Towson University Marching Band
Marching Percussion
Technique Handbook

Compiled by:
The TUMB Percussion Staff

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Welcome!

Welcome to the Towson University Marching Band Percussion Section! We thank you for your interest and efforts in joining the program! As a member, you will be rewarded with many great experiences and memories that you will keep for the rest of your life. You will experience things such as pride, fulfillment, confidence, teamwork, dedication, learning, fun, excitement, precision, and more. We look forward to having a great season and we hope that you are excited to be a part of this amazing organization.

This handbook is meant to serve as a written guide to the educational, philosophical, and technical concepts of our program. This material will work alongside the ongoing feedback and information presented by the Director of Percussion and the Percussion Staff.

Percussion Expectations

As a member of the Towson University Marching Percussion section, you will be held to a strict standard of excellence that will allow our program to thrive.

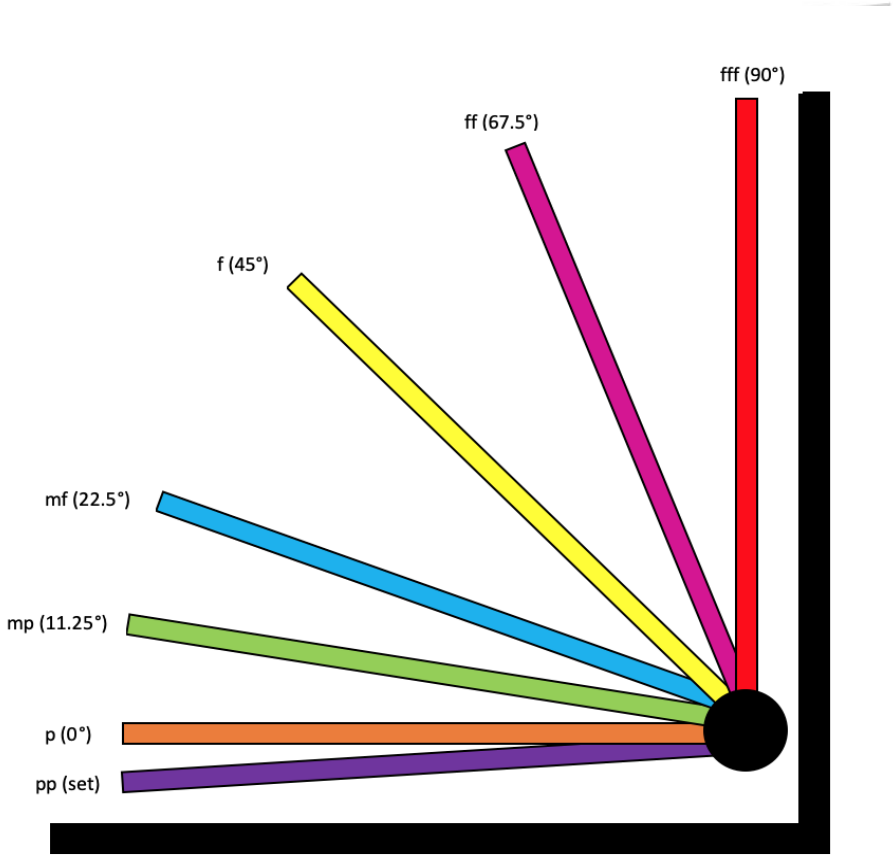
- It is expected that you are responsible for your performance in and outside of rehearsal. The quality of our ensemble comes from every individual's commitment to the product.
- You will be expected to come to rehearsal prepared. Do not wait on the staff to feed you information. Their job is to bring you to the next level of performance once you have prepared to the best of your own ability.
- You will be expected to fully contribute mentally, physically, and emotionally through rehearsal and performance.
- You will be expected to abide by all University policies along with the guidelines and policies outlined in the Towson University Marching Band's Handbook and Membership Agreement.

Along with our expectations of you, you can expect that this organization will work to be supportive, inclusive, and positive throughout our process. We believe that there is a place for everyone in the TUMB. Lastly, we pride ourselves in finding the perfect balance between an excellent performing machine, and a community of family that is here to have fun!

Angle Graph

An excellent Marching Percussion section can be defined by their presence, energy, and expression. In addition, the definition of musicality and uniformity is essential in this activity. In order to define and unify our approach throughout the ensemble, we use the following angle graph as a STARTING place to consider dynamics and how they relate to our technique.

With that being said, music cannot be limited to an exact science. There is always room for interpretation, the performers and staff need to be flexible when making appropriate musical definitions.



You will notice that this does not include "inches", but rather dynamics and playing angles. Although inches can be helpful in definition, we believe that talking in terms of "dynamics" helps to unify the music on the page with the way we think about technique. Definitions also vary slightly by instrument.



pp (set) ***mp*** ***mf***



f ***ff*** ***fff***

Snare Drum Technique Guidelines

Grip

Right hand:

- Front of the grip (thumb and index finger) should be placed roughly a third of the way up from the back end of the stick (Vic Firth brand sticks: near or slightly above the flag emblem)
- All 4 fingers should naturally curve around and contact the stick, the thumb should be 'in-line' with the stick: avoid having it hang down & off the stick
- The fingers, as placed, will mostly stay where they are, and should not come off while playing (but take care to not grip too closely – the stick should still be able to breathe and vibrate in your hand at all times)
- When in playing position (detailed below), your hand should be rotated so that the thumb is neither a) pointing straight up (French grip), or b) pointing to the side so that your palms are completely facing downward

Left hand:

- Left-hand hand shape can be thought of as if you were reaching out to shake somebody's hand
- Place the stick securely in the nook between your thumb and index finger (approximately a third of the way up the stick or around the flag on Vic Firth sticks)
- The hand and fingers should then be naturally curved in to wrap around the stick:
    - The thumb should make secure contact on or slightly behind the knuckle that is closest to the nail on the index finger
    - The middle finger should mimic and copy the resting curve of the index finger. Both fingers should be touching the stick
    - The stick should rest on the cuticle of the ring finger, with that finger having a natural resting curve (extending it unnaturally will create tension). This connection point should always be sought after, avoid having this fall out from under the stick as it is needed for control and support
    - The smallest finger should mimic and follow the resting curve of the ring finger
- When in playing position, our hand should be rotated so that it is neither too flat nor too 'turned over'. Meaning, you should be able to see the inside of your palm from your point of view, but it should not be flat to the point that water would collect in your palm if it were poured into it

