

**TONEBONE™**

**BASSBONE™**



## Owners Manual



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## BASSBONE™ OWNER'S MANUAL

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Greetings from Radial... You are now an official Bonehead!

The Bassbone has been developed to help you make music more fun and hopefully, enhance your creative spirit.

The following manual has been written to assist you in using your new Radial Bassbone. Please take the time to read it through so that you can take maximum advantage of all the features that have been designed into this marvelous device.

Should you have any questions on the Bassbone, please visit our web site [www.tonebone.com](http://www.tonebone.com) for up-to-date information. If you have a question that is not covered in this manual, please feel free to contact Radial at [info@tonebone.com](mailto:info@tonebone.com) and we will do our very best to get you an answer quickly. These questions are often posted on our website as FAQ's and serve to help other Boneheads.

Now get out there and play some 12-bar blues!

**[www.tonebone.com](http://www.tonebone.com)**

**[www.radialeng.com](http://www.radialeng.com)**

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## INTRODUCTION

In the beginning, bass was the foundation behind the band that worked with the drums to keep it all together. A good, solid and powerful amplifier with a good bass was all that was needed. But over the years, bass has expanded from a simple 4-string instrument to powerful active 5 and 6 stringed monsters.

As such, bassists, whether covering or creating new material, must be equipped to produce these tonal ranges and be able to transition between these sounds quickly during a live performance. The Bassbone was designed to help bass players meet these demands by creating a control center specifically designed around the bass guitar.

This being said, most bass players employ two basses when they perform. These typically include a traditional passive bass such as a Fender P-Bass® and a new generation 5 or 6 string active instrument. These basses produce very different volume levels and tonal ranges. This poses a problem when switching from one instrument to the other, as the amplifier settings must be dramatically adjusted to compensate.

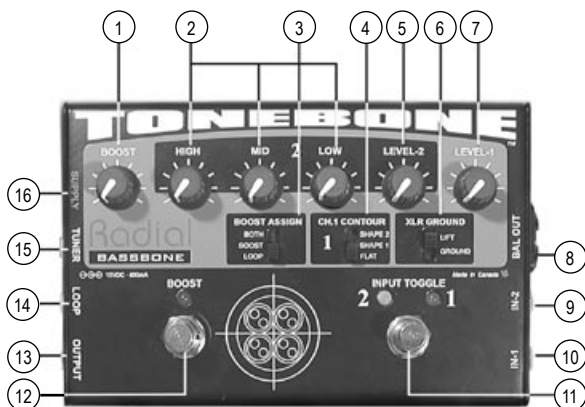
The Tonebone Bassbone allows the bass player to transition between the two different basses by simply depressing a foot selector switch. Each instrument channel on the Bassbone features separate level adjustment and equalization. On gigs where only one bass is used, the Bassbone automatically converts to a 2-channel preamp. The powerful on-board EQ allows the player to create two completely different sounds to create 'the impression' of two different basses. Very tricky indeed!

To further enhance on-stage performance, the Radial Bassbone is outfitted with a power-booster for soloing or extra kick during particular passages. An effect loop circuit may also be switched-in to simultaneously introduce dramatic and powerful effects.

For those coffeehouse gigs where you may not want to bring your double-stack Ampeg SVT®, the Bassbone makes it easy with a built-in direct box with XLR output to drive the PA system. There's even a separate tuner out that lets you monitor your bass for on-the-fly adjustments.

Be it live or in the studio... Bassbone is a control center for players that truly makes playing easier!

## BASSBONE FEATURE SET



### 1. BOOST level control

Controls the amount of BOOST from unity-gain (no boost) to +8dB.

### 2. HIGH-MID-LOW EQ controls

Active EQ on channel-2 overrides amp EQ settings  
 Low +/-12dB @ 75 Hz,  
 Mid +/-10dB @ 470 Hz,  
 High +/-16dB @ 5.6 KHz.

### 3. BOOST ASSIGN switch

Assigns the BOOST footswitch to boost, effect loop or both.

