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SECTION 1

Pre Show

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“For the past 32 years, I’ve done nothing outside the entertainment business. I’ve had some real highs and some real lows, but I love the work so much that I never once thought of quitting.”

—**Meat Loaf**



CHAPTER 1**What is a Live Audio Engineer?**

p0010 Job description: If you like semi-darkness, long hours of boredom, long hours of work, no social life, no love life, heavy lifting, getting your white gloves dirty, and a good laugh, this is the job for you.

p0015 Audio engineers, also known as sound engineers, come in many different types: TV, radio, film, and live and recorded music, just to name a few. Although these jobs are very different, the people who perform them are all considered to be sound engineers. This holds true for other languages as well: The Germans have different words for jobs such as tone master (*Tonmeister*) and tone technician (*Tonetechniker*), the tone master being a producer and the tone technician someone who operates the equipment.

p0020 This book is specifically about live engineers, whose job it is to look after the sound at all types of live events. This can be a high-pressure job, as you only get one chance to get it right. You need to be on the ball, understand when things go wrong, and know where and how to fix them—quickly. In order to help you do this job the best way it can be done, you must have general knowledge of all different aspects of the job.

p0025 In a live environment, there are three main types of audio engineers: front of house, monitor, and system technician. In the following sections, we discuss all of these types in more detail.

s0010 **FRONT OF HOUSE (FOH) ENGINEERS**

p0030 The front of house (FOH) is where the audience is, and an FOH engineer mixes the audio for that audience. If all goes well, the FOH engineer is the person standing in the middle of the audience next to the lighting guy and surrounded by a barrier and different-colored lights. (The FOH engineer is often mistaken for the DJ, but don't even think about putting a request in.)

p0035 FOH engineers work hand in hand with monitor engineers and must have good communication with them. Together, you must follow the band's specifications (see Chapter 5 on Advancing the Show). The FOH engineer also puts the channel list together, thus ensuring that you have all the channels you need

to mix the show to your liking. (Remember, though, that there might be some channels that don't need to be heard through the house speakers, such as click channels and ambient mics for in ear monitors (IEMS).) Finally, the FOH engineer also runs soundchecks.

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Speaking from personal experience, I have spent some time doing this job, and I always love it; being an FOH engineer gives me the ability to be creative and loud at the same time. However, the mixing can be a challenge. It isn't just a case of pushing up your faders and making sound happen—it's about blending sounds into one another so that you hear a full mix with nothing obscured. This is an enormous responsibility because you essentially have control of another artist's music. Some artists really want to be involved with the mix, while others might just let you get on with what you are doing. Either way the ability to understand what the artist, management, or producer wants, and then the ability to translate that into audio, is important. For example, if someone says "I want it to sound more raw," or "More reverb!" you have to understand what this means and how to do it. We'll get into more detail about this kind of thing in later sections.

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MONITOR ENGINEERS

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The job of a monitor engineer is probably the most fundamental of all the live engineering jobs. Monitor engineers are responsible for controlling all the sound on stage. *Monitors* are the speakers positioned on stage that allow performers to be able to hear what's going on. They are also referred to as *wedges*, which is the term that most professionals use, or *foldback*, which is more of an older term that isn't particularly used from day to day. The majority of the work for a monitor engineer is done during soundcheck, making sure that everyone has what he or she needs to hear, and thus perform, well.

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You will find the monitor engineer located just off to the side of the stage, preferably on stage left (if room allows it). He or she controls the individual monitor mixes for each of the performers on stage. As a result, it's a good idea for the monitor engineer to put the stage plan together, so that he knows where all his monitors should be and what order the sends for the monitor console need to be on. (We discuss stage plans in more detail in the Stage Plan section in Chapter 5, where we go into more detail about why it's a good idea for the monitor engineer to do it. If there isn't a monitor engineer, this responsibility falls to the FOH engineer.) A monitor engineer might also be in charge of IEMs, or *in ear monitors*. These are similar to headphone buds that can be molded into shape. IEMs can also be *generics*, which are similar to foam earplugs with a headphone attached to one side. There is a real art to mixing IEMs.

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In order to be a monitor engineer, the performers must trust your work. This can be a challenge, especially because you may be dealing with big egos. As such, good communication skills are essential for doing a good job. Part of this communication is understanding seemingly random hand signals and gestures.

