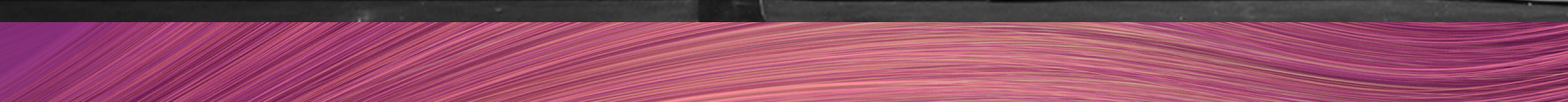
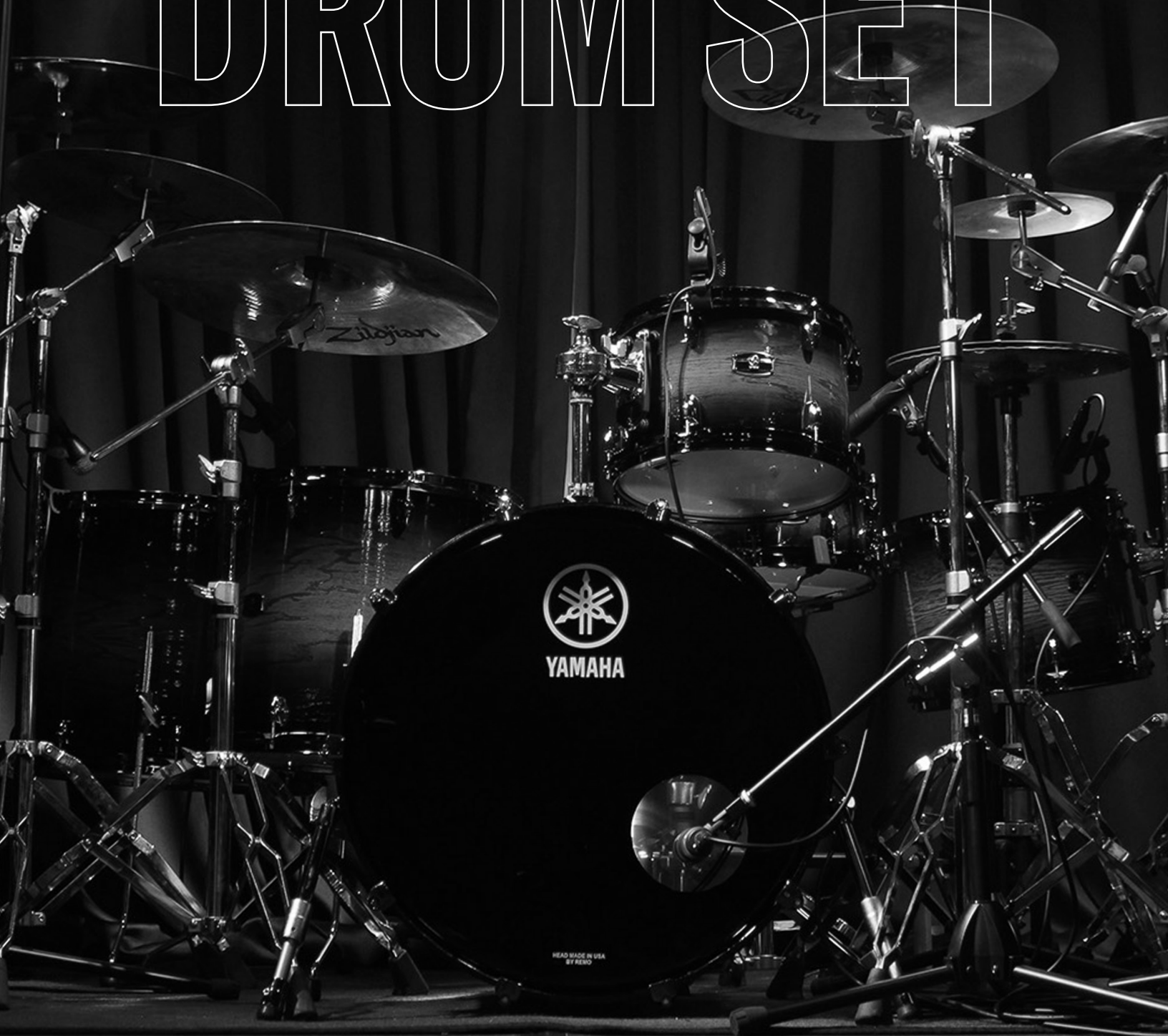




THE YAMAHA GUIDE TO CHOOSING A DRUM SET



We hope this guide will help you find the right drum set and hardware that fit your playing style and needs. Whether it's an affordable starter set or a sophisticated, arena-worthy acoustic or electronic kit, this guide will help you find the right combination of gear to match your budget and percussion skills. You will learn about the elements that go into making drums and cymbals, and what to consider when shopping for drums.

Before choosing a drum set, you need to be familiar with the components that go into it. These include a snare drum, bass drum, one or more mounted toms, and a floor tom. The two other essential components that complete a full drum set are cymbals and hardware.

