

# Hone your Tone

## Why Redwirez?

### **Redwirez IRs are systematically sampled. Quickly find exactly the tone you want**

Each BIGbox cabinet is sampled at 0, ½, 1, 2, 3, 4, 5, 6 and 12 inches – at up to 6 different speaker positions. This systematic sampling method results in a "grid" of IRs with small, linear changes between them. Because the samples are predictable you can pick a starting point from our list or choose a preset, then quickly zero-in on the perfect sound for *your* setup.

### **Tweakable presets**

Each mixIR<sup>3</sup> cabinet module comes with set of starter presets featuring a reference mix and mixes using common studio mic techniques. Pick a preset and then adjust the mic or mics to get the sound you want. If you're just using the IRs, then pick a balanced starting position from our list below.

### **It's like owning the real cab**

You can use the same mic techniques used in a studio because each library is like a real cab. You like the woodiness of your 57, but it has a little too much sizzle, then move it closer by an inch. You want two 57s with one off-axis. Go for it. You want to mic the cone and boost those highs for more air. You can.

### **You can create your own tone**

A good guitar tone is built on a good chain of gear. Each piece affects the overall tone. Your setup is unique. So, don't settle for someone else's idea of good tone. Hone your own.

## Dialing in your tone

Our approach to dialing in a good guitar tone starts with achieving a balance between highs, mids and lows. Then, optionally we may accent or diminish different aspects of the guitar sound. Bite. Sizzle. Growl. Thump. Shimmer. That kind of thing.

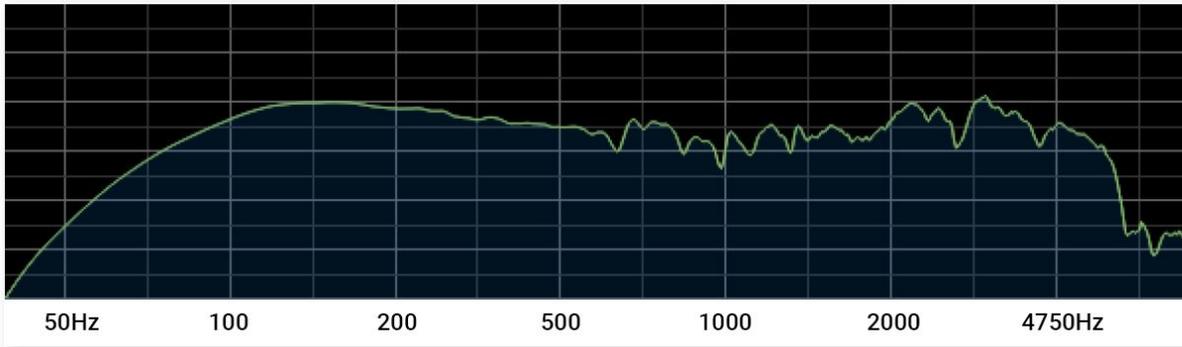
Our basic process is:

1. Pick a mic, a position on the speaker and a distance to be the base of our sound.
2. Optionally, mix in one or more mics to accent different aspects of our guitar sound.
3. If needed, apply a small amount of equalization ( $\pm 1$ dB or so).

## Pick a base mic

When selecting a base mic, we're looking for balance. When recording a speaker cabinet, a balanced mic has roughly the same amount of low-end as it has high-end. It often has a scooped mid-range.

The frequency curve looks something like this:



It should sound detailed with a tight bottom-end and solid mids – not muddy, boomy or harsh. Some mics tilt a little dark or a bit bright. These can be useful as a base, too. Like choosing a Sennheiser 421 to brighten up a dark amp.

## Base Mic Suggestions

Mic	Description	Balanced/Dark Starter	Bright Amp Starter
SM57	Works well with a range of amps. A lot of sizzle. Mix with mics with more bass for better balance.	Cap 0.5", Cap45 1"	CapEdge 0.5", CapEdge45 1"
421	Works best with darker amps. A lot of bite in the upper-mids, maybe too much for some setups.	Cap 0.5", Cap45 0.5"	CapEdge 0.5", Cap45 0", Cone 3"
M160	Balanced, leaning towards scooped. Has high-end similar to SM57, but with more bass. Can often stand alone.	Cap 2"	CapEdge 2"
KM84	Captures the body of a cabinet well. May sound dark by itself, but makes a good base for mic mixes.	Cap 2" or 4"	Cap 2" CapEdge 4"
M7	If you're up for something different. Sounds like a smoother SM57.	Cap 2" or 4"	Cap 2" CapEdge 4"

If you are running a high-gain setup you may want to "tilt" the balance of your mix towards the low-end. Meaning, more bass, less upper-mids and highs. Use an accent mic like the R121 to mellow out the highs and add thump. We'll discuss this next.

