

# Introduction to Audio and Production

This is the first training class you should take. Please make sure to fill out a class evaluation form, located by the signup sheets, and also make sure KBOO staff has your contact information.

(Thanks to BreAna Loranger for putting this together! Other information from Chris Merrick, Kate Welch, Kathleen Stephenson, Jenka Soderberg, Emily Young, and Erin Yanke)

## The Production Rooms

KBOO has four main audio production studios:

- Production 1 (P1)
- Production 2 (P2)
- Production 3 (p3)
- Studio 2 (S2)

## Production Room Use

- Production rooms are used to edit recorded audio, conduct phone and live interviews, record voiced pieces, produce the community calendar, record underwriting, and to produce promos and pilots.
- Production rooms must be reserved in advance.
- Leave the room clean.
- Turn all components down and/or off before leaving the room.
- No food or drink in the room. (leave outside on a shelf)
- Do not remove cables, headphones or equipment from the room.
- Refile any CDs you use in the Music Library before leaving.
- Never take backpacks, purses or bags into the CD library.
  - Never leave the building with KBOO CDs.

If one runs into equipment that is not working please note it in the problem log. The problem log is located next to the Engineer's Door, across from Studio 2. This is very important, as this is how the engineer knows there is a problem to be addressed, so the equipment can be fixed.

It is important to return the room to a neutral position when you are finished with your work session. Neutral position means: all mics are off, phone patch off, pots down, individual equipment (CD players, for example) off. Please also take your papers and make sure to check that you didn't leave a thumb drive or other important items!

## SOME TERMS

Announce

(Announcing): To say something on air.

Back

Announce: To say (on air) what was played previously on the radio show.

Broadcasting

(to broadcast): To actually be played on air.

Cue

(to cue): Getting a piece of audio ready to be broadcast.

Dead

Air: When nothing is being played, or when there is a malfunction and what is being played is not being broadcast.

DJ

(host): The person who is running the show. This may not always be the same person as the engineer. The DJ or the Host is the person who talks on air.

Board

Operator: The person who runs the board and makes sure that the audio gets played, and that there's no dead air.

General

Volume Setting: Volume 10 for the POT, marked with a thick double line. This volume level is generally good for any audio.

Instant

Replay Machine (IR): A typewriter like machine that stores promos. It is used to play short promos or introductions to shows on the air.

Interview:

When one person questions another person about a subject (can be done on air or prerecorded).

Mono:

When the left and right speakers are playing the exact same stream of audio.

ON/OFF

button: A button that when pressed down turns on the audio, and when up turns off the audio.

Panel:

When one or more persons interview more than one person about a subject.

Program

button: A button that switches the audio input on the selected POT from one audio source to another (for example, from the turntable to the computer).

Promo:

A short advertisement for something (often a show that will be airing or a meeting relating to the station).

Potentiometer

(Pot):The fader or slider that controls the output volume of the audio

Reporter:

A person who gathers information/audio for the station. A field reporter is a reporter who leaves the stations and gathers information/audio at events.

Run

Sheet: A paper that lists what you are going to play in what order. This is very useful sheet to have when back announcing or trying to engineer.

Station

ID: Announcing what station the audience is listening to

The Legal ID is Kay Be Oh Oh Portland. The call letters and city name *cannot* have anything in-between them.

Legal

ID: K-B-O-O Portland.

Not Legal ID K-B-O-O 90.7fm Portland

Stereo:

When the left and right speakers are playing different streams of audio.

TELOS

box: A rectangular black box that controls the phone calls to be put on air.

The TELOS box is used when phone calls are being put on the air.

Vox

Pop: Means “Voice of the people”. This is when a reporter asks many people the same questions (this is useful for things like rallies where you want to get many perspectives, ideas or experiences in not a lot of time).

The board controls all the other machines in the air room. It functions using Potentiometers (sliders that control the volume of things), on/off buttons, and program switching buttons. Although there are several Potentiometers (POTS) on the board, they all work the same.

### THE BOARD

**Input:** Controls what audio source is being streamed through the POT.

**Program Assign (1 and 2):** Controls which volume meter the audio is seen in.

**Off-Line Mix:** Rarely used in our setup – allows the host to choose what their guest or caller hears.

**Pan L and R:** This controls the balance between the left and right channels. Sometimes these are buttons instead of a dial.

**Volume Controller:** This is the slider you use to make the audio louder or quieter. The “general volume” level is when the white line on the slider matches up with the long black line next to the number “10”. The volume is turned off when the white line on the slider is on the infinity sign.

**ON Button:** When this button is pressed in, that POT is on. When it is not pressed in (as pictured) the POT is off.

**Input Label Button:** When pressed in the bottom thing (ex. “PATCH 1”) is streamed through the POT, when the button is out (as pictured) the top thing (ex. “MIC 1”) is being streamed through the POT.