We've also included a section on how to reduce acoustic drum volume, a microphone alternative, and a section on electronic drums. If you're unfamiliar with any of the terms used here, please see the glossary at the end of this document. Enjoy!

PARTS OF A DRUM SET

Top (Batter) Head: The most basic part of a drum, the head, is a round membrane made of a synthetic material usually Mylar™ that is stretched across the shell with varying degrees of tension.



Hoop: The drum hoop is usually made of either cast or stamped metal, although there are drummers who prefer wood hoops. Hoops are constructed with a flange shaped to hold the head on the shell for tension.

Tension Rod: These mount through holes in the hoop and thread into the lug to keep the desired tension.

Lug: Normally made of metal, lugs mount on the shell to receive the tension rods. Lug designs can vary from simple to complex and often have alignment springs and other features.

Shell: The shell has the most significant impact on the drum's tone. Most shells are made of wood, but fiberglass, acrylic and more exotic shells can be found.

Vent: A vent is simply a hole that allows air pressure to be released when the drumhead is struck; not all drums have vents.

Bottom (Resonant) Head: A drum's resonant head plays an important role in defining both the attack and the tone. Most resonant heads are thinner than the top head.

Bottom Hoop: This holds the bottom drumhead on the shell. On snare drums, the bottom hoop includes slots to accommodate the snares.

CHOOSING A DRUM SET

If you're looking for a large kit, consider a five-piece, six-piece, or even larger set, which adds more toms for a wider tonal range. These larger kits are well suited for heavy rock, fusion, contemporary, and metal styles, as well as large church worship bands. However, with current drum microphone technology, it's no longer necessary to have a drum set that "plays" loudly; volume and tonal quality can be controlled through the sound desk.

Drum sets can come in two different configurations. Drum diameters distinguish the configurations. Choosing the best set is a subjective process, and there are benefits to each configuration.

YAMAHA
TOUR CUSTOM
A typical 5-piece kit



Fusion: Drum sets that typically feature 10" and 12" mounted toms, a 14" floor tom (suspended or standing) and usually a 22" bass drum. The benefit of the smaller diameters of the Fusion set is their punchy tone and articulate sound.

Standard: These kits feature 12" and 13" mounted toms, a 16" floor tom and a 22" bass drum. The benefit of the Standard size set is that the larger tom produces more volume and a bigger tone.

In most cases, drum sets do not have all the hardware you need; these are commonly referred to as shell packs. A shell pack most often includes only a bass drum and toms. The snare drum, cymbals, cymbal stands and pedals must be bought separately. If you already have the hardware, buying a shell pack can save you money. Shell packs are popular because most drummers will have specific preferences for snare drums, pedals, cymbals, and other hardware.

If you already have a drum set but want to expand it, an add-on pack can be a good way to go, as the cost is often less than buying add-on drums one at a time. However, if you're looking for a complete kit, then you'll need to know and understand all the hardware possibilities that can go with the drum set that will fit your needs.

You will need to choose the number of toms you may want or need. The bass drum and the snare drum are the primary components of a drum kit; toms are most often used for "fills" — rhythmic phrases that supply a transition from one part of a song to the next. The number of

toms is largely a matter of personal preference, but a basic kit should include at least one small tom that's usually mounted on the bass drum and one large tom — often called a floor tom.

If you're a beginning drummer, a starter drum set may be the best path. These affordable kits usually include all the drums, cymbals, stands and hardware needed to start playing right out of the box.

While there are drum sets that work in a variety of styles, in general it's a good idea to choose a kit that fits your style of playing. Drum kits with fewer and smaller drums are good for jazz, traditional blues and worship, while drum sets with larger drums are better for rock, metal and other more amplified styles.

COMPONENTS OF A DRUM KIT

There are dozens of different drum set configurations, but most begin with these components:

Kick Drum (Bass Drum): The lowest-pitched drum in the kit. Generally used to give the rhythmic foundation of a piece of music.

Snare Drum: The distinctly snappy counterpoint to the kick drum. The snare drum helps outline the rhythmic framework and serves to highlight accents in the music.

Tom(s): Ranging in pitch from high to low, toms give tonal color and are often used to play “fills” that bridge two sections of a song. Drum kits may have one, two, three, or more toms.

Cymbals: The metallic “soprano” voices of the drum kit. A basic set includes a ride, crash, and hi-hat.

Hardware: The essential gear that makes a drum kit playable. It includes a kick (bass) pedal, snare stand, cymbal stands (including a hi-hat stand), tom holders and legs, and other items, as needed.

DRUM WOODS

An important element to consider is the kind of wood used in drum making. There are different types of wood used for drum building, and all have unique sound qualities.

The ideal drum shell wood is determined by three factors:

- **Tone:** It must produce a nice sound.
- **Abundance:** It should not be too rare or too expensive.

- **Workability:** It should be relatively easy to mold into a shell, and stable enough to hold its shape over a long period of time.

The following woods are the most commonly used in the construction of drum shells:

Maple: The most popular wood used for drum making, and has a warm, balanced tone.

Falkata: Sometimes substituted for maple, as it costs less yet has maple's sound qualities and takes finishes well.

