

Advanced Studio Production - Live Music
Instructor: Ann Theis



Class Objectives

- Students will learn to set up Studio A for a live performance by a typical band.

Meeting with the Band

Before set-up, consult with the band/performers using the Performance Planner (see the end of the curriculum).

Different Types of Mixes

- Live mix - what is being recorded and going over the station
- Band mix - the mix that the band can hear through monitors
- Audience mix - the mix that the audience in the studio can hear through speakers

Standard Microphones for Bands

- Shure SM-58 - vocals
- Shure SM-57 - for miking amps
- AKG C 535 EB - overhead mics (2) toms and cymbals
- Shure SM-57 - for snare drum
- Shure Beta 54 - for bass drum

Direct Boxes

Direct boxes (or DI boxes) are typically used for connecting keyboards, DJ gear, and similar powered equipment to the board. DI boxes change a line level to a microphone level, while also converting ¼-inch plug to XLR connectors.

DI boxes come in two different types:

- Passive - do not require a power source
- Active - require a power source

The Audio Mixer

A device known as an Audio Mixer combines and controls all the audio needs of our control room, and masters all the sound in a finished program. Each sound source is treated separately, because each has its own input channel. Most of these sources originate from the studio microphones. Don't let the all those controls scare you - the board is quite easily navigated. You need only master a few crucial controls, because each control set is exactly the same for each channels.

ALL IN A ROW

Notice that the majority of the board is taken up by vertical slices or channels, that work for all intents and purposes, identically. These are all the individual sound sources, which are called inputs. All the sound sources all have their own individual input, or channel. The controls for each channel run vertically up the soundboard, and are numbered from left to right. All these channels allow us to treat each sound source individually, and finally mix them together to make a complete soundtrack to a program.

At the very bottom of each channel is a sliding control, called a fader, which regulates the amount of each sound source that will end up in the program, or main mix. In between the top and bottom are controls that can, if desired, modify and 'shape' each individual channel, and controls that will assign or send each channel to its desired destination: the main mix, the studio monitor speakers, the telephone interface, or any combination of these. The extreme right side of the soundboard controls the destinations of the mixed sound sources, called outputs and level of the main mix outputs. The program mix, or main mix is what becomes the sound portion of your television program. This is what gets recorded to your master tape, or gets broadcast live. In other words, if both faders are fully down, your program will be a silent one.

Using the Audio Board in Studio A

- Only use masking tape or painters tape when marking your inputs on the board
- Power up the audio board
- Turn on speakers behind board
- Load the show file (see below)
- Press the On buttons for the Broadcast Record and Matrix Mains and bring the faders up to 0

Show Files for Studio A Audio Board

You can load pre-designed show files (layouts) into the audio board. We recommend that you load the Talk Show Post Fade layout.

1. Press Show on the touch screen
2. Press Load
3. Use the dial to scroll down to Talk Show Post Fade
4. Press OK
5. Press Yes

Talkback

This is so the band members can hear you during soundcheck.

1. Press the On button for the talkback
2. Bring up the gain
3. Don't bring up the fader (this will add it to the mix)
4. Bring up the fader on the appropriate mix (see Other Mix Levels below)
5. Talk into the handheld microphone near the board
6. Turn the talkback mic off when not using it

Doing the Soundcheck

1. Press the On button
2. Bring fader up to 0
3. Slowly bring up gain where levels are peaking at the first line (not into the yellow) in the box on the program monitor
4. Press the Sel button if you want make adjustments (EQ, phantom power, etc.) for that channel
5. Repeat for other channels

Other Mix Levels

You can create different mixes for different outputs (i.e., separate levels for the monitors going to the band or audience).

Some other mix options are:

- Mix 1 - left monitor
- Mix 2 - right monitor
- Studio Mains - audience mix

The channel must be turn on (green On light) if you want to hear the source coming through the mix.

Setting Up for Multitrack Recording

1. Turn on the Mac
2. Launch Audition
3. File New Multitrack Session
4. Type on session name and click OK
5. Click where it says none and select mono and assign an input (for track 1, assign it to input 1 and so on)
6. Click R to arm it for record
7. Rename the track
8. Repeat for each track
9. Click the red circle to start recording
10. Put away the keyboard and mouse on the tray; n accidental bump can stop recording

Performance Planner

Information needed ABOUT the day of the shoot:

1. How many piece band or number of performers?
2. Please describe band/performance members, what kind of mics or DI will be needed for each instrument/person and any comments or notes for unique needs. ***Also, indicate below which items you like to use in OUR BACKLINE:***
 - Ampeg BA115 Bass AMP 15" 100W
 - Two Fender Hot Rod Deluxe III - Standard AMP
 - Yamaha Stage 5-piece Drum Set with Hardware (22" Bass, 10/12/16" Toms, 14" Snare)
 - Korg SP-280 - Black Keyboard

Please list band members:	Please list instrument(s), device(s), etc. or what they do, ie. Vocals, Bass:	Type of mic or connection needed:	Notes: (note if backline item)

Input	Instrument/Mic	Mix (live, band, audience)
(ie. input1)	(ie. Lead Vocal)	

- 3. We go live at Xpm. Will the band be available between X-Xpm for set-up and sound check on the day of the shoot? If so, what time?

- 4. What length performances can you do and do you prefer 1 set or 2?

- 5. Do you want to come by the studio to check out space and equipment? If so, when?

- 6. What can you do to advertise the show?

- 7. Here is information about the location, time and how to tune in for your posts and flyers:

Live at Xpm - doors open at Xpm
 Denver Open Media - Studio A
 700 Kalamath St, Denver, CO
 Webstream - denveropenmedia.org/livestream_57
 Cablecast - Denver Comcast Channel 57/881 CenturyLink 8509

- 8. Any other special needs/requests?