Standardize Your VO

Home Setup Guide

(2023 Edition)

A Basic 'Work From Home' Guide for Voice Over Artists and Content Creators

A collaborative effort by:

Geoff Bisente
Eddie Correa Jr.
Benjamin Isaac Diskin

Preface / Introduction

2023 UPDATE

COVID-19 is still prevalent in the world; whether we like to think about it or not. But with vaccines being widely available to everyone, studios are once again working with everyone in-studio as well as keeping remote options available. But with Omicron and sub-variants of Omicron floating around, keeping an efficient home set up is just as important as ever.

The industry is no longer at a standstill, and hybrid recording has become a bit more of a normal, everyday thing. And while we look forward to once again being able to safely go into studios without an abundance of health and safety protocols; we know that with our set ups at home being properly upgraded, many, if not all of us will be able to continue hybrid recording for as long as is necessary.

Auditions have become much more than just a show of skill and performance, but a show of home audio quality. As actors are now expected to have adapted to this new landscape for the time being, and successfully outfit a space in their homes to produce an acceptable recording quality. This means potentially upgrading not only your already existing “home booth,” but recording hardware and software as well.

*****REMINDER*****

This info packet includes *BASIC LEVEL RECOMMENDATIONS* for things one might find useful to upgrade their home recording setup and is not meant to be a “be all, end all” set of instructions or recommendations.

This was put together as a collaboration between working professionals at the beginning of the Covid-19 pandemic lockdown in Los Angeles to help ease the stress of finding and bridging the gap between “Studio Broadcast Quality” and a “High Quality Home Setup.”

Standardize Your VO

Tiers of Home Studios

Tier 4
Project Studio

$11,000 - $14,000

+

- Extreme protection and isolation from outside sources.
- Audio interface and mic combo provides a borderline pro studio quality sound.
- Able to work on virtually any quality of project, from low tier to top tier.

−

- This is not affordable by the average person and requires a long term investment.
- This tier requires a dedicated space in order to bring it to its highest potential.
- Requires additional knowledge outside the basic spectrum of audio engineering.

Tier 3
High Commercial Grade Home Studio

$5,000 - $8,000

+

- Double-walled isolation booth provides fantastic protection from all sources.
- Microphone and interface combo provide a very natural and warm sound.
- This booth setup is capable of consistently working on mid tier projects.

−

- You need enough space and support for this setup to work.
- This setup is not as accessible due to "the prosumer" price tag on these products.
- Despite price point, this setup needs a few more things to be considered top tier.

Tier 2
Low Commercial Grade Home Studio

$2,500 - $4,500

+

- Single-walled isolation booth provides more protection from outside sources.
- A higher quality microphone leads to warmer and more natural sounding audio.
- Combined setup allows for much cleaner audio with longer recording stability.

−

- Single-walled isolation booth still has some issues with louder outside sources.
- Despite jump in quality, this tier tenda to only able to work on low to mid tier projects.
- When compared to the Tier 1 studio, this tier is harder to maintain, manage, and move.

Tier 1
Home Studio

$300 - $400

+

- PVC and moving blanket type booth are the most accessible and portable option.
- This tier option is by far the most affordable for any voice actor of any level.
- It gets rid of a lot of slapback while also being good quality for auditions.

−

- It's only good for auditions. Rarely good enough for more.
- Despite absorbing slapback, your recording is still at risk to outside sources.
- Usually not well ventilated and not suited for long term recording.

The Equipment

Part 1: Vocal Booths

Every professional in the studio world will tell you that a well-treated room will make any microphone sound great. It doesn't matter if you have a Neumann TLM 103 or a Blue Yeti, they will sound bad if your room is bad. That is why it is crucial to focus on treating your recording space first before investing in new hardware like an interface and/or microphone..

In a perfect world, every single recording artist would have an airtight room filled with panels for absorbing and diffusing sounds right in their own homes. However, that is not practical and should not be expected of anyone. Our goal is not to help you create a professional studio; but instead, to move towards obtaining a "dead" space. What we mean by a "dead" space is "to create an environment where *it is difficult or improbable for sound to reflect and bounce around*." The reason a dead space is crucial is it prevents echoes from occuring. Echoes are a nightmare for Post-Production and are near-impossible to edit out. Now, how does one create a "dead" space to record in?

Provided below are a few resources you can research to help treat the space you are recording in to have that "dead" space we are looking for.

PRODUCT	DESCRIPTION
LA Vocal Booths	"For Artists, By Artists." Business local to Los Angeles, the booths are fully customizable from the size, thickness, acoustics, ventilation, and anything else you can imagine! Booths are modular in form and can be upgraded/expanded upon in the future.
Studiobricks	"Mobile;" easy to put together and take apart. No screws or tools needed. State-of-the-art acoustic treatment. Flexibility with additions to the booth. Double-Walled and Triple-Walled options. Project Studio Tier to High Commercial Grade Home Studio.
Vocal Booth ™	Low commercial tier home studio option. Good, solid booths with decent acoustic treatment and add ons. Long-established company that started the standard of home booth recording.
Vocal Booth To Go	A good starter point. A high-grade blanket fort. Great with the kids.