Birch: Very dense and tough, with a harder and brighter sound than maple or mahogany. Its loud, bright tone makes birch excellent for recording, as it easily cuts through the mix with its clarity. Birch features enhanced highs and lows with a reduced midrange.

Mahogany: An enhanced low end and midrange with reduced highs. The sound is slightly warmer than maple and is said to have a "vintage" character.

Poplar: A low-cost alternative to maple or birch, with a similar, bright sound.

Basswood: Plentiful and a good, less expensive alternative to maple or birch, basswood has a nice grain that makes lacquer finish beautifully.

Lauan Wood: Often referred to as "select hardwood," it can be thought of as a budget version of birch.

Oak: A similar sound to maple, with a more porous composition and a powerful, bright sound.

SHELL CONSTRUCTION

Drum shells are made of layers of wood, referred to as "plies." Drums with more plies have a brighter sound and higher fundamental note. Drums with fewer plies usually have a fatter, warmer, lower fundamental note.

The angle at which a drum shell's bearing edge is cut also makes a difference in the sound quality. A sharper bearing edge angle gives a brighter sound with more cut, while a more rounded bearing edge gives a softer, mellower sound.

You can also find synthetic shells (usually for bass drums and toms), made of acrylic, fiberglass, or carbon fiber. Metal shells are available, but these are almost exclusively for snares. They can be constructed of steel, aluminum, copper, or bronze.

Once the wood is chosen, the next step is shaping the shell, and the quality of the results is ultimately determined by three main factors:

- Shaping technique
- Thickness
- Bearing edge

The basic shell shape is created using one of five possible methods:

- Plywood
- Stave
- Segmented
- Steam Bent
- Solid

Plywood: This is created by gluing thin, flexible wooden sheets together within a circular mold. This is the most popular method.

- **Pros:** Cheap to produce, well-suited for mass production.
- **Cons:** Less sturdy, high volume of glue may have a negative impact on tone.

Stave: A process of gluing vertical wood strips together into a shell shape, like those used in barrel making. Among custom drum builders, it's the most popular design.

- **Pros:** Holds shape well because there's no stress on the wood.
- **Cons:** More costly than ply shells, ineffective with thinner shells.

Segmented: Created by gluing small strips of wood together in a pattern mimicking floorboard tile.

- **Pros:** Similar to the stave shell process.
- **Cons:** More difficult than stave shells, as it requires more pieces; therefore, it's less popular.

Steam-Bent: Done by softening a single piece of wood with steam, then rolling it into a shell.

- **Pros:** Uses little glue, and, according to most drummers, has a better acoustic sound than the other three methods.
- **Cons:** Difficult to keep round; difficult to make too thin or too thick; quite rare to find.

Solid: Done by carving a single piece of wood directly from a tree trunk. Before the days of modern manufacturing, all drums were made using a variation of this simple yet labor-intensive method.

- **Pros:** Considered to have the best sound of all, as there are no joints and no glue. Since the wood is in its natural state, there is no stress on the shape.
- **Cons:** Expensive to carve, not practical for thinner shells, few suitable woods, the least common of all methods.

Along with shell shaping, “thickness” is also important to consider. While the process of carving out a thickness may be complicated, the results of the work are simple: Thicker shells have a brighter tone with a higher fundamental note. Thinner shells have a warmer tone with a lower fundamental note.

SHELL SIZES

For most players, the following two options usually fulfill most needs:

- **Standard-Sized Kits:** These have larger shells and are better suited for heavy playing styles.
- **Fusion-Sized Kits:** These are smaller and better suited for lighter playing styles.

Compared with fusion kits, standard kits have lower fundamental pitches, looser heads with a slower stick response, more volume, and typically feature the following sizes for each drum:

- Kick: 22" x 14"
- Rack Toms: 12" x 8" and 13" x 9"
- Floor Tom: 16" x 16"
- Snare: 14" x 6"

FINISHES

Drums come with a variety of finishes. “Covered” finishes are an inexpensive treatment consisting of vinyl wraps with a great variety of patterns and looks to choose from. Covered finishes have great durability and resist scratches and nicks better than a natural finish. Transparent lacquer finishes enhance the wood grain for a beautiful natural look.

An outer coating is added in one of three ways:

Staining: Can be as simple as rubbing tung oil on the wood.

Lacquer: A more complex process that may include layering and buffing.

Wrapping: Done by covering the shell in a thin vinyl sheet. Compared to the other two methods, wraps offer three advantages:

- Cheaper and easier to produce, as they allow for the greatest variety of design patterns.
- Offer the greatest durability.
- Resistant to scratching.

The common concern with wraps, however, is they could potentially have a negative effect on tone. This may be true with wraps on cheaper or older drums, which tend to be much thicker. Modern technology allows for ultra-thin wraps that most sources agree have a negligible effect on sound. When looking at newer high-end shell packs, there's no need to worry.

SNARE DRUMS

Snare: A series of coiled wires stretched across the bottom head, giving the snare drum its characteristic sound.

Snare Strainer: A lever-and-thread device that allows the drummer to adjust the snare tension and disengage the snares entirely from the head for more of a tom sound.

Snare Hoop: A specialized hoop that has slots in its sides to allow the cords or straps holding the snares to pass through.

