

A Closer Look

Drum Tech

DTS One-Touch Tuning System

by Michael Dawson

Few drummers actually enjoy tuning their drums. After all, those hours used up tweaking individual tension rods and adjusting pitches between top and bottom heads ultimately cuts into time spent *playing* the instrument. In response to that, manufacturers have released many devices over the years that are designed to streamline the drum tuning process.

But Drum Tech's DTS One-Touch Tuning System isn't just another tension meter or lug lock.

Rather, the DTS is a highly engineered cable/lever system that attaches to each tension rod and allows the entire head to be tuned

quickly and evenly by way of a single hex-bolt. As a result, drummers can now tune their drums by ear, without ever having to reach for a drum key.

Drum Tech owner and DTS designer Tom Henry—who made his mark in the drum industry designing electronic pads and pedals that were distributed by KAT in the late '80s and early '90s—has been refining his revolutionary tuning system for nearly fifteen years. "The inspiration for the DTS came to me in '92," Tom recalls. "I've been a drummer all my life, and I've always hated tuning my drums. It's a necessary evil in order to sound good. But I knew there had to be a way around it."

In order to begin engineering his new tuning system, Tom first had to identify what it was that made drum tuning so difficult. "The key to making the process easier was to get rid of the need to deal with individual tension rods," Tom explains. "They get in the way of truly *tuning* your drums. Tuning is moving pitch. What we do with drums is balance the head. Unfortunately for most drummers, by the time they get through the balancing stage, they don't want to bother with tuning the pitch of the drum and dialing in the resonance of the top and bottom heads.

"So I started thinking about a way around this. The laws of physics tell you that the force in a cable will automatically be equal when it wraps around an object. So that solved my problem as to how to get equal tension around the drum. Then I had to figure out a way to deliver that force to a mechanism that will engage the tension rods and apply downward force at the hoop. That's when I began working on the levering brackets."

The brackets that Tom is referring to are small second-class levers machined out of super-strong aircraft-grade aluminum. These levers are placed between each tension rod head and the hoop, and held in place by finger-tightening each rod. The levers are pressed in by the DTS's tension distribution cable, which forces the hoop down by applying pressure to the underside of the tension rod head.

Aside from being able to tune a drum in a fraction of the time it takes using the traditional method, the DTS also guarantees equal tension across the head, which eliminates the need to fine-tune tension rods. As Drum Tech director of sales Doug James explains, "If you make adjustments to a tension rod when the DTS is engaged, the DTS system will cause the cable to reseat itself and spread the modified pressure around the rest of the drumhead. So it automatically re-equalizes the tension."

The benefit of the system's automatic equalization is simple: "When you first put the DTS on a drum, the drumhead is immediately in balance," says Tom. "So now with only one bolt to adjust, you're free to use your ear to quickly find the point where the drum sings."



The DTS System allows drums to be tuned by ear by adjusting the tension assembly while striking the drum.

A complete DTS System includes a tension assembly, tension brackets, a tension distribution cable, and a tuning wrench.



Small tension brackets apply force to the underside of the tension rod, which causes the hoop to pull down.

And what the guys at Drum Tech have discovered is that the bulk of what makes a drum sound good lies in the balance between the batter and resonant heads. "If you're going to use just one DTS on a tom, use it on the bottom head," Tom suggests. "We did a test with the DTS on the bottom head only. Then we put the top head out of balance by tensioning some of the rods up or down by a full turn. But even with the top head uneven, we were able to get a good sound by sweep-tuning the bottom head using the DTS. So eighty to ninety percent of the benefit of the product can be achieved by only using it on the bottom head."

Of course, the most beneficial scenario would be to outfit top and bottom heads with the DTS. "With the system on top and bottom," Doug explains, "you can try many different relationships between the heads to find the best sound. I found that on my 13" Rogers rack tom, the best interval didn't even have a musical name. But that's why the DTS is great: You can tune your drums by ear, rather than relying on predetermined intervals between the heads, like a perfect 4th."

Even if a drummer *does* know how to tune his or her drums, there's still a benefit to using the DTS. "I've had my Rogers Holiday kit for twenty-five years," says Doug. "And I can tune it to make it sound good. But I've also always wondered, Can they sound *better*? But I never took the time to find out because it was too tedious to do. Then once I got this system on my drums, I discovered that, yes, they *could* sound better."

When discussing the possibility for long-term shell or hoop damage to drums outfitted with the DTS, Tom assures, "There's no way the system can damage the shell, because the only thing that contacts the shell, and only during tuning, is the felt buffer on the underside of the tension assembly. There are also no damaging effects to the hoop. We tested for that by subjecting the thinnest, weakest hoop we could find to an enormous load—well beyond normal drum tensions. And there was absolutely no change whatsoever."

To help drum shop owners expose their customers to the DTS System, Drum Tech is offering two hands-on point of purchase displays. As Doug James explains, "It's important that the drums that are being used to demo the system sound good. So our full-scale point of purchase display includes a PDP drum with stand, Aquarian heads, DTS systems for both heads, and the POP Kit. Salespeople will be able to just pull the drum out of the box, and it'll be pre-tuned with the DTS installed. Our normal display includes DTS systems for both heads, along with the POP Kit comprised of a stick, a tuning wrench, and a sign that explains how the system works."

So how exactly *does* the system work? "A lot of people are interested in the intricacies of the system's engineering," Doug explains. "So as I was developing my ability to describe it as succinctly as possible, I asked this kid at a store, 'Do you understand what's going on there?' And he said, 'Dude, you turn the knob while you play the drum. And when you like what you hear, you stop and rock out!' And I don't think anybody could put it better."

The Numbers

Complete DTS System Packages (per head)
 8"-16" six-lug system \$49.99
 12"-18" eight-lug system \$59.99
 13"-18" ten-lug system \$59.99

Accessories
 T-Handle Wrench \$9.99
 Bolt Lubricant \$5.99
 Bolt Assembly \$11.99
 Rim-Mount Spacers \$9.99

Drum Tech also offers system components, which include four- or six-piece bracket packs, tension cables for 8"-18" drums with six-, eight-, or ten-lug configurations, and replacement tension assemblies.
www.drumtech.com, (888) 378-6832