Part 2: Acoustic Treatment

What is Acoustic Treatment?

When recording or playing back audio, sounds will bounce back and forth around the room causing your recordings to potentially catch those reverberations or contaminate the quality of what you're playing back.

Proper acoustic treatments will help your room absorb and diffuse sound bouncing around and improve the overall auditory quality of your room.

Why is Acoustic Treatment Important?

These are typical problems you will run into with an untreated or ill-treated room

Reflection	When sound waves bounce off of surfaces they are liable to be captured by your microphone. Proper treatment with the right materials will absorb the sounds as opposed to sending it back in another direction.
Resonance	All items and materials in a room have a natural frequency in which they vibrate. So if a sound wave at that frequency hits said object, it will be amplified and can create what we know as "boominess."
Reverberation	Reverberation occurs when multiple sounds and frequencies bounce off surfaces and gather in an area. When this happens it creates an "echoey" sound in your environment. Reverberation will also cause loss in sound quality, as it will mix in and cause decay in clarity of source audio.

Types of Acoustic Treatment

These are a select few types of treatment options that one may use to help create a more acoustically sound recording space.

Acoustic Foam	12 Pack (12x12x2) $50	Most common form of treatment, very similar to Acoustic Panels, but foam is basically the raw form. Acoustic Foam tends to have non-flat surfaces and tend to be more practical in most spaces to help improve room acoustics.
Acoustic Panels	Single (24x48x2) Panel $70	These panels are often made specifically to blend in with the décor of the room; being as aesthetically pleasing as they are functional. Similar to bass traps, though these panels tend to be placed along the wall to absorb sound.
Bass Traps	12 Pack (7x7x12) $40	Bass frequencies are more powerful and have a higher level of difficulty to manage. These sounds will gather in corners forcing a false sense of higher low frequencies in your source audio or mix. As their name suggests, these are meant to trap and absorb bass sounds in the corner of rooms with their porous materials.
Ceiling Clouds	Single (22x15.5) $79 (Not Amazon, but there are more size choices on website)	These are similar to panels, but are meant to hang from high ceilings and prevent reverberation. While these panels can get expensive, one can also go with a budget friendly option and use a thick fabric hung from the ceiling to do a similar job.
Audimute Sound Absorption Blankets	Single $49-79 Comes in “full” (8’ x 4’) and “Half” (4’ x 4’) sheets.	Really good sound absorption blankets. Perfect for making a PVC booth out of or just lining your walls.
Ultra Thic(c)k Moving Blankets	12 Pack (80” x 72”) $110	The thicker the blanket, the better. They are good if you need to make due with what you have.

Again, we cannot stress how important it is to prioritize your room acoustics. The cleaner the sound, the easier it is to mix. Think of your sound like a painting canvas… Which one would you rather have: a blank canvas or a canvas with random paint marks everywhere? That’s how it is for audio engineers.

Part 3: Audio Interfaces/Preamps

After testing to make sure your recording space has cleaner acoustics, the next step would be to address your Audio Interface. Now, there is some confusion between the terms “audio interface,” “preamp” and “channel strip.” We want to make sure we can clear that up for you before moving forward.

Audio Interface

- A device that directly plugs into your computer that takes the analog recording of your voice, converts it into digital data and sends it to the Digital Audio Workstation (DAW) that you are using.
- The Audio Interface acts as an “easy all-in-one” component that does multiple jobs in one device.
- Jack-of-all-trades, master of none.
- A typical audio interface analog flow looks like:
    - Talent -> Microphone -> Audio Interface (serves as Preamp, Processor, A-D Converter) -> DAW -> Studio Monitors/Headphones

Preamp

- A device that takes the audio and amplifies it. *That’s pretty much it.*
- An audio interface can do a preamp’s job, but a preamp cannot do all of the audio interface’s jobs.
- A typical preamp analog flow (aka what you need in order to make it work) looks like:
    - Talent -> Microphone -> Preamp -> Processor -> A-D Converter -> DAW -> D-A Converter -> Studio Monitorsm0
    - .

Channel Strip

- A single channel in a mixing board.
- Think of a channel strip as like the middle-ground between a preamp and an audio interface. It is not necessarily the one-focus preamp, but it is not the all-in-one audio interface. **A channel strip amplifies the sound and is able to provide equalizer (EQ), compression and other items, depending on the mixing board capabilities.**
- Most companies have taken the channel strip concept and have made standalone channel strips, due to popular demand.
- A typical channel strip (Standalone) analog flow looks like:
    - Talent -> Microphone -> Channel Strip -> A-D Converter -> DAW -> D-A Converter -> Studio Monitors

As the talent, you don’t necessarily need anything more than a good quality Audio Interface, so we will be focusing on that for this document.