The snare drum's crisp voice cuts through any mix, adding accents and interacting with the soloists. The drum's distinctive sound comes from metal wire springs, or snares, which are held in place against the thin bottom head of the drum with a device called a strainer that's mounted on the shell. The snares can be released for a high tom or timbale like sound.

Snare drums are traditionally made of either metal or wood. Metal snare drums — made of steel, brass, aluminum, and other alloys — offer an exceptionally bright, cutting tone while wood snares have a warmer, mellower sound. Snare drums are generally 14" in diameter and range in depth from 3 ½" to 8".

There are different snare drums for special situations — like piccolo, soprano and sopranino — which are specialty snares that are progressively smaller-sized and higher-pitched than a



standard snare drum. The popcorn snare is a 6" x 10" specialty snare drum with a popping, high-pitched tone.

DRUMHEADS

Available in thick, thin, single, or multi-ply; as well as coated or clear; with reinforced centers or edges, the range of head types may seem overwhelming, but a general-purpose, medium-weight head will usually do the job for most music types. For a hard-hitting loud drummer, a heavier weight or double-ply head can withstand the pressure. For tuning out overtones and controlling ring, heads treated with sound-controlling centers or edges will help.

The heads used for the top of the drum are called batter heads, while resonant heads are used on the bottom of the drum, adding resonance and sustain. There are drums intended for maximum attack and brightness that only have a top head.

Most drumheads made today are manufactured from a thin plastic called Mylar. Mylar drumheads come in various colors and are available with or without a sprayed-on white coating. Coated drumheads are the primary style available; they have a bit less ring and projection and are still favored by jazz and worship players for their more subtle sound. These coated heads have a warmer sound than clear heads and are often used for studio work.

Drumheads come in various degrees of thickness, as well as single or double plies. Each type has a markedly different sound.

Thick Heads: This head sounds best tuned to a higher fundamental range and has a quicker decay with more pronounced attack than thinner heads. They are also more durable and dent resistant.

Two-Ply Heads: They have a more controlled sound and sometimes come with material sandwiched between them to focus and dampen the tone.

Pinstripe Heads: These have an epoxy ring sealed between the plies, which limits overtones and gives a “wet” sound. Evans “Hydraulics” heads have oil between the plies for an extremely dampened sound with a very dry tone.

Thin Heads: Jazz players often prefer the livelier sound and quick response of thinner heads, while rock players generally like the fatter sound of two-ply heads.

There are no strict guidelines for what kind of head to use. Drummers have very personal responses to the way different heads sound, so let your ears be your guide.

Snare heads come in two types. The bottom, or snare-side, head is very thin for sensitive response to the metal snare wires that are held across it. For the top of the snare drum, most drummers prefer to use a coated head, as it serves to slightly attenuate the lively response of a snare drum. A fine-grain of coating is needed if you play with brushes.

There are various ways to dampen excessive ring and resonance in drum kits. These include using a felt strip on the bass drum batter head, cutting a hole in the front bass drumhead, placing a pillow against the inside of the batter head, or using a specialized bass drumhead muffling. There are bass drumheads available that give varying degrees of muffling. There are drum sound-dampening rings, patches, and pads available to help reduce excessive resonance, and can be sized to fit specific drums and designed to tailor the dampening effect to your specific needs.

RIMS/HOOPS

There are three common hoop design categories:

- Wood
- Die-Cast
- Flanged

Compared to flanged hoops, wood and die-cast metal hoops are stronger and heavier and have a firmer grip on the outer edge of the drumhead. This results in a more focused sound, with less sustain, better projection with rimshots, and more tuning stability.

Flanged hoops, on the other hand, are much lighter and make minimal contact with the outer edge of the drumhead, resulting in more overtones, and more sustain.

The two common variations of flanged hoops are:

Single- and Double-Flanged: These have a sharp upper edge on the rim, which can be harsh on your drumsticks.

Triple-Flanged: They add an extra bend over the upper edge — sometimes inward, sometimes outward — to create a rounded playing surface that is easier on your drumsticks.

There's a recent hybrid design known as the "S-Hoop" that's essentially a triple-flanged hoop with the density and strength of a diecast, and an extended top flange which offers a better playing surface for your drumsticks.

CYMBALS

Cymbals have a metallic "soprano" range of tones to complement the characteristics of drums. Here are three of the most used cymbals:

Ride: A medium-weight cymbal that helps outline the rhythmic framework of a song, along with the kick and the snare. Ride cymbals can generally withstand repeated strikes without building up too much of a roar.

Crash: A thin, often small-diameter cymbal that produces an explosive "crash" when struck on its edge. Crash cymbal overtones normally die away quickly, moving them out of the way of the rest of the music.

Hi-Hat: Two cymbals, with one inverted on top of the other on a special stand. Hi-hat cymbals are very versatile, able to be played "closed" with the stand's foot pedal pressed down, and "open" with the pedal up. Simply pushing down the pedal without striking the cymbals produces a "chick" sound.

Cymbals are an essential part of any drum set. Most sets do not come with cymbals, so you'll want to find ones that fit your playing and will complement the set that you have chosen.

