

# HIGH SCHOOL THEATRE OPERATIONS

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## CHAPTER 5

### HEADSETS

Communication headset systems get their own chapter because they are one of the most important systems in a theatre to make any event or production run smoothly. No matter the size of your theatre, if you don't have a headset system – get one. If you don't have enough – get more. If you only have wired – get some wireless as well.

Headsets are a vital element of a theatre design. Without headsets the crew cannot communicate to each other. For a substantial size show, the Stage Manager calls the show – this means that she tells every crew member when to take every cue. Each crew member knows *what* each of their jobs are at Cue 12, but the Stage Manager keeps an eye on the show and tells a crew on standby when Cue 12 happens. Without this system the success, and even the safety, of the show is compromised. During smaller one-time events where there is only one, or even no, prior rehearsal, and often no Stage Manager, it is imperative that the crew be able to communicate to each other in order to stay one step ahead in order to coordinate their jobs.

You will hear of two types of headsets spoken about around a theatre. One type belongs to the theatre's communication system that the crew uses, the other kind are mics that performers wear. Usually if you just hear the term "headset" we are talking about the communication system. Also, you will hear the whole arrangement, which includes the headset, beltpack and cables referred to as "the headset". Technically the beltpack carries the power and the headset itself is plugged into it, but we call the whole thing "the headset". When a Stage Manager tells her crew to "set up the headsets" she means to plug in or put in place the headsets, cables and beltpacks.

Headsets are a priority item. Try to get the best brand money can buy, but if you can't shift the budget to purchase even an inexpensive headset system, at least find some way so that the crew can communicate to each other. I've worked with walkie talkies, lately cell phones, even a baby monitor. Yes, it's true. In one theatre we did not have any headsets for the followspot operators up in the catwalks, so I brought in an old baby monitor that I had at home. We put the receiver (the end parents would have with them) by the followspot operators and I held the transmitter (the end that would go in the baby's room). That way I could talk to the followspot ops and relay cues to them and they could hear me. Of course they couldn't talk to me, but I could tell each time they received my commands by the correct adjustments made to the followspot light. Find something that works; the smooth operation of every show, no matter how small, depends on communication between your crew members.

#### HOW MANY HEADSETS JACKS AND WHERE?

How many headset positions should you spec in a new theatre or how many headsets should you purchase for an existing theatre? It never ceases to amaze me that multi-million dollar, state-of-the-art high school theatres are provided with two to four jacks to plug in headsets and that's it, or the theatre is built with enough jacks, but is stocked with just a few headsets.

The very minimum I recommend is 8 jacks. Here are the locations where you should spec a headset jack:

1. In the booth where the Stage Manager will sit to call a show.
2. In the booth where the Light Board Operator will sit to run the light board.
3. At the sound board (which you've put in the house because you've read this book).
4. At the position where the first followspot is placed.
5. At the position where the second followspot is placed. (Even if the followspots are together, each operator needs his or her own headset, or else one followspot will lag behind the other if "Go's" have to be relayed.)

6. Stage right. This headset jack should be near the fly rail if it's on that side of the stage and should not be placed such that the technician wearing it will drape the cable across a doorway or the path of an entering or exiting actor. Plan ahead for where a crew member is likely to be standing, whether it's a rigger operating the fly rail or a Stage Manager who is calling the show from back stage. Or both.
7. Stage left, or the side of the stage opposite the fly rail. Likewise with stage left, think about what the technician needs access to and whether the cable will be in the way of actors making entrances and exits, and stage crew moving set pieces.
8. A jack in the floor at the center of the house where the Lighting Designer will sit to design the show. It's actually best to have two jacks at that position because the Stage Manager should be sitting at the tech table for the first few days of tech next to the Lighting Designer so that they can more easily confer on cues during the tech.

## **OTHER HEADSET POSITIONS TO CONSIDER**

### ORCHESTRA PIT

Does your theatre have an orchestra pit? If so, the Stage Manager will need to communicate with the Conductor. The Conductor will not wear the headset during the show, because he or she has to hear the music. But it is useful to be able to communicate with the pit in order to let the Conductor know when to start the overture or the entre-acte, when a cue comes up that needs special notification because the Conductor can't see what is going on, or in case of an emergency where the Conductor needs to talk to the Stage Manager or the reverse.

