

Marching battery tuning tips

by Dave England

For all drums:

- Head choice is essential. New heads sound best. Old beat-up heads won't tune well. Two ply or thicker heads have a warmer sound and less attack. Single ply or thinner heads have more sustain and more attack. Harder to control.
- Grease (with white lithium grease or similar) tension rods at least once a season.
- Heads have to be cleared or tuned evenly at each lug or tension point to resonate best and have a true pitch. Do this from the bottom up for every drum.
- Using a tuner to match pitches is a great idea.
- Try to get the head to seat after adding some even tension by pushing down on the head or striking it with your fist. Do this before tightening further.
- It's good idea to NOT go to full tension right away. If possible, let the heads sit for 24 hours or so. This will help the heads adjust and keep them from pulling and prevent uneven tension.
- The battery as a whole should be tuned to sound together. Tune all drums to work with each other. Think like a choir with low, mid, high pitches throughout the battery. Make sure battery unisons sound good or harmonious.

Snares:

- Fewer drums = lower pitch. You want tone and some sustain. A single high-pitched drum will not blend well with the full ensemble.
- Bottom head is tighter than top head. D or C# pitch is a good general tone.
- Bottom heads must resonate.
- Choose a top head tuning that will fit your group's hands. Tighter = more exposure, projection, harder to control. Looser = not as exposed, easier to control, not as defined
- Tuning individual guts on the snare mechanism will help with the drum's response.
- Check to make sure that the snare guts are touching at the snare bed point. Do this by taping on the snares to see if there is a clicking or contact noise. If there is, then adjust the vertical snare mechanism adjustment until the click sound is gone.
- Decide if you want a drier or wetter tuning. Wet is basically more sustain and snare response, dry is the opposite. You can get drier or wetter sounds by adjusting the snare mechanism tension or adding tape across the snares about an inch from the bearing edge and in the center if desired.

Tenors:

-Tune the drums to a mid-range pitch and make sure they resonate (ring). Tuning too results in too much projection and they don't blend with the rest of the battery or winds. Tuning too low gets in the way of the bass drum frequency and sounds very muddy in the ensemble.

-Tenors especially benefit from new heads to get optimal sound and sustain.

-A working tuning scheme is (starting on your desired pitch):

Root, min 3rd , Maj 2nd Perfect 4th , Spock - high pitch with some tone

(Or drum 4 as the "root", drum 3 a minor third above drum 4, drum 2 a major second above drum 3, drum 1 a perfect fourth above drum 2, "spock" or 6" drum should be whatever has a good sound and projects.)

-Root pitch can be whatever you think sounds good. Start fairly low.

Bass Drums:

-Two ply heads sound warm and work best for most groups, single ply heads are more articulate and project more but don't blend as well for most groups.

-Be careful not to tune too low! Bass drums get in the way of the ensemble sound when you do this.

-Muffling is essential in bass drum tuning! The most popular way is foam on the inside, attached to the shell touching the surface of the head near the shell. Some head manufacturers have foam already on the heads. You can use this or supplement your own. If you do this, 2" window air conditioner foam is best. Usually attach this with Velcro strips. You can also use 1" foam on the outside of the heads and muffle that way. This is harder to maintain and also has a harsher sound.

- A working tuning scheme for 5 bass drums is to follow the overtone series (starting on your desired pitch):

5 - Root, 4 - Perfect 5th , 3 - Perfect 4th , 2 - Major 3rd , 1 - Major 3rd (or whatever sounds best between drums 1 and 2)

-If you have fewer drums, try starting from the root and doing the same intervals.

- Bass drums should sound good in unison with no odd overtones and overly ringy or out of balance.

Make sure that the battery blends with the winds. If they are too loud, check tuning overall. Sometimes that can fix a lot of balance issues.

Be creative in solving tuning issues. I've done all sorts of things with tuning and muffling. From using pieces of tape, paper towel patches and even t-shirt material under the heads. Just make it look professional and remember - the sound is the main thing!