### 4. CH. 1 CONTOUR switch

Selects between flat & two EQ contour curves on channel-1.

### 5. LEVEL-2 control

Adjusts input level for channel-2.

### 6. XLR GROUND switch

Lifts pin-1 on XLR out to reduce hum caused by ground-loops.

### 7. LEVEL-1 control

Adjusts input level for channel-1.

### 8. BAL. OUT

Balanced XLR output sends 'post' Bassbone sound to mixing console.

### 9. IN-2 jack

Alternate input for second bass. Connects to channel 2.

### 10. IN-1 jack

Primary input is used for the main bass. Connects to channel 1.

### 11. INPUT TOGGLE footswitch

Selects between input 1 or 2. Features bright, easy to see large LED's.

### 12. BOOST footswitch

Activates power boost and/or effects loop with easy to see large LED.

### 13. OUTPUT jack

Connects to your bass amplifier.

### 14. LOOP jack

Bassbones effects loop uses standard TRS 1/4" (tip-send, ring return) insert-jack to connect pedals.

### 15. TUNER output jack

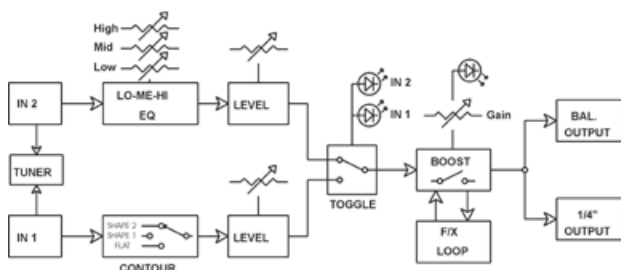
High output band-pass filtered output specifically EQ'd for tuners.

### 16. External power supply.

15VCD (400mA) PSU jack.

## THE CONCEPT BEHIND THE BASSBONE

Before you get started, you need to know why we built the Bassbone the way we did. This is the Bassbone's flow chart (block diagram). Let's take a moment to see what's under the hood...



Starting from left to right, the Bassbone has two inputs for two basses and two separate signal channels. A separate tuner out is provided that is buffered and filtered to drive a tuner with a clean signal. This powerful 'tuner friendly' output is always on.

Input channel-1 features a contour control with choice of bypass or two EQ curves. A level control allows input-1 gain to be adjusted as needed. Input channel-2 features a powerful 3 band EQ that allows you to override your amplifier's EQ section. A separate level control is also provided to balance the level between bass-1 and bass-2.

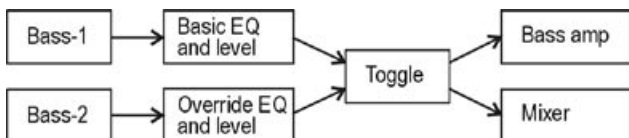
The input toggle footswitch selects between input channels 1 or 2. Keep in mind that when only one bass is being used, input-1 will feed both channels allowing you to use the Bassbone like a two channel amplifier. This will give you control over two dramatically different EQ curves and levels.

A power boost circuit is available that can be used for soloing or for added power during a particular passage. To reduce 'tap-dancing' an effect loop may be engaged at the same time or instead of the powerboost circuit. This has the benefit of keeping noisy pedals out of the signal chain when not in use.

Along with the 1/4" output, the Bassbone is also equipped with a balanced output that is used to feed a mixer. This is a 600-ohm, mic level, XLR output that can be used instead of a direct box. The XLR output is a 'post' Bassbone signal. The sound being sent to a mixer will incorporate your Bassbone EQ and level settings. This makes the Bassbone perfect for studio session work and direct recording.

## USING THE BASSBONE WITH TWO BASSES

The Radial Bassbone comes equipped with its own power supply. This is a special 15-Volt supply that provides greater headroom than typical 9-Volt supplies. Connecting the power supply will automatically turn the Bassbone on. Leaving the Bassbone on will not harm the unit. Only use a Tonebone supply as others may harm your Tonebone.



The Radial Bassbone is both easy and intuitive to use. Begin by making sure your amplifier and mixer volumes are turned off so that when connections are being made, you will not cause the speakers to pop.