As stated earlier, audio interfaces take the analog voice data and converts them into digital data. It is during this process that an audio interface can have the highest influence on the quality of your audio. Cheaper audio interfaces tend to heavily “color” the analog data, sometimes leading to more altered sounding recording different than what the raw audio would otherwise sound like. The higher in price point you go, the better components, and the conversion from analog to digital.

Below are a list of interfaces in no particular order that range from affordable, basic, and high quality at its price point, to more expensive with a bit more luxury in options.

PRODUCT	MODELS	PRICE	ANALYSIS
Universal Audio Apollo Twin	Thunderbolt (Mac) USB (Windows)	Starting at $899	A great interface that has a lot of versatility. It typically comes with a package of plugins that can emulate the tonal properties of other pres. If you are looking for versatility and like to play with your settings then this is perfect for you. Digital recreations of other popular pres are also available for purchase and are a fraction of the hardware originals.
Universal Audio Apollo Solo	Thunderbolt 3 (Mac) USB-C (Windows)	$699	This is a smaller, more affordable unit from Universal Audio. Same qualities as the Twin unit, but is bus powered as well as Thunderbolt 3/USB C. So you will need this port.
Solid State Logic 2	SSL 2 SSL2+	$269 $349	SSL has been a trusted manufacturer in high end recording technology for over 40 years. Now they've released a high end 2 channel interface at an affordable cost. Simple to use, high dynamic range, and very quiet preamps.
Audient iD4	Audient iD4 USB 2.0	$199	Save money without skipping quality. This interface features a SINGLE preamp instead of a normal 2 preamps. But each preamp is the same as on their high end mixing boards. Low noise and clear quality, this is a not to be overlooked.
MOTU M2	M2	$170	High class preamps and converters at a beginner's cost. This unit has one of the highest dynamic ranges of the desktop interfaces. Unfortunately the preamps can sometimes be more noisy than others.
Zoom UAC-2	UAC-2	$250	Zoom is a trusted company when it comes to field recording, so putting out a desktop interface was a smart move to make.

NOT INTERFACE	THIS IS AN EXTERNAL PREAMP 		
Warm Audio WA12	WA 12 Mk II	$469	The tone is fantastic and rounds out the voice in a pleasing way. A great step up from a Scarlett that emulates a classic sound. This is NOT a new interface, but an external preamp that you will then LINE IN to the interface.

These are interfaces that we can vouch for, but there are definitely some out there that we are not aware of that may be even better. If we are able to test additional interfaces and would vouch for them, we will not hesitate to update this list.

((DISCLAIMER:

The following subsection contains opinions based on experience and individual preferences. You have been warned. So don't @ us…

There are plenty of interfaces out there in the market that, while easy to use, are lacking in the quality department and are easily discernible from more quality interfaces. One of the most famous examples is the Focusrite Scarlett series. To clarify, we do not believe the Focusrite Scarlett series are *bad interfaces.* They are more than suitable for auditions and at-home level productions. However, we believe that the Focusrite Scarlett series tends to cap out at that level due to the quality of the technology within the actual interface.

Having a Focusrite Scarlett interface DOES NOT AUTOMATICALLY DISMISS YOU from studio opportunities. Many of us have booked remote gigs with that setup or worse. We are recommending better interfaces to make sure that we raise the STANDARDIZED FLOOR of your audio quality (aka making sure the worst link amongst the community is still pretty good). Just because it worked a few times, doesn't mean it will always work. We are trying to INCREASE YOUR ODDS as much as possible so you can WORK AS MUCH AS POSSIBLE.))

Part 4: Digital Audio Workstation (DAW)

This list will be of typical DAWs that come to mind when you think of recording as well as possible choices for you to use at home, for WFH or auditioning.