Different kinds of cymbals are made to fill various roles. While the main types of cymbals are ride, crash, and hi-hats, splash and china cymbals have also become popular. A wide variety of effects cymbals are available that have a multitude of sounds, colors, and shapes to choose from.

Cast cymbals are made by pouring raw, molten metals into a sand mold. The castings are then heated, rolled, shaped, hammered and lathed. This lengthy process results in cymbals with a full, complex sound that improves with age. Each cast cymbal will have a distinct sonic character that's unique.

Sheet cymbals are cut from large sheets of metal that have a uniform thickness and composition. Sheet cymbals have a very uniform sound from cymbal to cymbal within the same model and are generally less expensive than cast cymbals.

Cymbal sounds are often an individual preference, with jazz players favoring darker, more complex cymbal sounds while rock drummers generally lean toward a brighter, louder sound that cuts through the mix. Try different cymbals from different manufacturers to help you find the ones that work for you and your sound.

DRUM HARDWARE

Hardware is another necessary part that makes up a complete kit. Essential drum hardware includes bass stands.



BASS DRUM PEDALS

There's a large selection of bass drum pedals. They range from simple, inexpensive single-pedal models to sophisticated double pedals — like the [FP9 series](#) (shown at right). Those are favored by rock, metal and fusion drummers. There are pedals with double beaters for use with single bass drums, double pedals with single beaters intended for dual bass drum kits, and dozens of other configurations.

DRUM THRONES

Most drum sets don't include a drum throne, and it's not advisable to use anything other than a drum throne to sit on, as thrones allow height adjustment,



are compact, disassemble for easy transport, and include padding to make for a comfortable playing experience. A well-designed drum stool can help you play better thanks to its superior ergonomics.



DRUM AND CYMBAL STANDS AND RACKS

There's a stand to mount virtually any drum, percussion instrument, or cymbal. Choosing the best drum, percussion or cymbal stand comes down to the drum kit's configuration, components and budget.

There is an alternative to mounting drums and cymbals on stands: a frame-like structure called a drum rack. Racks can offer a compact way to mount multiple toms and cymbals using the least floor space.

DRUMSTICKS AND BRUSHES

Drumsticks come in several sizes and shades for different styles of playing and music. In general, heavier sticks like 2Bs are used where more volume is needed, and lighter sticks like 7As are used for styles that require less volume. Try out different sticks to find the type(s) that are right for you.

TIP: Use heavier sticks for practicing than gigging to develop strength and stamina.

The number assignments used for drumsticks — 5A, 5B, 2B, 3S and 7A — are based on the sticks' size and application, with the numerical part signifying the circumference of the stick. The lower the number, the larger the circumference. For example, a 7A stick is smaller in circumference than a 5A, which in turn is narrower than the 2B. An exception is the 3S; it has a larger circumference than a 2B despite the number.

The letter designation "S" stands for "street." These are large sticks designed for street applications like marching bands. "B" sticks are used for "band" applications, like symphonic and brass bands. 2Bs are recommended by drum teachers as ideal starter sticks. "A" refers to orchestral drumsticks; they are smaller in circumference compared to "B" series sticks and are popular with rock and jazz players.

Stick tips come in a choice of wood or nylon. Wood tips have a softer, warmer sound while nylon tips offer increased durability and a brilliant, focused cymbal sound.

Brushes are commonly used in place of sticks when a softer playing style is needed. Brushes come in a variety of sizes, shapes and materials. These include telescoping and non-telescoping, metal bristles, plastic bristles, loop ends, ball ends, and handles made of wood, rubber or aluminum.

Bundled sticks, or “rods,” consist of rods or dowels of various thicknesses bundled together for a sound that is somewhere between sticks and brushes.

Bundled sticks are ideal for low volume playing and practice and they’re an ideal choice for small or medium houses of worship looking to reduce drum volume.

REDUCING ACOUSTIC DRUM VOLUME

Mesh Drumheads: Replacing regular drumheads with mesh heads will dramatically reduce the volume of drums. This is a great solution if you need to make acoustic drums quieter.

Mesh drumheads have great benefits compared to other options that reduce drum volume: Mesh heads feel realistic, can be tuned tighter or looser, depending on the amount of stick bounce you want. Mesh heads also give you a small amount of tone if you keep the resonant drumheads on. A downside with mesh drumheads, they can take a little more time to install and remove.

TIP: Add triggers to mesh drumheads to turn your acoustic kit into an electronic one!

Drum Mutes: this is a quick and easy way to reduce drum volume. They’re soft rubber pads that you place on top of your drumheads. An added benefit: you can instantly remove them when you want to play at full volume. (Drum mutes are also available for cymbals and they can dramatically reduce cymbal volume.) The downside with drum mutes: they don’t have the same feel as hitting real drums and there’s far less stick rebound. However, this can help you build strength and speed since you’re relying on muscle and technique rather than just stick rebound.

Low Volume Cymbals: Low volume cymbals give a dramatic reduction in volume. These cymbals have a sound reduction of around 80% compared to regular cymbals. Importantly, low volume cymbals still feel and respond like standard cymbals and are much better compared to drum mutes or towels. Hundreds of tiny holes in the cymbal cause the volume reduction, while still allowing for a realistic feel.

