

Need to know how to attach a mic to an actor's head and conceal it from public view? Read on.

ow do you attach a microphone to an actor's head and make it invisible? Following is a guide that will not only answer this common question, but also help you understand how mic rigs are built and used.

First, the supply list:

·Your favorite miniature microphone (Sennheiser MKE2, DPA4060, Countryman B3 or B6 or what have you). I prefer to start with mics that are light flesh tone, because it allows the greatest number of possibilities when it comes to coloring them to match their surroundings.

 $\bullet^{1}/_{16}$ " round elastic. Again, I prefer to start with white and color it as needed. In lieu of RIT or some other dye, we have used 10 tea bags (regular Lipton, not the fancy herb stuff) and a bowl of hot water to darken the white cord to a light tan.

•Black and Brown toupee clips, assorted sizes. (Although we use more of the small size than any other.)

•Art markers. Assorted skin and hair tones. It's usually good to have several shades of brown, black and grey. We also have some browns that skew towards red. We use Prismacolor Art Markers with DPA microphones, but have found that the Prismacolors don't work as well on Sennheiser and Countryman mics. We have started to use Zig Paintys on the Countryman mics. The color is a little shiny compared to the Prismacolors, but it lasts longer on the Countryman.

•Flexible super glue. (Miracle Glue, Foam Adhesive)

•Floral wire - small gauge, solid wire.

Moleskin or fabric surgical tape.

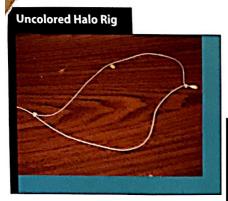
•Hellerman Tool and Hellerman Sleeves or surgical tube. Merithian has Hellerman tools for sale.

Now it's arts-and-crafts time. The process can be time-consuming, and probably should be undertaken well before the half-hour call. As every actor's hair and skin color is different, you have to start with samples of various coloring options. Colorize a broken mic wire with all of your art marker colors so you have a color template to use for comparison purposes. Take a couple of minutes with each actor to do a quick color match using the color template wire. You can also find out if the actor has a preference as to using elastic or clips now, too. (Not that they will always get what they want, as there are other factors that determine the form of the final rig.)

Also try to get some rough measurements. The most important measurement is from the center of the forehead to the edge of the hairline on the back of the neck. This may be different for a clip rig as opposed to an elastic rig. It's also easiest to use the actual mic to do the measurement. Hold the mic in place on the actor where it needs to be, and stretch the wire through the path it will follow. Mark the location of the rear hairline on the mic; that way you know how far to color the mic wire to match the hair.

## **Elastic Rigs (Halo)**

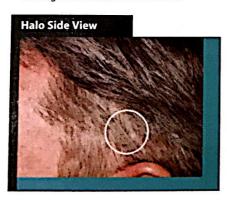
Halo rigs are by far the easiest to make and the easiest to put on. They can be hidden quite effectively if colored and fitted correctly. If done improperly, they end up looking like the actor is wearing a hairnet. Halo rigs don't work for everyone; the hairline has to be such that the mic wire and elastic have a place to hide and aren't stretched across the forehead without the cover of hair. Halo rigs can be difficult to hide properly if the actor has a receding hairline or a "widow's peak," as the wire will want to run across the forehead. Bangs are also very helpful in hiding the head of the microphone.



This photo shows an uncolored halo rig. The elastic is tied to the mic wire just behind the head of the mic and again several inches down the mic wire, resulting in a circle that can be placed around the actor's head, with the mic in the center of the forehead at the hairline. Use a bowline knot with a half hitch to secure the elastic to the mic wire. It holds well, and before it's tightened down it can be slid on the wire to get the position correct. Care should be taken not to make the knot too tight, as that can be damaging to the mic wire. Sometimes a drop of superglue on the knot can save re-tying knots that have come loose.



The photo above shows a halo rig on an actor. The photo was taken with a slightly upward angle to show the microphone. From a forward angle the mic head hides behind the actor's hair. In this instance, care was taken to arrange the wire in such a way as to weave it through the actor's hair, leaving only the head of the mic protruding onto the actor's forehead.