Setup & Playing Position

- Position your sticks so that both beads are in the center of the drum & both sticks are resting at a slight downward angle
- Looking down, your sticks should form an angle with each other that is approximately 90 degrees or slightly bigger (more obtuse).
    - Your right hand should be positioned so that, while achieving all the points talked about in the section above, your stick follows the general line of your forearm.
    - Your left hand should be positioned so that, while achieving all the points talked about in the section above, your thumb follows the general line of your forearm.
        - Outside of your hand should be a natural curve through the wrist

Playing Zones

Center – both beads perfectly in the center (left/right/forward/back)

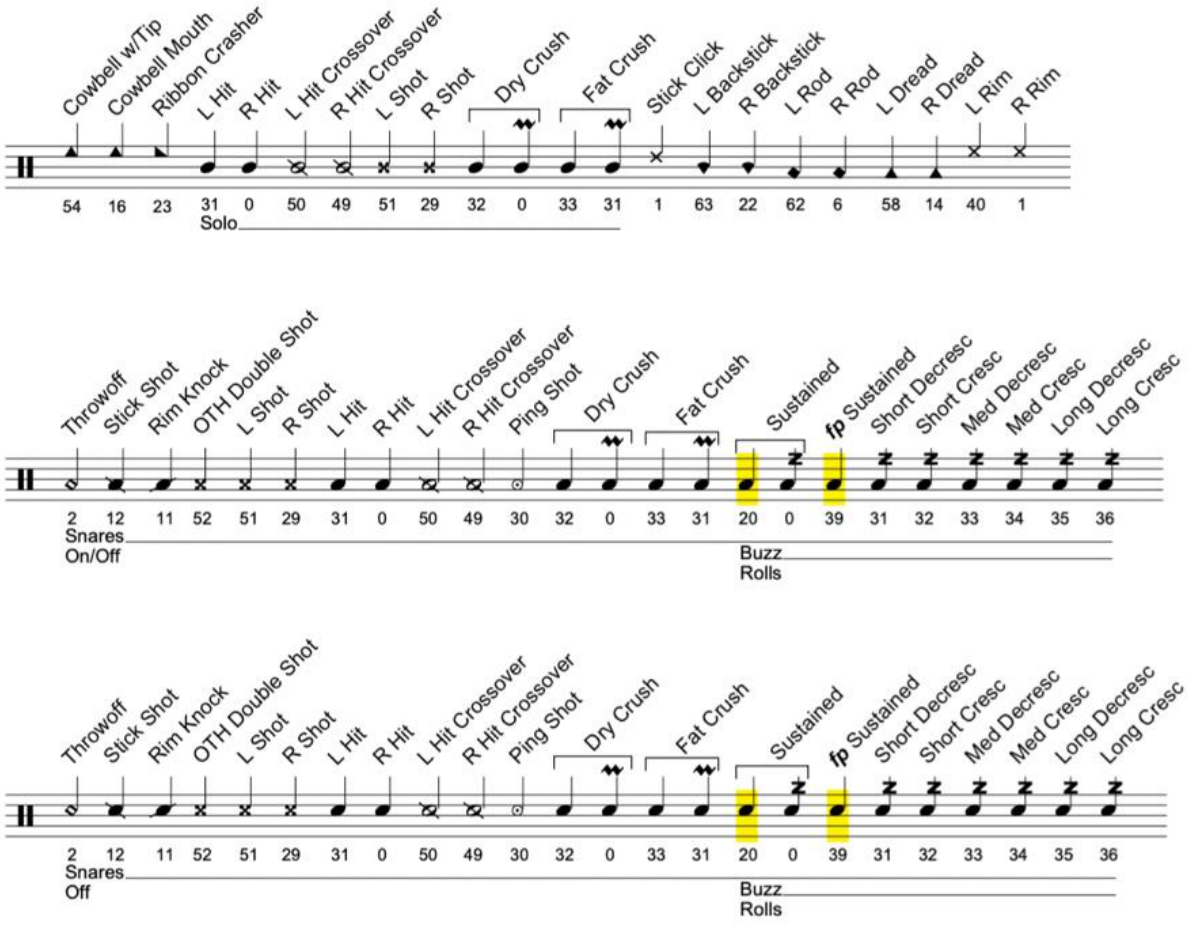
Halfway - both beads centered left/right, but halfway between the front rim and absolute center of the drumhead

Front edge – both beads centered left/right & as close to the bearing edge (where the head wraps down around the shell) as possible. On a clock face, this would be 12 o'clock

Guts/Snare bed – both beads close to the bearing edge, but at the 2 o'clock position. Left bead will be pushed in front of the right bead

Center **Halfway** **Front Edge** **Guts/Snare Bed**

Timbres and Note Heads



Tenor Drum Technique Guidelines

The fundamental idea that supports all drumming in the Towson University drumline- and usually any technique program in marching music - is *relaxation*. All of the other aspects of sound and motion that we strive for begin and end with relaxation, be it power, agility, speed, control, accuracy, endurance, or whatever sound quality we find works for a season, or even just an excerpt in our music.

Let's dig into what's meant when the word *relaxation* is used:

The music we play in the TUMB is fairly loud, physically demanding, and expressive. Maybe a good way of describing it is "athletic" drumming! It follows then that our bodies are subjected to a great deal of physical force, sometimes in very obvious ways and sometimes in more subtle ways. Trouble comes up when we let the subtle ways get the better of us. So, it's important to be aware of how it feels to play the drums the way we do, and how the difference between creeping towards an injury and "chopping out" feels as well.