DAW	SYSTEMS	DESCRIPTION
Pro Tools Prices: INTRO: Free ARTIST: $99/year- $9.99/Month STUDIO: $299/year- $29.99/Month $599- Perpetual + 1 year upgrades ULTIMATE/HD: $599/year- $99/Month	Mac & PC **Sidenote:** While Pro Tools is the industry standard, you do not need something this intricate for a home studio if you only plan on using it for voice-over alone.	Industry standard in recording software. PT Intro- ***FREE*** version of Pro Tools, basic recording and editing functionality. (8 tracks MAX) NO VIDEO ENGINE PT Artist- Made for small, but high quality projects. (32 tracks MAX) NO VIDEO ENGINE PT Studio- Full Toolset DAW for professional recordings/productions. (512 tracks MAX) PT HD/Ultimate- Top tier version for large scale music/post production needs. (2,048 tracks MAX)
Logic Pro Perpetual License: $199.99	Mac ONLY	Used by music producers, but has video functionality. Which will make WFH dubbing easier. Studios cannot send sessions, so you will have to take files and create your own when necessary.
Reaper Perpetual License: $60	Mac, PC, & Linux	Low cost / free multi track DAW with video functionality and is user friendly. Able to use most 3rd party/free plugins.
Twisted Wave Perpetual License: $99.90	Mac, iOS, Browser, & PC (Beta)	Easy to use, high functional, and affordable! Looks like Audacity with better post production qualities. Has Video Engine
Adobe Audition No Perpetual License: $20.99/Month	Mac & PC	Very intuitive, simple to use Lots of presets made for ease of use to clean up/prepare your audio for delivery “Auto Heal” for fixing pops/clicks/mouth noises Easy to use noise removal, for quick clean ups

		“Spectral Frequency Display” to show you which frequencies may be standing out in your recordings. Good to see noise, or buzz in the low end.
Audacity FREE	Mac, PC, & Linux	FREE and user friendly. Good for starters and won’t hurt your budget… Because… It’s free…

NOTE FOR ANYONE WHO CHOOSES PRO TOOLS

If you are an actor/musician/creator that chooses to use Avid’s Pro Tools, please remember that you will need an ilok and the License Manager program for your license(s).

iLok License Manager	Free	Program needed to activate and transfer licenses purchased for software
iLok 3 (USB A)	$50	USB-A version
iLok 3 (USB C)	$55	USB-C version for those WITHOUT other connectivity.

Part 5: The Microphone

The microphone is a device that takes audio (sound) and converts it into an electrical signal. From there, the signal is taken through a preamp, and from the preamp to an interface. The two main types of microphones that you will encounter are most likely to be CONDENSER and DYNAMIC mics.

TYPE	DESCRIPTION
Condenser	A wider frequency range and more 'natural frequency response' that will "make things sound how they are supposed to sound." Phantom power (48v) is needed to power the condenser mics in order to function properly. Acoustic treatment in room is needed for a clean sound
Dynamic	Better isolating to the voice in more noisy environments Sonically, has less dynamic range (can sound "compressed") Requires a different mic technique. You are able to stand much closer without worrying about overloading the capsule.

Example Microphones:

In no particular order, these are examples of the most widely used microphones in professional and home settings.

MICROPHONE	MIC TYPE	DESCRIPTION
Neumann u87 ($3,300-$3,700 USD)	Condenser	Widely used in music and voice over. Amazing clarity and presence.
Neumann TLM 103 $1,100 USD	Condenser	Also widely used in voice over. Flat frequency response with a decent bump at 5Khz, meaning more presence (A more pronounced sound)
Sennheiser MKH 416 $1,000 USD	Condenser	Known as a 'shotgun' mic, these are highly directional and must be pointed directly at the sound source. These mics require a larger room that is very well treated, otherwise, the mic will pick up other ambient noises because of the higher amount of gain used.

Shure SM7B $400 USD Cloudlifter* $150 USD	Dynamic	This is a **dynamic mic**, phantom power is not required. (Unless paired with a Cloudlifter) Widely used in radio and broadcast audio, this mic is used in studios all over the world in both voice work and music. Very small proximity range, you cannot deviate far from the front of the mic or else you will get a more off axis signal. This mic requires a stronger preamp and/or external booster* to obtain proper recording levels. *(While a great mic, it is not recommended in your booth for home recording)*
Warm Audio WA-87 $599 USD	Condenser	Higher quality at an affordable rate. This mic is designed from high end, studio standard parts and its sound resembles that of a TLM 103 with a flatter response.
Rode NT1 $269 USD	Condenser	Most affordable of microphones, but is a long standing workhorse microphone used in music and voice work. One of the quietest mics out there, and with one of the larger frequency responses, there is a reason this mic has been a go-to for professional and at home productions.
Studio Projects C1 $250 USD	Condenser	High end quality while also boasting low noise. It is incredibly clear sounding. So much so that it is often referred to as a clone of the u87. Comes with built in low pass and pad features.
Aston Origin $199 USD	Condenser	Affordable, but insanely clear sounding mics from the UK. Aston uses “more affordable” casings and spends more on the components.

Part 6: Pop Filters

While there are a few different types of Pop Filters, here are the most common ones you will see being used for voice over.
A Pop Filters main goal is to diffuse/re-direct gusts of air and plosives made from letters like “B,” “P,” or “T,”

Nylon Fabric	Nylon filters are usually made with 2 layers of fabric that will diffuse and resist air currents from interfering with recording quality. Fabric Pop Filters are usually the more affordably priced choice.
Metal Mesh	Instead of diffusing air currents, metal filters redirect plosives away from the mic, ensuring a bit stronger “defense” against them.

