EVERY WEEKEND. FOR MONTHS. ON THE BUS. ON THE LOT. ON THE FIELD. SHOULDER TO SHOULDER, NECK AND NECK. CLOSE QUARTERS. CLOSER BONDS. WINS. LOSSES. SUNBURN, SPRAINS, AND SACRIFICE. COUNTLESS MILES CLOCKED, AND THAT’S JUST ON FOOT. ALL IN THE COMPANY OF DOZENS OF YOUR CLOSEST FRIENDS AND RIVALS. EACH ONE ACHING TO ROLL UP TO THE SHOW AS ONE AND WIN. REST—THAT’S FOR SHEET MUSIC. THE DOGGED PASSION FOR COMPETITION NEVER CEASES, NEVER LETS UP, EVEN WHEN IT’S OVER. BECAUSE IT’S ONLY OVER UNTIL NEXT SEASON.

Thank you for reading the first issue of Built to Compete Magazine. We started this as a way to connect with, inform, and inspire all who inspire us. Everyone in the marching arts—from the fans to the front ensemble, the coaches to the composers—push us to build the highest quality gear out there. With BTC Magazine, we hope to leave you well-equipped, well-versed in gear. And well on your way to winning.
Built to Compete exemplifies the approach we take to our products and the people who use them. We engineer the highest quality tools out there so you can compete at the highest level.

But if you’re reading this, you know that Marching music is so much more than the competition.

For the members, it becomes a culture, securing lifelong friends and memories, and teaching lessons that endure. For the designers and instructors, it becomes their artistic voice. An expression of music, art, and meaning that lasts well beyond the season’s final performance. This beautiful marriage of education, camaraderie, and artistic output is why you pour your heart and soul into this activity season after season, year after year.

This first issue of Built to Compete is dedicated to the passion behind the activity, highlighting the incredible progress and growth of the artform while featuring a few of the performers, instructors, and designers that make it all possible. Throughout, you’ll also find Gear Guides, specifically curated to help you navigate the seemingly endless array of products available for you and your students.

Built to Compete is more than a tagline—it’s a mantra that has inspired all of us at D’Addario. We hope, through this issue, you’ll discover what being Built to Compete means to you.

-Kyle Thomas
# Catalogue

## Expert Advice

- **63**
  - **MIKE MCINTOSH AND KEVIN SHAH ON ELECTRONICS**

- **20**
  - **ANDREW MARKWORTH ON DESIGNING SHOWS**

- **32**
  - **TONY NUÑEZ ON APPLYING NEW IDEAS IN THE BATTERY**

- **40**
  - **MIKE JACKSON ON DIRECTORS AND COMPOSERS**

- **46**
  - **VERONICA WICKS ON TUNING**

## Gear Guides

- **16**
  - **STICKS**

- **30**
  - **SNARES**

- **34**
  - **MALLETS**

- **44**
  - **TENORS**

- **50**
  - **BASS**

- **58**
  - **CONCERT HEADS**

## Team Spotlights

- **6**
  - **BLUE DEVILS**

- **24**
  - **CENTERVILLE**

- **36**
  - **ARCADIA**

- **52**
  - **RCC**

- **10**
  - **SCOTT JOHNSON**

---

**Photography by Emily Quirk**

**Illustrations by Martin Salazar**
WHAT DOES it take to be an 18-time world DCI champion?

“Constant development,” says Scott Chandler, the program coordinator for the Blue Devils. “We go through a rigorous process to really discover our characters.”

It’s a process the team calls ‘Design by Discovery.’ Throughout it, everyone involved—from the composers to performers—enters practice with an open mind and an ambition to experiment. What’s on the page is only the beginning.

“We peel back layer after layer like an onion,” says Chandler, “That’s when you discover so many hidden gems in the story.”

Uncovering these gems pays off big time. The Blue Devils are the most decorated corps in the history of DCI, finishing in the top five for over 40 years. In other words: there’s no one like them.

To Chandler, though, winning isn’t everything. The accolades are nice. The recognition is a good way to set the bar. But he thinks there’s a bigger purpose to this whole activity. To him, there’s something much, much deeper happening every time a team gets out on the field or the floor to finally show everyone what the marching arts are all about.

“A drum corps show is a living, breathing, and very heartfelt lifeforce.”

—STEPHEN STEINHOLT

BLUE Devils
Concord, CA

TEAM SPOTLIGHT

BUILD TO COMPETE
THE DEVILS’ ADVOCATE

SCOTT JOHNSON HAS BEEN WITH THE BLUE DEVILS FOR CLOSE TO 40 YEARS. AND HE WANTS TO STICK AROUND FOR 40 MORE.
HE BLUE DEVILS are known for always pushing the envelope. How do you preserve the team heritage while continually innovating?

We keep trying to define ourselves every year. We don’t want to get stale and do the same cookie cutter show like we’ve done in the past, so every year it’s something different, something new, and I think that’s why we keep doing this thing. I’ve been with the Blue Devils since 1976, I’ve been on staff for 39 years, and I don’t plan on leaving soon, unless they kick me out.

So after 39 years as a Blue Devil, what do you think intrinsically makes someone part of the team?

It’s been the same, I think, the 70s to today, as far as the performers becoming Blue Devils or making the Blue Devil auditions, making the Blue Devil Drumline, the percussion, the entire organization for that matter. Everybody that walks through that door has to have a good sound quality in order to be part of this organization. Definitely talent helps, but sound quality is extremely important.

Do you think the Blue Devils’ creative process is different than other teams in the marching arts?

Definitely. There’s a great term we use that Scott Chandler quoted years ago: we design by discovery. We literally design our show as we get on a field and say, “Okay, what can we do?” We kind of get an idea of what we wanted to do beforehand, but it keeps morphing into something different, depending on what the members can do. “Okay, guys, we want you, the performers, we need you guys to move over here in 12 counts, ready, one, two, ready go.”

That sounds exhilarating, but also like it’s a ton of pressure. It can be. The DCI activity nowadays, you have to be a musical athlete to be successful and perform. The visual responsibilities put on the performers nowadays, it’s off the charts. It’s not like back when I marched, and we basically stood still on the 50-yard line, kind of marked time, moved our feet a little bit just to keep pulse, and stood there and played ten minutes of a show.

Does having Promark or Evans tools help at all?

The tools that Promark and Evans has given us to put in our tool box has definitely paid off in the success of the Blue Devils. It’s been awesome working together to design the sticks and the drumheads, and improving the sound quality year after year after year.

Any signs of slowing down soon?

I’m going to be 60 years old this summer, and people keep asking me when I’m going to retire, and I keep telling them I’m still having too much fun. I’ve told my staff, my younger guys, that if I ever get out of control, and I get too old for this, you let me know. Because I’ll just keep going. So let me know, and what they’ll probably do is bring an orange jump suit and a wheelchair, and say, “Hey Scott, we want you to use this now.” And that’s when I know it’s time. But I’m still having a blast, and as long as it’s fun, I’m going to keep doing what I’m doing. And seeing the look on the members faces and what they accomplish by the end of the season, it’s worth every second. ©
The marching arts are getting more experimental, yet there are still universal truths to designing a great show. The same is true for drum sticks. Despite their ubiquitous design, the engineering behind the material and shape of each stick creates its own feel and sound.

### Material
- Most sticks on the market are made of one of three types of wood (in order from most prevalent to least): Hickory, Maple, Oak.
- Hickory, renowned for its versatility and durability, is the most common wood type, and is virtually the only wood type used in the marching market.
- Maple is the second most common and is mostly used by players who want less weight with a larger diameter stick. It’s the only wood type used in the pipe band market.
- Oak is the least common wood type and is usually preferred by drummers who want their stick to feel heavier and denser.

Other than wood, tips are sometimes made of a synthetic material like nylon.

Because of its durability and resistance to chipping, plus its mid-range voice, nylon is the preferred material for most tenor players.

### Shape
- There are three main parts that can change in the anatomy of a drum stick profile:
  - **Diameter**: The diameter of a drum stick typically refers to the thickness of the stick in the handle (or where a player holds the stick). These can vary greatly, but are usually larger in marching percussion (.630”-.730” in Promark’s offering.)
  - **Taper**: The taper of a stick usually refers to the angle that occurs in its shoulder. The length and amount of taper are the single largest contributors to how a stick feels in your hands. A stick with a short taper adjusts the balance point forward, making it feel more front heavy, and a stick with a longer taper adjusts the balance point rearward, making it feel more back heavy. The intensity of the taper also affects the feel.
  - **Tip Shape**: Tip Shape has most to do with how the drum stick sounds when played on a head or cymbal. (see right)

### WHICH STICKS SHOULD YOU BUY?

<table>
<thead>
<tr>
<th>What is Your Desired Diameter?</th>
<th>What is Your Desired Articulation?</th>
<th>This is Your Stick</th>
</tr>
</thead>
<tbody>
<tr>
<td>MORE REBOUND</td>
<td>MORE FORWARD</td>
<td></td>
</tr>
<tr>
<td>thin</td>
<td>thin</td>
<td>TXDCTJN-FG (700)</td>
</tr>
<tr>
<td>more</td>
<td>more</td>
<td>TXB3 (700) DC1B1i (680)</td>
</tr>
<tr>
<td>thick</td>
<td>less</td>
<td>TS8 (730)-Tenor</td>
</tr>
<tr>
<td>more</td>
<td>less</td>
<td>DC8W (730) Stephen C (765) TXDCMM (710)</td>
</tr>
<tr>
<td>thick</td>
<td>more</td>
<td>DC51 (680) DC11 (650)</td>
</tr>
<tr>
<td>more</td>
<td>less</td>
<td>DC50 (720) Fairbanks (795) DC10 (700) BYOS (700)</td>
</tr>
<tr>
<td>thick</td>
<td>less</td>
<td>TS7 (700) Tenor</td>
</tr>
<tr>
<td>more</td>
<td>less</td>
<td>DC50 (720) Fairbanks (795) DC10 (700) BYOS (700)</td>
</tr>
</tbody>
</table>

### How much rebound do you want?

- For more sticks see the product index, p. 72-76

### Gear Guide

- **Storm**: Bright, clear tone; ideal for jazz and cymbal play.
- **Split**: Bright, clear; Articulate on cymbal bell.
- **Barrel**: Broad, clear tone; ideal for rock and full band play.
- **Butt**: Thick, solid tone; ideal for heavy play.
- **Acorn**: Dark, ringing tone; ideal for acoustic performance.
- **Arrowhead**: Light, sharp tone; angles enable versatility in play.
FireGrain is an innovative heat-tempering process that transforms ordinary hickory drumsticks into tools with unprecedented durability. While keeping their original weight and attack, Promark FireGrain sticks allow you to hit harder and play longer, naturally.