### BOX OFFICE

The Stage Manager needs to communicate with the House Manager about when to start the show, because the Stage Manager must be in her place ten minutes before the show starts, making sure that the actors and crew are ready. If the Stage Manager cannot communicate with the House Manager, the Stage Manager may start the show when her crew and the actors are ready, but there may still be a line of audience members in the lobby still waiting to get into the house. It would be inconvenient, if not unsafe, to black out the house before all of the audience is seated. The House Manager needs to be able to inform the Stage Manager to hold the show if there are still audience members arriving.

### DRESSING ROOMS/GREEN ROOM/WAITING ROOMS

It's not a good idea to let performers have access to the crew's communication system – too many cooks... But, for a large show, a Stage Manager may need to communicate with a crew member who has been placed backstage (when I say "backstage" in this case, I mean out of the stage space, not in the wings – the term is somewhat interchangeable and depends on the context of the situation).

### SCENE SHOP AND COSTUME SHOP

Another reason it might be a good idea to have a headset backstage would be for a costumer to communicate to the Stage Manager in case there was a problem with a costume, which might require delaying the start of a show, or stalling a scene change. If the budget allows, it's also good to have the option for someone to plug in a headset in the scene shop, although that location is primarily used before the show has opened, not during the running of a show. Only in extenuating circumstances would set building – most likely a repair of some sort - be going on during a show. Some scene shops are used for set storage during a show.

### EXTRA JACKS IN THE WINGS

Again, if the budget allows, place at least one extra headset jack on stage right and one extra on stage left. If you already have jacks down stage, consider placing extras up stage, or in the middle of the rail. That way two crew members aren't plugged in at the same place and daisy chained (see next section) together, and won't trip over each other's cables.

### LOADING BRIDGE

The loading bridge isn't used during a show, but it is used for re-weighting when hanging lights or scenery. Do not install a headset jack up there. Use a wireless headset, and if a wireless headset is not available crew can shout to each other. Better to go hoarse than to trip over a cable and fall to your death.

## **DAISY-CHAINING**

Most wired headset backpacks have the capacity to plug one headset backpack into another in a "daisy chain" configuration, sometimes called "piggy-backing". (If not, don't spec or purchase that brand of headsets, because this option offers a lot of versatility.) The backpack has three holes. One is for the cable that is plugged into the wall jack, which provides the belt pack with its power and sound, and one for the cable that connects to the belt pack to the actual headset. The third hole is the same as a wall jack hole, and this is where you can plug in another cable that would go to yet another headset backpack.

If your budget is tight, and you can't spec as many wired wall jacks as you would like to, consider situations in which daisy-chaining would work, whereby you could get away with one wall jack, not two. Daisy-chaining works best where the crew members don't have to move around. For instance, the Light Board Operator could daisy-chain off of the Stage Manager's beltpack if they are both sitting stationary, side by side in the booth. Although I don't thoroughly endorse it, one followspot operator could daisy-chain off of the beltpack of the other followspot operator if the followspots were next to each other. The danger of this would be having a cable strung across the catwalks or beams, which would be a tripping hazard. In addition, cues might be badly timed if one followspot operator has to relay a "Go" to the other followspot operator.

One place where daisy-chaining does not work is backstage. Crew members need to move around backstage and if one was daisy chained off even a crew member who was stationary (a Stage Manager for instance), if that mobile crew member were to walk out of cable-length range, or if someone were to trip over their cable, it could painfully yank the headsets off both of the crew members. Not only that, it could be at an inconvenient time – or potentially critical time in terms of safety – just as the Stage Manager was calling a cue or as a stationary crew member was about to execute a cue. Not to mention the cost of damaging any equipment. Plus, it could cause injury to the person tripping over the cable.