Drumsticks: Changing to thinner sticks instantly reduces drum and cymbal volume. The thinner the drumstick, the less force you'll exert, which translates to lower drum volume.

To reduce your drum volume reduction further, rods are even quieter than drumsticks. Rods have a foam center surrounded by wooden dowels, but they have a different sound than drumsticks. Rods still give a good tone and rebound but help to reduce overall drum volume.

Brushes can greatly reduce volume but have a much different feel than sticks. Brushes have little if any rebound but are super quiet. Due to the different feel, brushes require a different playing technique. Retractable brushes are generally the best style to get; these retract back into the handle. These can be played fully extended, or semi-retracted for more rebound. Retractable brushes are also less prone to bending out of shape since they can be stored retracted.

Like drumsticks, the bass drum beater has an impact on drum volume level. Using a hard beater — like plastic, rubber, metal or wood — produces a louder bass drum sound. A fluffy will help reduce bass drum volume.

Dynamic Control: As well as changing equipment, the way a kit is played will directly affect drum volume. Having good dynamic control is not only useful for keeping overall volume under control, but also something that will improve playing technique and expression. Controlling how hard or soft each drum and cymbal is hit will make you a better drummer. Explosive accents will have more impact, and you'll be able to draw the audience in with quieter moments. You'll also be able to completely change a beat's feel simply by playing with limbs louder or quieter than others.

MAKING ELECTRONIC DRUMS QUIETER

Here are some good tips if you need to reduce the volume of electronic drums, especially for drumming in small spaces:

- Put thick foam floor tiles under the kit. This will dramatically reduce drum noise by traveling through the floor.
- Use thinner sticks to reduce the stick noise on the drum kit's pads. The bass drum may cause excessive noise; you can use a fluffy bass drum beater or tape a thick towel around the bass drum pad. The bass drum should still trigger even with the towel, but a great deal of noise will disappear. You can also use the Yamaha Silent Kick Pedal — the [KU100](#).



Yamaha KU-100

- If you use any regular drum stands with your kit (cymbal stands, snare stand, or hi-hat stand), place your feet as wide apart as possible. This will reduce the amount of sound going directly into the floor.
- Work on dynamic control so you aren't pounding the kick drum, hi-hat — or the rest of the kit.

HOMEMADE DRUM DAMPENING

Besides manufactured products, there are everyday items that can be used to reduce drum volume:

- Put towels across your drums and cymbals. They're remarkably effective at reducing overall drum noise. The thicker the towel, the more you'll reduce the volume. However, you'll also lose a great deal of the stick rebound.
- Stuff the bass drum with a thick blanket, pillow or towels. The more you put in there and the thicker it is, the more you'll reduce bass drum volume.
- Put sheets under the drumheads, between the bearing edge and the head. To do this, remove the drumheads, cut up an old bed sheet, and then stretch pieces of the sheet across the drum as you put the drumhead back on.
- If you're using resonant drumheads, remove them. This can help reduce drum volume. If you plan to do this long-term, put the hoops back on to protect the bearing edges. Use old drumheads, cutting large holes in them (leave one to two inches around the outside), then reinstall the resonant drumheads. This will ensure the bearing edges stay protected.
- Install the drumheads upside-down. Using older drumheads, lay them on the drum upside-down to moderately reduce drum volume.

A NEW WAY TO MIC ACOUSTIC DRUMS

The Yamaha [EAD10](#) is a stand-alone acoustic drum module system that enables drummers to easily capture the sounds of an acoustic drum set with a single mic/trigger component attached to a powerful digital processor.

Ideal for recording, rehearsal and performance, the EAD10 addresses persistent challenges facing drummers and sound engineers who want to have high-quality drum performances and affordability without large, expensive drum mic packages. The EAD10 is a great solution for houses of worship looking to keep their costs down without sacrificing sound quality. The microphone effectively captures and reproduces the natural, dynamic sound of the entire kit while the module adds any number of effects, including flange, phase and several varieties of reverb.

For hybrid drum expansion, the central module features a snare trigger input and two three-zone trigger inputs that are compatible with the Yamaha DT50S snare trigger and DTX Series

drum pads. This connectivity provides endless creative possibilities with nearly 800 stored sounds and effects, an on-board sampler and 50 preset combinations, with room to program 200 more.

The EAD10's free Rec 'N' Share iOS app enables drummers to record their drum track on top of their favorite music, while also capturing a video of their performance.