OPEN FLAME
• Some early findings pointed to other industries using flame-tempering techniques to harden their products, such as baseball bats, hammers, axe handles—even arrowheads. In the course of our research, we uncovered a Japanese wood-hardening and preservation method dating back to the 1700s. This method, known as Shou Sugi Ban, is still popular in the construction industry. In addition to creating a unique aesthetic, the open flames crystallize trace amounts of tree sap resin remaining in each stick, which builds an exterior armor. This delays denting, chipping and fraying, ultimately prolonging the life of each drumstick.

ENGINEERING
• Top engineers at D‘Addario worked alongside the product management and production teams to develop a wooden dowel sorting process to select the most premium, durable dowels from each tree at Promark’s state-of-the-art sawmill in Elkton, Tennessee.

FIRST TESTING
• The first testing procedure employs a blunt force striker that simulates rim shots on a triple flange hoop, as well as cymbal bell and hi-hat wear.

SECOND TESTING
• The second testing procedure employs a device designed to break sticks, while measuring the force required to cause a catastrophic failure.

Durability
• FireGrain sticks are more durable than any previous Promark hickory stick, and each pair comes with the playability you expect from hickory and consistent pair-to-pair feel not found anywhere else.
IT’S THE YEAR 2004, and DCI has just created a rule allowing for the live amplification of brass instruments and vocals. While some DCI groups embraced the technology and used it to their advantage (The Cavaliers mixing “finger snaps” for example) most chose not to utilize the rule to their advantage when designing their shows. In 2010, DCI voted in favor of allowing electronics, giving drum corps designers the option of utilizing synthesizers and sampled sounds. This was a game changer and opened up new possibilities in the musical soundscape.

As sound design has progressed over the last eight years, the need for larger, more powerful setups has dictated the use of more speakers and larger mixing boards. Groups are also experimenting with setting speakers all over the field, allowing sound to be “moved” throughout the geographical setting via panning and having certain speakers sounding at any given time. Also, the use of wireless technology has become a large part of the modern drum corps setup.

Another byproduct of modern sound design has been the addition of more staff and in some cases, even an electrics team to handle the transportation, setup and mixing of the shows. This has created opportunities for more students to get involved as sound design/setup/implementation, where mixing is a huge part of pageantry all over the country, and aren’t limited to DCI. Winter Guard International or WGI is also a huge part of this movement.

For some, this explosion of technology has been seen as a negative, as it’s taken the activity away from pure acoustic playing and performance. For others, me included, it has pushed us as designers to create new textures, new blends, and new music effects. The use of electronics in music is truly the language of the young, and it has inspired engagement with electronic music trends.
THE ELECTRIC STRIDE
FROM AMPLIFICATION TO SOUND DESIGN, KEVIN SHAH BREAKS DOWN THE BEST WAYS TO USE ELECTRONICS IN YOUR FRONT ENSEMBLE.

PHILOSOPHY AND APPROACH
The front ensemble is at the forefront of evolution in the percussion voice, and a lot of that growth has come in the form of a higher level of musicianship and artistry for the players and the use of electronics and sound design.

The umbrella of "electronics" in the front ensemble includes several sub-categories that are worth exploring as separate mediums—each with their own purposes and considerations: Sound Reinforcement, Synthesizers, and Sound Design. Each one of these topics is in a universe unto its own in terms of craft, but we can explore some big picture ideas on each.

SOUND REINFORCEMENT
Sound Reinforcement refers to the use of microphones and other systems to amplify any member of your ensemble. Usually this includes most of the acoustic instruments in the front ensemble, as well as any soloists or ensembles for your winds—aired or wireless. The most important question to ask when amplifying any instrument is why? The answer generally should be: to achieve a more favorable blend and balance for the audience/judges.

The reason most front ensembles choose to use microphones is that acoustically they cannot compete with a large wind section or battery. Amplification is the only approach to the instrument that could be damaging or un-musical. Amplification of the front allows players to approach the instrument that is physically being generated in real time on the field.

Another thing to consider is saturation. If one section of your ensemble on a keyboard controller with either onboard sounds or sending MIDI data to another sound source like a laptop. The blend and balance considerations apply as well as some creative considerations. Ideally you have someone on your staff who is well versed in the available sounds and the ability to tweak or modify them so that you can create a distinctive presence for that voice. For example—any sounds that have a release trail that is longer than the sound of a wind cutoff will need attention so that it doesn’t hang over when the winds release. Sending a recording as the winds release will create a synths texture that enhances your ensemble vs. a sound that distracts from the ensemble.

SOUND DESIGN
Sound Design refers to all of the sonic elements created that are beyond the playable pitched-based instruments found on synthesizers. This includes sound effects, ambient sounds, narration or voice-over, pre-recorded singing etc. This is the most subjective and creative facet of the three considerations. This is where you have the greatest power to create a unique identity for your musical score, as well as create powerful storytelling elements.

Since this element has a limitless potential, the greatest skill when programming your sound design is discretion. It’s really easy to litter your soundtrack with the coolest, fanciest ambient sounds or sending MIDI data to another sound source like a laptop. The blend and balance considerations apply as well as any complex topic can be broken down to ever increasingly smaller, less complex concepts. Use some of these big picture considerations to help you navigate that journey.

CONCLUSION
As you continue your journey in orchestrating the electronics for the front ensemble, realize it is just that: a journey. Everyone has to start somewhere and any complex topic can be broken down to ever increasingly smaller, less complex concepts. Use some of these big picture considerations to help you navigate that journey.

EXPERT ADVICE
REINFORCEMENT
FRONT ENSEMBLE LOGISTICS
HOW DIFFERENT IS INDOOR VS. OUTDOOR TUNING? VERONICA WICKS EXPLAINS THE ARTFORM OF TUNING YOUR DRUMS IN DIFFERENT ENVIRONMENTS, AND HOW GETTING TECHNICAL BRINGS OUT THE EMOTIONAL.
CENTERVILLE is a small town in southern Ohio known for being cheerful and welcoming. With its laid-back charm, it’s hard to find an atmosphere with fierce competition. Unless you join the Centerville Jazz Band.

“Honestly, sometimes the best thing you can do is cut people,” says Tim Fairbanks, Centerville’s drill designer. “Every kid still gets to be a part of it, but you can’t join the snare line just because.”

This might sound like he’s running a program that’s a bit too severe. Maybe even a little cold-hearted. But once you’re on the team, the fun begins.

“Drumline has gotten a little too serious, so we try and take a light-hearted approach.”

Last year, for example, Tim’s group dressed like vampires and played a grand finale of “It’s the End of the World as We Know It” by R.E.M.—not exactly a regi-mented, rule-following show.

“We try to nail the intellectual and emotional, but also have fun. That’s as much of a win as anything.”

So what’s in store this year for one of marching’s most fierce yet fun groups?

“We’ve tasked our players with finding a bunch of vintage costumes,” says Tim. We’ll find out what that looks and sounds like in April.

-S.S.
"Every kid gets to be a part of it, but you can't join the snare line just because."

-Tim Fairbanks, Drill Designer
Snares

It was once a communication tool in the military, now a not-so-secret weapon in your whole ensemble. Instead of winning battles and wars, the snare head now wins over audiences and judges.

Almost all drumheads today are versatile and durable thanks to a combination of aramid fiber, often called Kevlar, and a polyester film laminate. Snare side heads are mostly made of the above combination as well.

Construction

• In today’s drumline, the snare is shallower, contributing its soprano voicing to the ensemble. Modern snares require an extremely high tension on each head, which makes it necessary to use durable materials like aramid fiber in the construction. This allows you to tune to a much higher pitch without breaking the drumhead. Almost all drumheads today are versatile and durable thanks to a combination of aramid fiber, often called Kevlar, and a polyester film laminate. Snare side heads are mostly made of the above combination as well.

• Compared to aramid fiber heads, the Hybrid marching snare batter achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability. Compared to aramid fiber heads, the Hybrid marching snare batter achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Features a softer feel yet maintains the tonal clarity and projection necessary for a championship winning drum corps. Snare lines will benefit from reduced fatigue during extended play when using these drumheads.

• Contains an aramid fiber/polyester laminate for maximum snare response. A thin overtone control ring reinforces the edge durability and helps to eliminate unwanted overtones, further enhancing articulation.

• Utilizes two unique high-tensile fibers, one chosen for flexibility and the other for durability. Compared to aramid fiber heads, the Hybrid marching snare batter achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Features a softer feel yet maintains the tonal clarity and projection necessary for a championship winning drum corps. Snare lines will benefit from reduced fatigue during extended play when using these drumheads.

• Contains an aramid fiber/polyester laminate for maximum snare response. A thin overtone control ring reinforces the edge durability and helps to eliminate unwanted overtones, further enhancing articulation.

• Designed with younger players and band programs in mind, the Hybrid-S has “give” while providing a broader response across the frequency spectrum, making small drum lines sound larger.

• Utilizes two unique high-tensile fibers, one chosen for flexibility and the other for durability. Compared to aramid fiber heads, the Hybrid marching snare batter achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Achieves greater sensitivity, and a broader dynamic range while enhancing projection and durability.

• Designed for a broader response across the frequency spectrum, making small drum lines sound larger.

• Designed with younger players and band programs in mind, the Hybrid-S has “give” while providing a broader response across the frequency spectrum, making small drum lines sound larger.

• Designed for a broader response across the frequency spectrum, making small drum lines sound larger.
WHEN SOMEONE is tasked with creating “new sounds” it can be a little overwhelming. You may think “Hasn’t every sound been heard by the human ear?” Sometimes the daunting expectation of creativity can seem impossible, especially if you are trying to make every aspect of your composition completely original and unique. And if you do have some great ideas, how far do you stray from the concepts and techniques that are sure to work and have been a staple of the idiom for years? Do you always need to reinvent the wheel every time you are trying to create? I think the real answer in achieving creativity and excitement for the listener lies in the element of surprise. Achieving that often happens by placing a creative element within a well-known frame.

A lot of creativity can happen through experimentation and discovery, but it always helps to have a guiding thought or principle. For me that principle is usually the emotional character of the music. What are you trying to make the audience feel with the composition? Are you trying to create a serene soundscape that makes someone feel like they are in the clouds? Are you portraying a story that involves a plot that coincides with different events? Are you wanting the listener to feel uneasy? The questions are endless if you don’t have a general direction to guide the process.

There are two major components of creating sounds with acoustic percussion instruments: what you are hitting and what you are hitting it with. Typically, we see people experiment with the latter more than the former. There are traditional groups of instruments that go along with certain genres and people stray away from the norms by trying different implements: brushes, mallets, rubber tipped sticks, etc. The implements certainly add a nice departure from the normal colors and are often well received. Artists are much less likely to use uncommon instruments, which I attribute to the divisions that are often drawn between sub-genres. Even within the percussion community there are different connotations about the legitimacy of different types of ensembles (concert percussion, steel band, marching percussion, African ensembles, Gamelan, etc.). I find that my most successful endeavors involve the removal of those divisions. Accept all the tools at your disposal to create the emotion and effect you desire. I like to focus on the most attractive elements of each genre and see if you can recreate them with different tools. A marching bass drum section, for example, is often known for exciting split parts that challenge the players. Can this same skill be brought to other colors and sounds to create a unique moment? Of course it can.