## The CD Players

The

CD players are used often. They are for any prerecorded audio that is on a CD. The air room has three CD players. It is important to make sure you are cueing up the same CD player that your CD is in. When using the CD player there are many options available to you as far as what track on the CD you wish to play, where on the track you wish to start from, and whether or not you want to play only one track or many tracks from the same CD in a row.

To

cue a CD, first you must select which CD player you are using. The CD players in the air room are numbered top to bottom, the top CD player being 1, the middle CD player being 2, and the bottom CD player being 3. As an example, lets say that you will be using CD 2. First you must select a CD to play, say you are using an audio CD with 12 tracks. You wish to play track three. Open CD player 2 (using the eject button located near the lower left hand side of the

CD player) and insert your CD, then close the CD player. Press the forward arrow button (the double arrows pointing to the right) until the screen displays "Track 3". Press the "SING/CONT" button until the screen says "SINGLE", this means that the CD player will only play track 3. Now your CD is cued and ready to broadcast.

To broadcast your CD you need to slide the "CD 2" volume on the board to the general setting (marked with a black line) and press the "CD 2" button located under the slider. The button should light up and track 3 on your CD will be playing.

## MICROPHONES

There are a variety of microphones in the air room. The most commonly used microphone is the Announcer microphone, which is located next to the control board. This microphone is used mostly when the same person that is engineering is hosting or Djing a show, and needs to announce something (such as station ID, the next song, etc.). The other microphones in the air room are commonly used when guests are in the air room, when there are multiple hosts for a show, or when someone is conducting an interview in the air room.

Preparation to use a microphone is very simple. All you have to do is decide what microphone would be best for your situation (either the Announcer microphone, or microphone 1, 2, or 3) then cue that microphone. To cue the microphone simply slide the POT to the general volume setting, then press the "ON" button when you're ready to use the microphone.

## CASSETTE TAPE PLAYER

The tape player in the air room is not often used, though it's good to know how to use it in case you ever need to. Occasionally I have used the tape player when a guest artist comes in

and only has their music recorded onto a tape. The important thing to remember when using the tape player is that unlike a CD, you cannot instantly switch to the track you want. If you are using a tape, make sure you have it cued to the beginning of the track you want BEFORE you air the tape.

It is easiest to cue the tape before you get into the air room, but if you for some reason must after you are in the air room, these are the steps you need to follow: first, put your tape in the tape player, with the side that you want to be playing facing toward you. Next, press play on the tape player and press the “cue” button down on the board. Adjust the volume level using the corresponding POT and rewind or fast forward (these buttons found on the tape player itself) until you find the spot you want.

After your tape is cued, you need to prepare to air it. This step is relatively simple, and is rather like preparing a CD. First, make sure that your tape is cued to the right place, and that the tape is on the side that you want (for example, you want the second song on side A, so the tape is cued to that spot and side A is facing outward). After the tape is properly cued, select the appropriate POT on the board and turn the POT up to the general volume setting. When you are ready to air the tape, press the “ON” button and adjust volume to the proper setting.

Remember that when you are playing a tape, the tape will not stop after the track. Make sure that you turn the POT off after the song is over so that the following tracks do not get aired.

## TURNTABLES

The turntables are used when you want to play something that is on a 33 1/3 or a 45. Often you will have music that is only available to you on vinyl. In such cases it’s good to know how to properly cue and play a record.

To cue a record, you must begin by putting the record on either turntable 1 or turntable 2; make sure the record is on the side that you want. Turn on the volume on the POT for the turntable you have selected, than press the “cue” button so that you can hear the record without it being played on air. Next, place the needle as near to the start of the track that you want by using the lever on the turntable to lift the arm and needle of the record player. Once the needle is where you want it, lower the lever and press “Start/Stop” button on the turntable that makes the turntable spin. This will make the record start playing. When you find the beginning of the track that you want, press the “Start/Stop” button again so that the turntable stops spinning. While the needle is still on the record, turn the entire record (using your hand) about two spins backwards. This will cue the record in the perfect place for when you go to play it.

To play the record get it cued, then turn the POT for the turntable (marked TTbl) to the general volume setting. When you are ready to air the record, press the “ON” button on the

turntable POT. Remember that when the song is over, you need to turn the POT off so that the record does not keep playing.

## COMPUTER

You can use the computer when you are looking for a song or other audio that you can only find online, or when you need to play something you have saved on the computer. There is a computer in the air room dedicated to On-Air spots

If you're going to play something off of the computer you must first of all find the audio that you want to play. I can't really instruct you on how to do this because there are so many ways, but for the sake of this manual I'll use for an example that you find a song on Soundcloud.

First you need to play your audio on the computer (in this case, you would click on the link, then when the player for the song came up you would press the pause button and make sure the song is at the beginning). Once you have the audio all you have to do is slide the POT for the computer (marked "CMPTR") up to the general volume level. When you're ready to play the piece, press the "ON" button on the board, then click the play button on the computers player. You want to press the play button on the computer quickly because otherwise you'll have dead air. At the end of the audio you want to turn down the POT for the computer and turn off whatever audio was playing on the computer.