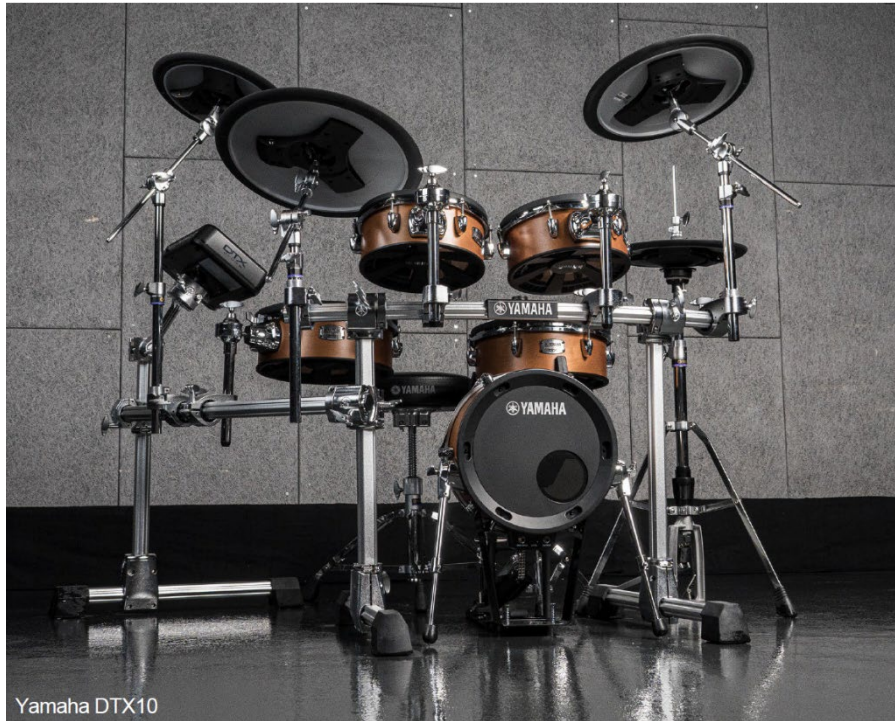


The EAD10 is quickly and easily connected to a PA system. With all drums and effects routed through the sound system, it helps integrate a live band's sound into a more coherent whole.

ELECTRONIC DRUMS

Electronic drums are becoming increasingly popular as a solution for worship bands, as they can offer different advantages when compared to acoustic drums. Here are a couple of reasons a house of worship may want to consider electronic drums.

Volume Control: Easily the primary reason for using electronic drums, as the drum kit volume is controlled by the mixing console, preventing it from overpowering other instruments and singers in the band. This type of control makes it much easier to achieve a good balance with the rest of the band.



Yamaha DTX10

Variety: A five-piece acoustic drum set will give you five drum sounds and assorted cymbals, but electronic drum sets come with more options. Hundreds of drums and cymbal sounds, arranged in ready-to-play classic and modern kits — as well as the ability to create custom kit combinations giving you a great deal of flexibility. Electronic drum kits

also feature percussion, synthesized, and even pitched sounds.

Great for Singing Drummers: Singing and playing drums at the same time is difficult for even the most experienced musician, and it's almost impossible to keep drum kit volume leakage from getting into the vocal microphone. Not only does this make it hard on the singer, but the addition of the vocal microphone adds to the overall sound level of the drums.

No Need for That Plastic Shield: A drum shield can be effective for limiting volume on an acoustic drum set, but it also needs to be placed properly for maximum reflection away from the congregation and stage mics. Shields are large, heavy, time consuming to set up, difficult to store, and can be costly. Take that cost and apply it to the electronic drum budget.

Setup Anywhere: Acoustic drums are usually positioned well behind the band, and as far away from the audience as possible to keep the volume level under control. However, moving the drums that far back can increase reflected sound compared to direct sound; this often results in an overall muddy effect. Electronic drums sound the same no matter where you set them up because the drums come directly through the main house speakers and are controlled by the sound engineer.

Easy to Break Down and Store: When you need to clear the stage for other functions, electronic drums break down quickly and can fit in a closet, cabinet, or case. Most electronic

drums break down in a modular fashion instead of individual pieces. This can speed up the breakdown process even more.

No Microphones Needed: The drums' output feeds directly into the main PA system, giving the sound engineer complete control over the mix, so mics or amplifiers are unnecessary.

More Features: Electronic drum sets can include a metronome, auxiliary audio input for practicing along with digital music players, a USB port for updates, trainer modules, and more.

CHOOSING YOUR DRUM SET

One of the great things about drums is the variety of sizes, finishes, wood types, setups, and accessories available to you. Few instruments offer the same personalization ability, so every drum kit is unique. As you continue to develop your abilities, you can always add extra accessories or upgrade your kit. Try different kits and combinations, ask questions of other drummers you admire, check out online videos of drummers and their kits. Drums don't have to be expensive — there's something for every budget and every age. We hope this guide has given you the information to go out and enjoy making your kit your own!

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GLOSSARY

Bass Drum: Large drum played with a foot pedal. Sometimes referred to as the “kick drum” or “kick.” The bass drum is used to anchor the bottom of the music mix and interacts with the bass to build the music's foundation.

Bass Drum Pedal: The pedal that you step on to play the bass drum. Uses a lever and tensioning springs.

Bass Drum Beater: The metal shaft that fits into the bass drum pedal, with a head that is made of felt, wood or other material.

Bass Pedal Spring: The spring that pulls the pedal back after it is depressed.

Bass Drum Spurs: Short metal legs that attach to the bass drum to prevent it from moving.

Batter Head: A drumhead mounted on the top side of the drum.

Bearing Edge: The edge of the drum shell where it contacts the drumhead.

Bell: The round raised part in the center of the cymbal. Used for creating accents and variations in cymbal sound.