The world of electronic music offers a world of endless possibilities. Electronic sound can never completely replace the vibrancy of sounds that are created live, but they can open up new worlds of possibilities that can give your music a whole new life. I spend many hours of my life searching for the right electronic sounds to be integrated into my compositions and arrangements. Understanding synthesis and creating your own sounds with digital synthesizers can truly give your music a unique voice. Try not to rely too much on synth presets (although many are adequate and could save you time). One thing I like to do is find a preset that I like and then play around with the parameters within the synthesizer. This will help you understand the different elements that make up the sound you like and will expand your vocabulary and skill set.

You will create new sounds and colors when you have a goal in mind and you remove limitations on how to achieve it. Search for the desirable aspects of music that you enjoy and figure out how to place them into a context that helps to create your vision. Sometimes you discover an even better vision along the way.
Mallets

Core Variables

- Typically, there are four core shapes available:
  - SPHERE
  - OVAL
  - MUSHROOM
  - CYLINDER

Each shape has a wide variety of sizes and types of material that contribute to the overall sound of the mallet. Synthetic rubber is the most common core material for marimba and vibraphone mallets. Hard plastic with a latex covering is also popular.

Construction

- Keyboard mallets are traditionally assembled the same across the industry, beginning with the assembly of a core made from various sizes, shapes and materials, then to a shaft made of rattan or birch. This assembly is either wrapped or unwrapped, depending on the intended instrument.

Promark has a reimagined and redesigned mallet assembly featuring a patented insert that seamlessly bonds the shaft to the core, contributing to the strongest, most versatile mallets we’ve ever produced.

Functionality

- Most mallets today are produced in a line, or series, of different hardness. As expected, soft mallets generally sound best in the lower range of the instrument and do not speak well in the upper register. Naturally, the opposite is true for harder mallets. We always recommend beginners start with a hard mallet, and then move up to a medium-hard, followed by a medium-soft. Try to avoid extremes, like very soft or two-toned, until you’re equipped with a comfortable selection of medium, general-purpose mallets.

Shaft Variables

- There are basically only three different shaft materials within the assembly of keyboard mallets:
  - BIRCH
    > The most rigid natural shaft material
  - RATTAN
    > A natural material with a bit more flexibility than birch
  - FIBERGLASS
    > A synthetic shaft material with the least rigidity

Generally, we separate the wrap options for mallets by yarn, which is often found on marimba and speak best on wood keys, and cord, which are often found on vibraphone mallets and speak best on metal keys. By adjusting the tension, wrap layers, and wrap angles of your mallet, there are infinite opportunities to nuance your sound.

For more mallets, see the product index, p. 77-79

Which Mallets Should You Buy?

<table>
<thead>
<tr>
<th>What Is Your Desired Articulation?</th>
<th>MARIMBA</th>
<th>VIBRAPHONE</th>
<th>XYLOPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOFT</td>
<td>AM1</td>
<td>AMSR</td>
<td>DV1R</td>
</tr>
<tr>
<td></td>
<td>JW1</td>
<td>JW6R</td>
<td>SU1R</td>
</tr>
<tr>
<td>MEDIUM SOFT</td>
<td>AM2</td>
<td>JW7R</td>
<td>DV2R</td>
</tr>
<tr>
<td></td>
<td>DV2</td>
<td>DV6R</td>
<td>SU2R</td>
</tr>
<tr>
<td>MEDIUM</td>
<td>n/a</td>
<td>SV2R</td>
<td>n/a</td>
</tr>
<tr>
<td>MEDIUM HARD</td>
<td>AM3</td>
<td>AM6R</td>
<td>DV3R</td>
</tr>
<tr>
<td></td>
<td>JW3</td>
<td>JW8R</td>
<td>SM5</td>
</tr>
<tr>
<td></td>
<td>SM2</td>
<td>DV7R</td>
<td>SU3R</td>
</tr>
<tr>
<td></td>
<td>SM3</td>
<td>SV1R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>SU2R</td>
<td>SV2R</td>
<td></td>
</tr>
<tr>
<td>HARD</td>
<td>AM4</td>
<td>AM7R</td>
<td>DV4R</td>
</tr>
<tr>
<td></td>
<td>JW4</td>
<td>JW9R</td>
<td>SM6</td>
</tr>
<tr>
<td></td>
<td>DV4</td>
<td>DV8R</td>
<td>SU4R</td>
</tr>
<tr>
<td></td>
<td>AM7R</td>
<td>DV7R</td>
<td>SU5R</td>
</tr>
<tr>
<td></td>
<td>AM8R</td>
<td>DV8R</td>
<td>SU6R</td>
</tr>
<tr>
<td></td>
<td>AM9R</td>
<td>DV9R</td>
<td>SU7R</td>
</tr>
<tr>
<td></td>
<td>AM10R</td>
<td>SV1R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AM11R</td>
<td>SV2R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AM12R</td>
<td>SV3R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AM13R</td>
<td>SV4R</td>
<td></td>
</tr>
<tr>
<td></td>
<td>AM14R</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

What is Your Instrument?

- MARIMBA
- VIBRAPHONE
- XYLOPHONE

<table>
<thead>
<tr>
<th>What Is Your Instrument?</th>
<th>MARIMBA</th>
<th>VIBRAPHONE</th>
<th>XYLOPHONE</th>
</tr>
</thead>
<tbody>
<tr>
<td>AM1</td>
<td>JW1</td>
<td>AMSR</td>
<td>DV1R</td>
</tr>
<tr>
<td>AM2</td>
<td>JW2</td>
<td>JW6R</td>
<td>DV2R</td>
</tr>
<tr>
<td>AM3</td>
<td>JW3</td>
<td>JW7R</td>
<td>DV3R</td>
</tr>
<tr>
<td>AM4</td>
<td>JW4</td>
<td>JW8R</td>
<td>SM5</td>
</tr>
<tr>
<td>AM5</td>
<td>JW5</td>
<td>JW9R</td>
<td>DV4R</td>
</tr>
<tr>
<td>AM6</td>
<td>JW6</td>
<td>AM7R</td>
<td>SM6</td>
</tr>
<tr>
<td>AM7</td>
<td>JW7</td>
<td>AM8R</td>
<td>DV5R</td>
</tr>
<tr>
<td>AM8</td>
<td>JW8</td>
<td>AM9R</td>
<td>DV6R</td>
</tr>
<tr>
<td>AM9</td>
<td>JW9</td>
<td>AM10R</td>
<td>SM7</td>
</tr>
<tr>
<td>AM10</td>
<td>JW10</td>
<td>AM11R</td>
<td>DV7R</td>
</tr>
<tr>
<td>AM11</td>
<td>JW11</td>
<td>AM12R</td>
<td>DV8R</td>
</tr>
<tr>
<td>AM12</td>
<td>JW12</td>
<td>AM13R</td>
<td>DV9R</td>
</tr>
<tr>
<td>AM13</td>
<td>JW13</td>
<td>AM14R</td>
<td>SM8</td>
</tr>
<tr>
<td>AM14</td>
<td>JW14</td>
<td>n/a</td>
<td></td>
</tr>
</tbody>
</table>

They’re colorful, vibrant, and versatile. Keyboard mallets have an unmatched combination of core, wrap and shaft material that can accompany any type of music you compose. They’re used on four main instruments: the marimba, vibraphone, xylophone, and glockenspiel/bells.
THE KIDS STAY IN THE PICTURE AT ARCADIA TEAM SPOTLIGHT
MOST MARCHING performances are written solely by composers, designers, and coordinators. But the creative process behind Arcadia’s powerhouse shows is different than most.

“We want the students’ input all the time,” says Tony Nuñez, a 19-year veteran of Arcadia and its percussion arranger plus visual designer. “We want them to own it.”

And the approach works. Since winning the 2011 WGI World Championship with a groundbreaking and experimental show, they’ve set the standard for what can be explored in the marching arts. What’s more: Tony and his fellow designer Kevin Shah strive to make 100% of their compositions completely original each year—an uncommon feat in a field that often borrows from other artists.

This relentless creativity and unexpected approach has also encouraged more students to pick up an instrument.

“33% of the students at Arcadia High School participate in music programs,” says Nuñez. “It’s honestly sometimes hard to keep up with them. But there’s nothing better than watching these students find their own voice.”

-S.S.
CHOOSING IMPLEMENTS for the battery section is and always has been a very natural and fun process. It usually starts with a simple physical motion in my hands, arms, torso and quickly shifts into feel, sound projection and proportion. In short, how do I feel while I’m making the sound I imagine and how does it translate idiomatically?

I’ve always written music with the sonic identity of the show at the forefront. There’s a lot of time spent upfront experimenting and creating the sonic world of every production. Once the sonic identity is established, I start thinking about all of the instrumental voices in a three-dimensional space. I first ask myself, “Where should the sound come from, where is it located and where is it going next?” These questions need to be answered at the onset of every project. Once I’ve decided how to start the project, the next consideration is the first entrance of the battery, and the projection and density of those voices.

“How forward or present should their sound be relative to the sonic identity of the front ensemble?” Again, I spend a lot of time asking myself questions before committing to a single instrument or note. I never know what instrument in the battery (or front ensemble) will sound first. Every production and ensemble has its own unique parameters, objectives and stories to tell. I take these parameters into consideration at every step of the design process and subsequently create design rules for each show.

Once I’ve answered my own (long) list of questions, it’s time to start implementing the initial physical motion and projection ideas into the big picture by sculpting phrases and musical destinations. This is when a deliberate experimentation phase begins. The sticks start playing their first crucial role in feel, voicing and texture. I honestly pick up whatever sticks are closest in proximity and start playing/writing with more focus and intention. Three to four hours later and out pops a musical idea that fits within the rules of the sonic universe, the maturity of the players (who have to play the music), and a pretty clear idea about how those players will move in space on the floor/field. Insert some positive self-talk and don’t spend too much time with the playback button. Take a break for as long as you need and move on to the next idea.

Honestly, there isn’t too much mystery with the battery instruments and what they might sound like. And, there aren’t too many problems we’re trying to solve these days with the instruments themselves. What I’m focused and excited about is how the sonic universe and visual ideas influence the way I think about the battery voices and their proportion through time musically and physically.

