Templeton-Blackburn
Alumni
Memorial Auditorium

Audio System

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Overview

The audio system at Memorial Auditorium is a JBL Line Array system, consisting of five JBL VRX932LA mid/hi cabinets and two JBL VRX918S subwoofers flown per side, powered by Crown I-Tech series amplifiers. The array is wired passive by default, though the wiring is in place to roll in a second amp rack and run it as an active system. In addition to the main line array, the auditorium also has a series of delay and fill speakers for the front row of seating, the under balcony seating and the upper balcony seating. Event Services also has additional speakers that can be added to the system for additional support on larger shows.

The system routing, delay and equalization are managed by a BSS Audio SoundWeb 9088iis Processor. The main console for the venue is the Yamaha M7CL-48 digital console with an 8 in/out expansion card for inserts. All I-Tech amplifiers are available on the network from the FOH control booth or monitor location via wired or wireless network.

This training guide will cover basic and advanced operation of the systems listed above in addition to the Paging System, Hearing Assistance and Production Communication Systems currently in place.

When using the system and are unsure of what you are doing, please ask.
**Terminology**

**Coupler** - (Turn-around, Gender Changer) - A device used to change the gender of a connector to male or female.

**Possible Terms**
- XLR
- TRS
- TT
- TS
- 1/4”
- 1/8”
- IL-19
- Mic/Line level
- Balanced/Unbalanced
- VCA/DCA
- Aux Send
Locations

**FOH** - is located rear center of House. This area contains the main Audio Console, LX Console, Audio Processing, Audio patch cables and other consumables.

**SL Closet** - is located down stage right and contains Microphones, Wedges, XLR and NL4 Cable and the Motor Control for the main PA.

**Microphone Stands** - Some microphone stands are kept on the stage left stairwell, in the green room under stage and in the Amp Room

**Amp Room** - Located under stage, on the stage right side. This room houses the amplifiers for the main PA system as well as the Monitor and Paging Systems. This area also contains some extra Wedges, Cases and Microphone Stands.
Turning the System On

Turning the main system on in the Auditorium is an easy process. On the left side of the FOH platform there are racks built into the table. On the top right flip up the plastic cover and push the green button once. The system is tied to a power sequencer. The whole power up/down process takes about 30 seconds.
Console Operation

Once the console has powered up, there are a number of operations you can preform based on what event you are working. For a majority of the events done at the Auditorium, you will load one of 4 Scenes.

001 - Mem Aud Zero
002 - Mem Aud Rep (Used for 85% of show/events)
003 - Playback Rep (Used with Playback rack)
004 - Mem Aud Rep Subs (Same as Mem Aud Rep except for subs are on an aux send)

To load a scene simply tap the “Scene Memory” button on the bottom right of the screen, and use either the arrow keys or the defined encoder to scroll through the list. Once you have your selected scene you can store or load a scene by pressing the STORE or RECALL button on the screen.

Once you have recalled a scene there are a few channels on the console that are either always patched or preset up for a particular mic. To turn a channel on press the button directly above the fader on the selected channel. The led should be illuminated if the channel is on. Bring up the fader slowly until you have reached the desired volume. Be careful of feedback during this process.
Console Operation cont.

Pre Setup Channel
33 Podium Mic (Patch)
35 Black Wireless Mic (Always Patched)
36 Red Wireless Mic (Always Patched)
37 White Wireless Mic (Always Patched)
38 Blue Wireless Mic (Always Patched)
39 Q&A HL (Patch)
40 Q&A HR (Patch)

ST IN
1 CD1
2 Red Playback
3 Blue Playback
4 iPod

The iPod has the Memorial Auditorium Safety Announcements that’s must be played before every event, it also has a Pandora account for pre show music if necessary. You can get the iPod out of the key vault by the backstage door. Use your 4 digit username and passcode and remove key #19. If you do not have access or a username and password. Contact your supervisor.
Network Access & iPad App

Wireless audio network access is available from the house area.

Wireless Network SSID: MEMAUD-FOH
Wireless Network WEP Key: 310F568EAC

Network

IP: 192.168.1.3
Gateway: 192.168.1.1
Subnet: 255.255.255.0
MAC: 00:A0:DE:25:6F:BD

To connect to the M7CL with the iPad StageMix app, simply connect to the Mem Aud wireless network. Open the app, click add new console and enter the network information above.
SoundWeb/System Architect

Need to go to the Aud sit down and go ground software.
Paging System

There is a production paging system in the building. The stage manager panel SR and the FOH control booth areas have microphones that will broadcast to the dressing room stack and the under stage area. Also the system can feed program material into the dressing rooms as well.

