler has three different modes. Compressor, Limiter and Leveler.

 = comp       = limit       = level

### MODE 1 – COMPRESSOR (TOP POSITION)

Left Dynamics knob controls the THRESHOLD and Right Dynamics knob controls the RATIO of the compressor effect.

*Ratio range is 1:1 to 5:1.  
Attack and release are fixed at 3 milliseconds and 80 milliseconds.*

### MODE 2 – LIMITER (MIDDLE POSITION)

Left Dynamics knob controls the LIMITING and Right Dynamics knob controls the KNEE of the limiter effect.

The LIMITING knob controls the amount of limiting and the KNEE knob adjusts how gradually the limiter begins to limit the signal.

*knee is 0-100%. Limiter has no attack and release time.*

### MODE 3 – LEVELER (BOTTOM POSITION)

Left Dynamics knob controls the DRIVE and Right Dynamics knob controls the ATTACK of the leveler effect.

This mode acts like a soft-clipping leveler. The drive pushes for more clipping and the attack controls the style of clipping (from soft to hard.) Attack is 0-100%. It controls softness of transition to leveling (not attack time). Leveler

*Attack and release are fixed at 10 milliseconds and 100 milliseconds.*

- 7 LEVEL KNOB** - The LEVEL knob controls the overall level of the BASS BOX when the pedal is enabled.
- 8 AMP/CAB MODE TOGGLE SWITCH** - The AMP/CAB select switch is located near the LEVEL knob. This switch selects from one of 3 different amp/cab combinations. BASS BOX comes preloaded with 3 different amp/cabinet combinations loaded into these 3 switch options. You can use the editor software to change these 3 slots and customize the impulse response files in each slot.

From the factory these three positions are assigned as:

**TOP POSITION** - SOLID STATE AMP 1x12 cab.

**MIDDLE POSITION** - TUBE AMP 4x10 cab.

**BOTTOM POSITION** - SVT AMP 8x10 SVT cab.

 = ssa       = tube       = sva

# EQ CONTROLS

The EQ is controlled by the 4 knobs in the bottom row. The EQ is always on but you can bypass it by having all 4 of those knobs in the up (12 o'clock) position.

The EQ has 3 modes, selected by the EQ toggle switch which is located between the two mid EQ knobs.



= 4-band



= parametric



= state variable eq

In all modes, the BASS and TREBLE knobs adjust the level of the low and high frequencies. In each mode, the middle two knobs have different functions.

- 9 **BASS KNOB** - The Bass knob allows you to cut low frequencies by turning the knob to the left or boost them by turning the knob to the right.
- 10 **TREBLE KNOB** - The Treble knob allows you to cut high frequencies by turning the knob to the left or boost them by turning the knob to the right.
- 11 **LEFT MID KNOB** -  
(See description in MODES 1-3 below)
- 12 **RIGHT MID KNOB** -  
(See description in MODES 1-3 below)
- 13 **EQ TOGGLE SWITCH** - This toggle switch allows you to select one of the three different EQ modes. (Insert images of the switch in the three positions showing the function)



= 4-band



= parametric



= state variable eq

## MODE 1 - 4-BAND EQ (TOP POSITION)

The knobs are BASS, LO-MIDS, HI-MIDS, and TREBLE. All knobs are used to boost or cut their predetermined frequencies.

80Hz, 150Hz, 400Hz, 850Hz. Any knob set to the 12 o'clock position will not boost or cut that frequency.

## MODE 2 - 3-BAND EQ WITH SEMI-PARAMETRIC MIDS (MIDDLE POSITION)

The knobs are BASS, MIDS, FREQ, and TREBLE and act like a 3-band eq with a sweepable mids section. The MIDS knob allows you to cut midrange frequencies by turning the knob to the left or boost them by turning the knob to the right. The FREQ knob selects the center frequency of the midrange band. Frequency range is sweepable logarithmically from 40Hz to 4kHz. Low pass-bandpass-highpass all crossover at the FREQ point.