Think of channel-1 as 'straight-through' whereby you will use the EQ and volume on your amp to control your primary bass. Once your connections are done, turn up your amp volume and EQ settings to the levels you would normally use. Set channel-1 level control to about 2 o'clock and make sure the contour switch is set to flat. Now go back to your amplifier and readjust your input level to compensate as needed.

This is the starting point to properly setup the Bassbone. You will note that channel-1 also features a 3-position voicing switch. This offers a choice between flat (bypass), and two preset EQ curves to help capture popular sought after tones that may be difficult to achieve with some amplifiers. We suggest adjustments on channel-1 be made with the contour set to flat (bypass). Then feel free to try the two voicing curves with your amp settings. You may find that inserting the Bassbone's EQ settings will stimulate new sounds that you have not yet encountered.

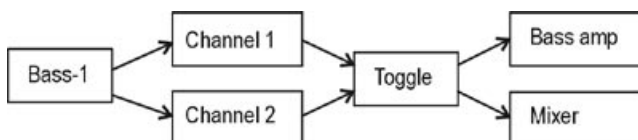
Channel-2 is the over-ride channel. This channel features a powerful EQ that lets you counter and/or assist the EQ on your amplifier when connecting your second bass. Once you have established the amp settings for your primary bass, you would then select your second bass and depress the toggle switch to select channel-2.

Start with the HI-MID-LOW EQ controls at 12 o'clock and the channel-2 level control at 2 o'clock. You will notice that each of the EQ controls are extremely active and provide tons of cut and boost. Play with these controls until you have found your sound and then adjust the LEVEL-2 control to match your other bass, you are now set to go!

## USING THE BASSBONE WITH ONE BASS

Start by making your connections as described in Section 4 and make sure you are connected to input-1. Bassbone automatically feeds both channels when the input-jack on channel-2 is not used.

As discussed earlier, when only using one bass, the Bassbone can be used like a 2-channel pre-amp whereby one can transition between channel-1 and channel-2 by simply depressing the toggle switch.



Following a similar path as described when using two basses, you would set your amplifier EQ and level while using channel-1. This would be your normal sound. You could of course introduce one of the Bassbone voicing settings if desired. We suggest that you begin with the channel-1 output level set at 2 o'clock and adjust your amplifier to the desired listening level.

Switching to channel-2 will then let you access the Bassbone's powerful EQ section. This can make a passive bass sound active or vice versa! You could for instance set your standard bass tone to be warm and fat and set the EQ on channel-2 for mid-range cut and added clarity.

## POWER BOOST AND EFFECT LOOP

Now that you have the coolest sound in the world, it's time for the crowd-stopping 25 minute bass solo!

The Bassbone is equipped with a power booster that can be used for soloing or special effects. To add more fun and flexibility, the BOOST ASSIGN is a 3-position selector switch that lets you assign the BOOST footswitch to boost only, effect-loop only or both.



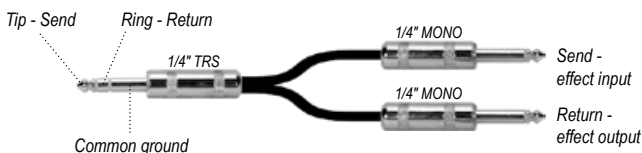
Being able to engage both the boost and the effects loop with a 'single foot action' adds tremendous flexibility while reducing 'tap dancing' on stage. For instance you may want to kick the bass up a notch and introduce a flanger at the same time. For this, the BOOST ASSIGN switch would be set to BOTH. This has the advantage of keeping noisy effect devices out of the signal chain when not being used.