Relaxation, for our purposes, is the optimum balance between exerting force on the implements we use to play and allowing those implements to move when and how they want in order to produce maximum volume, a superior tone quality and color, and conserve energy and avoid injury while playing. This ideal approach sits somewhere between two extremes- there *is* such a thing as playing "too relaxed" here, and there's certainly such a thing as playing too tense or tight. It's up to you, the individual performer, to find exactly where your mind and body fit into this balance. Exactly how we set ourselves up to achieve this will be detailed below.

Supported by our relaxed approach are three physical traits that help us become effective drummers in marching music:

***Strength, Agility, and Flexibility*.**

Strength is how we generate energy and power. If we lack strength, then we're unable to push through the resistance our hands go through as we play. We may also lose the ability to project our sound and balance with the rest of the band.

Agility is how we control our sticks. Drumming is, boiled way down, simply moving. Agility is moving in the exact way and at the exact speed you want to move- and being able to start, stop, change, or morph one movement into another at will.

Flexibility is our range of motion. Sometimes the music we play calls for quick and drastic changes in dynamics: we express those changes with our range of motion, which can involve many parts of our bodies from our fingers all the way up to our shoulders.

Yet again, balance is key here. A drummer who has strength and agility might not be as expressive in their playing if they lack flexibility. A flexible and strong drummer may have issues playing accurate rhythms if they lack the agility (and dexterity) to control their sticks. Developing all three traits will help you become a better musician through improving your technical skill.

Approach

Now we look at the tangible parts of our technique- the things we can touch and see and feel. This section will detail our preferred grip, the pathways we want to use when moving our hands and sticks during play, how we hold our posture while standing at or carrying our instrument, and how we move around that instrument.

Grip

The grip used here is the matched grip: Both hands should be shaped, look, and move identically to one another. Keep in mind that how we shape our grip will have small differences with other examples of matched grip, such as drumset, concert snare drumming, timpani, or even marching bass drum. Pay close attention to the directions here.
Locate the stick's *fulcrum*. This is where the stick most easily balances inside of your grip, and has a direct relationship with your *grip's fulcrum*. The stick's fulcrum is approximately one 3rd of the way up from the butt-end. On our Vic Firth drumsticks, the fulcrum location is marked with the American flag.

Begin by grasping the stick at it's fulcrum between your index finger and thumb.

The index finger should make contact with the stick just above the last knuckle, or somewhere on it's middle segment.

The pad of the thumb should run along the length of the stick, with the shaft centered on the pad of the thumb.

When both of the above steps are complete, the index finger and thumb should cross almost perpendicular.

Next: Gently curl the rest of the fingers around the shaft of the stick.

Make contact with as much surface area of the inside of these fingers on the stick as possible without tightly gripping. The butt-end of the stick should exit the grip sitting about halfway between the bottom edge of the palm and the very first knuckle of the pinky-finger. Ensure even pressure along every part of the grip, including the fulcrum.

Finally: While holding the sticks, the palms should be oriented towards the ground, but not flat. The hands should be canted slightly outward from the center of your body, beginning at a position parallel to the ground. Use the thumbs or the thumbnails as a guide; aim for a 30º angle up from flat.

Posture

Now that we've formed the grip, let's look into our posture. Posture can mean many things, but in this case, it refers to the way we stand at or carry our instrument and link ourselves to it while playing. Most importantly, it defines the shape of our arms and the orientation of our upper body while we play.

Stand behind the drums at whatever distance allows you to stand totally upright, head and eyes forward, while also meeting these conditions:

The neck should be stacked under the base of the skull. Avoid craning forward while at rest or playing. The shoulder should hang, relaxed, from the neck.

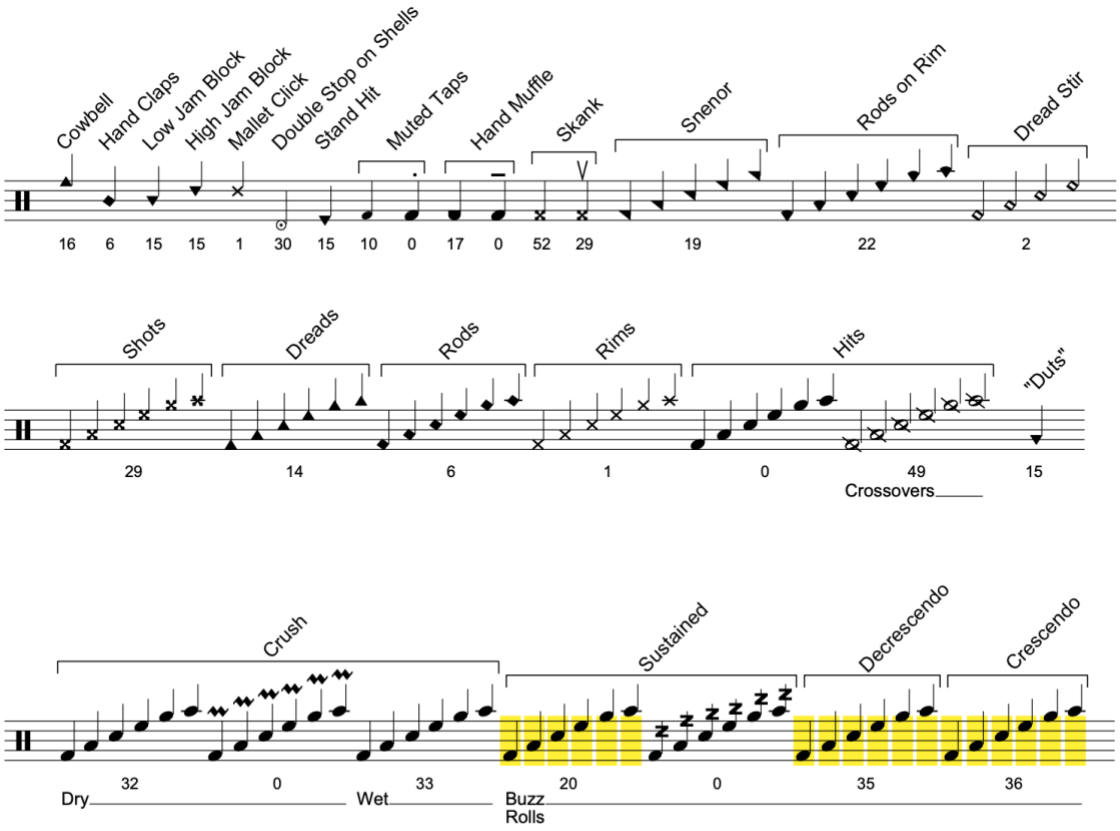
The upper arms should fall freely from the shoulders. Do not float your elbows too far away from the sides of the body; A good benchmark is the width of your elbow.