## Accent mics

Once you have a base for your mix, you can accent different characteristics by mixing in one or more accent mics.

### Bass Accent

Mic	Description	Starting Position	Starting Mix
R121	Unhyped upper mids and BIG proximity effect make it great for adding bass to a mic mix and mellowing highs.	Cap 2-4"	50%
C414	Big proximity effect gives it a darker, "fat" feel.	Cap 2-4"	50%

### Midrange Accent

Mic	Description	Starting Position	Starting Mix
409	Less bass, more mid heavy and less high-end than SM57.	Cap 0-1"	50%
U47	Add some midrange without adding too much bass.	Cap 1" CapEdge 2"	50%

### Mids and Bass Accent

Mic	Description	Starting Position	Starting Mix
U87	Add mids and bass. Can sound a bit honky on some amps.	Cap 4"	50%
U67	Add midrange and extended bass.	Cap 4"	50%
M8	Mids of an M7 with more bass and less high-end.	Cap 4"	50%
47Fet	Extended bass and scooped mids. Relaxed high-end.	Cap 4"	50%
441	Add bass and midrange.	Cap 1-2"	50%

### Scooped Accent

Mic	Description	Starting Position	Starting Mix
i5	Like a scooped SM57.	Cap 0"	50%
D6	Very, very scooped and a lot of bite.	Cap 0.5"	50%

## Reference mix

A good “universal” starting mix that works well for most any cabinet is:

<i>Mic</i>	<i>Position</i>	<i>Distance</i>	<i>Mix</i>
<i>KM84</i>	<i>Cap</i>	<i>2” or 4”</i>	<i>100%</i>
<i>SM57</i>	<i>Cap</i>	<i>1”</i>	<i>50%</i>
<i>421</i>	<i>Cap</i>	<i>0.5”</i>	<i>50%</i>

## Moving the mics

- Move the mic closer for more low-end and farther for less low-end
- Move the mic towards the cap for more high-end and towards the cone edge for less
- Adjust the mixIR<sup>3</sup> Z knob to add thump and sparkle
- Adjust the mixIR<sup>3</sup> Bass knob for more thump or to shape the low-end contour of Z knob

## Applying EQ

When it comes to guitar, a little EQ goes a long way. It’s hard to know exactly which EQ tweaks your setup will need. But, here’s a list of some of the adjustments we find useful for 4x12s:

<i>Type</i>	<i>Freq</i>	<i>Gain</i>	<i>Q</i>	<i>Reason</i>
<i>Low-shelf</i>	<i>400Hz</i>	<i>±1dB</i>	<i>0.8</i>	<i>Boost/cut bass</i>
<i>Peak</i>	<i>380Hz</i>	<i>-1dB</i>	<i>1.0</i>	<i>Clear up muddiness</i>
<i>Peak</i>	<i>1010Hz</i>	<i>+1dB</i>	<i>1.8</i>	<i>Add midrange</i>
<i>High-shelf</i>	<i>2600Hz</i>	<i>±1dB</i>	<i>0.8</i>	<i>Boost/cut high-end</i>

And a few adjustments for 1x12s and 2x12s:

<i>Type</i>	<i>Freq</i>	<i>Gain</i>	<i>Q</i>	<i>Reason</i>
<i>Low-shelf</i>	<i>400Hz</i>	<i>±1dB</i>	<i>0.8</i>	<i>Boost/cut bass</i>
<i>Peak</i>	<i>160Hz</i>	<i>+1dB</i>	<i>2.6</i>	<i>Add bass resonance</i>
<i>High-shelf</i>	<i>2600Hz</i>	<i>±1dB</i>	<i>0.8</i>	<i>Boost/cut high-end</i>

Your setup may not require any tweaking. Often carefully selecting your mics will be all you need. But, if you have an especially dark or bright amp, your setup may require different adjustments altogether.

As always, enjoy!