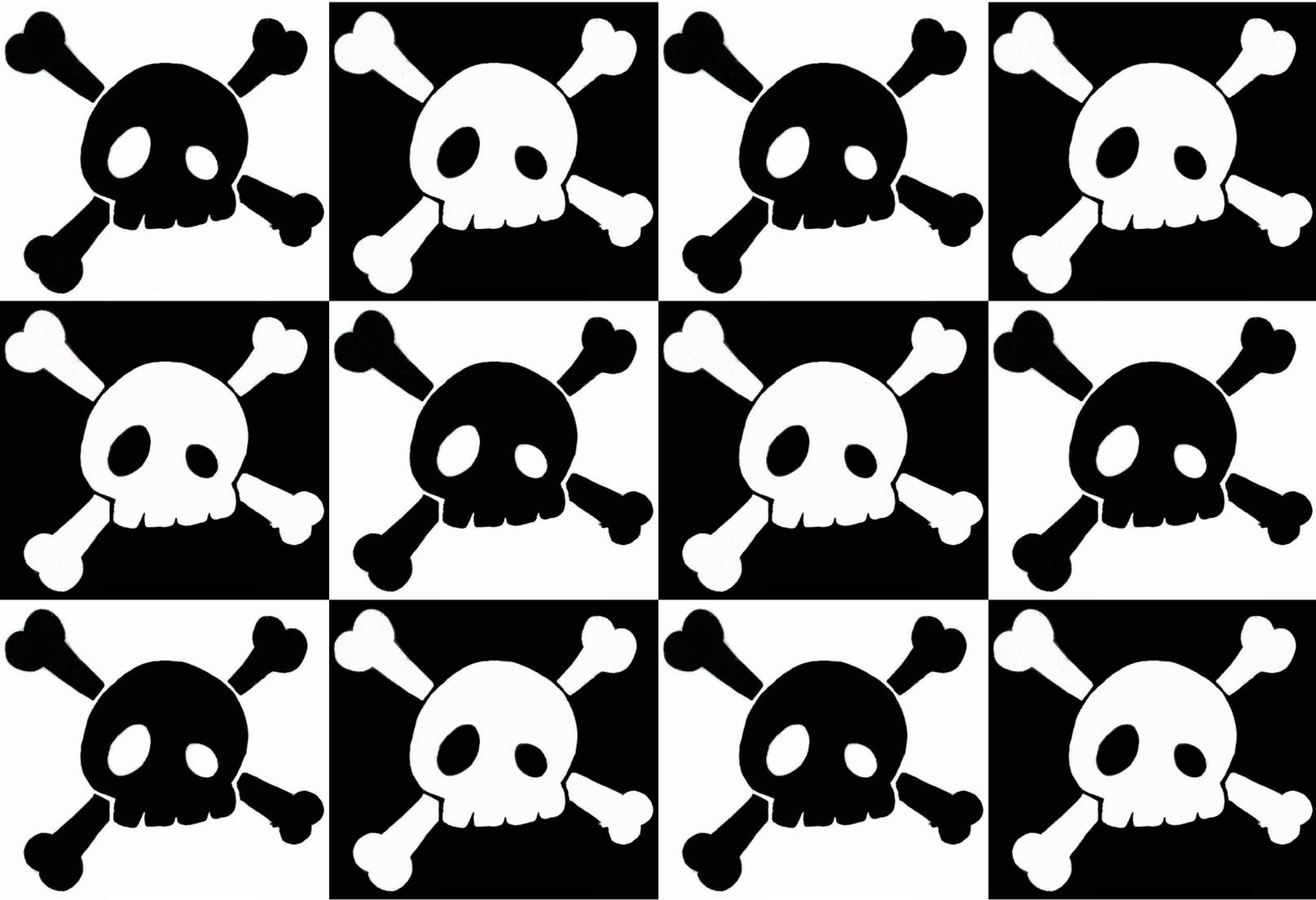


# REGULAR JOHN RECORDING



# RJR BAX

USER MANUAL

# **THE BORING STUFF:**

- **DO NOT** under any circumstance open the chassis of your RJR BAX. There is nothing inside the chassis that interests you. Opening the chassis will cause humanity's existence to come to an end. Let's not have that happen!
- **When you receive your RJR BAX, carefully open the boxes and packaging and inspect the unit. It's a good idea to take care that the boxes aren't ripped open. Make sure there is no damage to your RJR BAX. If your RJR BAX has incurred shipping damage, KEEP ALL PACKAGING MATERIALS and notify [dustin@regularjohnrecording.com](mailto:dustin@regularjohnrecording.com) immediately. Your RJR BAX shipment was insured, and photos will have to be taken of it as well as the packaging.**
- **Only use the provided external power supply that came with your RJR BAX. If you lose your power supply, contact [dustin@regularjohnrecording.com](mailto:dustin@regularjohnrecording.com) to order a new one.**
- **Use common sense when using your RJR BAX. Your RJR BAX is only designed for processing audio. Do not use your RJR BAX for any other purpose.**
- **If you happen to spill liquid on your RJR BAX, turn it off IMMEDIATELY. Contact [dustin@regularjohnrecording.com](mailto:dustin@regularjohnrecording.com) before powering your RJR BAX back on.**
- **Your RJR BAX is always covered for the entirety of your ownership for any issues that arise though normal use. What is normal use? Normal use is installing your RJR BAX into your recording setup and using it to EQ audio. What is not normal use? Everything else. If there is a problem, just send it in to RJR and it will be fixed. Shipping charges for warranty repair are your responsibility, however.**

# USING YOUR RJR BAX

## POWERING ON

Plug the included AC power adaptor into the 2.1mm power jack on the rear of the EQ. Plug the other end of the AC power adaptor into a 110-120 VAC outlet (you know which end goes where!). Your EQ should now have power and the power indicator LED on the front panel should be glowing. If it isn't, first make sure that the outlet the AC adaptor is plugged into is live. Once that is confirmed, if your BAX still isn't powering on, contact [dustin@regularjohnrecording.com](mailto:dustin@regularjohnrecording.com).