The forearms should then lead from the elbows directly towards the drums.

The hands should be pitched nearly flat, almost perpendicular to the front of the torso, but falling away from the body at a slight angle.

When seen from a third-person point of view, the outline made by all of the components listed above should appear to be a smooth curve, with no sudden or sharp angles, draping evenly from the shoulders down through the beads of the sticks.

Tenor Drum Notations



Bass Drum Technique Guidelines

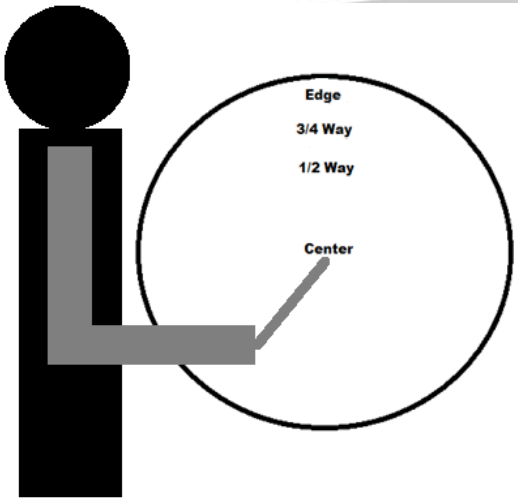
On the surface, playing the bass drum isn't too difficult. The challenge comes from blending and balancing your sound with the other members of the bassline to create one voice. Each bass drummer has their own unique part, unlike their horizontal counterparts the snare drum and the multi-tenor drum. By itself, an individual bass drum part may sound incoherent. But when played accurately with the other members of the Bassline, one musical voice is produced with the rhythms spread across the drums. This means that all of the bass drummers need to have superior rhythmic accuracy and an elevated understanding of the pulse to achieve this musical voice. Simple rhythms like 16th notes are very easy for one person to play accurately. However, spreading those same 16th notes across multiple players where each player only plays part of the rhythm becomes difficult to achieve with the same accuracy. That is why it is so important for bass drummers to have supreme rhythmic accuracy and a full understanding of the pulse.

Stick Grip and Approach

The basis for the bass drum grip is the matched grip. However, due to the nature of playing on a vertical drum head, it is necessary to adjust the grip and approach to better fit the player's needs. Normally, for matched grip, the palms face downwards towards the ground. To play bass, one needs to rotate their hands 90-degrees inwards so that their thumbs are facing primarily up but slightly rotated towards the head. Just like having a slight downward angle when playing on horizontal surface, bass drummers need the slight angle in towards the vertical playing surface. The angle between the mallet and the forearm is about 135-degrees, which makes the supplementary angle about 45-degrees as seen below. Keeping the forearm parallel to the ground is crucial. The thumb should be a straight extension of the forearm without dipping down or turning up, thus maintaining the 135-degree angle. The gap between the thumb and hand should remain closed at all times. Depending on the mallet and drum size, the fulcrum may need to slide down from the back 1/3rd of the stick so the bottom of the mallet is even with the bottom of the hand. Lastly, the back fingers wrap around just like the matched grip without over-squeezing. Imagine the stick is a bird held in the hand. It needs to be held firmly so it doesn't fly away, but not so firmly it is harmed.

The stroke of the stick is similar to the matched grip but has some major differences to create efficiencies for the player. The player initiates movement with the bead away from the playing surface while starting to rotate the wrist and forearm. This rotation is similar to turning a door knob while maintaining the grip described above. As the wrist starts to

rotate, without dipping the thumb down or turning it up, the forearm rotates out as the elbow primarily stays in place. This forearm support allows the elbow to wiggle naturally to a small degree and act as a counter balance. Bass drum players do not have the luxury of gravity, so the slight wiggle of the counter balance helps replace the momentum and weight that's added when playing on a horizontal surface. Now that there is rotation and support, the wrist should begin to slightly break – imagine Spiderman shooting a web. If one leads with the bead, this natural wrist break will happen without any thought or force. Never break the wrist up – like a curl – or "catch with your wrist", as these will cause unnecessary tension and lose velocity. All that is left once reaching the apex of the stroke is to throw the mallet through the head with a relaxed but controlled grip. The goal of this stoke is to maintain an efficient path with the bead that is perpendicular to the playing surface, maximizing the rotational velocity into the head.



To finish with the upper arm, the shoulders are to remain relaxed and rotated back with good posture as described in the Posture section, earlier. This allows the elbow to form a plane with your wrist that is parallel with the drum head when in the playing position. Depending on the size of the drum, the elbow will not necessarily be in line with the body, as seen above. The location of the elbow is determined by placing the bead in the center of the head, with a good 135-degree angle and a parallel forearm. This will push the elbow behind on smaller drums, and in front with larger drums. The height of the drum can be adjusted to optimize the comfort and minimize tension throughout the player's arm. This grip and approach will allow for a relaxed position while still helping to unlock the full potential of both the instrument and the player.

Drum Numbering

Each of the bass drums has a number. This is to ensure quick and easy reference to a specific drum when playing parts. Number 1 is the smallest drum, number 2 is the next larger size, and so on.