While both do basically the same job, investing in the Metal option will ensure higher durability. Especially after numerous cleanings. But if you are on a budget, there isn’t anything wrong with using a Nylon Filter.

*Part 7: **Audio** Connection Software*

So now you've got your hardware all updated! Great! Now it's time to get your software together that you'll need to connect with studios for both audio and video. A lot of this software can be free to use, but there will also be some that are pay to use, or will have to purchase a license, whether perpetual, or temporary.

SOFTWARE	DESCRIPTION
Source Connect Now *Free* Also known as "Source-Nexus Free"	"Now" is a basic "phone patch" quality connection which has been widely used as of late. Though it calls itself "Broadcast Quality," the best one can send at is 256kbps. Which, if you remember, a "good sounding" mp3 is 320kbs.
Source Connect Standard Subscription (Monthly): $35 USD Perpetual License: $650 2 Day Pass: $35 USD	"Standard" now allows you to connect 1 on 1 with your client via the "Source Connect Standard" App instead of through a browser. You can send up to 48khz at a "Low(48kbps)/Med(64kbps)/High(96kbps)" quality. Buffers are introduced to help save the fidelity of the files being sent through SC Standard. Higher capacity internet connections can get away with less of a buffer, meaning less latency, and still get your quality properly sent through.
Source Connect PRO Subscription (Monthly): $105 Perpetual License: $1,495 2 Day Pass: $50	Source Connect PRO is really only necessary when it's between studio/studio. Some people will opt for PRO, but as an actor, it is basically unnecessary. But SC Pro allows one computer to control another through a "master and slave" setting. Both sides would have the same sessions on both sides to ensure parts are seen and heard equally.
Source Nexus Subscription (Monthly): $12 USD Perpetual License: $295 USD	Again, not an important thing for actors to know and get, but better to know what not to "invest" in. Nexus creates digital drivers to connect browser based connections to your DAW.
ipDTL $20 Day Pass Plans starting from $15/month	Web browser based ISDN replacement with video capabilities. Sends up to 320kbps in audio quality.
Session Link Pro $20 monthly subscription	Web browser based connectivity with video capabilities. Sends up to 256kbps

DISCLAIMER:

If you are opting in to use Source Connect STANDARD or PRO, please be advised that you must do what is called "Port Forwarding" via your internet router. Source Connect (Source Elements) has the procedure explained in the manual you receive upon purchase, but you may also want to have someone from their tech support help you. Depending on the type of router you have, you may need to call your ISP (Internet Service Provider) to complete this step.

*Part 8: **Video** Connection Software*

Like the vast amounts of audio connection software, there are many choices when it comes to screen sharing, for things like video for dubbing, or script sharing.

SOFTWARE	DESCRIPTION
Skype Free	Everyone knows Skype. Has easy screen sharing for dubbing.
Zoom Tiered- Free and multiple PAID subscriptions	Became very popular at the top of pandemic. Audio and video meeting along with screen sharing.
Teamviewer/Meetings Free (+ paid extra tiers)	Screen sharing service often used for script and/or video sharing
Discord Free	Great communication tool that also has audio and video meeting capabilities. Users can meet, stream, and share audio/video.
Microsoft Teams Free	Audio and video meeting along with screen sharing.

The Recording Process

Part 1: Proper Handling of Hardware

Whether you use your computer/interface/mic setup for just work, or for gaming/other leisurely activities, there are some things you should follow to make sure all of your hardware stays in the best shape they can for as long as they can.

- Putting together and tearing down your recording set up.
    - You don't always have to take things apart after use, but knowing how to properly turn off and disassemble all the components will ensure hardware health and longevity.
        - Phantom Power- When NOT using your microphone, be sure that your 48v Phantom Power is OFF. While leaving Phantom Power turned ON when not in use is NOT HARMFUL to your microphone, leaving it on might result in it still being on when you unplug the cable from either the mic or interface. And when that happens, damage to both pieces of hardware can occur.
        - "Hot Plugging"- This is the term used when a cable is plugged into your microphone and Phantom Power is already on. The electric current already going through the cable has the potential to damage the components within the microphone and even the interface itself. The channel in the interface and/or the microphone's delicate circuitry or diaphragm can "burnout" and cease working.
        - Waiting a few seconds after deactivating Phantom Power- Remember, just because you turned off Phantom Power DOES NOT mean everything is safe to unplug immediately after. Electricity must run its course before it is no longer in the components. This only takes a few seconds, so just be sure to give it between 5-10 seconds before you begin disassembly.
            - Also, be sure to turn your gain all the way down to ZERO before turning off Phantom Power, this is mainly to ensure proper procedure and safety for all pieces of hardware.