### USING THE POWER BOOSTER

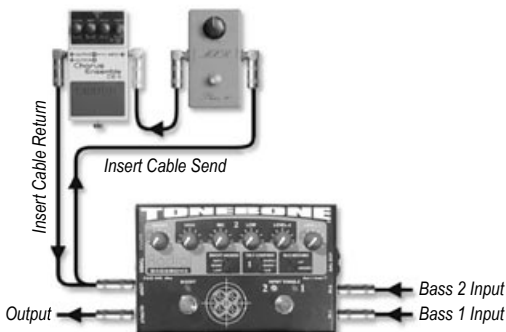
The BOOST control knob is designed to go from unity gain (full counter clockwise) to +8dB of gain boost (full clockwise). Depress the BOOST footswitch so the LED is illuminated and turn the BOOST control knob clockwise until the desired level is attained. Check the relationship between the two channels with and without the power-booster to fine tune your gain structure so there are no surprises when depressing the footswitches.

### USING THE EFFECT LOOP

The effect loop features an insert jack like the ones used on professional mixers. This employs a standard tip 'send', ring 'return' insert jack with a stereo TRS (tip ring sleeve) plug at one end and two standard 1/4" mono plugs on the other.



The TRS plug connects to the Bassbone LOOP jack and the two 1/4" mono plugs connect to the input and output jacks of the effect pedal.



The advantages of using an effect loop to connect pedals include reduced pick-up loading for a more natural bass guitar sound, less noise because your sound is going directly to your amplifier and the ability to pre-set different multi-pedal setups while playing without actually hearing the setups until you engage the effect loop.

Combining pedal effects with the power booster can be both powerful and dramatic. With the touch of a button, one can produce thunderous tones that can completely change the ambience from one song to another. This will most assuredly spur on creativity!



## USING THE TUNER OUTPUT

The Bassbone incorporates a separate tuner out. This output passes through a band-pass filter to make it easier for a tuner to lock-on to the fundamental tone. Without the band-pass filter, some basses produce so many harmonics that the tuner is unable to lock-on and this causes the needle (or LED read out) to jump all over the place. Because the tuner out is separately buffered, the tuner circuit is completely removed from the primary audio signal path thus reducing its effect or added load on the circuit.

## TUNER MUTE

The power-boost and effects-loop features may be used to create a tuner mute function for silent tuning. Insert an unterminated 1/4" "dummy" plug into the LOOP jack and set the BOOSTASSIGN switch to LOOP. With this arrangement, depressing the BOOST footswitch will mute the Bassbone's main output. If you intend to employ this mute function on a regular basis, we recommend trimming the 1/4" dummy plug's solder leads down and using it without the outer shell to save space.



*1/4" plug with solder leads trimmed off and shell removed.*

## USING THE XLR OUTPUT

The Bassbone is equipped with a separate XLR male output that acts like a direct box to feed a mixer. The 600-Ohm mic level output is designed to run along side microphone signals in a snake without causing crosstalk.



It is important to note that unlike a direct box that would normally be connected before the Bassbone, the XLR out is post Bassbone. This means that all of the Bassbone EQ and volume settings will be heard on the XLR output. This is particularly advantageous when playing gigs without a sound

engineer as the bass signal going to the mixer will be boosted or altered to follow your Bassbone settings. An example would be on a solo where the engineer would normally increase the bass volume: by engaging the Bassbone's power booster, the level would increase on your bass amp and at the mixer at the same time.

The XLR output is particularly handy in the studio for direct recording, as well as for live situations where bringing an amplifier may not be practical. Simply connect the Bassbone's XLR output to the mixer and use the Bassbone as your miniature amp. All your EQ settings are now right at your feet!

The XLR male connector is wired to AES standards with pin-1 being ground, pin-2 hot. A ground-lift switch disconnects the ground on pin-1 at the output to help reduce hum and buzz caused by so-called 'ground-loops'.

To reduce opportunity for noise, it is always a good idea to have your bass amp and Bassbone connected to the same power bar. When connecting to a mixer, should you encounter a ground-loop or 60-cycle hum, try lifting the ground. This disconnects pin-1 and assumes that the Bassbone's safety ground will be connected at the input.

## FAQ

### ***Can I use any two basses with the Bassbone?***

Yes, the Bassbone is designed for use with all types of basses. This means that you can use both active and passive basses, fretted or fretless and so on.