Reading Bass Music

Reading bass drum music is inherently pretty simple. Each drum number (player) is on its own space in the staff. Player 1 (on drum 1) would only play notes that correspond to that space on the staff. The other notes would be played by the other bass drummers for their corresponding drums. For instance, drum 1 is on the space above the top line (G), drum 2 is the top space (E), drum 3 is the next space down (C), drum 4 is the next space down (A), drum 5 is the bottom space (F), and drum 6 is the space below the bottom line (D). Notes that fall on the middle line (B) are called Unisons and played by everyone.
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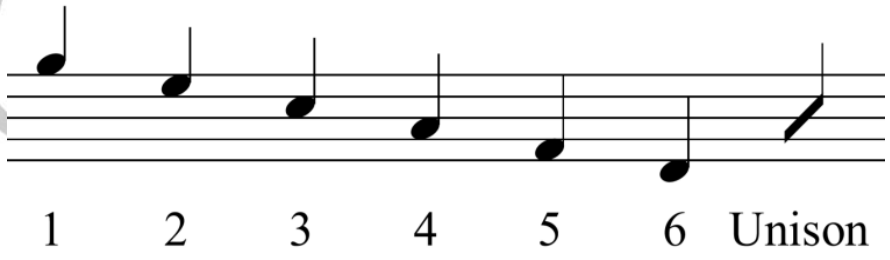
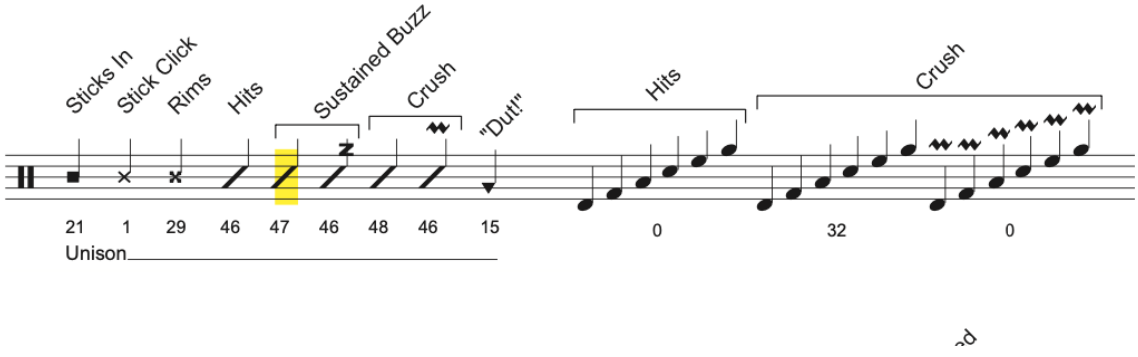


Additional Notation Possibilities



Unison vs. Split

Because each bass drum player has its own unique part, it is imperative to understand how their part fits into the bigger picture. We develop this understanding by asking players to learn the snare drum part for all exercises. Doing so not only develops the proper drumming techniques needed to achieve accurate splits but also provides a deeper understanding of the exercise. In doing so, the player learns both the exercise's function and how the bass drum voice contributes to the overall sound.

It is required to learn all unison (Snare Drum Part) exercises and practice them at home, though only some unison parts will be played as a Bassline or with the full Drumline.

Playing Zones

There are four distinct playing zones on a bass drum that arranger's utilize for timbre and volume control. They consist of the center, ½ way, ¾ way, and the edge. The grip and the stroke are still the same except for the angle of the forearm and a minor dip in the wrist. To reach each zone, the forearm is raised to the desired zone and still played with rotation. Please refer to the picture in the Stick Grip and Approach section for visual representation of these zones.

Cymbal Technique Guidelines

Key Points

Posture, set position, vertical position, A, V, horizontal position, hi-hat/flat

Posture

5 point alignment. From a side view, your ankles, knees, hips, shoulders and head should be in a straight line. Feet are parallel and toes and heels are together. Lean the upper body forward such that your weight is 65% on your toes, and 35% on your heels. Your presence should make you appear like you could take off sprinting at any second.

Set position:

In general, elbows should be pulled back and remain outside the shoulders. This is to give you a bigger body frame, and to keep your hands level with your hips. From your elbow to your fingertips should be one straight line, the wrists should not be turned or bent. If you were bare handed, you would want your palms to be in line with the widest part of your hips. With your fingers spread out as much as they can be, align your middle fingers with the seams on the sides of your pants. Thumbs should be at a 90 degree angle from the middle fingers, and pointing straight in front of your body. Apply weight in the tips of your fingers so that your cymbals don't have penguin arms, and they don't show your knots. When looking in a mirror, the cymbals should appear as straight vertical lines by your sides. Keep 3 inches of space between the cymbals and your hips. Shoulders should be relaxed.

Vertical

Set Position:

The same widened frame should be applied here as in set position, and the elbows should never be closer to your torso than your shoulders. Upper arms should be parallel to the ground, like they are resting on a flat surface. The wrists will project at a 45 degree angle in front of your face, and the knuckles of your thumbs should be at eye level. Remember not to shrink your elbows when your hands are further away from your face. All edges of the cymbal should be symmetrical, and 1 inch of distance between the cymbals.

Choke Position:

After coming out of an A position, press your forearms into the cymbal by bending your wrists in. Elbows should be extended out so that you keep an open frame. From the front, the cymbals should still appear as a flat line. The bell of the cymbals should align with the front of the armpit to dampen all sound.

Tap and Tap choke:

With the cymbals at a 90 degree angle in front of your face, place the right cymbal 1 inch above the left. To prepare for a tap, turn the right wrist up, and attack by allowing the cymbal to rebound off the left cymbal. To play a tap choke, go to a vertical choke position immediately after the tap.

Zing:

With the right hand at an A and the left hand at vertical set, make contact with the very top of the left cymbal's bell. Push the right cymbal upwards along the left cymbal, and follow through at the same 45 degree incline.

Ladder exercise:

Whole note duration A-V-A-V set
4 counts of rest
Half note duration A-V-A-V set
4 counts of rest
Quarter note duration AVAV set
1 count of rest
AV set AV set
1 count of rest
AV fake crash (float to A) V set
1 count of rest
AV bottom top AV set
AV crash (float to A) V set

Remember that the A position should open from the top like there is a hinge between the cymbals, maintaining the distance between the very top of the cymbals. Hands should stay at the same height, so that thumbs are at eye level, and wrists are straight in line with the forearm. The bottoms of the cymbals should be only shoulder-width apart, at about a 45 degree angle at the top.

