

# Essential DJ Tech Skills

KNOWLEDGE = POWER

By Arnaldo Offermann

**A**s entertainers, we all come from different beginnings. Some of us, myself included, were skating rink DJs. Others got thrown into the game by being the DJ for their friends' parties. Some DJs just decided out of the blue that they wanted to be a DJ. There are hundreds, if not thousands of stories about how DJs got started. But the one thing almost all of us have in common is that we started blind.

*Photo by Monica Offermann*

This is especially true for many industry pioneers. There were no easy resources like Mobile Beat to teach them the ins and outs of this business. There was no internet (maybe GopherNet or ARPANET for Al Gore, haha) or other convenient way for them to learn. But they still were able to learn what they needed to survive and thrive in the entertainment jungle. One of the key things they had to master was their gear. While many things have remained the same in that area, today's DJs have even more to deal with, so it's good that we do have more resources to help us.

If someone about to enter this business were to ask you for the technical side of things, what would you tell them? This is my list, I hope yours is similar to it. I'm skipping the business and legal side of things; I am strictly talking about the techie stuff, the things that make us DJs geek out.

So what's the checklist of things a DJ should know?

## HOW IT WORKS

Are you using turntables? If so, do you know how direct drive works? Do you understand how sound travels from the stylus to the RCA? Or, are you using a laptop and a controller? If so, do you understand the ins and outs of your operating system? What are system services? What is an IRQ value? Why can having wi-fi running on your work laptop cause issues?

You should have a thorough knowledge of everything you touch. Some things may seem trivial, but having a strong grasp of all your technology will save your butt in the long-run. Think about it: If you're experienced with your equipment, you can troubleshoot any problem, at any time; and if something fails, it usually fails at an event.

For example, at one event we couldn't nail things down quite right in terms of bass quality during the sound check. After some investigating, I found out a sub was wired backwards. An employee had accidentally wired it wrong while doing

some cleaning/maintenance. When coupled with another properly wired sub, this created the worst possible cancellation. We quickly moved the sub out of the way and rewired it. Within minutes, the problem was solved. Knowledge gleaned from a few years of obsessing over car audio and learning everything I could about sound gear saved the day, and the client was none the wiser.

Another example, from the current computer DJ world: A nightclub that I just started consulting for had a computer crash. I was able to restore it and the DJ was able to get work done while I was working on it. Yes, a better backup solution was put in place. Understanding computers in and out was a huge help, but not as big as understanding the limits of the hardware and situation given. I'm not expecting every DJ to become an IT tech, but you'd better come darn close, considering how important a computer is to many of our setups!

I'll say it again: Learn your equipment in and out, one day it'll save your butt!

## RESISTANCE IS FUTILE...

...except when it comes to your job. Do you use electricity? LEARN IT! You don't need to memorize the NEC but you should understand the principles of things. Do you understand Ohm's Law? What about the simple equation  $A=W/V$ ? As part of knowing the ins and outs of my equipment, I know how much the mean power draw is per device. If I don't know it, I can use the aforementioned formula to help me derive the value. This is especially helpful when power is limited. Sure, two ETC Source 4 575W lights and a medium-sized LED show may sound like it needs two outlets, but I know (and you should, too) that if the venue is delivering 120V of power then both Source 4s pull 9.59 amps of power. My LED light show pulls 5 amps. This means that the show is right under 16A which works perfectly under a 20A circuit.

Calculate your equipment draw and note down the mean



(average), initial (when you first plug it in) and peak power draws during use. Using a Kill-A-Watt meter, I know the highest and lowest and mean values of my sound system as I use and push it.

One time, back when I first started, I didn't pay attention and didn't know that an entire high school gym was wired to ONE breaker. Never again. Since that incident almost seven years ago, I've never had a tripped breaker since.

## DESIGNING YOUR SHOW

I love talking about light design! How well do you know your own lighting? A common mistake I see, veteran or beginner, is too many lights with similar output. Why would a light show have 5-6 beam effects but no scanners or even floods?

