

ZAAC House PA System & Stage Information at State Theatre

Last update: December 20, 2019 by Doug Duncan

Mixer & Accessories

- **Behringer X32 Digital** 32-channel mixer: **32 XLR inputs** with individual phantom power, 6 AUX ins/outs, 16 sends: 2 connected for FOH L&R, 12 connected for monitors (we have amps for **eight monitor mixes** and one powered monitor), multiple internal effects processors, compressors, equalizers, etc. Mixer is connected to a wireless router to allow operation via iPad running X32-Edit anywhere in the room. (*The security key is on the bottom of the router*).
- CD Player, USB memory stick reader and 3.5mm cable for MP3 playback - all connected.
- 1 - 150-foot 16x4 snake to WEST side of stage (Ch 1 - 16, Aux 9 & 10: Pre, 11 & 12: Post)
- 1 - 100-foot 16x4 snake to EAST side of stage (Ch 17 - 32). Four 1/4" jacks on stage-end are connected to monitor sends 5 thru 8 for use with in-ear or powered monitors.
- 2 - 100-foot, 8-channel monitor / FOH / sub snake. 3 Channels unused. (Hidden under stage)
- So, the four snakes carry 32 input channels from the stage and 12 monitor mixes (8 powered).

Microphones

- 4 **Shure SM58** vocal mics
- 3 **Shure Beta 58A** vocal mics
- 1 **Sennheiser e865** condenser mic
- 2 **Shure SM57** mics
- 3 **AKG C1000S** condenser mic – use phantom power or 9V
- 4 **GLS SM57** clones
- 2 **Audio Technica AT4041** condenser mics
- 1 **Sennheiser E609** amplifier mic
- 5-piece **EV drum mics** – kick and clip-ons

Microphone Stands & Accessories

- 11? - Tripod Microphone boom stands & microphone clips
- 3 - round base straight mic stands (no boom)
- 3 – short mic stands with heavy tripod base
- 1 – heavy kick drum mic stand with boom
- 4 - guitar stands (adjustable width so may work for other instruments)
- 4 - Manhasset music stands & 3 folding music stands (the cheap kind!) (*Crossings owns two*)
- 2 - mini music/note holders that clip to microphone stands
- 4 - passive Direct Boxes with ground lift.
- 1 – Radial Active Direct Box
- Ebtech AC and Behringer line hum eliminators

Cables

- Cables: XLR, TRS, Speakons, etc. to connect entire PA with 8 Monitor mixes.

Speakers, Monitors & Amps

- 2 - **QSC KW122** powered speakers (1000 watts, 1 x 12" plus horn) **FOH (flown)**
- 2 - **QSC KW181** 1000-watt subwoofer under stage at end of each aisle
- 2 - **Behringer Ultrawave B300** powered speakers (300 watts, 1 x 15" plus horn)
- 5 - **Yamaha SM112** Club Series IV monitors (1 x 12" plus horn)
- 1 – **Yamaha** 12" plus horn (smaller) monitor
- 2 - **Behringer Eurolive F1220** passive monitors (1 x 12" plus horn)
- 4 - **QSC RMX850** monitor amps (stereo 300W @ 8 ohms) Permanently connected under stage.

- 1 - **Galaxy Core PA5X140** "Hot Shot" powered monitor (actually works well for some things!)
- Floor box in front-center of stage with Speakon jacks for monitor mixes 1 thru 4
- Speakon jacks on west and east of stage sides for monitor mixes 5 thru 8
- Front Floor box also has female XLR jacks for FOH or front fill powered speakers
- Floor boxes for Monitor, Backline & PA Top AC (separate 20-amp circuits) Sub has own too.
- 4 - tripod speaker stands (not in use)

Electrical Service

- 200 amp service panel for stage and stage lighting.
- SIX 20-amp circuits to the stage (FOH, Monitors, Sub, Backline, Utility x 2)
- SIX 20-amp circuits for lighting (four at ceiling, two at floor level on stage sides)
- additional 20-amp outlets at service panels
- 220-volt 50-amp outlet at service panel for distribution panel, if necessary

Lighting

- 8 PAR 64s, 8 PAR 56s, 6 Ellipsoidal stage lights distributed between 8 positions.
- 8 Chauvet LED wash lights mounted to stage sides. (multiple models)
- 8 OPPSK LED stage lights mounted overhead for back wash lights. (Powered by FOH circuit)
- DMX lighting network with controller at sound booth and hub at stage for expansion.
- Notebook PC in sound booth running QLC+ software for alternate lighting controller.
- Entec DMX USB Stage lighting interface for running lights by computer.

LCD Projector *(May need permission from theatre owner to use)*

- Installed in projection room for large-screen movies. (Cannot be moved)
- HDMI & VGA cables run to sound booth.
- Various adapters in-house.
- Projector Sound is run into mixer.
- DVD Player connected in projection room.
- HDMI-cable DVD Player could be operated from sound booth.
- 100-foot HDMI cable (directional) from stage to sound booth.

Notes:

- Performance room is 50 feet x 38 feet with a 20-foot ceiling. Sound booth is in back corner.
- Stage is roughly 26 feet wide by **up to 23' feet deep. Screen is on ceiling track.**
- Stage is: 30" above main floor and approximately 24' wide by 12' deep (*roughly!*)
- Stage backdrop can be heavy black velour drapery or painted antique mural. Two curtain locations.
- New toilet and dressing room backstage
- **Plexiglass drum surround** for controlling drum kit volume, plus 3 plexi panels for amps.
- We have several 6 x 8 foot carpets for stage use.
- The theatre has a reconditioned **upright piano** on a wheeled dolly.
- The theatre has a **Baby Grand piano** on a wheeled dolly.
- At times we have access to additional equipment.

Questions: Doug Duncan (612) 386-6489 cell; DougWDuncan@Yahoo.com

Bringing Your Gear In / Using the house system:

If you bring in your own mixer please just place it on top of the wooden cover that protects ours. Please reconnect anything that is disconnected and put back anything that is relocated so the house system remains functional and organized for State Theatre movies and concerts.

Sound Policy Request:

We desire a moderate decibel level in the upper 80's to low 90's range, not to exceed 100 decibels at peaks (A-rating, slow response, front of room). This is to foster our reputation as an "arts house" that is comfortable for all our guests. The theatre gets more complaints about high volume than anything else. We need to keep our relatively small community coming back to remain viable. Thank you!