This system is a series of wall mount speakers, powered by a Crown CA-2000 amplifier.
Hearing Assistance

An assistive listening system is available at the auditorium with receivers available from the House Manager.

The system is always ready to go when the auditorium is in house rep setup (85% of shows). The only action you may have to perform if someone is using the system is to set the volume. This can be done by turning the Matrix 1 output either up or down.

There is a transmitter located in the same rack as the CD Player, it is fed by an XLR cable from OMNI 13 out on the M7CL. OMNI 13 is patched to Matrix 1 which is being fed from the Main Left and Right outputs.
Production Communication

**Type:** Clearcom 4 channel hardwired  
**Beltpacks:** (8) RS-501 packs (single channel)  
**Headsets:** (6) CC-85 single muff, (2) CC-250 double muff  
**SM Station:** MS-440 linking station (not a matrix station)  
**Locations:** Located SR & SL wings, operating and loading rails, mid-house, control booth, spotlight platforms, misc. cat-walk connections

The Auditorium is equipped with a professional intercom system. The SM Station and Audio Console both have base stations. All other locations have wired or wireless belt packs. The belt packs and headsets are located in the middle drawers of the FOH Platform. The wireless belt packs are located in a drawer at the SM Station.
Wiring
Audio Equipment List

Consoles
(1) Yamaha M7CL – 48 channel (Primary FOH Console)
(3) Yamaha LS9 – 24 channel

PA Speakers
(10) JBL VRX-932LA (flown with 5 cabinets per side)
(6) JBL VRX-932LA (stacked on sides of stage and down center to supplement flown pa)
(4) JBL VRX-918S (flown with 2 subs per side)
(4) JBL VRX-918S (stacked on sides of stage to supplement flown pa)
(5) EAW JF80 (fixed location under balcony)
(4) JBL SR4722A (fixed location upper balcony)

Amplifiers
(?) Crown I-Tech 8000 (Main PA System)
(?) Crown CA-2000 (Monitor System)
(?) Crown CA-2000 (Paging System)

Wedges
(2) JBL MR905
(4) JBL MR902
(6) EAW SM129zi
(2) EAW SM159zi

Additional Speakers
(4) Apogee AE5
(2) Apogee AE10
(6) EAW KF650e
(2) EAW SB284C
Mic Equipment List

Microphones
(6) Shure SM58
(2) Shure Beta58
(2) Shure SM57
(2) AKG 451
(1) Shure Beta52
(2) Sennheiser 604
(4) Crown PC-160
(1) Sennheiser MD421
(6) DI Boxes
(2) Podium Microphones
(4) Shure Wireless ULX w/ SM58 Head or Countryman Lavaliers
Maintenance

When using the system during normal operation, please make sure you listen to the PA carefully to determine if any of the speakers or horns have been blown out.

To preform maintenance on the flown VRX you will have to drop the line-array to the ground. To do this in the Audio Mic Closet connect a normal motor pickle to the audio motor control connection on the motorized line set controller. You can not have any other motors or linesets engaged while using the audio motors.

Sometimes while using the M7CL or the LS9 the faders will “jump” or vibrate. This is common with the amount of use this console gets. Most times a fader calibration will fix this issue. (M7CL) While holding down the SCENE MEMORY [STORE] key of the panel, turn on the power. Press FADER CALIBRATION button and follow the instruction on the screen. (LS9) While holding down the SCENE MEMORY key of the DISPLAY ACCESS section, turn on the power. Move the cursor to the FADER CALIBRATION button and press the ENTER key and follow the on screen instructions. If this does not fix the issue please contact the Technical Coordinator and inform them of the issue the console will need to be professionally serviced.

Again always make sure you are looking for this not operation properly as this is the easiest way to prevent any future problems and maintain our equipment.
Advanced M7CL Operation

Topics
- Channels
  - Comp
  - Gate
  - FX
- Rack
- User Setup
  - User Keys
  - Options
- Omni Patching
Adv M7CL Operation Cont.
Advanced SoundWeb &

Again goto Aud
System Architect