Part 2: Microphone Placement

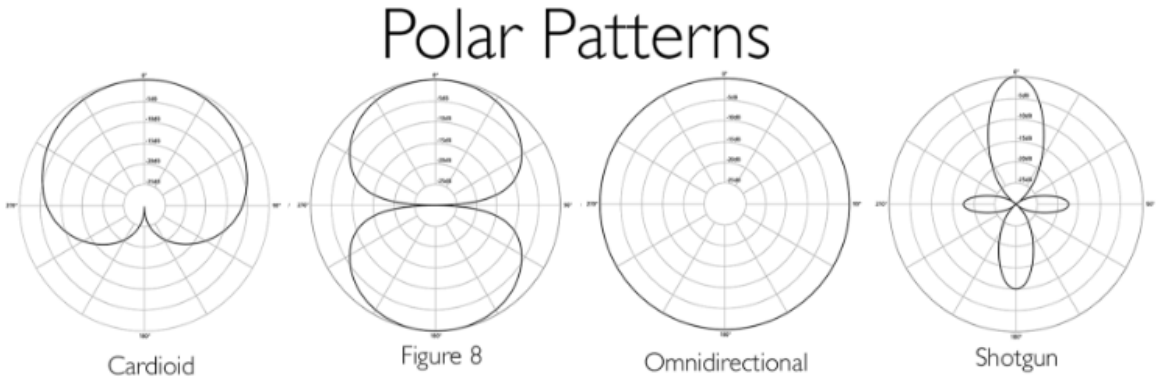
- This is going to be simple…
    - You should be between 8-16 inches away from the mic
    - There will be times you are able to move closer or farther away
        - **Shouting**: You may want to **take up to a step back** so your voice does not overload the diaphragm of the mic, causing your sound to distort.
            - Your engineer will most likely remind you of this. Depending on how well they may know you and your skill level.
            - When working at home, you may need to experiment to see where you can stand, and where your preamp levels should be set for good recordings.
        - **Whispering:** Obviously because your baseline speaking level has gone down, you can move in a bit closer to the microphone to make sure you can capture an adequate recording level.
        - Both of these instances have different varying levels, be mindful how much deviating from your normal spot you do.

Part 3: Microphone Orientation

Throughout and before the pandemic, one problem that was noticed above others when it comes to home set ups was that many people were facing their microphones in an incorrect way.

Microphones have specific polar patterns, meaning that they must be facing in a specific way in order to capture the best audio in its ability.

These are examples of the most common types of Polar Patterns. There will be microphones that can yield one, or all of these patterns; so be conscious of where the settings are if you have one that has multiple options.



Cardioid	This is the most commonly used Polar Pattern; due to its wide pickup area which also rejects sounds coming from the opposite end. This is the “best” choice when doing voice over because the main area for capturing sound is right in front and will not really pick up noise that may bounce around inside your booth.
Bi-Directional (Figure of Eight)	This Polar Pattern has a 90 degree pickup angle at opposite sides of the microphone and is useful for recording two opposing sound sources. Useful for things like interviews/podcasts and you only have one microphone. In the case of voice over, it is not a useful setting due to the mic being able to pick up sound that may bounce from other surfaces in your booth.
Omni-Directional	This setting is sensitive to sounds in ALL DIRECTIONS. So in an environment with good acoustics or in a live situation where sound is needed to be captured all around, this is a good choice. HOWEVER, with no directionality; background noise, ambiance, and potential feedback are more prevalent in this setting. So when recording a single person for voice over; this is NOT an optimal choice.
Shotgun (Lobar)	Shotgun microphones have a very tight Polar Pattern which is able to reject sound from the sides and behind the microphone. Shotgun mics come in different “sizes.” And longer tubes will be better for rejecting off-axis sounds.

Part 4: Gain Control

We're not asking you to become engineers… but there are skills you may need to learn to adapt to all this home recording, as these skills are needed for any recording you may do at home; including your auditions!!! We understand that this may seem difficult to adapt to and we will try to keep that as simple as possible. We believe in you.

- **Recording**
    - Now that you are self recording, you will need to pay a bit more attention to your recording levels. When recording your actual takes, you want a 'strong' and 'healthy' recording signal.
    - You are not expected to be recording close to or at 0db, but you also do not want to record as low as -20db and normalizing it up to a proper level. (We can tell.)
    - Try to record somewhere in the middle while leaving yourself enough headroom (so that you don't peak). Engineers typically try to aim to have -12db at minimum.
    - It may seem self explanatory, but regardless of how many audition files you may have sent with any amount of normalization or other post processing prior to the pandemic. If you are aiming to regularly work from home, adding in your own effects is not something you want to do when submitting an audition.