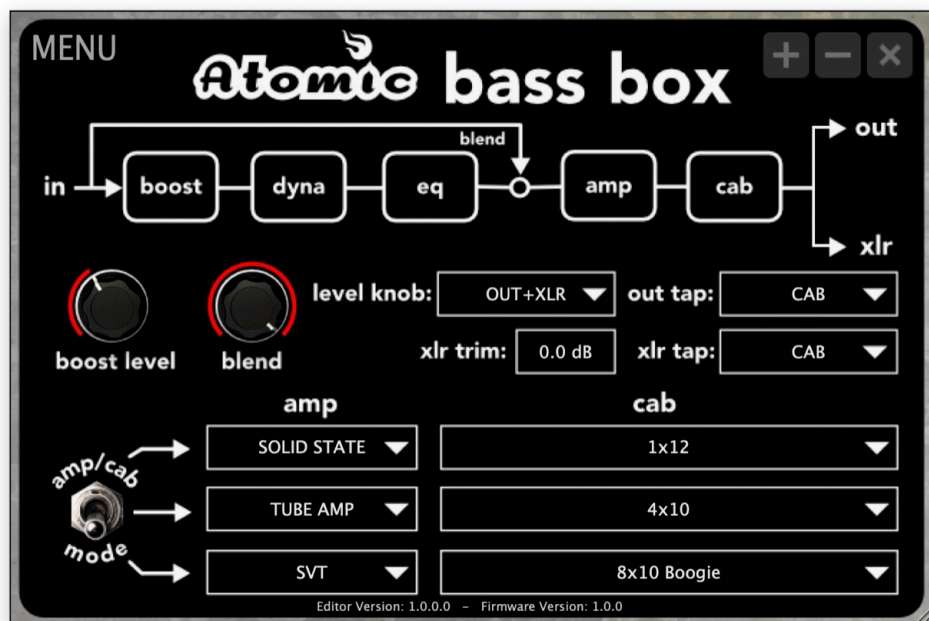
## MODE 3 - 3-BAND EQ STATE VARIABLE FILTER (BOTTOM POSITION)

The knobs are BASS, FREQ, Q, TREBLE and act like a 3-band EQ with adjustment for the level of the bass band and the treble band, but the mid level is fixed. FREQ adjusts the center frequency of the midrange band from 254Hz to 2.3kHz with Q adjusting the bandwidth between 0.333 to 3.0.

# INPUTS, OUTPUTS & BUTTONS

- 14. INPUT SENSITIVITY BUTTON** - This button sets the input level for use with active or passive pickups. With the button out the unit is set for lower output passive pickups. With the button in the unit is set for higher output active pickups.
- 15. INPUT JACK** - Plug the instrument in to this 1/4" jack.
- 16. DIRECT OUT** - This 1/4" output jack is hardwired to the input jack and sends your dry instrument signal out. This output might be used to send the dry instrument signal to a bass amp or direct box.
- 17. OUTPUT** - This 1/4" output jack would normally be used for sending the output signal to a power amp and speakers for on-stage monitoring.
- 18. XLR OUTPUT** - This XLR output jack would normally be used for sending the output signal to a P.A. mixer for live use or an audio interface for recording.
- 19. GROUND LIFT** - Pushing this button in will lift the ground. This can be helpful in eliminating 50Hz or 60Hz ground hum noise.
- 20. HEADPHONE OUTPUT** - This 1/8" (3.5mm) output allows you to connect headphones to the bass box for silent practicing.
- 21. AUX INPUT** - This input mixes directly to the headphone output jack. This allows you to connect a music player to the bass box and play along with music. You must use the volume control of the music player to adjust the volume of the music.
- 22. DC POWER JACK** - 9 volt, 200mA minimum, center negative polarity, 2.1mm coax plug.
- 23. USB CONNECTOR** - This is a USB MINI B connector for connecting to a host PC. Allows for editing and uploading custom user cabinet impulse data and firmware via host editing software application.
- 24. BYPASS FOOT SWITCH** - The BASS BOX is toggled between enabled and bypassed with the Bypass foot switch. The right LED will turn on YELLOW to let you know the unit is active. If this LED briefly flashes red, this is normal and indicates that your compressor mode is entering a compression / limiting mode. If this LED blinks red in rapid succession for a few seconds, this indicates that you are overloading the input. You can remedy this by trying to lower the output level knob until the clipping goes away. Otherwise, you may need to activate the input pad by pressing in the Input Sensitivity button next to the input jack. This will lower the input level to the Bass Box.