The V position is the inverse angle of the A, so the wrists will turn out to make a 45 degree angle at the bottom. The elbows will naturally come in towards the body, but do not allow them to be closer to your torso than your shoulders. The tops of the cymbals should be only shoulder-width apart. The first V position has the right hand 1 inch above the left hand, with the same 1 inch distance between the bottom edges. The second V position is symmetrical.

Choke Exercise:

Crash on 1, hold for half note duration, choke on 3, out to set position on 5. Repeat
Crash on 1, hold for quarter note duration, choke on 2, out to set position on 3. Repeat.
Crash on 1, and choke immediately, out to set position on 3. Repeat 3 times.
Repeat quarter note duration twice.
Repeat half note duration twice.

This count structure can also be used for other sounds, such as tap chokes, and clank chokes.

Horizontal

Set Position:

The center of the cymbals should be aligned with the middle of your chest. Right hand is on top of left, with a 45 degree angle. From a front view, the top of the cymbals should line up with your left shoulder, and the bottom should line up with your right hip. The left wrist will be bent to keep the edges of the cymbal parallel to the right cymbal.

Crash:

For a crash preparation, simultaneously fan your left cymbal towards yourself with your wrist, and pull your right wrist back towards your right shoulder. The cymbals should be at a 90 degree angle from each other. From your perspective, there should be about a 1 inch overlap of your cymbals. When you crash, push your right hand forward so that the front of the cymbals contact each other, then roll the weight to the back of your hand, and follow through with your right hand. The left hand should not move during the crash.

Sizzle:

While holding your hands at a natural horizontal set position, allow for 1 inch of displacement inside the top of the left cymbal. Press the two cymbals together with this displacement, and slide all the edges together while pulling your hands apart just enough so they continue vibrating on all edges. Lift your fingers off the cymbals so that the sound is not muffled. If the sound is not sustaining for very long, your hands are likely applying too much pressure. If the sound does not have much vibration, your hands are likely not close enough, or the cymbals are not at the same angle along all edges.
To cut off a sizzle sound, simply press your fingertips onto the cymbals and apply pressure as if you were pushing your palms together. There should be no additional articulation, the sizzle should stop immediately.

Suck or Suction:

From horizontal position, prep by silently sliding your right hand forward so that the cymbals only make contact at two points on the front of the left cymbal. Your hands should stay at the same 45 degree angle, and your right cymbal's inner edge should not move past the bell of the left cymbal. Play a suction by pulling your right hand backwards, and pushing your hands towards each other as if you were pressing your palms together. Cut off all the sound by pressing your fingertips onto the cymbals like a hi-hat sound. Reset from this position by pulling your cymbals straight away from each other and return to set position.

Sizz-suck or Slide Choke:

Initiate this attack the same way you would approach a sizzle. Once you have made contact with 1 inch of displacement, move your right hand straight out so your elbow is extended. Once you reach a suck prep position, pull your right hand back and push your hands together to make a suction. Reset by pulling your hands apart and returning to horizontal set position.

Choke position:

From the follow through of a crash, twist your cymbals so that they are vertical, and then pull them back to tuck under your arms. Your forearms should cover as much of the cymbal as possible, and your hands should be placed right at the bottom of your ribcage. The front edges of the cymbal should be 1 inch apart.

Clunk and Clank:

To prepare for a clunk, keep the horizontal choke position, and turn the right cymbal out away from the body. Rotate into the body so that the edges of the cymbal contact 1 inch inside the right cymbal at a 90 degree angle. All sound should be muted immediately after contact, nothing should ring out.

A clank tap or clank choke is prepared for by pulling the left hand 3 inches off the chest, and the right hand turns out from the elbow and wrist. The louder the clank, the further the separation between the two cymbals. Attack with the right cymbal the same way you would for a clunk, with a 90 degree angle, one inch inside the front of the right cymbal. After contact is made and the whole cymbal is vibrating, pull both cymbals into choke position.

Hi-Hat/Flat

Left cymbal should be completely flat with palm facing upwards. Elbow should be outside the shoulders, allowing the cymbal to rest against the stomach. The right cymbal hovers above the top of the left cymbal. The edges should not all be aligned, the right hand should be further from the body than the left. To prepare for a hi-hat sound, pull the front of the right cymbal up, to make an acute angle at your stomach. Drop down the right hand and press the fingertips into the cymbal to make the sound as short as possible.

Front Ensemble Technique Guidelines

The following information is meant to serve as the foundation of technique for the 2020 Towson University Front Ensemble (TUFE). The four-mallet technique is designed around the Stevens method and can be found in the text *Modern Method for Marimba* by Leigh Howard Stevens.

Posture

The keyboard needs to be at the height comfortable for each person. If the keyboard is too high, then the wrists will be too high and so will the arms and shoulders. If the keyboard is too low, then the wrists will be too low pulling down the shoulders and causing unnecessary tension in the upper back and wrists. The keyboard should be roughly above the height of your waist.

From top down the head should be parallel to the keyboard. The eyes will move in order to look at the keys, not the head. The head will be rotated from left to right, depending on your location in the ensemble, for communication to the individual responsible for ensemble tempo and balance. At all times the mouth remains closed. The shoulders will remain flat front, not hunched forward or pulled back. This will allow for the body to portray the confidence and image of the ensemble.

The knees should not be locked and the feet should be about shoulder width apart. When setting yourself up to play a passage, the body should be centered in the middle of the part on the keyboard. At times, especially with four mallets, the body will have to be at an angle to adjust. For the majority of the time the body will remain flat to the front. The front ensemble is the face of the corps, so we must look our best, at all times.

Keyboard Two Mallet Grip

The Towson University Front Ensemble utilizes a “full-hand” approach to holding two-mallets. We believe that this provides the best balance between weight/velocity, and control of the mallets.