- **The Gain Knob**
    - You will be interacting with this little guy more than you ever have. Level checks will most likely be done at the beginning of every session to ensure levels are acceptable with the studio.
        - Reading as your character in a 'normal tone' of voice will decide what your regular recording level should be. (If you are always loud or high energy, then start there, same if you are quiet, or average)
    - Whenever you know your character will be LOUDER… Be mindful, and remember to lower your gain slightly as well as maybe take a half step back.
        - Your engineer should remind you of this, but if you make note of it beforehand, you can help the session keep a more constant pace.
    - The same, yet opposite procedure goes for when you get more QUIET.
        - But please remember that when you push your gain higher, your noise floor will also become, so be sure to watch out for background noises and how much "hissing" occurs if your level is pushed too far.
    - Once your dynamics come back down and level out, please remember to return your gain level to its original position to ensure consistency in your recording level.
        - Again, your engineer should remind you of this, but if you are able to remember and acknowledge it beforehand, it will great help out the flow of the session.

Part 5: Remote Recording Basics

So! You've got an approved home set up? Awesome! Let's get you prepared for any home recording sessions one may book.

Every studio does things differently, whether that difference is slight or great is up to the studio. But the basics should all be the same. So here is a basic list of what you should have to work with and do before and during the session.

Hardwired Internet	To help make sure connectivity is secure, we suggest that you hardwire, or physically connect your computer to your router via an ethernet cable. Doing so will increase the stability of your internet signal, as it will degrade more and more with distance and any time it needs to pass through a wall.
Have a router capable of handling high internet speeds	Believe it or not, not all routers are the same! If you have fast internet, the basic router that one might be provided by an ISP (Internet Service Provider) may not be able to handle those speeds. So an upgrade to a better router would be helpful in that situation. **NOTICE:** There are many different routers for many different needs, we suggest that you research what type will best suit the size of your space as well as your budget.
Have all of your materials and hardware ready	Make sure to have all your programs launched, hardware set-up and ready to go, and any materials that you may have received beforehand brought up so that when you connect with the studio, they do not have to wait for you to be ready. The studio may ask for a bit of extra time to finish prep, but **<u>you</u>** should always be ready. **Do not make the studio and client wait.**
Make sure your I/O is properly set up in the remote program	Regardless of the program you may be using (Source Connect/ipDTL/Connection Open/ETC…), make sure that your interface's I/O (Ins/Outs) are matching what is shown in the program. This makes sure that when you're connected with the studio that your audio signal is properly sending and they are able to hear you.
Confirm with the studio about having your backup set and rolling	When you record remotely, the entire session is at the mercy of not only the internet, but the program that you're using to connect to the studio's computer. If for some reason the studio is not able to get a usable take, there will at least be a clean version on your end that the studio can take note of and pull once the session is finished and you send it to them. If the session is long enough, or you take a break, you should stop your recording and make note of it to the studio so they are aware. Then once you are back in session, restart your recording and confirm with them once again. Also make sure to confirm the Sample and Bit Rate with the studio to make sure you're going to be recording a backup that is up to the specs of the studio/client.
Make sure to pay attention to any possible exterior noise that may be occurring and could get into your recordings	Even though you are now in a quieter space, there is still a chance that any noise happening outside of your booth may find its way in. So be sure that before you start your take, double check your surroundings. An engineer may also stop you if they hear something, but you need to also help out the studio by keeping an open ear. Otherwise you may end up having to re-do takes that had noise in them that post editing may not be able to remove.

Part 6: Don't Touch Your Files

Hardware/Software Processing

"I keep hearing about compression/limiting/normalizing… What is it? Should I do it? How much should I do it?"

The short answer? **No. Don't do it.**

When recording files that are to be delivered, your default thought should be that the files are to be delivered RAW. Meaning no processing done whatsoever before, during, or after recording.

The processing will be handled by your edit and/or mix engineer.

Types of Processing

- Compression. Whenever audio is being recorded, engineers will usually ask their client… "To compress, or not to compress?"
    - Compression LOWERS "Dynamic range." Bluntly meaning, the softer sounds are louder, and the louder sounds are softened. So everything is at a more EQUAL level.
    - If you are sending audio to someone else to edit. Your best option is to NOT COMPRESS. Be mindful of your levels and all of the post processing will be taken care of by the editing engineer.

- Limiters
    - As its name implies, a limiter LIMITS how loud a signal can get. Keeping your files from peaking.
        - "This is good, right??? Then I won't be sending anything that is peaking and is also LOUD?"
            - NO, while it is good that your file is loud and not peaking, a Limiter is like a hard compressor. Taking out any dynamic range if it crosses the threshold.

