



## ***(Simple) Setup for Online Lessons: Getting Better Audio***

**By: Chris Clark**

### **Purpose:**

- Get your lesson space set up and calibrated
- Establish a connection with the teacher's method of communication
- Microphone placement
- Recommended audio gear

OK! Welcome to your online lessons! We are going to have a great time working in a new and different way! There are a lot of disadvantages to this way of sharing music together, but there are also some cool advantages, and I'm looking forward to getting on with our musical lives.

The worst online experience occurs when either party has a poor internet connection, and we can't hear each other due to dropouts, poor audio, or bad mic placement. Let's figure out how we'll tackle these problems.

There are many ways to make this work, so I'm going to give you some general guidelines, but if you find or hear something that works better, by all means make the change!

### **Internet Connection**

- Wired ethernet
- Wifi access point

## Cellular data

In general, that's the order of connection speed and quality when it comes to streaming video and audio over the internet. You may not have access to wired ethernet (not a lot of folks do at home) unless your computer is located right next to your router or cable modem. If so, connect an ethernet cable and get to work. If you have wifi, you can use a site like [speedtest.net](https://www.speedtest.net) to check your connection speed availability. I would love to see something over 8-10 mbps, but if you don't have that, don't panic. Cellular data is usually the last option. In some cases, data MIGHT be faster than a WIFI connection, so if that's the case for you, then go with it!

## **Workspace Setup**

It may be difficult, especially if you are in a place where everyone is home, to find a quiet place for your lesson. Do your best. Please communicate with your teacher if you're struggling finding a space for your lesson and we will brainstorm. Grab your horn, preferably with a trombone stand available to put it on while you take notes, adjust your mic, etc, etc.

Internet device, mic, horn, music, stand, instrument stand, notepad, pencil... let's go!

## **Microphone Placement**

So, most of you, like me, will have one microphone, or maybe just the mic on your phone. Let's talk about placement. If you have one mic, then I suggest putting it near where you're speaking, maybe to the right of where you're standing. Having a place to put it where it's close to your mouth is ideal. You're going to want to speak in to the mic, then be able to back off of it when you play. If your phone is on the music stand, put it on the right side, then when you play you can back up and to the left a little. The idea is to speak close, play far. This will help balance out the playing and talking. Do your best, and experiment. Don't be afraid to try different things. If you find something that is clear for both you and your teacher, then go with it. If you have a USB mic with a headphone jack, then plug your headphones in to the mic and **monitor** your session through the mic. You may need to set the volume on the mic for your headphones, which is separate from the **gain** (or level) of your mic. Wear your headphones, and have a great lesson!

## **Microphone Selection**

I know, everyone is running around making all these recommendations, and how to do this and that, and **GET THE MOST** out of this new way of learning and listening we find ourselves stuck with. Look, you don't have to run out and spend a ton of money, or even ANY money, on new gear. The things that are important for lessons are still the same, listen, digest, practice. Listen to what your teacher is really saying, take notes, and try to understand. Ask questions. This is YOUR TIME to get what you need to take you where you want to go! Digest your lessons. Take your time between lessons to think about and replay what you are working on. Then, practice. You can have the best audio setup and listen and digest everything you need to, but if you don't put it in to practice, then it's all for nothing. Most of all, get your practice routine in.

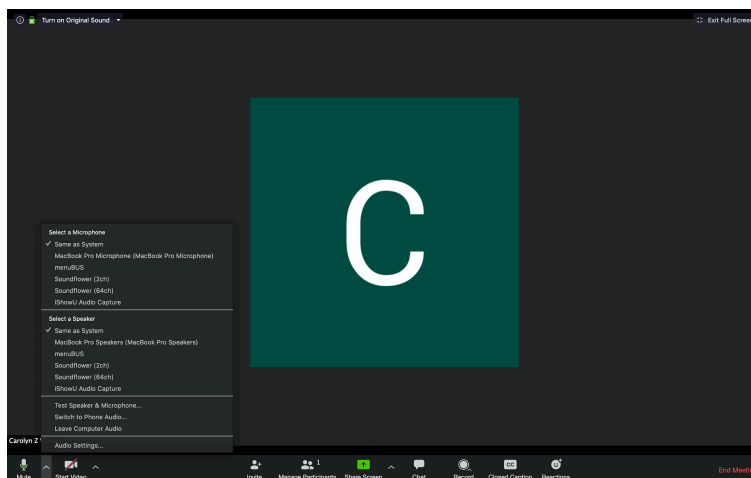
## **Practicing**

In a challenging time, it can be incredibly difficult to get your practicing in. You may have roommates, children, a spouse, parents, grandparents, or whomever that lives with you. You may have responsibilities for caring for any of those people, and yourself, leaving you with very little time to practice. Just remember, 10-20 minutes here and there throughout the day can be very effective. You have to get it in where you can, and really focus on what you need to practice on most. I'm reminded of a quote by one of my teachers, "If you sound good, you're not practicing!" I will temper that with saying that, if you are struggling, and life is difficult, playing something beautiful that sounds good during your practice session can be incredibly relaxing and uplifting.