The wonders of good lighting design could fill many articles and I won't go into details here. (See my article on DMX later in this issue, and check out my videos on the subject!) The key thing to realize is that to create a great show, you need to know your lighting gear inside and out, and thoroughly understand how the lights work together.

## WHY DID WE BECOME DJS AGAIN?

Ask yourself that question a few times: Why did I become a DJ? Most likely it was because of your love of music and you've experienced the high of having an entire group of people react to your work. With all the other add-ons that are becoming the normal offerings of the average DJ, it is very easy for us to lose sight of the true art form of the disc jockey: programming and mixing music.

Here's the controversial part of the article, and this is purely my opinion. I believe a good party/mobile DJ must be two things:

- 1) An expert programmer: A DJ needs to be able to get the crowd moving and create the energy that matches the goal of the client. That goal could be to create a lifetime of memories or simply stir up drink sales. The music needs to be programmed to fit that goal.
- 2) An expert mixer: I believe with today's technology, it's pure laziness not to even attempt to beat mix. But I won't beat that dead horse. Whether you beat mix or not, an expert mixer at least understands basic music theory. You don't have to read sheet music, but you must understand why the numbers 4, 8, 16, and 32 are vitally important to our craft. You must understand how BPMs vary from song to song and how to properly mix music where it makes sense, both harmonically (Mixed-In-Key is huge—google it) and rhythmically.

(Notice I said "party/mobile" before the term DJ. When you consider how many radio DJs don't always pick the music they get to play nor do they mix it, it's hard to put the above two criteria bits into the radio DJ's job.)

The beauty of our job is that it ultimately is an art form, despite of the medium you use to play music. I find it ironic how many old school DJs (I started on vinyl too, so hush) feel the need

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to tell up-and-comers that they need to pay their dues. Did Picasso "pay his dues" by chipping away at cave walls? After all, cavemen were the first ones to draw, so chisel and clay is the original painter's medium. That analogy may seem silly, but that's how things look to many outsiders looking into the DJ business.

But I digress...DJing is an art form; don't let anyone tell you how to do it. Just like any artist, if your audience tells you that you suck, well, you need to rethink things. But if other artists are telling you that, ignore them! You don't need to worry about researching HOW to do it, but rather WHY.

As DJs, we take requests—but not just of music. We take requests of style, of color, and even of theme. Which other artists are able to change an entire repertoire to fit the needs of the ones signing our checks? With an understanding of the basic principles modded to fit who you are, you can do any type of event and it should still look and feel like one of your parties. Whether it's a laid-back wedding or a high-energy school dance, if you walk into one of my events you will know it's mine. The same should be said for yours.

## NERD IT UP!

I said I wasn't going to go too far into the business side of things, but I want to share a personal story. From third grade all the way to 12th, I spent most days in the library reading up on everything

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that interested me: HTML, Javascript, Flash, graphic design, photography, etc. This helped me to build a computer skill set that has allowed me to handle all my company's promotional work, web design, and of course blogging needs.

I also spent hours learning about electricity, plumbing, auto repair, and other trade skills. This too has saved my butt: I had a serpentine belt go out in my E150 on the way to an event. A new belt, a screwdriver, and a ratchet, and I was ready to go in 15 minutes. No way was I going to pay someone \$100 to do something I could do myself, especially when time was of the essence.

Don't be afraid to really nerd it up. Even if something that's not directly related to the business interests you—do it! You never know when those skills will be useful.

To sum up, it's easier than ever to get into this business. Don't use that ease as an excuse to skimp out on learning the core knowledge you really need. It may take a bit of extra time to fill your memory banks, but it pays off in the long run. Never say "I don't need to learn about \_\_\_ and \_\_\_ because I can pay a pro to do it," because that pro may not be able to bail you out when a crisis occurs. Again, I'm not saying don't hire a lawyer, mechanic, or computer tech when you need professional services. But if your computer glitches mid-event, you probably won't be able to get a "house call" from the Geek Squad in time, and you'll be screwed if you can't get things up and running right away! **MB**