The second and most crucial part of implement selection for the battery is when the music is passed out and it’s time to share with the members why and how the music was crafted for them. I like to spend time sharing with the group what I was thinking while writing each phrase, the goals of the big musical picture and any information that speaks to their visual performance. This has always been a special time to get a pair of fresh (high and heavy) sticks out and demonstrate small phrases in detail with the members and staff. I enjoy sharing my physical, emotional and musical approach to the music which includes touch, technique, manipulation of the stick, color of the sound, projection of the sound, and the shades and arcs of intensity that a dynamic marking don’t always capture. The most beautiful part of the process is witnessing the members and staff bring their unique perspectives and lives to the music over time. What once was a small musical or physical idea has over time transformed into a unique visual and musical experience that now belongs to the performers and audiences alike.

PRO TIP: Get to know your manufacturers products. Spend time playing and experimenting and encourage your team to do the same. It’s a group effort and input from your staff and members on which implements feel best in their hands should always be considered.
The most beautiful part of the process is witnessing the members and staff bring their unique perspectives and lives to the music over time.
Tenors

Tenor drums are an historic instrument that can add a little tenderness or tenacity to any composition. They have the daunting task of filling the sonic void between the snare and the bass drums, all while working both as an individual and complementary voice within your ensemble. Choosing the right tenor head is extremely important.

Thankfully, you can choose from many options to play in various musical styles and applications—from baroque to the blues. Though all heads are made of polyester film, there are other factors that help you find the right one, so it helps to understand how their construction and composition affect their sound.

**Material**

- As expected, the composition of the film dramatically affects the overall sound and performance of the head. While the film type isn't visible, it's important to understand that two heads appearing similar could be extremely different in performance and properties. Simply put: when it comes to drumheads, let your ears make the decisions.

**Thickness**

- Though you might see slightly thinner or thicker heads, most tenor heads average 14 mi (14–1 thousandths of an inch). To find a head that's right for you, consider:
  - THINNER HEADS: These are going to be more resonant, with a longer sustain and being less pitch-stable. Thinner heads also tend to be tonally brighter.
  - THICKER HEADS: These are going to be less resonant, with a shorter sustain while also highlighting the articulation. They'll also be more pitch-stable while providing a darker tonal color.

**Tubes**

- A majority of tenor heads are two ply, which means each head is made of two individual layers of combined polyester film. This creates several performance attributes such as increased durability, pitch stability, projection, articulation, and a significantly larger tuning range.

**Plies**

- Knowing the intimate details of your tenor head makes a big difference in finding the sound you're looking for.

**TENOR OPTIONS**

**DARK**

- **MX WHITE**: Designed with an advanced hoop concept that prevents pull-out and made using two plies of 7.5mil white film that yield an exceptionally warm and focused tone.

- **MX BLACK**: Designed with an advanced hoop concept that prevents pull-out. Made using two plies of 7.5mil black film that yield a very warm and focused tone.

- **MX FROST**: Utilizes a 2-ply film combination with a unique translucent frost coating that provides a contemporary look and warm resonance that projects extremely well.

- **SYSTEM BLUE**: A unique film combination and sound control technology, the System Blue™ series offers enhanced attack, tonal clarity and projection with increased durability and tuning stability.

**BRIGHT**

- **MARCHING EC2**: Features two matching plies of 7mil film for greater strength and durability. Sound Shaping Technology (SST™) controls overtones for focused sound. The hoop profile is specially designed to withstand higher tensions and offer durability.

- **CORPS CLEAR**: CORPS CLEAR features a top ply of 6.5mil and a bottom ply of 10 mil that make it more durable than thinner heads. This added durability both prolongs the life of the head and keeps it in tune longer.

- **CORPS CLEAR**: CORPS CLEAR features a top ply of 6.5mil and a bottom ply of 10 mil that make it more durable than thinner heads. This added durability both prolongs the life of the head and keeps it in tune longer.

- **TCX**: With the combination of two identical plies of 7mil clear film, TCX tenor heads offer a full, rich tonal spectrum at any tuning range with increased projection and clear articulation. The TCX series delivers maximum resonance and sustain at any tension.
This should be something we do at every level: Director to Design Team to Caption Heads to Techs, etc. But starting at the top is the best way to ensure unity, and more importantly, understanding. If the team is truly pushing the envelope of what’s possible, there will be times where the unity breaks down. How we handle that conflict is pivotal to the future of the relationship. We should fall back to that philosophical conversation and remember what drives each individual on the team may differ from our own motivations.

So what does all this look like in context? Perhaps we should do frequent reviews of ourselves in the figurative mirror: is our interaction with team members isolated to schedules, due dates, and the urgency of the day? How often are we talking big, life concepts? How often are we asking “why”? If your director is engaging in these macro and holistic discussions, you’ll start to feel a connection that transcends the triplet on beat two of bar twenty-seven in movement II that is always slow from the woodwinds. If you are the director reading this, imagine your drill writer, percussion composer, and wind arranger being omni-aware of your purpose. Everyone involved will have a much more enriching and fulfilling experience.

There is an unattractive reality to this. By sharing our philosophies, we may realize that this is not the place for us. And that is okay. This discovery needs to happen as soon as possible so everyone involved can move on. No one can afford to lose time. Separating under these circumstances can actually create strong bonds. We can view each other, and our opposing viewpoints, from afar, from unique paths, and celebrate this incredible art form. That is, after all, what we all have in common.

BAND DIRECTORS, tech staff, caption heads, arrangers, composers, drill writers, choreographers... We’re all part of the same ecosystem. However, we couldn’t be more different. For the purposes of this bite-sized article, let us look at just two of these unique species: Directors and Composers.

I have often wondered what makes the directors I have worked for tick. How did they choose their profession? When did they make this decision? And what is it that fulfills them? The answers to these surely vary from human to human, but there must also be similarities, given the specific nature of the tasks involved in maintaining a music program. I am also certain that plenty of directors have wondered what I’m doing with my life and why disconnection seems to be the default relationship between most independent contractors and directors. If we can all understand each other (our histories, motivations, and passions), we can reduce resistance, increase efficiency, and most importantly, have a good time doing it! The older I get, the more I’m motivated by daily fulfillment. That is, I am not willing to be miserable for months just to create a successful end result. I don’t think happiness and success are mutually exclusive. The question is, how can we achieve both?

Share who you are, and why you do what you do. If your director has not initiated this discussion, reach out. Make the time to sit and just talk. I highly recommend doing this away from the office/workplace. Going to coffee or lunch will increase the likelihood that you both will see the other as a human being with complex goals and motivations. This one conversation can change the relationship and make for a highly fulfilling season creating something together for the benefit of your students and each other.

This article is not about a professional relationship. This article is about building a meaningful performance. It is about understanding and connecting with the people around us. It is about recognizing that we are all part of the same ecosystem, and that we can and should work together to create something special.
PITCH-PERFECT PERCUSSION

HOW DIFFERENT IS INDOOR VS. OUTDOOR TUNING? VERONICA WICKS EXPLAINS THE ARTFORM OF TUNING YOUR DRUMS IN DIFFERENT ENVIRONMENTS, AND HOW GETTING TECHNICAL BRINGS OUT THE EMOTIONAL.

TUNING AND instrument preparation for battery percussion is a delicate and time-consuming process. It can take hours to implement properly and days to dial in the sound preferable to the individual and environment. As daunting as this sounds, I actually find the art of tuning to be gratifying and about as personal to the artist as the music and performance elements are. It’s one of the most important components to a distinguishable battery percussion sound.

A variety of general factors contribute to the presentation of battery percussion sounds in a performance setting. Acoustic, outdoor acoustics, outdoor environment, stick implement, age of drum heads, weather, and the player. Given all these factors, I choose a few different methods depending on the environmental scenarios between outdoor vs. indoor.

One of the things I like to consider when tuning in both indoor and outdoor settings is the nature of the make-up of the instrument. I find the sounds I like the most to be congruent with the drum’s built-in functionality. Personally, it feels as if the natural state of the drum is an integral part of creating authentic sounds. Given that I usually don’t alter or add too much layering to what the drum and head already bring. In many of the groups I work with, we’ve experimented with different approaches to tuning depending on the environment. Beginning with snare drum in an outdoor setting, we tune the bottom head to a C# and usually the top head is tuned to “feel” but slightly lower than the bottom head so it can flex and push air down the column of the shell. If you’re an instructor, I find this part of tuning a snare to be educational for the student. It helps to give them a pitch for the bottom head so they have something to shoot for. Additionally, I would also teach them not only to listen for pitch while tuning but also balance each lug to its opposite. Tuning lugs to their “opposite” helps create even stretching and tension across the whole drum in opposition. I usually share with students that the gut insert lugs on a snare drum will typically be lower than the other lugs so it’s ok to give them a little extra tension. From there, it’s all just a slow process of bringing the head up to pitch after you’ve balanced and matched all of the lugs. I would also suggest taking your time to get the bottom head all the way up to pitch. Given it a few days to stretch and maybe start at a lower pitch, then as the days progress and the head begins to stretch - reach the final pitch of C#. Sometimes, we’ve found that we want the snare to be a little higher and often take them up to a C. This is especially relevant in indoor settings, sometimes the crisp, higher C# pitched sound is more desired as we usually stay within the range of C-E-G# for both outdoor and indoor. Sometimes we also do in a more detailed fashion and wouldn’t typically have a student do in listening and tuning the guts because that is an integral part of the snare voice. I would go into lengthy detail about that process but to sum it up: we don’t remove any of the guts and tune each strand to match.

Tenor tuning is definitely one of the areas I find the opinions fluctuate on whether tuning to notes or tuning to general pitch reference is more common. For outdoor I think one of the most difficult things about tenors is that typically they are one of the smallest sections on the field, so projection is typically an issue. Trying to get anywhere from 2.5 to 10 lug to tenor players to cut through on a field can be difficult. I’ve experimented with using pitch references but have found the most consistency by tuning to the same notes for each drum. This helps me have a reference and then I can adjust that note higher or lower depending on how they are projecting. For outdoor I usually start with these notes as a foundation: A#:4’, C#:3’, D-3’, and F#:10’. Often times in the summer it’s easier to go into this lower range because we aren’t worried about acoustics and you can get away with a little extra resonance. Sometimes I find this range a little low and find taking your time to get the bottom head all the way up to pitch. I even experimented this year with going up a full step: B-3’, D-E-G’, with space and spread usually more “feel” based for textures. I think what I found to cut the most is in areas within the range of A–C♯-F♯ to B-3’, D-E-G’. It takes some massaging around with, especially in drum corps or outdoor setting, to get the projection right, but that’s the range I usually stick to. For indoor, we always go with B-3’, D-E-G’ because I have found that too much overtone and resonance don’t work well in that type of acoustic environment.

I think the higher pitches help cut a bit more and dry up some of the twang that tenors can sometimes have. In teaching students to tune, notes give them a clear reference point and consistent sound to aim for. Additionally, I would stress the importance of balancing the lugs in opposition on tenors, just like we do for snares. Sometimes just re-balancing and clearing out all of the lugs can make an old head sound better again.