## REAR PANEL CONNECTIONS

The rear panel of your RJR BAX is pretty straightforward. We've covered the 2.1mm power jack located in the center of the rear panel. The remaining jacks are for audio (obviously!). You may have noticed that the in/out's aren't labeled. That's because if you are using professional audio equipment, it's assumed that you know what you're doing. But in case you aren't sure, the L/R orientation of the rear panel jacks is as though you're looking at the front panel, so if you're looking at the rear panel, L and R are reversed. Confusing? An easier way to think about it is that the jacks on the rear panel go straight through the chassis and are directly behind the channel they plug into. Here is a picture with the XLR jacks labeled.



## THE FRONT PANEL CONTROLS

Now on to the good stuff. The front panel, where all the magic happens! The RJR BAX is a 3 band EQ with high and low baxandall shelves, a parametric mid band, and a low frequency cut-only filter. For each of the three main bands (low, mid, and high) there is an available +/-15dB of boost/cut. If you're familiar with the other makes of baxandall eq's on the market, you'll immediately notice that that's a lot of boost/cut (hell yeah it is!). Why so much? While other manufacturers only give you +/-5dB or +/-8dB, with them you'll be missing out on some of the most extreme aspects of what a baxandall eq is really capable of. And you'll find that even at the most extreme settings, the RJR BAX remains incredibly clean and transparent. Now when it comes to master buss processing, the old adage that a little goes a long way, is still true. But if you want to create some extreme eq sounds on channels or subgroups, the RJR BAX will let you.



### **LOW CUT:**

The Low Cut filter is a cut-only filter that allows you to remove unwanted subsonic frequencies from your music. It can also be used to offset or tame a large boost on the low shelf band. The numbered settings are in Hz. When set to "OFF" there is no filtering taking place.

### **LOW BAND:**

There are six available knee frequencies for the low baxandall shelf that can be seen in the picture above. The numbered settings are in Hz. Use the toggle switch to select which frequency you'd like to set as the knee for your low shelf. The frequency is selected when the toggle points to the number, and is deselected when the toggle points away from the number.

### **MID BAND:**

The mid frequency band is a broad Q sweepable parametric filter, capable of sweeping from 150Hz to 7kHz.

### **HIGH BAND:**

The high band, similar to the low band is a baxandall shelf with 6 individually selectable knee frequencies that are engaged when the toggle points to the number, and disengaged when the toggle points away from the number.

## **BYPASS:**

The bypass function is located just above the low cut filter, and is engaged with a toggle switch which activates an electronic relay. When "IN" is selected, the EQ is active. When "OUT" is selected the XLR input jack is routed directly to the XLR output jack for a direct hard bypass, and the EQ circuit is removed from the audio path completely. It's not unusual to hear a click or pop when engaging or disengaging the bypass function. This is particularly true if audio is running through the unit, as the waveform is essentially being chopped by the relay.

## **A LITTLE EXTRA INFO**

There are a few things that are useful know about this Bax EQ, as well as Baxandall EQ's in general. The first is that the bands of the EQ are both fluid and interactive. What that means, is that unlike most EQ's where the frequency points on the front panel are static, with a baxandall eq that is not the case. The actual knee point of the filter curve will move a little bit depending on how much boost/cut you're using of that filter band, AND the knee point will also move depending on how much boost/cut you're using of the other filter bands. The more boost/cut you use, the more the knee will shift. The labeled frequency points on the front panel are a general average of the knee location, but they should not be taken as a definitive hard number. Baxandalls are intuitive, emotive eq circuits and should be used as such.

One feature that separates the RJR BAX not just from other baxandall equalizers, but also from just about every other eq that has fixed frequency selections, is that it employs a toggle switch bank for frequency selection rather than a standard knob-based rotary switch. While at first this may seem odd, it actually grants the user some liberties that would otherwise not be available with a regular rotary switch.

The first is that it is possible to select more than one frequency setting at a time for each of the high and low bands. Choosing multiple frequencies at once will result in a new frequency that is lower than the lowest of the frequencies selected. There are a ton of different possible combinations, use your ears and see what's possible!

The other unique quirk that a switch bank allows is that it is possible to select no frequency. For the low band, selecting no frequency removes all filtering action from the low band, resulting in a full range boost/cut control. For the high band, selecting no frequency disables the high band's boost/cut control. Each could potentially be useful for special effect type applications.

Under normal operation, when changing frequency settings, it is useful to simply flick one setting off with your thumb at the same instant that you flick another one on with your forefinger. That way you can create a seamless transition from one frequency to the next.

# CONCLUSION

At this point you should have a good understanding of the front panel controls and rear panel connections on your RJR BAX. So rather than ramble on about how great your new EQ is like most user manuals would, let's instead end it here. Go forth and do some EQ-ing! Use your ears and see where the RJR BAX takes your music. And as always, if you have any questions, feel free to contact [dustin@regularjohnrecording.com](mailto:dustin@regularjohnrecording.com).