

Viewpoints

The Viewpoint of Ultra Sound's Owner

Gene describes the Jack and Doug experience

by Gene Sinigalliano



Jeff West and I own Ultra Sound Rehearsal, located in New York City, with 21 state-of-the-art studios, each fully equipped with the finest music equipment. In July 2002, we completed five new studios that have superb acoustics and sound systems. In fact, they are so impressive that we are renovating our other studios to match. Our guitar/bass amps, drums and keyboards were already the very best, so my main goal was to improve studio sound quality. Even though our old sound systems and room acoustics were quite good by rehearsal standards, I knew they were the two areas that could be vastly improved.

My first objective was to design and install the finest sound systems ever used in a rehearsal studio. This objective may seem easy, but our specialized requirements make it quite difficult to achieve. Our systems are used almost exclusively for vocal reinforcement, which must excel with warmth, clarity, articulation, intelligibility and dynamics. With bands playing at concert volume, the speakers must reach a loud enough SPL while staying coherent at 10-feet.

The cabinets must also be compact, allow for horizontal installation, and the entire system must be super reliable. I have never been satisfied with my past systems or sound company consultants, so I knew an experienced independent consultant was needed.

My second objective was to design the proper acoustical control for each room in order to create the best sounding studios. This is a difficult task because we have studios that vary in size, shape and ceiling height with bands playing in excess of 120dB. Add 3600W bass amps, the need for super loud PAs without feedback, standing waves and reflections to this equation and you begin to understand the problem. An expert in the field of acoustics was a requirement if I wanted great live sound.

Find the Best

Like many people who are involved with live sound and acoustics, I read each issue of Live Sound! International magazine because I find it refreshingly honest and educational. I applaud the magazine's integrity, and I respect many of the writers for their unique combination of technical excellence and real world experience. Jack Alexander and Doug Jones are perfect examples of the talented professionals writing for LS! I enjoy their discussions from two very

different but equally valid viewpoints, and I trust their independent critical opinions in the search for musical truth.

Jack Alexander was my choice when I made the decision to hire an expert consultant to design the sound systems. He is an experienced live sound engineer and system designer; has truly golden ears; comes with no ties to any product or company; and is particularly knowledgeable when it comes to cutting-edge sound system components. Doug Jones was my choice to consult on the studios acoustical control design and to spec the acoustical control devices. More than an expert technical acoustician, Doug has great ears that compliment his skill of measuring and analyzing room acoustics.

The process of choosing the sound system components was long and involved but worth every bit of effort. Because the room and speaker combination is so critical to performance, I listened to many different speaker systems at Ultra Sound. In the end, one of the two speaker systems Jack had recommended was clearly the best. The Martin Audio Custom WT3 is a compact three-way speaker system using their best drivers in an enclosure that allows rotation of the mid-high section for horizontal installation.

Jack helped me choose many of the components based on his experience, but at my request, he also evaluated many different amps and some speaker management systems. The Lab.Gruppen amps Jack recommended are not well known in the U.S., but they will be. They are smooth, fast, very powerful, ultra efficient, run really cool, are 2 RU and weigh only 22 pounds - amazing.

Needless to say, the Midas, XTA, Lab.Gruppen, Martin Audio, TC Electronic, Sennheiser, Mogami, Gepco and Neutrik combination is awesome. The systems are capable of high SPL that can cut over the loudest bands with warmth, smoothness and speed, while retaining critical accuracy and vocal intelligibility.

Acoustical Treatment

I followed Doug's plan for acoustical control with the construction of broadband acoustical traps, installation of Proudfoot resonator bass traps, and two-inch acoustical panels on the walls and ceilings. After the studios were finished, they sounded great with nice absorption without being too dead, very good clarity and almost no feedback problems.



Typical Ultra room with fabulous backline.

While we were building the new studios, I read the March/April 2002 issue of LS!, and decided it made a lot of sense to have Jack and Doug come to New York to set up the sound systems and test each studio's acoustics. Their viewpoints concerning acoustical measurements versus an experienced live engineer's ears in permanent installations convinced me that I wanted to get both of them together working on my studios. They came to NYC for two days and the sound quality of the new studios went from great to superb. A live engineer with experienced ears and an expert acoustician's measurements prove to me how working in unison can produce optimal results.

I found Doug's measurement and analysis using a TEF20 of great value. In one studio, his room analysis found reflections from energy bouncing off the face of only a six-inch deep ceiling beam. Once acoustical foam was added to the beam, the sound became more focused and vocal intelligibility improved. Each studio was different, but in every room, small amounts of acoustical treatment were installed where Doug specified using the TEF20 and a laser to assist in exact placement. The amount of acoustical improvement was quite surprising considering how little additional treatment was required.

Close Without Measurements

Working with Jack on the sound systems was an educational experience and my respect for his talents grew considerably. He initially set up the first system by ear, and not only did it sound wonderful but it was very close to being right when Doug ran the TEF20. After they got the XTAs dialed-in, the systems had a musically accurate flat sound. Of course, flat isn't best in a very loud rehearsal situation, so Jack adjusted each studio's EQ and got a live vocal sound that's absolutely killer. It's true - measuring devices just can't replace a good engineer's ability to tweak a system to achieve ultimate live performance audio.

The results of all our collective efforts are superb sounding rehearsal studios with virtually no feedback problems and sound systems that amaze everyone who hears them. My goal was met and exceeded because of two very talented consultants and Live Sound! International magazine.

Some might question all this effort and expense for rehearsal studios. Many feel that arenas and theaters certainly deserve the best sound, but decent is good enough for rehearsing music. I question this skewed logic. A great performance by an artist with less than stellar sound is still a great performance, which could have been more enjoyable, if the sound were better. A bad performance by a vocalist with perfect sound is even more disappointing because the quality and clarity of the sound makes the flaws even more noticeable.

During rehearsal, singers try to perfect their vocal skills and delivery. A superior studio and sound system with clarity and intelligibility facilitates an artist's ability to hone his/her craft, so they are prepared to shine when it's their turn to perform. Practice makes perfect, and Ultra Sound Rehearsal is committed to the art and advancement of live music rehearsal sound.

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