Bass drum tuning fits into many of the same regards as tenor and snare. As mentioned earlier, we like to keep some of the natural resonance but do opt for some muffling on bass drums. All credits for bass knowledge and sound go to Matt Gonzalez and Steven Herman for the muffling and note pitches we select to use at nearly all of our groups. We don’t use any pre-manufactured bass muffing, but rather use a foam core stop where we customize the sizes ourselves and use adhesive spray to attach the foam to the shell closest to the outer edges of the drum. We muffl to remove some of the overtones that bass drum can have and help get more tone out of the drum. The same muffing methods are used for both indoor and outdoor.

Some of the differences though for outdoor vs. indoor with bass drum are the pitches and sticks. For outdoor, the sizing is 18”, 22”, 24”, 26” and 30” tuned a half step: B-D-E-G#. It takes some massaging around with, especially in drum corps or outdoor setting, to get the projection right, but that’s the range I usually stick to. For indoor, we always go with B-D-E-G# because I believe each individual customizes the notes and sizing to their liking. This is what we have found to work well within our tonal sounds between tenors and bass drums; but many times I find myself with tenors, and Matt with bass drums, altering and experimenting with pitches each year to get it completely dialed in.

All in all, there are so many variables when it comes to tuning. Most of my preferences on tuning have come from experimentation and trying to find that distinguishable sound that matches my identity and character of how I play as an individual and how I would like my lines to play. When it’s in that perfect sweet spot, I like to back up about 20 to 30 feet and listen to the full battery ensemble. When all battery percussion elements are working together tuning and pitch-wise, combined with the composition and up players—then we can make drums sound like something emotional—something beautiful that resonates not only with us as a staff, but also with the listener as well.
Bass

It’s big. It’s bold. And it’s beautiful. The bass drum is one of the most crucial instruments in your ensemble, giving it tonal, rhythmic, and melodic support. Adequately tuning it and choosing the right head is key so that you don’t detract from your overall sound. What’s more: the individual drums in the bass section should have an intervallic relationship, so that each drum resonates within the characteristics of its shell. Understanding all this and more will elevate your ensemble’s sound.

Types of Bass Drum Heads

SINGLE PLY HEADS
- Single Ply Heads provide the most natural balance between tonal resonance and articulation. Because its film can resonate freely, the single ply heads offer you the most natural sound available.

WITH INTERNAL DAMPING SYSTEMS
- With Internal Damping systems (Evans MX Series) includes an easy, intuitive tone damping system that allows you to apply individual felt arcs so you can fine-tune and customize your articulation and focus on lower frequencies.

TWO PLY HEADS
- Two Ply Heads provide a focused sound with more controlled resonance and increased articulation. They also offer more pitch stability and durability—essential attributes for any modern ensemble.

WITHOUT INTERNAL DAMPING SYSTEMS
- Without Internal damping systems, Evans MX Series employs damping techniques that allow you to customize your sound, even if you’re looking for a more natural sound.

The MX Series TONE DAMPING SYSTEM

DARK
- MX1 WHITE (1-PLY)
  - Projects warm, musical tones both indoors and outdoors and are durable, yet priced for the budget conscious.

BRIGHT
- MX1 BLACK (1-PLY)
- MX2 WHITE (2-PLY)
- MX2 BLACK (2-PLY)

All of the MX series feature a unique tone damping system that can be manipulated with individual felt arcs to enhance articulation and focus low-end for both indoor and outdoor marching.

Consider Your Venue

- Venues have a major impact on how a bass drum section sounds and functions within an ensemble. Resonant spaces like gymnasiums, auditoriums and other indoor spaces give the bass drum a “boomy,” sound, while less resonant venues like outdoor stadiums give it more articulation. Consider these factors when tuning or selecting a head.

The Evans MX1 and MX2 series of heads have a system of adjustable damping. Using a series of damping arcs, you can better control the balance between tone and articulation. For more information and recommendations on configurations, visit www.evansdrumheads.com.

TIPS FOR INDOOR VENUES
- Product Suggestions
  - MX1 WHITE (White or Black), MS1. Single ply heads will achieve a more open sound.

  - Pitch
  - Pitch drums mid to high in range tuned melodically to achieve a warm, resonant sound.

  - Damping
  - Open to moderate damping to achieve a balance between attack and resonance.

  - Tip
  - Consider your venue! ‘Boomy’ venues like large stadiums may require additional damping.

TIPS FOR OUTDOOR VENUES
- Product Suggestions
  - MX1 WHITE (White or Black), MX1 BLACK (1-PLY), MX2 WHITE (2-PLY), MX2 BLACK (2-PLY)

  - Pitch
  - Pitch drums mid to high in range tuned to maximize projection and articulation.

  - Damping
  - Moderate to heavy damping to emphasize attack and decrease excess resonance.

  - Tip
  - Consider your venue! Smallers is better! When available, use smaller drums indoors to avoid overbalancing.

GEAR GUIDE

50
THE 2018 WGI CHAMPS WANT TO INSPIRE PROGRESS THROUGH PERCUSSION

→ System Blue Tenor Head, p.68
→ RAV White Bass Drum Head, p.69
→ System Blue Jim Wunderlich Series Mallet, p.77

TEAM SPOTLIGHT

Built To Compete
“Silence can be a good reaction. It means people are wrapped up in the suspense and affected emotionally. It’s different than just getting people to clap in appreciation.”

- Sean Vega, program coordinator and battery composer
“I DON’T WANT to do what I know works,” says Sean Vega, program coordi-
nator and battery composer for RCC Indoor. “I want RCC to be on the forefront of
trying new things.”

Since the mid-1980s, the Riverside City College group
has been pushing the enve-
lope in all things marching,
tackling subjects like race
and addiction. And it looks
like they won’t be playing
it safe anytime soon—no
matter what the audience
or judges think.

“Silence can be a good
reaction,” says Vega, “It
means people are wrapped up
in the suspense and affected
emotionally. It’s different than
just getting people to clap in
appreciation.”

Taking risks like this in
marching sounds exhilarat-
ing yet daunting. How does
everyone involved stay lev-
el-headed and motivated?

“The tenure and talent of
our staff is amazing. Plus,
we have the most talented
performers every year putting
it all out on the floor.”

Vega wants the students
to become more than just
players, but performers,
so that they can continue
launching the activity to more
unexpected and, at times,
uncomfortable territories.

“We want to push this
activity forward. We’re going
to make progress with or
without you.”

—S.S.
The drums in the front ensemble, or the pit, are some of the most eclectic and essential units in the group. Each one has the power to add more style and substance to your show. After all, if you’re front and center, you better look and sound the part.

The most common drums (or membranophones) in the front ensemble are the Concert Bass Drum, Concert Toms, Timpani, and the drum set.

**Concert Bass Drum**
- This is often the largest drum in the ensemble, ranging in size from 32" to 40" in diameter. It’s also the lowest acoustic pitch available in the front ensemble, and is often used for large impact moments in the composition. Because of its size, these drums often require thick, 14mil heads. Sometimes, there’s an additional patch in the player area near the center, adding extra thickness and durability to the head.

  **CONSIDER:**
  - **STRATA 1000**
    - Features a single ply of 10mil film with the unique Strata™ coating. Available in sizes 28"-40".
  - **STRATA 1400**
    - Features a single ply of 14mil film with the unique Strata coating. Available in sizes 36" & 40".
  - **STRATA 1400 POWER CENTER**
    - Features a single ply of 14mil film with the unique Strata™ coating and a reverse dot for increased attack and low-end. Available in sizes 36" & 40".

**Concert Toms**
- Concert toms typically come in various sizes (usually ranging from 6" to 18" in diameter). While they don’t have a discernible pitch, they do allow you to have playing range—from low pitch to high pitch. These heads vary greatly—construction can be in a single or double ply, and coated or non-coated. The variety of head types give you flexibility, allowing you to achieve your perfect sound.

  **CONSIDER:**
  - **STRATA 1000**
    - Utilizes a unique coating that simulates the feel and warmth of sound found with calf skin heads.
  - **STRATA 1400**
    - Features a single ply of 14mil film with the unique Strata™ coating and a reverse dot for increased attack and low-end. Available in sizes 36" & 40".
  - **STRATA 1400 POWER CENTER**
    - Features a single ply of 14mil film with the unique Strata™ coating and a reverse dot for increased attack and low-end. Available in sizes 36" & 40".

**Timpani**
- Timpani are the only instrument in the membranophone family designed to have a discernible pitch that matches others in the ensemble. This is achieved by a head that’s able to stretch across the bowl of the drum, altering it by adding and releasing tension via a pedal. There are two types of synthetic heads used on these drums: a non-coated variety (which sounds sonically brighter) and a coated variety (which adds mass to the head, creating a darker sound).

  **CONSIDER:**
  - **TIMPANI ORCHESTRAL SERIES**
    - Pre-tensioned for tuning consistency and with a black, powder-coated steel insert ring that delivers the desired effect when pedaled and affords additional support once the head is under tension. Available in incremental sizes 20”-36”.
  - **TIMPANI STRATA SERIES**
    - Strata’s warm tone, clarity of pitch and articulation blend naturally with any ensemble. All Strata timpani heads are pre-tensioned with a black powder-coated insert ring for tuning consistency and additional hoop support. Available in incremental sizes 20”-36”.

**GEAR GUIDE**

For more concert heads, see the product tables, p. 69-71.
2018 Closing Ceremony, WGI, Dayton, OH
PRODUCT INDEX
**TOM HEADS**

**UVI**
The UVI series is designed for the widest range of sonic possibilities while remaining the most durable single-ply drumhead available. The patented UV-cured coating provides unmatched durability and consistency of texture, while the unique 10mil film delivers exceptional strength and versatility for a full range of musical applications. These drumheads are the number one solution for drummers who are tired of flaked, chipped, and worn out coatings. They also feature increased surface texture, making them extremely responsive for brush playing. Combined with Level 360 Technology™, the UVI series is the most versatile and durable 10mil drumhead drummers have ever laid their hands on.


**G1™**
The single-ply industry standard G1s blend warmth, sustain, and articulation. The high-performance 10mil film ensures that the G1s are both durable and expressive. Excellent option for tom resonant heads and is available in clear and coated.


**Calftone**
Calftone drumheads are a synthetic alternative to traditional calfskin. These heads embody the calfskin look and sound but with the consistency, fit, and tuning range made standard with Level 360 Technology™. Made with a 7mil film base and blended with unique materials, these heads are thinner than our bass heads to help optimize the sound for smaller drums, higher tunings, and greater tonal response. They bring out the best of a vintage kit and evoke a classic appearance and sound from modern drums.


**Strata™ 1000 Concert Tom**
As the mid-range voice within the Strata family, a calfskin-colored coating provides the 10mil Strata 1000 Concert Tom heads with a warm, round tone and a darker fundamental. Diameters Available: 6", 8", 10", 12", 13", 14", 15", 16", 18".