There is nothing quite like watching an artist wave his arms in the air, point at objects, and nod his head as if some kind of epileptic fit has ensued—all in an attempt to tell you that he requires a little more acoustic guitar in his wedge. One of the basic rules of being a monitor engineer is to pay attention to the performers at all times, looking at them even when they aren't looking at you, and constantly monitoring their individual mixes. Meanwhile, they'll be able to monitor each individual mix with their own wedge—called a *listening wedge*—and their own set of IEMs. Make sure that the listening wedge is exactly the same as the other wedges on stage, with the same amp and the same graphic equalizers. Getting this part of the sound right is essential because performers rely on you to get the best out of what they are doing.

p0060 The job of a monitor engineer is probably one of the hardest, but also one of the most rewarding. There isn't much room for creativity, but there is an art form about getting monitor mixes right. When the performers have a great show, the monitor engineer will have a great show.

s0020 **SYSTEM TECHNICIANS**

p0065 System technicians, also known as *system techs*, look after the whole PA system. There are normally at least two system techs per PA system—one who looks after the FOH and one who looks after monitors. These engineers are wholly responsible for the entire PA system and usually have a vast knowledge of the equipment they monitor; however, unlike FOH and monitor engineers, they usually do not operate the equipment (unless asked to, or there isn't anyone else to do the job). Although most system techs will be able to mix, their main responsibility is to make sure that all the equipment is working correctly and is properly maintained. The biggest part of this job is to work with the artists' FOH or monitor engineers to get exactly what they need out of the system and equipment.

p0070 One type of system technician is also known as an *in-house engineer*. In-house engineers have all the same knowledge as system technicians; the only difference is that they generally work for the venue, whereas system techs generally work for PA companies.

s0025 **THINGS TO THINK ABOUT**

p0075 One of the important things for a sound engineer to realize is that it can be quite a social job. You have to learn how to balance this out and realize that you can't simply leave your position to go enjoy the show or visit with friends who are attending. Engineers are not part of the band, even though they may spend a lot of time with them. You must remember that you are the one who has to be in the venue before the band members, get things set up before them, and stay behind after they have gone. Just remember: You are there for a reason, and that reason is to mix. You are being paid to do that and nothing else.

p0080 Some engineers I know have next to no negotiation skills; their attitude is “It’s either my way or the highway.” Try not to adopt this attitude when working—it’s very important to be able to adapt to your surroundings. You are part of a team that makes everything work, and it’s everyone’s job to make sure the show happens and that the audience has a great time.

p0085 This industry is still very young and, as such, is constantly changing. Just remember that if you want to make a career out of it, you must be professional, responsible, and courteous at all times. In addition, here’s a little tip for when you’re on the road: You never know how someone else is dealing with being away from loved ones, so you should always give people the benefit of the doubt.

p0090 Above all, remember this: You are only as good as your last gig.

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HOME LIFE

p0095 Your home life is one of the hardest aspects to navigate in this type of career. Some people are built for travel, whereas others are made to stay in one place. Some engineers get into this job because they are very attracted to the idea of being able to see the world, even if only from the back seat of a taxi, or looking out at a cityscape through a window in a departure lounge. However, having a stable life at home is key not only to your own sanity, but also to the sanity of the people around you. Being away from home can put a strain on even the most solid of relationships, but the key ingredient for any type of relationship is communication. With this type of job, having a family that understands who you are, what you do, and why you do it is extremely important.

p0100 One of the difficulties of being a live engineer is getting outsiders to understand what the job is like. Many people have incorrect preconceptions, especially due to the kinds of stories you hear about the early days of rock and roll. These days, though, things are very different; usually you get straight on the bus after a gig and head straight out of town. Going on tour is about making money, which means you are always on the move.

p0105 Having troubles at home while you are away can lead to all sorts of problems. It nearly always affects your work because your mind is constantly taken away from the job at hand. As such, it can also affect the people you are working with. Chemistry is crucial on the road, and a breakdown in trust and communication can be disastrous for the whole operation. Just remember, it is one thing to talk about troubles, and another to take your troubles out on other people. Take time for yourself. Everyone is in the same boat and will understand if you don’t want to be part of group activities outside work time.