To start, pick up the mallet as you would a drumstick. Connect the flat part of the thumb to the first knuckle of our index finger, with the mallet between. This point in the grip will be our fulcrum, or the point at which the mallet is mainly supported and held. The back three fingers will comfortably wrap around the mallet as well, leaving between half an inch to

an inch sticking out from the back of the hand (depending on your hand size). All 4 pressure points (the fulcrum, middle finger, ring finger, and pinky finger connections) should be relatively equal in firmness to hold the mallet at slower tempi and rhythmic speeds. This is why we call it a full hand grip; the full hand is supporting the mallet in our hand. As we get to faster tempi and rhythms, however, we will allow the back three fingers to relax and open up, allowing space for the mallet to move more comfortably and relaxed. This way of utilizing our grip, combined with the way the mallet moves (or the stroke, which we will talk about below) will allow us to both achieve the best sound quality and volume range, while at the same time minimizing tension in our hand.

Stroke

The primary stroke type the ensemble will be using for the 2020 season is the **piston stroke**. The stroke will have the same starting and stopping point after every stroke. The stroke goes straight down to the keyboard and comes back up. The stroke will start at the top, the wrist will drop the mallet to strike the key and return to the top. There is a tacet (rest) space at the top of the upstroke, before the beginning of the next down stroke. The stroke will come primarily from the wrist. The arm should not generate the stroke, just be a natural reaction to the power of the stroke. Each stroke should use enough velocity to reach to the core of the mallet, in order to balance and blend appropriately and have matching articulations from player to player.
The other stroke that will be used is called the **legato stroke**, or the floating legato stroke. This type of stroke still uses velocity into the bar, but the up stroke is slower than the down stroke, simulating an elongated note length. Vibraphones will use this technique often.

Mallet Position

The mallets will be directly positioned over the resonators. This includes the upper manual of accidentals. This is to allow the ensemble to maximize the sound out of the keyboards. At all times the mallets play in the center of the bars. Only on specified passages will players be allowed to play on the edges. This will be more common in four mallet passages than two mallet passages.

When the mallets are over the keys, the mallet heads will be positioned right next to each other. Mallets will not be stacked. The mallets will be at an angle inwards – a 45° angle will be made when the mallets are directly over the keys. This should also occur when the mallets are at the top of a stroke. When not playing, the mallets will remain positioned parallel over the keys, about 1 inch off the keyboard. This is called the rest position.

Prep

Before the beginning of an exercise, there will be a prep into the exercise. Each individual will look into the center for the time and a prep stroke will provide the timing for the rest of the ensemble. The prep height will be no more than one inch in height. The prep is meant for the ensemble to begin together and not for the audience to see. Multiple variations in tempo and subdivision will be provided in the prep and will be announced before a section of music or exercise.

Playing Position

The angle of the playing will be the same as the prep position. The same mallet angle and position of mallet heads next to each other will be applied. The mallet height will be different than that from the prep height. The mallet height will be dictated by the dynamic marking in the music. At all other times, unless otherwise requested, playing will occur at a full extension. Full extension does not mean perpendicular to the board as this will create unnecessary tension in the wrists. The mallet heads will only come to angle 80° above the keyboard. This will reduce the tension placed on the wrists.

Shifting

The shift is the only part of the two mallet and four mallet technique that is not a straight up and down motion. The shift occurs when moving from note to note. The mallet will drop from the home position, strike the bar and then take a diagonal path to the home position above the next note. The shift does not begin BEFORE the mallet head strikes the key. The shift occurs after the mallet head strikes the key. This motion is just as quick as the vertical motion described above. Sometimes the shift will occur over larger intervals. The shift will possess the same amount of energy no matter the interval size.

Keyboard Four Mallet Grip

The Towson University Front Ensemble utilizes “Steven’s Grip” while holding four mallets. There are specific guidelines to follow when setting up this grip. Please follow all directions and visual aids carefully. It is best, when learning this technique, to master setting the grip in one hand. Once you are successful, mirror what you did in that hand with the opposing hand, making sure to follow all directions and visual aids carefully.

Step 1: Place your hand out like you are about to shake someone's hand.

Step 2: Place a mallet between the middle finger and ring finger and grip the end of the stick with the ring and pinky fingers. Note that only a minimal amount of excess should stick out of the grip.

Step 3: Place the second mallet in the middle of the palm and rest it on the pointer finger's first knuckle. This resting position is called the perch. Note that the pointer and middle fingers will be slightly separated.

Step 4: Place the thumb directly on top of the mallet, meeting the point where the mallet hits the first knuckle. At no point in any stroke should the pointer finger move in toward the palm.

Four Mallet Stroke Types

Double Vertical Stroke

The Double Vertical Stroke is very similar to that of the piston stroke in the two mallet technique. The motion will start in the home position, strike the bar and then return to the home position. All four mallets will move down together, strike the bar together, and return together by way of the wrist. If one wrist were to be doing this motion, then it would be a single vertical stroke. Both wrists implies the double vertical stroke. This motion should be quick, just like the two mallet technique. No energy should be wasted in the motion.

Single Independent Stroke

The single independent stroke is a specialized stroke that refers to the use of one mallet at a time. The concept of independence is special when talking about permutations and individual strokes. Like the other strokes, a single independent stroke comes from the wrist. However, the stroke is not solely a vertical stroke like in two mallets. The independence of the mallets comes from a wrist rotation.

The wrist will drop the mallet from home position, strike the bar and return to home position. There is no prep from the home position into the stroke. When completing a successful single independent stroke, the other mallet in the hand remains stationary. It does not move. It is best to try the stroke slowly to notice how the motion works before trying it at a fast tempo. Mastering the technique at a slower tempo is a solid foundation to prepare for more advanced passages in music.