# EDITOR APPLICATION



To use the editor application it must be installed on a computer using Mac OS or Windows and your Bass Box must be connected to your computer via USB and powered on.

The included USB cable is a USB 2.0 Type A to mini B should you need to replace it.

You can download the editor application for Mac OS or Windows from the Atomic website [atomicamps.com/atomic-amps-support](http://atomicamps.com/atomic-amps-support), then click on the bass box tools icon.

**MENU** - Click MENU in the upper left hand corner of the editor to access the available options:

**BACKUP** - Selecting BACKUP will make a backup file of all your settings including your stored CAB IR files.

**RESTORE** - Selecting RESTORE allows you to load your own backup files or the factory System Restore file which will set the unit back to the default factory settings. (Restoring with the System Restore file will erase any 3rd party CAB IR files that you have loaded in the unit and replace them with the factory CAB IR files.)

**UPDATE FIRMWARE** - This will reload the current firmware embedded in to the editor application. Performing a firmware update will sometimes fix issues if the unit is acting erratically. Before you perform a firmware update, we recommend that you make a backup file of your settings. The editor version

and firmware version can be viewed at the very bottom of the editor application. When new firmware is available for the product it will be embedded in to a new version of the editor application that you can download from the Atomic website. Before you download the new editor, you should delete the previous version of the editor or store it in a folder should you need to downgrade to the previous version of firmware some day.

**UPDATE FIRMWARE FROM FILE** - This is for factory use only.



## EFFECT BLOCKS

The top of the editor shows the signal flow from the input to the outputs and all of the effect blocks in between. The order of these blocks cannot be changed.

The signal enters the BOOST block followed by the DYNAMICS block and the EQ block. Before the signal is sent to the AMP block it goes to the BLEND knob in the editor. If you turn the knob fully left, only the dry input signal goes to the AMP block. If you turn it all the way to the right, only the wet signal from the BOOST, DYNAMICS and EQ blocks is sent to the AMP block. Use the BLEND knob to set the mix of dry/wet that you wish to use.

The signal then goes to the AMP, the CAB block and finally the signal is sent to both the OUT (1/4" output) and the XLR output.

## OUTPUTS

There are two physical outputs on the Bass Box. The OUT (1/4" output) and the XLR output. The signal assigned to each output can be derived from different points in the effect block signal flow for different applications. For example you might send the 1/4" output to a power amp and speaker for on stage monitoring. In that scenario you would likely want to bypass the amp model and the CAB IR as you'd be using a physical amp and speaker. While the XLR output could go directly FOH (Front Of House) mixer for the P.A. and include the amp model and CAB IR.

**OUT TAP** - This is the signal assigned to the 1/4" output. You can select from BLEND, AMP or CAB. Selecting BLEND bypasses both the amp modeling and the CAB IR. Selecting AMP bypasses only the CAB IR. Selecting CAB bypasses nothing.

**XLR TAP** - This is the signal assigned to the XLR output. There are a few more options for this output. You can select from:

**INPUT** - This assigns the dry input signal directly to the XLR output.

**GAIN** - This assigns the signal with only the BOOST effect block to the XLR output.

**DYNA** - This assigns the signal with both the BOOST and DYNAMICS blocks to the XLR output.

**EQ** - This assigns the signal with both the BOOST, DYNAMICS and EQ blocks to the XLR output.

**BLEND** - This assigns the signal with both the BOOST, DYNAMICS and EQ blocks post BLEND knob to the XLR output.

**AMP** - Selecting AMP bypasses only the CAB IR.

**CAB** - Selecting CAB bypasses nothing.

**BOOST LEVEL** - This knob sets the output level of the selected boost type. The BOOST knob on the hardware is a drive control that determines how much overdrive is added to the signal. Neither of these controls function unless the BOOST foot switch is activated.