## **WIRED VS. WIRELESS**

There are two ways headsets are powered. One way is by DC, which is batteries (rechargeables save a lot of money – you can spend hundreds of dollars a year on headset batteries - so be sure to include rechargeables in your spec's or purchases). The other is by AC, which is plugged into the theatre's hardwired system by way of a cable. Both wireless and wired headsets have their benefits and you should spec some of each.

### WIRED

Wired headsets don't eat up batteries, and are best for people who don't have to walk around. For instance, the light board and sound board operators don't usually have to leave their positions during a show, nor do the followspot operators, because boards and followspots are not portable. (Although, that said, even board operators occasionally have to get up from their post to attend to something that might be happening ten feet away. With a wired headset they would then would have to temporarily 'go off headset' and might miss a cue being called.)

### WIRELESS

Wireless headsets are best for crew who need to move around, such as a fly system operator. They may have to fly out a drop on Lineset 6 and then rush to fly in a drop at Lineset 20. The fly rail area can be a dangerous place (see The Counterweight System chapter), and although there may be policies that any actor waiting in the wings should stay away from the fly rail, it's not always possible because of space considerations. Imagine what would happen if the crew member on a headset attached to the wall with a 20' wire were to have to move between actors and other crew standing in the wings. The cable would be a big tripping hazard.

Another person who has to move around backstage is a Mic Wrangler. This is the person who is in charge of placing mics on actors who might be sharing them, and is in charge of replacing dead batteries if they occur during a show.

Likewise for the House Manager who has to move around the lobby, in and out of audience members, concession sellers, and the box office. A cable would be very impractical.

### WHO GETS WHICH

From our original list of positions, here's who should have what headset capability.

#### Stage Manager

The Stage Manager should have both options; a wired headset in the booth if they are calling the show from the booth and a wireless headset to wear if they are calling the show from backstage.

#### Light Board Operator

The Light Board operator can make do with a wired headset most of the time, but a wireless headset would be optimal.

#### Sound Board Operator

The Sound Board operator (located in the house, because you've read this book) can make do with a wired headset most of the time, but a wireless headset would be optimal.

#### Followspot Operators

Followspot operators rarely have to move from their positions, because they are usually located in the beams or catwalks or another position away from distractions. So they can have wired headsets. Ideally, though, they should each be able to plug into their own jacks, even if they are standing next to each other. The headset wires should be carefully located and taped down so that there is no tripping hazard.

#### Flyman/Fly Rail Side of the Stage

Wireless.

Stage Right or Left – the other side of the stage from the fly rail

Get out your crystal ball and decide if the person standing back stage will be issuing orders from where they stand, or whether they will need to move around for set changes, etc. A wired headset is better than no headset, but a wireless headset would be the best choice for flexibility in a variety of show situations.

Center of House – tech table position

These – at least two jacks are optimal – can be wired. If someone needs to go off headset while at the tech table during a rehearsal, that's ok. It's not likely that anyone would be sitting at a tech table in the house during a show, when leaving a headset could jeopardize the show.

This all said, if you have the choice, there's almost no point in the design, labor and material costs involved in installing a wired system, as it's so restrictive. It's optimal for everyone to be able to move around with a wireless headset.

## **BATTERIES**

And, that said, if you do go with wireless, remember to supply rechargeable batteries and chargers, because you can spend a mint on batteries if not. Be sure to purchase the chargers at the same time as you purchase the headsets. At one theatre I worked at wireless headsets were purchased as a part of an upgrade, but chargers were not purchased. When I later inquired about purchasing the chargers, I was informed that the model of headset and their chargers had gone out of production. Hmm. Probably why the school district was able to get a deal? The chargers would have plugged straight into the side of the beltpack. Consequently, every time we had to replace batteries – I did at least purchase some generic chargers and rechargeable batteries – we had to open the back of the beltpack (a fiddly operation at best, which required a paper clip or penny), remove the "sled", remove the six(!) AA batteries, replace the six(!) AA batteries... Well, you get the idea – a multi part operation rather than a one part operation.