Single Alternating Stroke

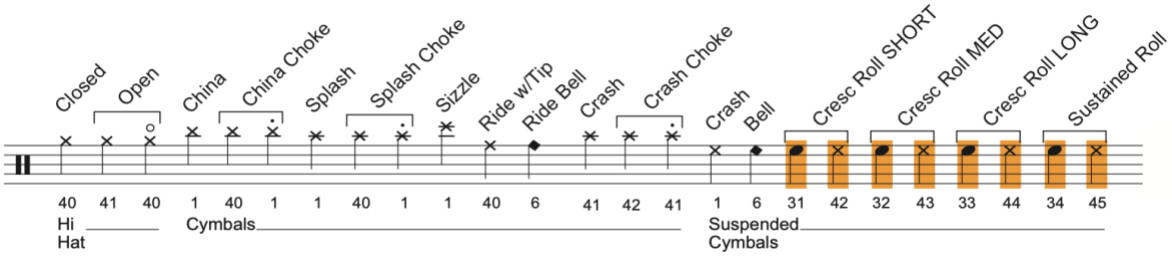
The idea behind the single alternating stroke is similar to that of the single independent stroke. However, the alternating implies the alternation of strokes between the two mallets in one hand. When executed properly, the strokes will be of a bounce like nature in appearance. The stroke will come from combination of the double vertical and single independent. If the single

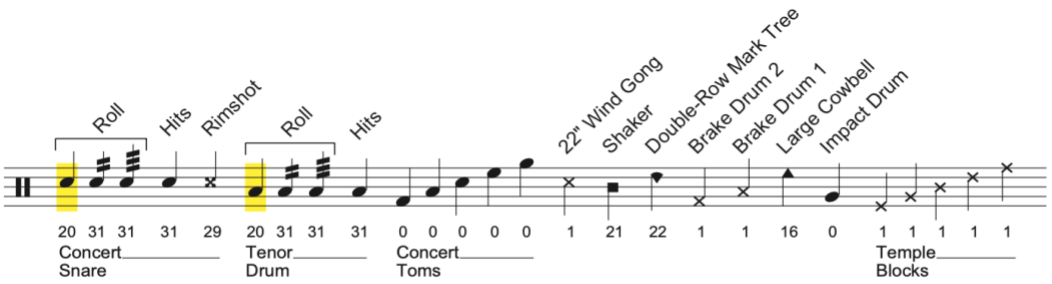
alternating stroke were initiated like the single independent stroke, a see-saw motion would occur. Each mallet will be dropped from its home position, strike the bar and return. Each mallet in the one hand will alternate strokes back and forth. There is a point in the stroke where the alternation between mallets turns into a one-handed roll. This occurs at quicker amounts of alternation and the technique no longer is happening.

Double Lateral Stroke

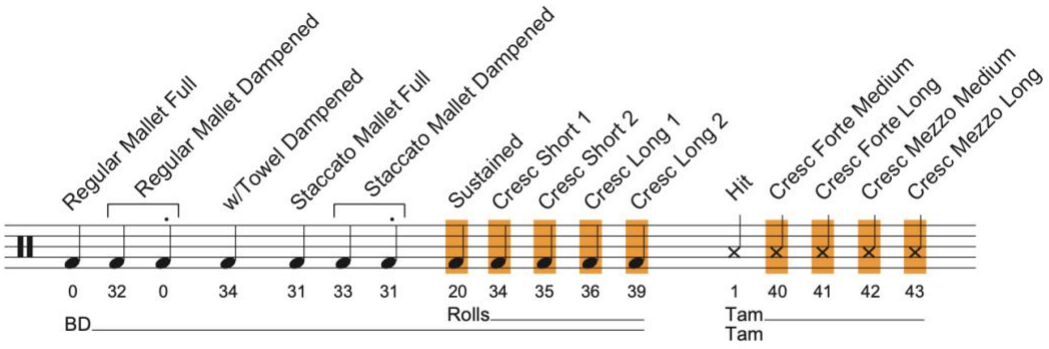
The double lateral stroke is unique to the keyboard when playing chords that need to be sustained. The concept is similar to double stroke roll on snare drum.
The stroke motion should create an even sound between both mallets. The wrist will start at the home position and the wrist will rotate in a manner similar to turning a doorknob. The outside mallet will strike first while the inside mallet is in motion to strike another key. This motion must be produced from the outside inwards. Both mallets will return to the home position upon completion of the stroke. This stroke should not be confused with the ripple roll. Those are two different techniques.

Common Auxiliary Percussion Notations

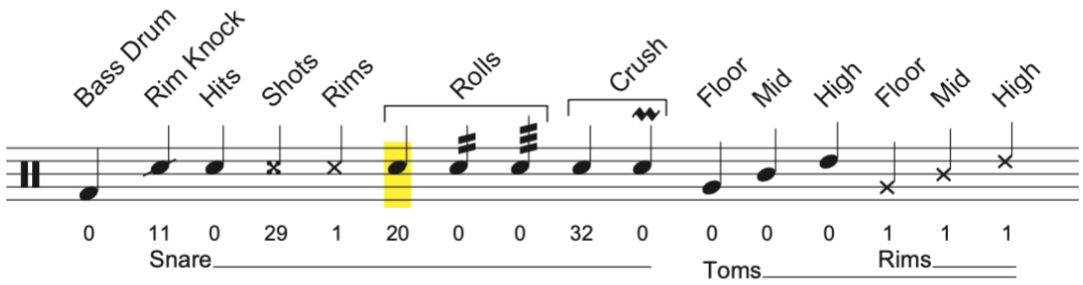


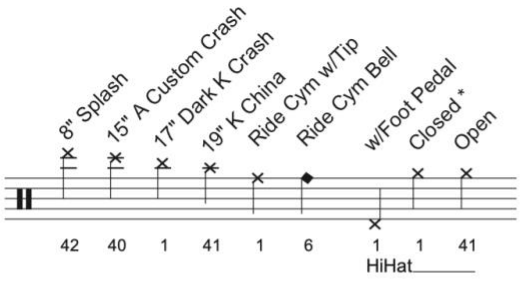


Common Bass Drum and Gong Notations



Common Drumset Notations





* Sounds	Dict. Item
Closed very tight *	hh0
Closed pretty tight	hh1
Closed but not as tight	hh2
Still closed but relaxed	hh3
Kind of loose	hh4
Pretty loose	hh5
Loose	hh6
Open but still touching	hh7
Open mostly, still some buzz	hh8
Open completely	hh9

* For "Hi Hat Closed" only. This can also accommodate any of the following articulation choices (without affecting playback):

- Plus/Closed - "+"
- Harmonic/Open - "o"
- Neither