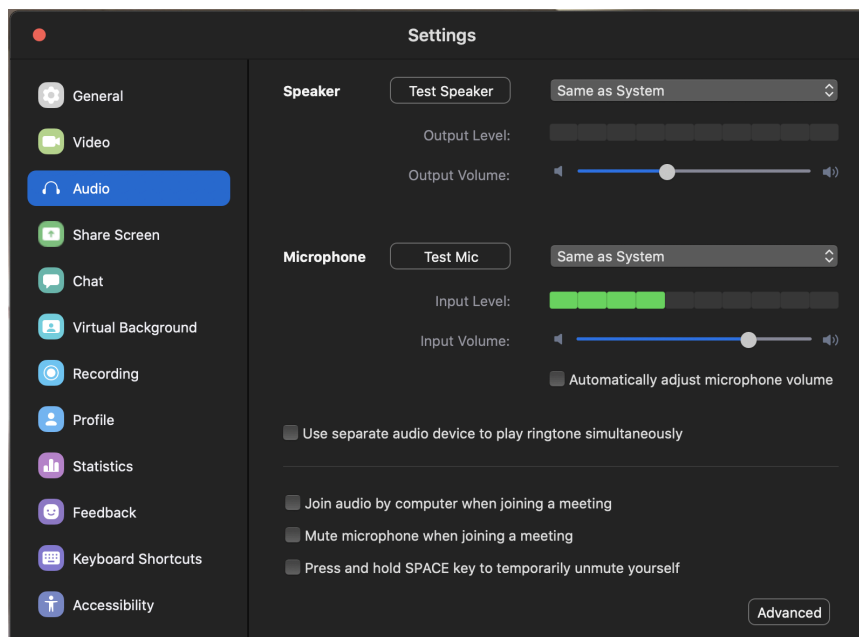
## **Zoom Settings**

- When you open Zoom, you will get your meeting set up (if you're the teacher), or you will need a meeting ID to enter when you Join a Meeting (if you're the student).
- If you're teaching (or *hosting*) the meeting, you need to share (or *invite*) people to your meeting, using the Meeting ID. Click the share button, and email then an invite.
- When you begin or join a meeting, select **JOIN WITH COMPUTER AUDIO** when you start or enter the meeting.

- Go to the little arrow drop down menu next to the Mute button in the bottom left corner of the screen.
- Make sure “Select a Microphone” and “Select a Speaker” are both set to “Same as System”, or if you’re using a USB microphone, then select your microphone for the output.



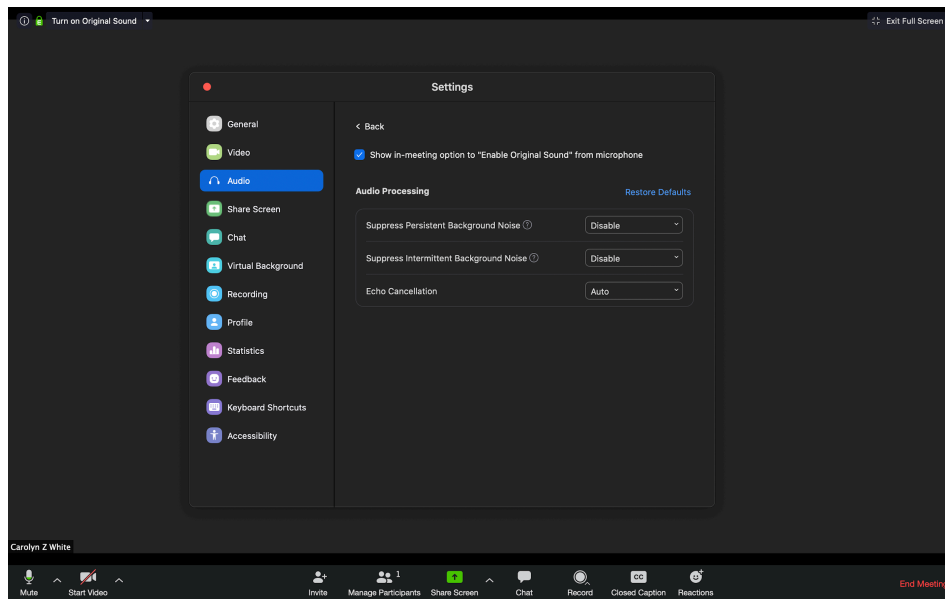
- Finally, go to audio settings (bottom of the drop down menu by the mute button, or the gear icon) and go down to the Microphone settings. Make sure you **Uncheck** the box that says “**Automatically adjust microphone volume**”. That’s right, we wanna be FULL MANUAL. There’s a picture below this....



- For Video, select that dropdown menu to the right of the video button and you should see your webcam (if you're on a laptop) for your video

At this point, you should be set up to start your Zoom broadcast. There are a couple of more Zoom settings that will help you get better audio.

- In the Audio drop down menu, select Audio Settings
- After clicking on the Advanced button, set your audio settings to look like this:



### **Recommended Gear for Online Lessons**

- USB Microphone - [Audio-Technica AT2005USB Cardioid Dynamic USB/XLR Microphone](#) - I have one of these (an older model), and it sounds pretty good. Dynamic mic, very tough, has a headphone jack built in to the mic... Comes with a small tripod stand which is very handy. \$99.
- More expensive USB mic - [Audio Technica AT2020+ USB](#) - Similar to above, but a condenser model which is more sensitive, and should have a little improvement in sound quality. \$149.
- Headphones - I would suggest a pair of wired, over-the-ear headphones. They will have less delay than bluetooth, likely. They will also isolate outside sounds better since they fit over your ears (all the way around). You can find lots of brands that sound good, but I have a pair of these: [Audio Technica ATH-M20](#). \$49.
- Another slightly more expensive headphone option is: [Sennheiser HD280 Pro](#). I have had a pair of these headphones for years - my wife bought me a pair and they were my first pair of “nice” headphones. They sound good - fairly neutral and they isolate you from sound around you very well. Great for recording yourself, or listening in a noisy environment. About \$99.