**G2™**
A two-ply head featuring consistency and durability, the G2 offers the perfect blend of depth, sustain, and attack. It makes small toms sing and floor toms growl and is available in clear and coated.


**Black Chrome™**
Black Chrome batter heads feature a two-ply construction with a top ply of 7mil optical-ly clear film over a 7.5mil black film to create a black mirror-like aesthetic. The oppos-ing film combination provides a robust tone with accentuated mid-to-low frequency response. Black Chromes are ideal for progressive rock and metal drummers looking for a deep sound with an articulate attack and reliable durability.


**INKED BY EVANS**

**Custom Bass Heads & Custom Marching Bass Heads**
Inked by Evans Custom Bass Drumheads are made using a high-resolution printing system, resulting in photo-quality images. Instead of printing and applying a laminate like many other custom bass heads, the image is printed directly onto the drumhead, resulting in an uncompromised sound.

- Easy-to-use online interface
- Customizable printing technology
- Multi-graphic options
- 2-week turnaround time
- Available worldwide

Visit inkedbyevans.com to view:
- Licensed designs by well-known music artists and graphic designers
- Interesting textures, nature scenes, abstract photography, and clever graphics
- Or upload your own art!

Custom Bass Heads Available in sizes 18-26”

Custom Marching Bass Heads Available MX or MS in sizes 14-32”
**Pipe Band Heads**

**Pipe Band Snare Batter**
Designed in collaboration with Stephen Creighton, the Evans Pipe Band Snare Head was designed to meet the rigorous demands of the modern snare drummer while also catering to the traditionalists. Previously, pipe band drummers had to choose between a head that offered a bright and articulate sound for solo performances and a heavier head for more projection in outdoor settings. The Evans Pipe Band Snare batter offers the best of both worlds which drummers can appreciate on and off the green. **Diameters Available:** 13", 14" (Standard and Oversize Collar Available)

**Snare Side 300**
3mil snare side head for a bright and articulate tone. The snare side head of choice for Stephen Creighton and the St. Laurence O’Toole Pipe Band. **Diameters Available:** 12", 13", 14"  

**Marching Snare Batter**

**System Blue Marching Snare**
The Evans System Blue snare head was designed in collaboration with Scott Johnson of the world-renowned Blue Devils Drum and Bugle Corps. It features a softer feel yet maintains the tonal clarity and projection necessary for a championship-winning drum corps. **Diameters Available:** 13", 14"  

**Hybrid Series Snare Batter**
By utilizing two unique high-tensile fibers for flexibility and durability, the Hybrid marching snare batter achieves a much softer feel, greater sensitivity, and a broader dynamic range while enhancing projection and durability. Comes in gray and white batter options. **Diameters Available:** 13", 14"  

**Hybrid-S Soft Series Snare Batter**
Inspired by the design of the award-winning Hybrid batter series, the Hybrid-S batter features two unique fibers that, when blended together, deliver a soft and sensitive feel with a warm, full, and tonally rich sound with superior snare response desired by the world’s top marching ensembles. Without sacrificing durability, the Hybrid-S achieves a softer feel perfect for younger hands, and wider response that makes smaller lines sound big. **Diameters Available:** 13", 14"  

**Marching Snare Sides**

**Hybrid Series Snare Side**
By embedding high-tensile fibers in an open weave pattern between two ultra-thin layers of clear film, the Hybrid marching snare side head produces the sound and sensitivity of a polyester bottom with a resistance to stretch that is closer to Kevlar™. **Diameters Available:** 13", 14"  

**MX5™ Snare Side**
The 5mil, thin aramid fiber/polyester laminate gives the MX5 maximum snare response, while a thin polyester overtone control ring reinforces the edge durability and eliminates unwanted overtones, further enhancing articulation. **Diameters Available:** 13", 14"  

**MS3™ Polyester Snare Side**
Clear MS3 Polyester snare side heads deliver a dark, rich sound. A 2mil flap helps suppress unwanted overtones while providing reinforcement at the collar to increase longevity. **Diameters Available:** 13", 14"  

**Pipe Band Snare Batter**

**Tri-Center™ Bongo**
The Tri-Center Bongo heads deliver a bright, penetrating slap with a full, round bottom end, and feature a natural-feeling coating which simulates the touch and response of a natural head. A new tooth-grip extruded hoop, combined with laser cuts around the collar, ensures a clean look, precision tuning, and flawless performances at high tension, while the Tri-Center dot removes unwanted overtones and enhances the fundamental. **Diameters Available:** 7-1/4", 8-5/8"  

**Tri-Center™ Conga**
Evans conga heads provide superior tone, reliable durability, and unsurpassed resistance to climatic and temperature changes. A tapered hoop provides better fit on out-of-spec drums, and “+” shaped laser cut radial slits help seat the head. The Tri-Center dot removes unwanted overtones and adds weight to the center, thus dropping the fundamental frequency and producing more low-end. **Diameters Available:** 9-3/4", 11", 11-3/4", 12-1/2"  

**Pipe Band Heads**

**Tri-Center® Bongo**
The Tri-Center Bongo heads deliver a bright, penetrating slap with a full, round bottom end, and feature a natural-feeling coating which simulates the touch and response of a natural head. A new tooth-grip extruded hoop, combined with laser cuts around the collar, ensures a clean look, precision tuning, and flawless performances at high tension, while the Tri-Center dot removes unwanted overtones and enhances the fundamental. **Diameters Available:** 7-1/4", 8-5/8"  

**Tri-Center™ Conga**
Evans conga heads provide superior tone, reliable durability, and unsurpassed resistance to climatic and temperature changes. A tapered hoop provides better fit on out-of-spec drums, and “+” shaped laser cut radial slits help seat the head. The Tri-Center dot removes unwanted overtones and adds weight to the center, thus dropping the fundamental frequency and producing more low-end. **Diameters Available:** 9-3/4", 11", 11-3/4", 12-1/2"
**MARCHING TENOR HEADS**

*System Blue™*

Designed in cooperation with the Blue Devils percussion staff, the System Blue tenor head is a two-ply design with 7mil top ply and 7.5mil bottom. This combination delivers tonal clarity and projection while also increasing durability and pitch stability, reducing the need for frequent tuning. The series also utilizes Evans’ unique Sound Shaping Technology™, a damping technique that targets unwanted overtones and provides the control needed to enhance attack, projection, and note definition. The damping pattern on each head also provides a visual reference for the optimal “playing zone” for each drum, offering a target for less experienced lines. Diameters Available: 6”, 8”, 10”, 12”, 13”, 14”

*MEC2S™ Tenor*

The Marching EC2S features two matching plies of 7mil film for greater strength and durability. Sound Shaping Technology™ controls overtones for focused sound. The hoop profile is specially designed to withstand higher tensions and offer greater durability. Diameters Available: 6”, 8”, 10”, 12”, 13”, 14”

*MX™ Tenor*

MX Tenor Heads are designed with an advanced hoop concept that prevents pull-out. The MX Frost are made using two 7mil plies of tonal richness and durable film with a unique frosted coating that produces a warm but resonant tone. It’s available in frosted, black, and white. Diameters Available: 6”, 8”, 10”, 12”, 13”, 14”

**PRACTICE PADS**

*RealFeel™ Practice Pads*

RealFeel Practice Pads are the most popular practice option available. Featuring a natural gum rubber playing surface with a dark gray fabric finish which resists wear and tear, RealFeel practice pads provide the best practice substitute to an acoustic drum. A variety of models are available to suit individual practice requirements. Available in: 6”, 7”, 12”

*Apprentice Pad Stand*

The Apprentice Pad Stand is a compact, lightweight, and single-braced stand with an 8mm threaded post and pivoting platform for attaching the 7” Apprentice Pad and the 6” RealFeel Mountable Speed Pad. The height is adjustable, and the post can be tilted to any angle to suit the player’s preference.

**MARCHING BASS HEADS**

*MX™ White Bass*

The 10mil single-ply MX1 Marching Bass head is equipped with a unique tone-damping system that enhances articulation and focuses low-end. A series of felt damping arcs can be manipulated for indoor or outdoor marching. The MX2 utilizes the same tone-damping system as the MX1, but features two plies of 7.5mil white film for enhanced durability, attack, focus, and projection, ideal for indoor use. Diameters Available: 14”, 16”, 18”, 20”, 22”, 24”, 26”, 28” 30”, 32” 14” Available for MX1 Only.

*MX™ Black Bass*

The MX Black Bass Heads produce a bright tone and are equipped with the same tone-damping system as the MX White, which enhances articulation and focuses low-end. A series of felt damping arcs can be manipulated for indoor or outdoor marching. Diameters available: 14”, 16”, 18”, 20”, 22”, 24”, 26”, 28” 30”, 32” 14” Available for MX1 Only.

*MSI™ White Bass (10mil)*

This traditional-sounding, smooth white, 10mil single-ply head gives discerning drummers the option to customize their sound with the damping system of their choice. With durability equal to the MX bass head series, these heads will project warm, musical tones indoors and outdoors. No muffling included. Diameters Available: 14”, 16”, 18”, 20”, 24”, 26”, 28” 30”, 32”

**CONCERT SNARE HEADS**

*Strata™ Concert Snare*

The Strata Concert Snare Heads have a natural sustain with midrange overtones that yield a darker timbre with a warm, calf-skin-like response. The 700 series is designed for sensitivity and expression, whereas the 1000 series is designed for more robust playing. Strata Staccato comes with a 2mil overtone control ring for increased articulation in either thickness. Available in 7.5mil, 7.5mil with ring, 10mil, and 10mil with ring. Diameters Available: 14”

*Orchestral Snare*

The Orchestral Snare is a thin, 7.5mil head designed for symphonic playing with a warm, open and sensitive snare response. The Orchestral Staccato comes with an internal overtone control ring to increase articulation for delicate passages. Available in 2mil, 3mil, 7.5mil, and 7.5mil with ring. Diameters Available: 13”, 14”
**Concert Bass Heads**

The Strata Concert Bass Head is a synthetic head with the appearance, warmth, and full-bodied tone of calfskin. It features mid-range attack with rich depth of sustain and projection. Available with or without a Power Center Dot, which deepens the fundamental. Diameters Available: 28*, 30*, 32*, 36*, 40**. 4mm Heads Available in 36* Only.

**Orchestral Timpani Heads**

Our Orchestral Timpani heads are pre-tensioned for tuning consistency and have a black, powder-coated steel insert ring that delivers desired effect when pedaled, and affords additional support once the head is under tension. It will perform magnificently at ppp with soft mallets, yet will not break up or sound harsh at fff. Through all this, it retains definite pitch. Diameters Available: 20"–35".

**Strata**

**Timpani Heads**

Strata Timpani heads feature a lightly-textured, calfskin-colored coating to provide warm tone, clarity of pitch, and articulation that blends naturally with the ensemble. Strata Timpani heads are pre-tensioned with a black, powder-coated insert ring for tuning consistency and additional hoop support. Diameters Available: 20"–35".