## **SINGLE CHANNEL VS. DOUBLE CHANNEL**

One school of thought is to have two channel capacity. The concept is so that the lighting and sound designers and their board operators can talk together in order to set the cues during tech rehearsals on one channel, and so that the set crew can all converse about the set changes on the other channel, without disrupting each other, while the Stage Manager can hear both channels because it's their job to coordinate these two groups of people and write all the cues in their prompt book or script. On the surface this seems to make sense, until reality hits and what happens is that the lighting and sound people who can't hear what the set crew are saying start talking to the SM at the same time that the set crew who can't hear that the lighting and sound people are talking start talking to the SM. Instead of being in control of the conversation and situation, the SM is hit from both sides. In addition, sometimes something the lighting and sound crew say, affect the decisions of the set crew, and visa versa. Many problems can be nipped in the bud by collaboration over the headset.

I personally prefer just to have one channel in use. If two conversations or commands need to go on at the same time, I've found that experienced crews get used to this, each person just tunes into the voice of the person that they need to be listening too. I've worked like that many a time and it works just fine if everyone cooperates.

## **SINGLE MUFF VS. DOUBLE MUFF**

The muff is the padded ear piece that is attached to the headband that goes over the technician's head.

Always spec single muff headsets. A theatre is not a recording studio. Theatre technicians absolutely must have single muff headsets. It is essential that one ear is uncovered in order for the technicians to be able to hear what is going on around them. Technicians on stage must be aware of their surroundings. This is a huge safety issue. They must be able to hear warning calls in case a set piece falls or a pipe is coming in above their heads.

Safety aside, it is the job of all technicians to pay attention to what is going on on stage, and most importantly the Stage Manager needs to hear each line the actors say in order to call lighting, sound and set/rigging cues at the right time. Plus, an Assistant Stage Manager, Deck Manager or Stage Manager on stage must be available to answer questions from cast and crew, while also hearing what is going on at other areas of the theatre over the headset.

The sound techs need to be able to communicate with the Stage Manager and other technicians, while being able to hear what the audience hears - they cannot have false sound levels being fed into their headsets. That said, the sound technician should also have a double muff headset that is plugged into their sound board, because occasionally she needs to be able to cue up a sound effect or piece of music without the audience hearing it and without them hearing the audience.

Sometimes, when there are not enough headsets provided in a theatre, there are people who can do without. For instance, if the Stage Manager is calling the show from the booth and is sitting right next to the light board operator then there is really no need for the light board operator to have a headset, as the SM is the only person they need to receive instructions from. In this situation it's especially important not to have a double muff headset because the SM needs to have confirmation that the light board operator has received warnings, standbys and/or has completed cues. They cannot be wearing double muff headsets as they must have one ear free in order to have two way communication with the light board operator.

## **MUFF COMFORT**

During tech rehearsals that can last around 5 to 8 hours – or longer, and during days when there are both matinee and evening performances, crew members are wearing their headsets for hours at a time. It is worth it not to scrimp on cheap headsets with uncomfortable muffs. Also keep in mind that some people have to wear eye glasses and they can have the additional discomfort of having the side of their glasses pressed against the side of their head. And, while they're removable, many people wear earrings. I myself have my favorite pair of "headset friendly" earrings (they're even black, because techies were black clothing in order not to be seen!). Regardless of what else you're wearing, I can attest to how uncomfortable, if not painful, it is to have to wear cheap headsets for hours on end.

## **CALL LIGHT**

A call light is a little light that flashes on the beltpack when another crew member pushes their call button on their beltpack. It will flash a light on all the beltpacks, so that those not on headset know to check in.

As some point in time it may be necessary for any technician to go "off headset". Sound technicians in particular are notorious for never wearing their headsets, which bugs the heck out of the rest of the crew because they can never get a hold of them. However, there is a good reason. The sound crew need to hear what the audience hears, so they can't have their ears covered with headset muffs all the time. However, the stage manager and the rest of the technicians do have to communicate with the sound technicians at times, so make sure the headset system that you spec has a call light on the beltpack. Of course that is assuming that the sound techs have placed their beltpack in their field of vision, which is not always possible to do (say the sound board covers the entire desk surface and there is no where to put the belt pack). For this reason if at all possible, it's best to install some sort of call light at the sound board station within visual range.