



Audio

This document is based on the requirements that C31 Melbourne have of their producers in meeting the stations technical criteria. It is also an accompaniment to the training DVD on Audio. A full list of the technical criteria and copies of the training DVD are available from the C31 office.

Audio is arguably the most important aspect of television production. Viewers are more willing to accept bad vision than they are to accept bad audio; they will simply switch off! So, it's important to get it right, even if this means having to re-shoot entire scenes. The following pages outline how to record good audio well, but as a quick summary:

- > **Select appropriate microphone for each different scene**
- > **Position microphone carefully**
- > **Constantly monitor your audio as you record**
- > **Re-shoot/record if necessary**
- > **Enjoy the beautiful and professional sound you have recorded!**

Audio Basics

Before we look at microphones and location recording, it's important to first understand the following 5 aspects of audio to achieve high quality sound that will compliment and enhance your C31 production.

Preparation: Before you go out on your shoot, make sure you have all the microphones, leads, adaptors, headphones, batteries and other accessories you might need. Test all of these before you leave to ensure batteries are charged and all equipment is working correctly. A few minutes checking can save lots of hassles later.

Headphones: The ONLY way to know exactly what sound you are recording (and any audio problems you might be having) is through headphones. The best type of headphones to buy are known as "noise-canceling" headphones, but any that cover your entire ear will also work as they are best at blocking out outside noise (ipod-style headphones will not suffice).

Levels: Any camera you use to record material for broadcast should have an audio level display. It's important levels are constantly monitored to achieve optimal sound. Audio recorded too low will be too quiet and can sound messy/atmospheric when raised in post-production; audio recorded too loud will have clipping and distortion and will not be pleasant to listen to. Ideally you want to record around -12db. If you don't have a decibel scale on your display, aim for your average level to be around $\frac{3}{4}$ of the display.

Distance: The key to recording optimal sound is distance, and every inch counts! You need to get a microphone as close to what you want to record as possible, and as far away from everything else that you can if you want to achieve optimal, broadcastable audio.

Camera Microphone: This is simple – Audio recorded via a camera microphone is NOT broadcastable! Refer to the above point on distance! Even if your camera microphone is close to your subject, so is the humming of the camera, the birds chirping, the tram going past, the air conditioner buzz.... Get the point? Don't use it!!

Microphone Choices

Now that you can't use your camera microphone, what can you use? Below are 3 of the most common microphone choices that can produce quality audio and improve your sound recordings.

Handheld: Probably the most common microphone used by C31 producers, a handheld microphone is held by the interviewer/host, is multi-directional and works in a variety of situations. As it's easily mobile, it's good for vox pops and situations with a couple of speakers. Whilst a handheld microphone is functional, it does require a bit of practice as to where to actually position/point it. As a general rule, about 15-20cm from the person speaking

is ideal, but it's good to practice before hand to achieve optimal results.

Lavalier: Also know as 'lapel microphone', this is small, light and is attached to the speaker's clothing near their collar. The main benefits of this type of microphone are that it's inconspicuous, the speaker has both hands free so is quite mobile, and you don't need to worry as much about unwanted sound. The downside is that you need 1 lavalier per subject so it can become a bit costly and time consuming to mic everyone up!

Shotgun: Generally found on the end of a boom pole, a shotgun microphone assists in recording sound from a group of people or a wider scene. This is a cost-efficient yet effective method to record audio in larger areas. As the microphone is quite directional, ensure the mic is kept in front of the subject and pointed towards the mouth of whoever is speaking otherwise the sound quality and level will reduce dramatically. Don't forget to have someone monitor the vision to ensure the mic doesn't drop into the shot!

Check out the table below for a quick comparison:

A **lavalier** will pickup sound in all directions over quite a short distance; good for recording single subjects.

A **handheld** mic will pickup sound in all directions over a little larger distance; good for using on a couple of people.

A **shotgun** picks up sound only in a specific direction. Using a boom you can get strong, clear sound from a group of people or over a wider scene.

All of the microphones mentioned above are available in both **wired** and **wireless** versions. Wired versions are generally cheaper but don't provide as much freedom of movement, so be sure to keep this in mind when choosing which microphone to purchase/use for your recordings.

Location Recording

A common situation you are likely to run into is at a public event, such as a concert or awards ceremony, where your subject is talking to a large number of people using a public address (PA) system. The people running these systems will often have everything mic'd up with professional equipment. Politely ask them for a 'feed' from their mixing desk which will give you access to record their high quality audio output directly to your camera.

To do this, you will probably need a spare XLR cable to run from their mixing desk directly into your camera audio input, just as you would do with a normal microphone. The only difference is you will need to change the audio input setting on your camera from 'mic' to 'line'. On C31's Sony PD170 this is very easy as it's a simple switch on the outside, but on some cameras you may need to scroll through the camera's internal menu system to find the right setting.

If you can't get a feed from the audio desk the best place to position your own mic will generally be where the audio desk is – setting up a shotgun here and aiming it towards the audio source should generally give ok results.

C31 Audio Submission Requirements

Whilst this information is more for the editor, it is still good to know that every program submitted to C31 for broadcast must be provided as a mono recording. Stereo programs will be mixed to mono for broadcast. Programs with dual track audio must have two tracks in phase.