## The Importance of Back-Up Gear

DON'T WAIT TILL YOU CRASH AND BURN TO LEARN THE LESSON

By Richard McCoy

Those of us who've been in the DJ business for a long time (I've racked up 45 years), understand the importance of having backup equipment available when it's really needed. Also, from my experience as an engineer, I believe that Murphy's Law will prevail whenever a DJ doesn't have backup equipment ready. Things WILL go wrong; gear WILL malfunction.

There is no more embarrassing moment that a DJ can face than having an equipment failure during a performance. Your customer and audience don't really care what the problem is, they only want your performance to continue. Equipment failures may be the result of bad connectors, spilled liquids, dropped equipment, power surges, bad hard disc or some unknown problem. Whatever the problem, the show must go on.

Having backup equipment is like purchasing automobile insurance. You hate paying the money, but if you ever need it, you're really glad you have it. The use and amount of backup equipment is determined by experience, budget and available transportation space. A DJ is not usually aware of the importance of carrying backup equipment until they have experienced an equipment failure in the middle of a show. Only then, do many realize the true value of a backup. The school of hard knocks is the best teacher and there is no substitute for experience.

In a recent unscientific survey of the DJs in my state, I've



Richard has been an electronics hardware/software engineer in Silicon Valley for over 45 years, and is listed on several patents. During that same time, he has also operated as a mobile DJ, doing more than 4000 shows. Richard has contributed to the design of chips, graphics cards, audio and video systems, computers, and even satellites, as well as DJ lighting and sound equipment, while working for companies like Fairchild, Acer and Atari. collected some info that I think provides a good picture of what most DJs think about backup equipment. Those DJs who have been in the business for a long time or who have experienced equipment failures have a better understanding of the necessity for backup equipment. Some DJs even carry three backups. New DJs in the business with small budgets and limited experience do not see the need or anticipate the requirement for backup equipment. It appears that budget is the main contributing factor to what and how much, if any, backup equipment a DJ may have available. Some may only have an amplifier, a speaker or CD player for emergencies. Others would have a second complete system and/or all the individual components necessary to replace any failed component in the primary system (see image).

While I have not suffered from a truly major equipment failure in 40 years, I still carry a complete emergency replacement system, just in case. This may cost me extra money, but in the long run, it's worth it. If I ever have a requirement for an emergency

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backup system, I'm ready and can have an operational system up and running in a few minutes. Most customers and clients will have patience when there's an equipment failure, as long as it does not delay their performance too long, and if there is a replacement unit or system available. Not being able to continue a performance due to gear failure is simply not acceptable!

## HOW TO BUILD A BACKUP

Depending upon the style and the type of media used in your primary system (vinyl, CD or computer), your backup system should match the formats that best suit your style. The main components of a backup system should include: media player, power amplifier (or powered speakers), microphone and mixer. These components may not be as versatile or functionally the same as your primary system but they will provide your audience with music and entertainment under adverse circumstances.

To ensure a quick and easy migration to your backup system, I suggest that you have a complete system ready to go in a self-contained enclosure that only one plug in to power up. This will save time and will make you look like a hero to

your clients. If you are a vinyl or CD-only DJ, then your library should be able to sustain you for the rest of your performance. If you rely heavily upon your computer library for music, it is best to have an extra external hard drive with all your music on it.

For some, an "all-in-one" unit might be the perfect solution. For a while now, Numark has made a very nice and functional complete system that work great right out of the box. The CDMIX line provides a dual CD player, mixer, mic and line input all in one unit. One of the latest models, the iCDMIX2, also features a dock that allows you to play music from a number of different Apple iPod models. It will even run on 12v DC (car battery). At a street price typically under \$300, this unit is also quite affordable.

This unit is also great for small venues; which leads me to mention one bonus of maintaining a backup system. The size of



the system may make it just right for small function where a large primary system would be overkill. So you may be able to get a bigger return on your back-up gear investment than it might appear at first glance.

Even though I'm not a supporter of laptop DJing in general, I do carry one as part of my emergency backup system. With the media content and software on the laptop, I am

confident that I can continue to provide my clients with a superior show with only a small delay, as I boot up and login. On the other hand, my rack mount computer allows me to continue and/or "hot swap" a hard drive without any interference or disruption in my performance. I can also change video and sound outputs if necessary. This way, the client will never even know that I've experienced a problem.

Although any back-up solution requires an extra expense that many DJs are unwilling to pay, owning a backup system is not a luxury but a necessity for true professionals. The example above shows what can be provided for just a few dollars. Whatever the size you can manage for an emergency system, the investment in this kind of "insurance policy" is well worth it! ME

