

# FIVE-STAR TECH TIPS

## DRUM MIKING

For the modern drummer, acoustic drums and microphones go hand-in-hand. Beyond the obvious benefit of amplifying the drums in live situations and recording them in the studio, there are many reasons to mic your drums. Miking gives you control of your sound—letting you balance the volume of various parts of your kit while increasing your overall presence in a group. Plus, with your own mic's you won't be at the mercy of a sound person who may not have the right quality or quantity of mics to cover your kit.

All mic's exist to convert acoustical energy into electrical energy. The two basic types of mic's are:

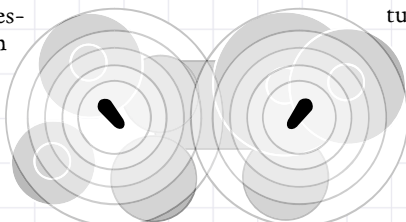
- **Dynamic Mic's** which react to changes in sound pressure (level) by the physical movement of their inner element, producing a corresponding electrical signal.
- **Condenser Mic's** which incorporate electronic components to convert and amplify even the most subtle changes in sound waves into electrical signals.

When selecting mic's, always pick the one with the performance characteristics that best match the type of drum it will be used on. Every type of drum and cymbal has its own acoustic properties and each mic should accurately capture those differences.

Compare **Range** (the frequency spectrum and curve that the mic is intended to capture), **Response** (the mic's dynamic sensitivity or input-to-output ratio) and **Pattern** (the shape of the pick up area around the mic). For example, condenser mic's with a flat response and a wide frequency range are great as overhead microphones, while dynamic mic's with their greater ability to handle large sound

pressure levels are generally more suited for close miking of toms and snares.

Today, leading microphone companies offer special drum mic prepacks so miking your kit is easier than ever. Just follow these suggestions, keep your mic's away from your sticks and remember that the key to creating a bigger, better sound is in your hands.



Overheads • mic type: condenser

Position two mics on boom stands over the drums and 12 to 18" above the highest cymbals. Place one at 10-11 o'clock and the other at 1-2 o'clock. For the best overall coverage pattern, angle the mics downward at around 45° and pointing towards the middle of the kit.

### Snare Drums mic type: dynamic

Place mic at 10 o'clock, 2" above the top head, 1-2" inside the rim and pointed towards the center of the drum. If a snare side mic is used it should mirror the top mic.

### Bass (Kick) Drums mic type: dynamic

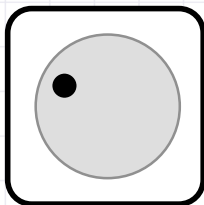
Cut a small, circular, off-center hole in the front head and place the mic about 2" inside—parallel to the floor and aimed away from the center of the drum.

### Tom-Toms mic type: dynamic

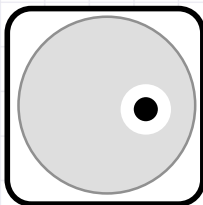
Place the mics at 12 o'clock (rack) or 2 o'clock (floor), 2" above the top head, 1-2" inside the rim and pointed towards the center of the drum.

### Hi-Hats mic type: condenser

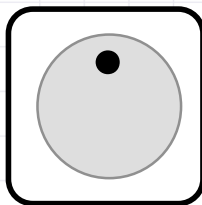
When possible, use a separate mic for the hi-hat. Position the mic 3-4" above the open, top hi-hat cymbal at 10 o'clock and pointing straight down.



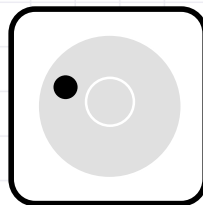
Snare Drum



Kick Drum



Tom-Tom



Hi-Hat

Excerpts adapted from "In The House" Spring/Summer 2003  
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