*When choosing Evans Timpani Heads, substitute a prefix within the blank space to denote the model:

- ET - Evans Orchestral Timpani Head (opaque)
- EST - Evans Strata™ Timpani Head (calfskin-colored)

---

**Timpani Head Reference Chart**

When choosing Evans Timpani Heads, substitute a prefix within the blank space to denote the model:

- ET - Evans Orchestral Timpani Head (opaque)
- EST - Evans Strata™ Timpani Head (calfskin-colored)
PIPE BAND DRUMSTICKS

Stephen Creighton Signature Pipe Band Sticks
Designed with Stephen Creighton, world-renowned drum sergeant of the St. Laurence O’Toole Pipe Band, these drumsticks are made of high quality maple and feature a gradual taper to create the rebound, feel and consistency demanded when performing on a high-tension pipe snare. The series is available in three finish options – standard lacquer for a classic feel, ActiveGrip for unprecedented control, and painted white for high visibility on the playing field. Large Oval Tip, 15-15/16" Length, .755" Diameter

MARCHING DRUMSTICKS

American Hickory Mike McIntosh Signature MMH
17" Length, .710" Diameter

BYOS Harvey Thompson and Ralph Nader Marching Hybrid Signature 17" Length, .700" Diameter

System Blue Scott Johnson Signature DC17 Light Indoor 16-5/8" Length, .650" Diameter

American Hickory Jeff Ausdemore Signature DC18i 16-13/16" Length, .680" Diameter

American Hickory System Blue DC51 16-5/4" Length, .680" Diameter

System Blue Scott Johnson Signature DC27 “Scooter” 16-3/4" Length, .665" Diameter

Scott Johnson Signature Rubber-Tipped Stick XB3 17" Length, .700" Diameter

American Hickory Scott Johnson Signature DC17 17" Length, .700" Diameter

American Hickory System Blue DC50 16-7/8" Length, .720" Diameter

American Hickory Jeff Ausdemore Signature DC8 17" Length, .730" Diameter

Tim Fairbanks Signature FireGrain Marching Snare Stick 17" Length, .683"-.755" Diameter

MARCHING TENOR MALLETS

Marching Tenor Mallets
From aluminum handles to wood shafts with various head shapes and materials, the Promark line of tenor mallets allows band directors and percussion teachers various tonal options for their tenor line.

ATA1
Aluminum Shaft with Nylon Cookie Head

ATA2
Aluminum Shaft with Felt Head

ATA2S
Aluminum Shaft with Puffy Head

ATA3
Aluminum Shaft with Acrylic Head

ATA4
Aluminum Shaft with Rubber Head

ATA5
Aluminum Shaft with Felt Head

ATA27
Aluminum Shaft with Puffy Head

ATA20i
Aluminum Shaft with Nylon Head

ATA20
Aluminum Shaft with Nylon Head

ATA20i
Aluminum Shaft with Nylon Head

ATA20
Aluminum Shaft with Nylon Head

ATA20
Aluminum Shaft with Nylon Head

ATA20
Aluminum Shaft with Nylon Head
# MARCHING BASS DRUM & TENOR MALLETs

## Optima Series Marching Bass Drum Mallets
The Optima Marching Bass Drum Mallets feature a uniquely contoured American Hickory handle with a special weight ring at the base of the felt head. The weight ring helps provide improved balance, increased head velocity, and enhanced sound projection. Hard felt elliptical-shaped heads produce a focused bass tone without denting the head.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>OBD1</td>
<td>1-3/8&quot;</td>
<td>14-18&quot; drums</td>
</tr>
<tr>
<td>OBD2</td>
<td>1-1/2&quot;</td>
<td>18-22&quot; drums</td>
</tr>
<tr>
<td>OBD3</td>
<td>1-3/4&quot;</td>
<td>22-26&quot; drums</td>
</tr>
<tr>
<td>OBD4</td>
<td>2&quot;</td>
<td>26-28&quot; drums</td>
</tr>
<tr>
<td>OBD5</td>
<td>2-1/4&quot;</td>
<td>28-30&quot; drums</td>
</tr>
</tbody>
</table>

## Traditional Series
High-quality, affordable marching mallets for tenor and bass drums. Solid heads epoxied to lightweight, black satin aluminum shafts for long-lasting mallets that feature soft, non-slip grips.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>M320T</td>
<td>1-3/8&quot;</td>
<td>14-18&quot; drums</td>
</tr>
<tr>
<td>M321T</td>
<td>1-1/2&quot;</td>
<td>18-22&quot; drums</td>
</tr>
<tr>
<td>M322T</td>
<td>1-3/4&quot;</td>
<td>22-26&quot; drums</td>
</tr>
<tr>
<td>M323T</td>
<td>2&quot;</td>
<td>26-28&quot; drums</td>
</tr>
<tr>
<td>M324T</td>
<td>2-1/4&quot;</td>
<td>28-30&quot; drums</td>
</tr>
</tbody>
</table>

## Performer Series “Puffy” Marching Bass Drum Mallets
Performers Series “Puffy” Marching Bass Drum Mallets are made with select grade American Hickory handles and a special fleece covering that softens articulation and controls overall volume. The perfect choice for light or softer sounding passages, Performer Series “Puffy” mallets feature a “Comfort Flare” that improves grip while an upward taper at the head provides exceptional balance and tone.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSMB1</td>
<td>1-3/8&quot;</td>
<td>14-18&quot; drums</td>
</tr>
<tr>
<td>PSMB2</td>
<td>1-1/2&quot;</td>
<td>18-22&quot; drums</td>
</tr>
<tr>
<td>PSMB3</td>
<td>1-3/4&quot;</td>
<td>22-26&quot; drums</td>
</tr>
<tr>
<td>PSMB4</td>
<td>2&quot;</td>
<td>26-28&quot; drums</td>
</tr>
<tr>
<td>PSMB5</td>
<td>2-1/4&quot;</td>
<td>28-30&quot; drums</td>
</tr>
</tbody>
</table>

## Performer Series Marching Bass Drum Mallets
Performers Series Marching Bass Drum Mallets are made with select grade American Hickory handles and a special extra-dense felt head. A practical choice for any bass line, whether beginners, college players, or competitive drum corps, the “Comfort Flare” grip makes them easy to hold on to while the upward taper at the head means exceptional balance and sound projection. The series is available in five sizes and is also available in a soft, “puffy” version.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>P6MB1</td>
<td>1-3/8&quot;</td>
<td>14-18&quot; drums</td>
</tr>
<tr>
<td>P6MB2</td>
<td>1-1/2&quot;</td>
<td>18-22&quot; drums</td>
</tr>
<tr>
<td>P6MB3</td>
<td>1-3/4&quot;</td>
<td>22-26&quot; drums</td>
</tr>
<tr>
<td>P6MB4</td>
<td>2&quot;</td>
<td>26-28&quot; drums</td>
</tr>
<tr>
<td>P6MB5</td>
<td>2-1/4&quot;</td>
<td>28-30&quot; drums</td>
</tr>
</tbody>
</table>

## Traditional Series
High-quality, affordable marching mallets for tenor and bass drums. Solid heads epoxied to lightweight, black satin aluminum shafts for long-lasting mallets that feature soft, non-slip grips.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>MT3</td>
<td>Medium-hard felt head</td>
<td>Cymbal swells or general mallet work. 14-1/4&quot; Length, .600 Diameter</td>
</tr>
</tbody>
</table>

## SD5 Light Multi-Percussion Stick – Hickory
Wood Tip, Felt Butt End 16-1/4" Length, .551" Diameter

## SD6 Light Multi-Percussion Stick – Maple
Wood Tip, Felt Butt End, 16" Length, .610" Diameter

# ALTERNATIVE IMPLEMENTS

## Performer Series Marching Bass Drum Mallets
Performers Series Marching Bass Drum Mallets are made with select grade American Hickory handles and a special extra-dense felt head. A practical choice for any bass line, whether beginners, college players, or competitive drum corps, the “Comfort Flare” grip makes them easy to hold on to while the upward taper at the head means exceptional balance and sound projection. The series is available in five sizes and is also available in a soft, “puffy” version.

<table>
<thead>
<tr>
<th>Model</th>
<th>Size</th>
<th>Best for</th>
</tr>
</thead>
<tbody>
<tr>
<td>P6MB1</td>
<td>1-3/8&quot;</td>
<td>14-18&quot; drums</td>
</tr>
<tr>
<td>P6MB2</td>
<td>1-1/2&quot;</td>
<td>18-22&quot; drums</td>
</tr>
<tr>
<td>P6MB3</td>
<td>1-3/4&quot;</td>
<td>22-26&quot; drums</td>
</tr>
<tr>
<td>P6MB4</td>
<td>2&quot;</td>
<td>26-28&quot; drums</td>
</tr>
<tr>
<td>P6MB5</td>
<td>2-1/4&quot;</td>
<td>28-30&quot; drums</td>
</tr>
</tbody>
</table>

# MARCHING BASS DRUM MALLETs
**CONCERT SNARE DRUMSTICKS**

Matthew Strauss Signature General Snare Drumsticks
The Matthew Strauss General are designed with a long taper to harness the energy generated from the rebound. This perismon stick also allows for a smoother and more consistent roll resulting from an elongated tip which provides a greater surface contact between the stick and head. Arrow Tip, 17" Length, .670" Diameter, 5-1/2" Taper

Matthew Strauss Signature Staccato Snare Drumsticks
Inspired by a prominent characteristic from the drum set stick arena, the Matthew Strauss Staccato sticks are designed with a nylon tip to further enhance clarity with a brighter color. The disc-shaped tip promotes a high level of consistency for double strokes. This perismon stick is a dream come true for the serious snare drummer. Nylon Disc Tip, 15-7/8" Length, .630" Diameter, 3" Taper

Concert One Snare Drumstick
The Concert One Snare Drumstick was designed as an intermediate level drumstick with styling and function suitable for professional players—an excellent option for the player seeking to push the boundaries of performance that a traditional SD1 simply cannot achieve due to its limiting design characteristics. The diameter, long taper and large oval tip promotes proper playing technique as well as proper balance and consistency throughout a wide range of playing styles. The immediate feedback the stick provides promotes more rapid development in up-and-coming players while assisting with challenging passages to help sustain motivation during the learning process. Large Oval Tip, 16-7/8" Length, .645" Diameter, 4-1/2" Taper

Concert Two Snare Drumstick
The Concert Two Snare Drumstick is the next product in the Promark concert series designed for students and professionals alike. Keeping in mind the challenges students encounter, the Concert Two builds on the fundamentals catered to by the Concert One. As students advance and begin to encounter more difficult repertoire with more intricate passages, they need a tool to help facilitate playing at that level. The Concert Two features a smaller round bead that provides ideal articulation at a wide dynamic range. The rear taper pushes the balance of the stick slightly forward, helping to achieve a balanced feel and better response from the drumhead. At .630" in diameter, a relaxed technique can be achieved at all times, thus the C2 is an essential tool for the developing percussionist’s collection. Round Tip, 16-7/8" Length, .630" Diameter, 4" Taper

Concert Drumsticks

- **Classic SD1**
  - Large Round Tip, 16-3/8" Length, .630" Diameter, 3-5/8" Taper

- **Classic Maple SD1**
  - Large Round Tip, 16-3/8" Length, .630" Diameter, 3-3/8" Taper

- **Dame Evelyn Glennie 740**
  - Barrel Tip, 16-1/8" Length, .630" Diameter, 4" Taper

**BAND & ORCHESTRAL**

**Performer Series Concert Bass**

- PSBDR
  - Rollers Concert Bass Drum Beater

- PSBD3
  - General Bass Drum Beater

- PSBD5
  - Legato/Soft Bass Drum Beater

**Performer Series Gong**

- PSGB1
  - Large Gong Beater

- PSGB2
  - Small Gong Beater

**KEYBOARD MALLET**

**System Blue™ Jim Wunderlich Series**

The Jim Wunderlich Series marimba mallets feature a rubber-like synthetic core wrapped tightly with durable synthetic yarn on a lacquered birch shaft for a smooth finish with maximum strength. The vibe mallets feature a rubber-like synthetic core wrapped tightly with cord on a rattan shaft. While they have durable components for outdoor environments, the lush tone of these mallets is an appropriate and tasteful choice for indoor concert or marching settings.