### ***Do I still need a direct box with the Bassbone?***

No... The Bassbone has a balanced out that sends your post-Bassbone sound to the mixer. This is cool because if you do not have a soundman, the bass EQ and level can be controlled by you. If however you do have a sound engineer, he may prefer to get the sound of your bass 'direct' before it goes into your Bassbone. Any of the Radial direct boxes will work fine for this.

### ***Can I use the Tuner out to drive another amp or effect?***

You can but the sound may not be what you want. We have optimized the tuner out to provide a typical tuner circuit with a fundamental tone so that tuning is easy. This tone will not sound the same as the output from the Bassbone.

### ***I have an active & passive bass. Which should be used where?***

Both can work in either Bassbone channel. If you are a purist, you may want to have your passive bass in channel-1 and set it flat. This would allow your amp to control your EQ for this bass. If you want to beef up your passive, then channel-2 with the active EQ will give you more control.

### ***Can I use other pedal power supplies with the Bassbone?***

No. The Bassbone requires a more powerful 15V supply than a typical 9-volt pedal in order to provide maximum power handling and headroom. This is why we include the supply with the unit.

### ***Can I use the 'effect send' to drive another amplifier?***

Technically 'yes' but be careful. We produce a device called the Radial JX2 Switchbone that is designed to do this properly. It is outfitted with an isolation transformer that will eliminate noisy ground loops while the Bassbone effect send does not. Some older amplifiers are not equipped with proper U-ground connection and could cause an electric shock. Please consult a qualified technician before combining amplifiers with the Bassbone.

***Will the Bassbone alter the tone of my bass?***

When using channel-1 with the contour switch set to off or bypass, the original tone of the instrument will pass through the Bassbone without adding EQ. Keep in mind however that changing the output level on channel-1 will cause the perception to shift due to a volume change.

***Why is the tuner output is so loud?***

When you pluck the string, it sometimes takes a while for the harmonics and the string vibration to settle down to a stable 'tunable' position. By having a high output to the tuner, it gives you more time to tune the string.

***Why do you have EQ shapes on channel-1 if this is designed to go to my amps EQ?***

Some amps just do not have the ability to create some of the cool sounds that have become popular today. This is particularly true with older vintage amps that sound great, but need that extra kick. We included two EQ curves that we felt would be beneficial when using the Bassbone with older amps and of course, when using it direct to a PA system.

***Why does the volume go down when I turn the EQ knobs counterclockwise?***

The EQ section on the Bassbone is active and is capable of boosting or cutting. This lets you create very powerful EQ settings that can override the EQ settings on your amplifier. The 12 o'clock position is neutral or flat. If all three EQ knobs are cutting it's like the overall volume is being turned down.

***Can I use the Bassbone straight into a power amplifier?***

You can try, but you will most likely find that there is not enough level to drive a power amp to it's maximum output. The reason for this is that the Bassbone is a unity gain device and is designed to drive a pre-amp such as found in bass and guitar amplifiers or the XLR mic input on a mixer.

## RADIAL LIMITED THREE YEAR WARRANTY

Radial Engineering - a division of JP Cabletek Electronics Ltd. warrants this product to be free from defects in material and workmanship to the original owner and will remedy any such defects free of charge according to the terms of this warranty. Radial Engineering will repair or replace at its option any defective component(s) of this product, excluding the finish, the tube, the footswitch (tube and footswitch are warranted for 90 days) and wear and tear from normal use, for a period of three (3) years from the original date of purchase. In the event that a particular product is no longer available, Radial Engineering reserves the right to replace the product with a similar product of equal or greater value. To make a request or claim under this limited warranty, the product must be returned prepaid in the original shipping container (or equivalent) to Radial Engineering or to an authorized repair centre and you must assume the risk of loss or damage. A copy of the original invoice showing date of purchase and the dealer name must accompany any request for work to be performed under this limited warranty. This limited warranty shall not apply if the product has been damaged due to abuse, misuse, misapplication, accident or as a result of service or modification by any other than an authorized repair centre.

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