- Normalizing
    - Normalizing audio takes the LOUDEST point in your recording and brings it up to however loud you set it.
        - A negative side to normalizing, is if you have LOW LEVELS in your recording, then normalize them to HIGH LEVELS. You will bring up your NOISE FLOOR. Mostly known as that annoying HISS you all hate and try to avoid.
        - That is why getting a solid baseline recording level is important. And why having baseline equipment just won't do it for Broadcast quality. They do not have enough power and quality most times to provide what studios need.

The Delivery

Part 1: Mono vs. Stereo

Mono, or monophonic sound reproduction, is intended to be heard as if it were a single channel of sound perceived as coming from one position.

Stereo, or Stereophonic sound, is a method of sound reproduction that creates an illusion of multi-directional audible perspective. Or more than one channel of sound perceived from more than one position.

Mono = 1 source

Stereo = Multiple sources (Usually 2 sources in most occasions)

As an actor, you project a single signal. 1 Mouth - 1 Signal. So while recording, you should only be recording to a mono track. AND, only providing a mono file. Unless specified to give stereo, which we highly doubt would happen, always send a mono file.

Part 2: .wav vs .mp3

A WAV file is an audio file that is uncompressed. Meaning that the file is being produced without any loss in quality. This allows us to listen to audio in the highest quality with a high dynamic range. Most DAWS will record audio in WAV, and that can later be converted to other formats. This type of file is used for “Broadcast Quality”.

An mp3 is an audio file that is VERY compressed. Meaning the file is lower in quality, and has less dynamic range. When converting to mp3, the frequencies that humans typically are unable to hear are removed, thus creating a smaller, more compressed file. While listening on normal headphones or speakers you may not be able to tell the difference between audio qualities. This type of file is typically used for sending auditions.

Part 3: Bit Depth/Sample Rate

A Sample Rate is the measurement of the number of Samples per second of audio. The more samples, the more information can be captured, the higher the quality. We typically record games and dubbing around a 48kHz Sample Rate.

Bit Depth is the amount of information packed into each Sample. This correlates directly to the Dynamic Range in audio. The higher the Bit Depth, the higher the Dynamic Range. A CD will have 16 bit audio while something like an iTunes mp3 will have 24 bit audio.

More than likely a studio will be recording at a 48kHz Sample Rate with a 24 Bit Depth. We can convert to a lower quality if necessary, but cannot convert higher without potential audio problems.

Part 4: File Naming

So this may be simple for a lot of you but we wanted to at least give a quick moment to this since you may be providing more than audition files. Whoever is sending out the work to you should be providing a template, but just in case we would prefer that you have a couple things in your files.

The Date (MM_DD_YYYY)_Your Name_Your Character's Name_Project Codename or Title_Episode Number

They don't have to be in that exact order, but giving more information in each file helps us keep track. Source Connect (or something of the like) will more than likely be a thing in the future, but there is no guarantee they won't ask for files from your end as well. Be prepared to record from your end while they are recording you remotely.

Part 5: File Transfer Services

There are many FREE services that can be used if an upload link for your backup file(s) are not provided. These are just a few of the most widely used services.

Dropbox	Dropbox has a free version that has 2gb for free. Within the service, there is a "Public" folder that users can upload files to and openly share download links with production.
Google Drive	Drive comes in tandem with EVERY Gmail account. These services come with 15gb for free. (If replying to an email and adding in your backup, they will automatically be added to Google Drive instead of being attached to the email if the file is OVER 25mb.)
WeTransfer	For this service you can choose whether to sign up with an email or not! All you need to send anything is YOUR email as well as YOUR CLIENT'S email. Send files up to 2gb for free

Terminology

ADR: Automated Dialogue Replacement. AKA Dubbing to Timecoded video.
(Widely said to mean “Additional Dialogue Recording,” but that’s wrong)

Timecode: A sequence of numbers used for synchronization of different materials. Specific timecodes are marked for notable points in video. [HOURS:MINUTES:SECONDS:FRAMES]

Locked to picture: Pretty much a fancy way of saying that a system can run timecode synced with a video.

Editorial: When an engineer plays back files and takes out mouth noises, plosives, etc….

Rolling: What engineers say when we are recording. Referencing tape recording. Because tape looks like rolling wheels I guess? Fuck if I know at this point.

Sibilants: Consonants that produce higher frequencies. Specifically when air moves outward through or towards the teeth.

Plosives: a consonant sound that is made by stopping air flowing out of the mouth, and then suddenly releasing it

Cans: Headphones. Also. Get your own personal pair. Do you want to share ear germs????

Wild Recording: When there is no picture or timing to record to. As an actor you are pretty much free to go when ready. No Beeps.

You may end up being asked to do wild takes when dubbing right after your initial take while the video and audio are still rolling. Just give another read and the engineer will edit into place.
Chasing: When you hear a line, mainly being the source material, then immediately follow up by a repeat or continuation of the line.