- **JW1**
  - Birch, Soft, Marimba

- **JW2**
  - Birch, Medium-Soft, Marimba

- **JW3**
  - Birch, Medium, Marimba

- **JW4**
  - Birch, Medium-Hard, Marimba

- **JW5**
  - Birch, Hard, Marimba

- **JW6R**
  - Rattan, Soft, Vibe

- **JW7R**
  - Rattan, Medium, Vibe

- **JW9R**
  - Rattan, Medium-Hard, Vibe

- **JW9R**
  - Rattan, Hard, Vibe
System Blue™ Diversity Series
As the name implies, this series has been designed by The Blue Devils percussion staff to be a diverse line of mallets for indoor and outdoor percussion. The eight mallets in this line cater to a variety of players and educators by featuring four graduated vibraphone mallets and four graduated marimba mallets designed for use with natural or synthetic bars. These mallets hold up to any musical demand while still achieving a true, fundamental tone from the keyboard, and are perfect for ensembles seeking clarity and articulation.

Andrew Markworth Signature Mallet Line
In collaboration with renowned composer Andrew Markworth, Promark is pleased to announce the launch of a new series of signature mallets. These mallets will be the newest in the portfolio to feature Promark’s updated mallet technology. The Andrew Markworth signature mallet line consists of eight mallets for marimba and vibraphone. Each mallet in the series has been designed with the needs of the performer in mind and features the perfect blend of tone, projection, durability, and feel.

SPYR
SPYR is a collaboration with world-renowned percussionists, designers and educators Kevin Shah and Tony Nunez. Designed with the educator in mind, the SPYR series features a full suite of mallets that cover the complete spectrum of sounds required on keyboard instruments for the variety of ensembles and performances that educators lead. No more need for multiple mallet lines to outfit your different ensembles. With SPYR, we’ve got you covered.
Marching Drumstick Bags
New and improved single and two-pair bags are designed to fit securely on marching snare drums, tenors and more. Features enough space for one pair or two pairs of sticks and made of rugged ballistic nylon. Engineered to allow for quick stick changes with slick interior denier material.

Hanging Mallet Bag
This new-and-improved, fully redesigned mallet bag is engineered to open 180 degrees across and hang securely on marimbas, vibraphones and xylophones. Features enough space to accommodate a full mallet collection for virtually any size performance, with a large zipper pocket on the back for sheet music and accessories. Sized appropriately to hang two bags across any 4.3 octave marimba, full-size vibes and xylophones. This bag is made of rugged ballistic nylon with wide pockets that allow for quick mallet changes, even with mallet heads facing downward, and features on-the-fly rain guard flaps for quick cover from the elements.

White Stick Tape
1” wide tape in 108ft. rolls for the ultimate marching stick tape.

Keiko Abe Mallet Wrap
Promark Keiko Abe mallet wrap was designed specifically for use with marimba and vibraphone mallets. The mallet wrap provides extra grip, which can be quite beneficial when using four-mallet techniques. Available in black and blue.
Modular Snake System
The D’Addario Modular Snake System makes it easy to customize a cable configuration to your specific needs. The snakes feature interchangeable breakouts for easy and flexible wiring options, utilizing industry standard analog pinouts. It’s as easy as choosing the core cable length and the proper breakouts for the situation. D’Addario snakes are made with our proprietary multi-pair snake cable, featuring oxygen-free copper conductors and 100% shielding in a low-noise, low-signal loss construction. Additionally, the snakes feature Amphenol gold-plated connectors for optimal signal transfer-ence, corrosion resistance and strain relief.

Breakout Cables
Available in TRS Breakout, XLR Male Breakout, XLR Female Breakout, 4 XLR Male/XLR Female Breakout, and Connector-Free Breakout.

Core Cables
Available in 5ft., 10ft., 25ft., 50ft., and DB25 Female Coupler.

Custom Series 1/8” to Dual 1/4” and XLR Audio Cables
The D’Addario Custom Series line of audio cables now features a way to connect your mobile device to your sound system in stereo with ease. Available in two varieties, simply plug the 1/8” plug into the headphone jack of your mobile device and insert the two plugs (L/R XLR or 1/4” plugs) into the desired channel in your sound system. Available in 1/8” Straight to dual XLR Male - 6ft, and 1/8” Straight to dual 1/4” straight - 6ft.
- Connects your mobile device to your sound system
- 2-channel stereo output
- Available in dual 1/4” and XLR plugs

Coupler Adaptors
- 1/4” Male Mono (Offset)
- 1/8” Male Stereo to Dual RCA Female
- 1/4” Male Mono (Inline)
- XLR Female
- SpeakOn® Female to 1/4” Female Mono
- XLR Male
- XLR Female to 1/4” Female Balanced
- 1/4” Male Balanced to XLR Female
- 1/4” Male Mono (1/8” Male Stereo to Dual 1/8” Female Stereo)
- 1/4” Male Mono (1/8” Male Stereo to Dual 1/8” Female Stereo)

Headphone Extension Cables
(Available in 10ft. and 20 ft.)
- Dual RCA to Stereo Mini Cable, 5ft
- 1/8” to 1/8” Stereo Cable, 3 ft.
CABLE SYSTEMS

American Stage™ Cables
American Stage Instrument Cables all add up to tone: the best materials, a customized design, and USA precision manufacturing combine to deliver a truly unique, professional performance cable.

Our custom USA-made wire reproduces full lows and rich highs to accurately transfer your true tone with clarity and noise-free operation. Our in-line HelioFused solder process utilizes modern micro-flame technology and specially formulated RoHS compliant solder to create a permanent bond between the wire and connector for unsurpassed strain relief and durability. And speaking of connectors, ours are exclusively designed to exacting specifications and built with confidence by Neutrik® in their state-of-the-art facility in Lichtenstein.

And finally, our patented GeoTip™ provides a seamless and secure connection between your guitar and amp. Built from the ground up, American Stage Instrument Cables ensure that nothing comes between you and your tone.

Classic Series Instrument Cables
D’Addario Classic Series Instrument Cables utilize ultra-pure, oxygen-free copper conductors for low capacitance and pure tone. A single-molded strain relief plug provides durability and worry-free reliability, and the 90% spiral shielding eliminates virtually all handling noise.

- Special coaxial cable design provides extra-clean signal and low capacitance
- Molded connectors provide extra protection over ordinary plugs
- Patch cables have low capacitance cable design with dense copper shield and are perfect for use with effects pedals

Custom Series Instrument Cables
D’Addario Custom Series Instrument Cables utilize ultra-pure, oxygen-free copper conductors for low capacitance and pure tone. Encapsulated and impenetrable soldering points with double-molded strain relief provide maximum durability and worry-free reliability. Two layers of shielding provide 100% coverage for superior insulation and noise rejection, making this the ultimate high-performance cable.

- Gold-plated plugs ensure reliable, corrosion-resistant contact
- Exclusive D’Addario overmolded connectors provide extra protection with unmatched strain relief
- Special double-insulated, double-shielded cable design provides the cleanest signal available while eliminating hum and triboelectric noise

DIY Solderless Instrument Cable Kit

- Based on our best-selling Pedalboard Cable Kit
- Allows custom cable lengths from instrument to pedals to amplifier
- Includes 40ft. of cable, 6 right-angled ¼” plugs, and 4 straight ¼” plugs
- 24k gold-plated plugs and a solderless connection design for easy construction
- Cable features a 24-gauge OFC conductor in a low capacitance design with two layers of impenetrable shielding
- Includes mini cable cutter and screwdriver

DIY Solderless Cables
D’Addario Solderless Cable Kits are the ultimate solution for custom wiring pedalboards, rack gear, and your entire layout from guitar to amp. Say goodbye to messy, unreliable wiring, and custom-cut cable lengths to best suit your needs. D’Addario plugs and cables are specially designed to provide the most accurate and reliable sound reproduction, from guitar to amp and all points in-between.

- Special coaxial cable design provides extra-clean signal and low capacitance
- Molded connectors provide extra protection over ordinary plugs
- Patch cables have low capacitance cable design with dense copper shield and are perfect for use with effects pedals

Custom Series Speaker Cables
D’Addario Custom Series Speaker Cables utilize ultra-fine, stranded, premium-quality 14AWG copper conductors for maximum signal transfer and flexibility. Encapsulated and impenetrable soldering points with double-molded strain relief provide maximum durability and worry-free reliability. Our exclusive D’Addario overmolded connectors provide extra protection with unmatched strain relief.

- 1/4" Speaker Cables Available in 3ft., 5ft., 10ft., 25ft lengths.
- Available in 3ft., 5ft., 10ft., and 25ft lengths.
- Bulk 25" and 50" coil of instrument cable w/ mini cable cutter

Twist Connector Speaker Cables

- Ultra-fine stranded premium-quality copper 14 AWG conductor offers maximum signal transfer and flexibility
- Twist connectors ensure positive connection into speaker terminals
- Available in 3ft., 5ft., 10ft., and 25ft lengths

American Stage Instrument Cables

- Built to compete
Thank you for reading the first issue of Built to Compete Magazine. We started this as a way to connect with, inform, and inspire all who inspire us. Everyone in the marching arts—from the fans to the front ensemble, the coaches to the composers—push us to build the highest quality gear out there. With BTC Magazine, we hope to leave you well-equipped, well-versed in gear. And well on your way to winning.