

# DOUBLE REEDS, NOT DOUBLE TROUBLE: BASSOON REED MINUTE FIXES

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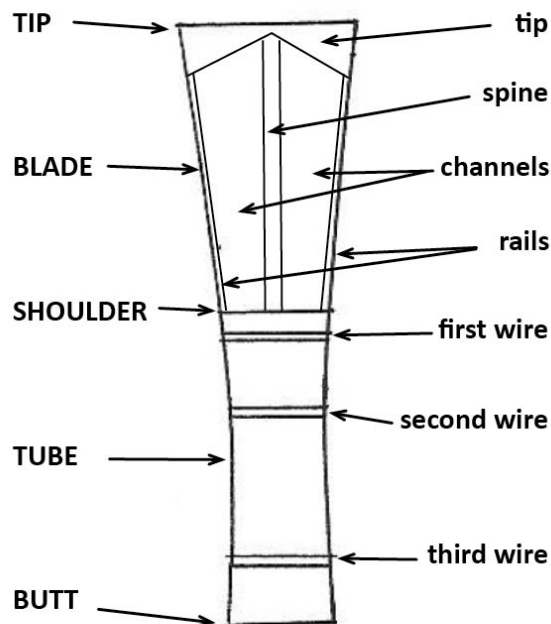
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How do we best determine if our bassoon students' struggles are a result of a poor reed setup, and what is there to be done? This session serves as a guided tour of reed diagnoses, all based on visual characteristics and student-produced tests - no bassoon virtuosity required of the director! We conclude with hands-on quick fix demonstrations, all possible in under one minute with tools you can keep at the podium.

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## Part One: Reed Anatomy

The areas shown below are the most important areas to know when identifying and fixing problems with your reed. These terms will be used throughout this handout.



There are three primary elements of the reed to inspect for its general health:

- Cane (the wood)
- Shape
- Crow (the sound the reed makes when not attached to the bassoon)

### Cane

When looking at your reed, the cane should be tan in color with no spots or cracks. Playing on a reed that has started to mold or mildew means that you are putting mold in your mouth with every note. At this point, the reed is beyond fixing and should be thrown away.

### Shape

Looking at the shape of your reed can mean the shape of the first and second wire – how round or flattened they look – or the shape of the tip.

In general, the first wire should look somewhat more flattened than the rounded second wire. These wire shapes may change as you adjust the reed to make a better sound, but avoid over-rounding in either wire. Wire shapes are relatively easy to adjust, and very few shapes mean the reed needs to be thrown away. The pictures below show various wire shapes.

*Flattened*



*Round*



*Over-Round*



The wires should all be flush with the reed cane. If there are visible gaps or you are able to wiggle the wires with your fingertips, they will need to be tightened to make sure the reed is not too soft.

To check the shape of the tip, look at the reed as if you were the air going into it. The pictures below show good and bad tip shapes, but none requires immediate discard of the reed.

*Good*



*Good*



*Bad*



*Bad*



### Crow

To hear the crow of your reed, put the reed in your mouth further than you would to play normally, with your lips almost all the way to the first wire. When you blow air through the

reed, the resulting sound should have both high and low sounds. If the crow is only low, rattling sounds, the reed is likely too soft. If the crow is only high, the reed is likely too hard. Below, you can read about how to fix both of these problems.

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## **Part Two: The Principles**

Two basic principles underlie all bassoon reed work – vibration and resonance. The balance of these principles creates the response, intonation, and timbre produced by any given reed, and almost all problems with reeds result from an imbalanced relationship. Most basically, the vibrating portion of the reed is the blade, and the resonance portion is the tube.

If a reed is generally too vibrant, we have two options: dampen the vibrations or increase the resonance. Inversely, if a reed is too resonant, the options are to increase vibrations or reduce the resonance.

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## **Part Three: Adjusting**

You will need the following materials to make basic adjustments to student reeds:

- Needle nosed pliers
- Wet/dry sandpaper (240, 600 grit)

If there is nothing visibly wrong with your reed but you are not happy with the sound it is producing, the reed is either too vibrant (soft) or too resonant (hard). Problems you may be experiencing are problems with:

- Response – not making sound immediately or only being able to play very loudly
- Intonation – playing overall very flat or sharp
- Tone – sounding very muffled or very buzzy

These are presented in order of priority. It is most important for a reed to sound immediately, followed in importance by having a reliably accurate pitch center. An ideal tone quality, despite being the most desirable and easiest to focus on too early in the adjustment process, should come third – most of the time a responsive, in tune reed will fix its own timbre concerns.

### **Problem: Too Vibrant (Soft)**

If the reed is too soft, it will:

- Respond easily
- Sound flat
- Sound buzzy, overly bright

To fix a soft bassoon reed, try the following steps in this order. Make sure to test the reed in between each adjustment to see if you have fixed the problem.

1. Slightly open both the first and second wires with your needle-nosed pliers.
2. Fold a piece of your 600 grit sandpaper in half and slide it into the reed. Gently hold the tip closed with your fingers, then slide the sandpaper out to remove soft cane from the inside of the reed.
3. Lightly sand both rails of the front half of both sides of the reed with your 240 grit sandpaper.

If these solutions do not work, ask your bassoon teacher for help. The reed may need to be cut shorter or scraped in one of the other areas with a reed knife.

### **Problem: Too Resonant (Hard)**

If the reed is too hard, it will:

- Not respond well
- Sound sharp
- Sound muffled, too dark

To fix a hard bassoon reed, try the following steps in this order. Make sure to test the reed in between each adjustment to see if you have fixed the problem.

1. Slightly close both the first and second wires with your needle-nosed pliers.
2. Lightly sand the entire blade on both sides of the reed with your 600 grit sandpaper.
3. Fold a piece of your 240 grit sandpaper and gently sand the back third of both sides of the reed, focusing on the center.

If these solutions do not work, ask a local bassoonist for help. The reed may need to be scraped more precisely in one of the other areas with a reed knife.

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Please contact me with any reed questions or concerns, or if you wish to purchase handmade bassoon reeds. I have reeds for sale via [www.caylabellamy.com](http://www.caylabellamy.com), or music majors and bassoon performance graduate students enrolled at UNI sell reeds for varying prices, as well.

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Thank you for your support of your bassoonists, and happy bassooning!

# Part Four: The Cheat Sheet