## THE TELEPHONE

The telephone is used to put people on the air who have either called in to a program or been called from the station to be interviewed on the show. Regardless of the situation, putting a phone call on the air can be difficult, but definitely worth it. Make sure that you always tell the person on the phone that they will be put on the air, and remind them of FCC regulations regarding language and slander (if applicable). Also, remind your caller to turn down their radio while they are on the air.

To begin with, you need someone on the phone. If someone called in, then simply answer the phone, keep them on the line, and explain to them that they will be put on hold. To call someone first press in the appropriate line button on the telephone (try to avoid line 1, instead use line 2 or 3) then place your call.

Now that a caller is on the line, put them on hold. You do this by pressing the "HOLD" button on the telephone and hanging up the phone. The line the caller is on should have a blinking light (for example, line 3 would be blinking). The second step for a caller involves using the "Telos" box. Find the Telos box and press the button for the line your caller is on. For example, if your caller was on line 3, the button marked "3" on the Telos box would be

blinking. Press the “3” button once so it becomes a solid light. There are two rows of digits on the Telos box, the top is marked “tel 1” and the bottom is marked “tel 2”. Make sure that you press the button in the top row (so the call is on “tel 1”). Next, turn the POT for “tel 1” on by pressing the “ON” button. Make sure that you keep the volume down until you have announced your guest. Keeping the volume down insures that only what you want on the air will be on the air.

When you are done with your caller remember to thank them and press the “ON” button on the board for the telephone so the caller is no longer on air. Then you need to drop the call, simply press the “ON” button on the TELOS box so that it is blinking, then press the “drop” button for the line your caller is on. The lights should stop flashing and the call is dropped.

### **How to use the Recorder in Production One**

- 1) Turn the machine on. The Power button is on the right side of the machine. The screen will light up, and say “No Media”
- 2) On the bottom right side of the screen, it will say what format the machine is set to record onto.

#### **IF YOU WANT TO RECORD ONTO CD**

If it says CD on the bottom right hand side of the screen, and you want to record on CD, just put a blank CD into slot. Press record button, and it will go to record/pause mode. It will take a couple seconds, and then a time display will show up on the screen. You can check your record levels at this point. When you are ready with good levels, press Play to begin the recording.

To finalize

Press Menu button (small button between the screen and the Multi Jog knob)

Scroll down to Choice 4: CD using the Multi Jog nob. Press the Multi Jog knob in, and then chose #1 Finalize. Press the Multi Jog nob in to select.

If it says USB on the bottom right hand of the screen, press the device button, and use the Multi Jog knob to change the selection from USB to CD. Then press the multi jog knob to select CD.

#### **IF YOU WANT TO RECORD ONTO USB**

If it says USB on the bottom right hand side of the screen, and you want to record on USB, just put your thumb drive into Recorder Two slot above the machine. Press the record button, and the time display will appear on the screen. Then, the box “Unapproved FAT Format” will come up on the screen. Press the Stop button, and then press Play, and recording will begin. (no idea what the FAT format thing is, and it has had no effect on my recordings!)

NO need to finalize since it is on USB

If it says CD on the bottom right hand of the screen, press the device button, and use the Multi Jog knob to change the selection from CD to USB. Then press the multi jog knob to select USB.

Much of this guide was created by KBOO volunteer BreAna Loranger!  
Please send feedback on the guide to [program@kboo.org](mailto:program@kboo.org)

KBOO front desk: 503-231-8032

KBOO Air Room: 503-231-8187

## **HOMEWORK for Introduction to Audio Production**

Following this class, you will be responsible for signing out a Production Studio and recording a CDR or onto a thumb drive with the following Segments:

### **RECORD As if you are On The Air**

You will blend a music bed with your voice. Please include

- 1) Potting up the Music Bed
- 2) Fading the Music Bed while bringing up the Microphone
- 3) Talking on the Mic – including the legal ID (Kay Be Oh Oh Portland)
- 4) Fading out the Microphone while bringing up the Music Bed

### **PHONE INTERVIEW**

1) Call a friend, and interview them! Please keep the interview between 2 and 5 minutes.

Remember to WATCH THE LEVELS throughout the recording.

Because this is training homework, you will make multiple tracks until you get a take with which you are satisfied (as opposed to Editing a Track to perfection). You can make as many tracks as you need. Please turn in the CD or thumb drive with a note as to which are the Best Tracks, and the date you produced this homework, and put the CD in the Pink Box which is on the wall by the place where you sign up for training classes. You can also just bring it to class with you.

Then, sign up for a listening Session, where we will listen to the homework as a group, and go over how to do Peer Evaluations, and talk about what makes Compelling Radio.

(EY 4/18)