The Halo Side View photo shows the same actor from the side. Notice the mic wire is colorized to blend in with the actor's hair color, making it very difficult to see — even close up. From stage, this microphone completely disappears.



Here is a shot of another halo rig. This photo was taken looking at the side of the actor's head to show the microphone head extending down the forehead and being obscured by the actor's hair. Notice the mic wire to the right has not yet been properly dressed through the hair.



Toupee clip rigs like the one above can be used to blend into the hair when halo rigs are not an option. Some actors prefer them to the elastic rigs; the clips, however, can be hard on the hair and end up pulling hair out, leaving thin spots unless care is taken when removing the rig. Clip rigs are time-consuming to build. Attaching the elastic to the clips and threading the mic wire through, as well as getting the clip placement correct for the application, is once again a trial and error proposition.

In the clip rig pictured above, we were able to use a black mic and black clips — no extra color was used. Notice the head of the mic: a Hellerman sleeve is placed just behind the mic head to minimize any sweat that might run down the mic wire.



A close-up shot of the toupee clip with the elastic tied between the two holes on either side, and the mic wire threaded through and wrapped around the elastic.



Here is a photo of the rig in the actor's hair. The circled clip is hidden in the hair. Once again, this rig completely disappears when viewed from the stage. This photo is taken from straight on. This actor has a hairline that is ideal for this sort of placement. The mic sits past the crest in the actor's brow, placing the mic on the front of the actor's face, not the top of their head.



Here's a photo of the back of an actor's head, showing the mic wire and toupee

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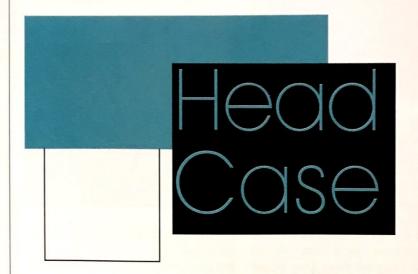
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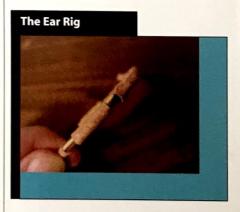
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clip holding the wire in place. In addition to the clip, a piece of surgical tape is used on the back of the actor's neck to provide additional adhesion.



I am not a fan of the sound of the ear rig, but sometimes it's the only option. It is a piece of coat hanger bent into the correct shape. The mic wire, a piece of floral wire and a coat hanger are held together with Hellerman sleeves. A little moleskin or fabric surgical tape covers the Hellerman sleeves to provide a little comfort for the actor.

When painting these rigs to hide them, there are a few things to keep in mind. Remember that this is camouflage. In the hair, using color that's just a little darker is easier to make disappear. Military camouflage is multi-color and multi-pattern. Varying the color a bit usually gives better results than solid colors. It's all about trial and error to see what works and

what doesn't. If you're trying to hide a wire across open expanses of flesh (down someone's back for instance), generally going just a bit lighter works best.

You'll also need to perform routine maintenance on your rigs. Mics don't last forever, and the knots, elastic and clips get old, and colors fade. Be sure to write down what works for each actor and all the parts you need to build each rig. For the principal roles, we generally build two for each of them so that if one breaks, we have another ready to go. Building a new rig is just too time-consuming and tedious to have to do it at the half-hour, or worse, during a performance.

In an ideal situation, the sound designer would have absolute say over mic placement, but that's not how it works. I prefer the center of the forehead, provided the shape of ones brow allows the mic to sit on the front of the actor's face and not the top of their head. Of course, the use of hats in the production could influence mic placement, as sound produced with a hat tends to be hollow and loud. If an actor has a lack of hair, perhaps the only option for unobtrusive miking is the ear rig.

Jason Pritchard is head of audio for Cirque du Soleil's production of LOVE. A version of this article originally appeared on the Bright and Loud Web site, (www.brightandloud.com).