**LEVEL KNOB Parameter** - There is a LEVEL knob on the top right of the hardware that controls the overall output level of the pedal. This parameter in the editor allows you to choose if you want this knob to control just the OUT (1/4" output) or the OUT and the XLR output. If you were using the 1/4" output to feed a power amp and speaker cabinet on stage while the XLR output was feeding the FOH (Front Of House) mixer for the P.A. you may want to only control your stage volume with the hardware LEVEL knob and not affect the level going to the mixer via the XLR output. In this case you would set this value to OUT. Then you would use the XLR TRIM parameter to set the level going to the XLR output.

**XLR TRIM** - This allows you to set the level of the signal going to the XLR output when the hardware LEVEL knob is assigned to only control the 1/4" output. Usually a setting of 0dB to -20dB will be needed for the FOH (Front Of House) mixer.

## AMP and CAB Selection

There is a 3-way toggle switch on the upper right of the hardware that allows you to select between three different AMP model and CAB IR combinations. The editor allows you to select which amp models and CAB IR files are assigned to each of the three selections. You might use the same amp model for each, but a different CAB IR for each one. Or you might use different amp models for each, but the same CAB IR for each one. It is totally up to you to decide what combination of amp model and CAB IR you want to use for each of the three selections.

**AMP** - For each of the three selections you can choose between SOLID STATE, TUBE AMP, SVT, DI or NONE. Selecting DI still adds some analog flavor to the signal, while selecting NONE adds nothing and completely bypasses the AMP section.

**CAB** - For each of the three selections you can choose between FROM FILE or CAB 1-6. If you select FROM FILE, a pop up window will appear allowing you to select a CAB IR file from a folder on your computer. When you select a file, the name of the file will be displayed here. CAB 1-6 are CAB IR files that are built in to the editor and are always available.

CAB 1 is 1x12

CAB 2 is 1x15

CAB 3 is 2x15

CAB 4 is 4x10

CAB 5 is 8x10 Boogie

CAB 6 is 8x10 SVT

## To update the firmware on your bass box:

- 1. On the Atomic Amps website, click on the Support & Downloads tab at the top of the screen . Then click on the bass box tools. [atomicamps.com/atomic-amps-support](http://atomicamps.com/atomic-amps-support)
- 2. Here you will find the latest editor software for Mac OS and Windows . (Minimum requirements: Mac OS 10 .9 and above & Windows 7 and above .) (TBD)
- 3. Click on either the Mac or Windows icon and the editor will download to your downloads folder .
- 4. Power on your bass box and connect it to your computer via USB .
- 5. Launch the downloaded editor software application .
- 6. The editor will show a message: Firmware Update Required-Select "Update Firmware" from the menu. Follow those instructions . NOTE-DO NOT TOUCH ANY OF THE KNOBS OR BUTTONS ON THE BASS BOX WHILE THE UPDATE IS LOADING!
- 7. When the update is complete the editor will show another message: Update Complete-Please disconnect/reconnect power supply . Follow those instructions.
- 8. Your update is now complete!
- 9. The Support & Downloads page for the bass box also contains a System Restore file . Should you ever need to restore the bass box to it's factory settings . To do this, click on the System Restore icon on the webpage to download the file . In the editor go to MENU-RESTORE and select the file you downloaded . It is labeled BB.fbu. (TBD) NOTE-DO NOT TOUCH ANY OF THE KNOBS OR BUTTONS ON THE BASS BOX WHILE THE UNIT IS RESTORING! When the procedure is finished your unit will be restored to factory presets and settings.