China Cymbal: Special-effect cymbal of Chinese origin. Usually mounted in an inverted position on the stand. Has a trashy, dark, white-noise sound.

Claw Hooks: The hooks that hold the bass drum hoop, or rim in place.

Crash Cymbal: Cymbal with strong attack and fast decay used to create accents and crescendos.

Cymbal Sleeve: A plastic or rubber sleeve that prevents the cymbal from contacting the metal rod at the top of the cymbal stand. Prevents cymbal damage and undesirable metal-on-metal sound.

Cymbal Stand (straight and/or boom type): Holds the cymbals. Boom stands have a movable arm, or boom, which extends from the stand at an angle, allowing you greater flexibility in placing your cymbals.

Double Bass Pedal: Bass drum pedal with two beaters and two footboards. Used in modern rock and fusion styles. Allows the drummer to play a single bass drum with two beaters for a double bass drum effect.

Drum Key: Tool used for tuning drumheads by adjusting the tension rods. Sometimes used to adjust tom arms and other hardware.

Drum Module: An electronic controller used to generate sampled and synthesized drum sounds.

Drum Rack: Used in modern drum sets to mount multiple tom drums and cymbals, as opposed to individual stands.

Drum Throne: A padded, height-adjustable, armless seat for drummers.

Drum Triggers: Small sensors attached to drumheads or rims used to trigger drum and other sounds from an electronic drum module.

Drumhead: The head that fits over a drum shell. Originally made of calfskin, most modern heads are made of Mylar. The batter head goes on top of the drum and is the head you hit, while the resonant head goes on the bottom and enhances the drum sustain and resonance.

Dry Sound: Drum sound that has little or no ambience or effects.

Floor Tom: The largest tom in a drum set, usually 14" to 18" in diameter. It usually has detachable metal legs for free-standing use or can be suspended from a tom or cymbal stand.

Footboard: The part of the bass pedal or hi-hat pedal that is pressed with the foot.

Fundamental Note: The tuning at which a drum produces its most open and resonant tone. Determined to a large degree by the design of the drum shell.

Hi-Hat Cymbals: A pair of cymbals that are mounted on a hi-hat stand. Hi-hat cymbals usually range in size from 12" to 15".

Hi-Hat Stand: A stand that is used to mount and play a pair of hi-hat cymbals. An integrated foot pedal is pushed down to close the cymbals and raised to open them.

Hi-Hat Clamp (or Clutch): The part of the hi-hat stand that holds the top cymbal.

Isolation Mounts: A mount that allows the tom to vibrate freely by isolating it from the holder.

Lug: A bracket that is attached to a drum and accepts a tension rod that threads through the rim to hold the drumhead in place.

Lug Nut (or Swivel Nut): The receptacle inside a lug that accepts the tension rod. Interior threads allow the tension rods to be tightened to tune the drum.

Mounted Toms: Toms that have various voices and timbres within the set, most often used in playing fills and solos. Mounted toms generally range from 6" to 14" in diameter and

commonly mount on the shell of the bass drum. However, there are toms that have free standing legs and sit next to the bass drum.

Piccolo Snare: A high-pitched specialty snare drum, usually with a 3 ½" depth.

Ride Area: The large, slightly curved area of a ride cymbal that offers a balanced, consistent tone with good definition.

Ride Cymbal: A cymbal with sharp attack, fast decay, and clear stick definition. Generally, 20" or 22" in size, they're available in larger sizes as well. Ride cymbals create a continuous "riding" pattern and are often used during instrumental solos.

Resonant Head: The bottom head used on toms, snares and the front of bass drums.

Rim: The metal rim that holds the drumhead in place. Tension is increased or decreased for tuning.

Shell: The actual drum cylinder, usually made of wood.

Shell Pack: A set of drums sold with minimal hardware that usually includes only the rims and tom holder.

Snare Drum: Drum with a metal or wood shell and bright, cutting tone. It has a characteristic buzzing tone created by the sound of the snares mounted on the bottom drumhead.

Snares: Coiled metal strands that vibrate against the bottom (snare-side) head of a snare drum.

Snare-Side Head: A thin drumhead attached to the bottom of a snare drum.

Snare Stand: Stand with an adjustable basket that holds the snare drum.

Snare Strainer (or Throw-Off): The device that holds the snares against the snare-side drumhead. It has a lever that allows tightening and release of the snares.

Soprano Snare: Small specialty snare drum, usually with a 12" diameter.

Splash Cymbals: Small, thin crash cymbals with quick decay.

Tension Rods: Metal rods used in conjunction with the lug nuts to tune a drum.

Toms: Drums of varying size that are typically mounted on the bass drum with a tom holder. Toms may also be mounted on a drum rack and are referred to as suspended or hanging toms. Toms larger than 16" are usually mounted on legs, in which case the drum is called a floor tom.

Tom Holder: Mounting hardware that holds one or more toms on the bass drum shell.

Trigger: Small sensors that attach to drumheads and trigger sounds from an external drum module.

Washer: A metal disk that fits between the head of the tensioning rod and the rim.

Wet Sound: Sound that has an ambience, spacious quality, with effects like reverb and/or delay.

Wing Nut: A nut with wing-like finger grips, used on the top of a cymbal stand.