

Tuning Tips for Marching Percussion

This article is taken from the Yamaha Educator Series.

Marching percussion is one of the most demanding areas of music in terms of equipment wear and tear. Because marching drums are primarily used outdoors, a well-tuned drum is necessary to allow the maximum projection of sound. Also, a conscientious schedule of regular maintenance and tuning will extend the life of each instrument. The pitches recommended in these tuning tips serve as a reference for achieving superior projection and tone quality from each Yamaha instrument.

Find the right pitch for your drum and keep it there. Don't get into the habit of tightening the drumhead every time you play it. The drumhead needs to be tuned, not necessarily tightened. Even though new heads require a short break-in period, modern materials are extremely resilient and tend to hold pitch longer if they are always returned to the desired pitch at every session. Stay consistent and check the drum pitch often, especially when the head is new. It is better to check the head daily and make small adjustments than it is to wait a week and make a large adjustment in tensioning. Change heads when the tone has

gone "dead," not just when you break a head.

Things to Remember

- Keep tension rods lubricated with lithium grease, petroleum jelly or Yamaha premium valve oil. Carefully remove exposed lubricant, as it can attract dirt and damage threads. Replace worn or lost nylon and metal washers.
- Lubricating wood bearing edges with a thin coat of Yamaha paraffin or cork grease will ease high-tension tuning, and help prevent moisture from seeping into the shell.
- Pre-tighten each tension rod with your fingers only. With a drum key, use a criss-cross tuning sequence for plastic heads and a clockwise procedure for Kevlar® heads to properly seat the head. Tighten each rod, no more than one full turn at a time, until the drum is brought into its proper range. Fine tune the head to the same pitch in front of each tension rod.
- Change heads at the end of practice and let them sit overnight before you play on them again.

- Practice with well-tuned drums. Don't wait until a performance to tune.
- Cover all your drums during rehearsals with Yamaha marching drum covers to prevent scratches that can occur when learning your drill movements.
- Cases must be used when transporting or storing your drums. Don't keep sticks, music folders, carriers, or other objects in the case. They can cause damage to the heads and shell!

Marching Snares

A plastic, dotted batter head is recommended for Field-Corps™ and Power-Lite™ series. Either a plastic or Kevlar® head is recommended for the SFZ™ series. A plastic bottom head is recommended for all series. Make sure to often check for loose tension rods especially on the bottom side, and use Yamaha Gravity Guards™ to prevent neglected tension rods from falling out. Tune each individual FibreTech™ synthetic gut strand to a uniform pitch by using a "plucked string" method. Adjust the individual strands at the butt place with a screwdriver—turn clockwise to tighten and counter clockwise to loosen individual

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strands. Use the vertical control knobs to get the snares flush with the bottom head at the bearing edge. Then, while playing the batter head, use the horizontal control knob to gradually tighten the entire snare unit to a crisp articulation.

SFZ MS-9213 13" x 11" Kevlar Batter Head – E5 Plastic Batter Head – D5 Snare Head – C5	SFZ MS-9214 14" x 12" Kevlar Batter Head – D5 Plastic Batter – C5 Snare Head – B4	FIELD-CORPS MS-8014 14" x 12" Batter Head – C5 Snare Head – B4	POWER-LITE MS-6113 13" x 11" Batter Head – B4 Snare Head – A4
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Marching Toms

Pinstripe heads, without dots, are recommended. Marching toms in a set are usually tuned a minor third apart to give a feeling of melodic movement between drums. Marching toms tend to attract more dirt since they have no bottom heads. Keep a Yamaha Marching Tom Guard™ on the bottom edges of all drums to protect them.

FIELD-CORPS 6" – B5 12" – D5 8" – G#5 13" – B4 10" – F5	POWER-LITE 8" – B4 12" – F4 10" – G#4 13" – D4 14" – G#4
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Marching Bass Drums

Smooth white heads are recommended for bass drums, as they produce the most desirable fundamental tone and are visually effective in drill patterns. Bass drums in a set are usually tuned a minor third to a perfect fifth apart to give a feeling of melodic movement between drums. Apply the recommended length of Yamaha Sound Impact Strips™ around the perimeter of the bass drum head.

FIELD-CORPS 16" – G#3 to B3 18" – F#3 to G#3 20" – E3 to G3 22" – D3 to F3 24" – C3 to D#3	POWER-LITE 26" – A2 to C3 28" – F#2 to A2 30" – D#2 to F#2 32" – C2 to D#2	POWER-LITE 16" – A3 24" – A2 18" – F#3 26" – F#2 20" – D#3 28" – D#2 22" – C3
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There are limitless combinations of pitches and tuning variations—endless ways to muffle and dampen—depending on style and personal preference. These tuning tips serve as a guideline to produce a balanced sound. Carefully planned tuning and dampening are critical to the development of your percussion section and can help increase the musical effectiveness of the entire band, ensemble, or drum corps.