

# Recording tips from Tonehaus Productions

## BEFORE YOU START

### 1. Room and Location Considerations.

- If you are able to safely access a good sounding room (hall, church), this is the best way to improve the quality of the sound, as the acoustics are the number one factor of the recording quality.
- If you are recording in a small room, the biggest challenge for the sound is going to be the acoustic of the room, as it will easily overpower the direct sound of your instrument (if your instrument creates a lot of sonic energy).
- Small spaces have problems with *standing waves* and excessive *early reflections*. These things will make your recording sound less than ideal. Addressing this issue is called sound treatment, and it is achieved by either *diffusion* or *absorption*. Acoustic treatment of a space is generally engineered, but you can actually do a lot on your own. If you're having low resonances that are bothersome, try placing a tall bookshelf in the corner, which will break up low frequencies that love to multiply in corners. Speaking of bookshelves, shelving units on the walls are fantastic for diffusing frequencies, especially if there are uneven books in them. Books also absorb sonic energy, as do upholstered furniture and drapes. Wool is by far the most absorptive natural material, and it is even throughout the low mid to high frequencies. Cotton, not so much.
- Visualize little sound waves bouncing around the room. Bass waves can be 5' or longer, above the staff waves are more pencil width and like laser beams. Even if we can't control the intensity of the waves too much, we can try to spread them out evenly.
- Use a clap test to measure your progress in diffusing reflections. A dead but sonically even space, while not the most inspiring to play in, lends itself well to making EQ adjustments and adding ambient space in the studio.

## HERE WE GO!

### Video/Audio Settings

- Video:  
Set your video device to the highest quality settings available. If you have advanced options, we are looking for 1080p 30 frames/sec in as uncompressed of a format as possible. Settings on AUTO are fine, but if you like to have more control, you can set the white balance and perhaps manually focus.
- Audio:  
Set your levels.  
Record yourself in order to set the level on the audio recorder. Start with a mic level you think will work, put the recorder in a place you think will sound good. Start recording, and play some with the loudest dynamic you will be using. The loudest signals should be peaking at -6dB, meaning, not going over -6dB.  
Set your recorder for 24 bit, 48kHz

Make sure the Auto Level Control or AGC is turned OFF. Make sure the HP, HPF or high pass filter is turned OFF. Keep the Limiter engaged if this is an option

### **Microphone placement**

Now that you have a good level, concentrate on the sound for a moment. Record a passage and listen on good headphones to the character of the sound. Does it sound natural? Do you like it? Try a different placement with the same passage. How is it different? What is better, what is worse? Try a third placement. Listen. Repeat this until you are getting the best sound you can.

### **Picture Setup**

Now it's time to address the lighting. Light reflected off walls or white panels is going to be the most flattering. Try to get the same amount of light coming from in front of you on both the left and the right sides so there are no shadows on your face. If you are using natural light from a window, use Daylight bulbs to match the "blue" color temperature. Cameras can only deal with either Daylight (5600K or more) or Tungsten (3200K or less) at a time, so matching the color of light is important for a consistent image.

Next, spend some time on the composition. Keeping the picture balanced and clean will have a positive reception. Remember the rule of thirds. Make sure we can see your instrument and fingers as well as your face.

## **PICTURE vs SOUND**

Now you can play out the epic battle between picture and sound on your own terms! You will have to find a compromise between the mic placement and the video composition. Use your best judgement! Good luck :-)

DO A TEST RECORDING, AND WATCH AND LISTEN TO MAKE SURE ALL IS GOOD.

Record your “Takes”

If you are recording a lot, try to break it up into smaller pieces, so that you can check the recordings as you go. You don't want to do a 60 minute performance and then find out your batteries died, or there is some kind of technical issue. Keep track of your good takes. Make sure there is both a video recording and an audio recording for each.

Off-load your media

Transfer your video and audio to your computer. If you have a card reader, that is usually faster than if you plug your device in. Put your good audio and video takes into a folder, label it. If you need help here, just call me, I can help. Some cameras have weird ways of doing files.

Some extra tips:

Video and Audio tips for self recording:

<https://www.tonehaus.com/ns/2020/05/06/video-and-audio-tips-for-self-recording/>

More equipment recommendations:

<https://www.tonehaus.com/ns/2020/05/09/equipment-for-self-recording/>