



Audio System Description – Evangeline Atwood Concert Hall

Alaska Center for the Performing Arts – Anchorage, Alaska

CENTER CLUSTER

The Atwood Hall is a standard arched proscenium auditorium with an approximate seating capacity of 2100. The arch is 57 ft. wide at deck level and 35 ft. high at centerline. The main cluster is located at the top of the arch at centerline behind a transparent fascia. The cluster consists of 6 Meyer UPA-1C speaker cabinets in a 2x3 configuration (3 wide by 2 high). The top three cabinets are aimed at the balcony, the bottom three are aimed at the mezzanine, and orchestra level.

The cluster is typically driven by one mono or matrix signal. The signal passes thru a RTS distribution amp and then to a Meyer CP-10S equalizer, 2 Meyer M-1A controllers, and then into 4 Crest 4801 power amps. If desired, the cluster may also be broken out and driven with two signals: one going to the top three cabinets, and the other going to the bottom three cabinets.

CENTER CLUSTER

6 Meyer Sound	UPA1C	Full Range Cabinets
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SIDE STACKS

The main cluster is supplemented by side fill speaker positions (stacks) located DSL and DSR behind the proscenium fascia. There are four levels of stack positions on either side of the stage: deck level, orchestra level, platform, and mezzanine. Each side of each level is supplied with four audio signal runs and dedicated audio power on a 20-amp breaker. House has installed four sub cabinets at deck level, four full range cabinets at orchestra level and. and four full range cabinets at platform level. Orchestra level is approximately 10 ft. above stage deck. Platform level is approximately 20 feet above the stage deck. Each side has the following compliment of equipment:

Two Meyer Sound 650-P self powered sub cabinets and four Meyer- Sound CQ-2 self powered full range cabinets.

Signal for the CQ-2 full range cabinets goes through channel "A" of a Meyer CP-10S equalizer. The sub cabinet signal is fed through channel "B" of the same Meyer CP-10S. The EQ, electronics, and power amps for the Center Cluster, FX Speakers, Under Balcony Speakers and Clear-Com are located in Sound Room 221.

SPEAKER STACKS (per side)

2 Meyer Sound	650-P	Sub Cabinets
4 Meyer Sound	CQ-2	Full Range Cabinets

FRONT FILLS

The front lip of the stage is equipped with (14) EV Pro-8A coaxial speakers for front fill. When the pit lift is used at stage height and the lip speakers are covered, there are (14) more EV Pro-8A speakers mounted in the down stage lip of the pit lift to take their place. Each set of front fill speakers are wired in a series/parallel arrangement and cannot be broken out for individual feeds. A switch located in the sound control booth selects either the lip or the lift speakers. The front fills normally get their signal through an RTS distribution amplifier, fed by a split of the cluster signal, through a separate attenuator. The front fills may also be broken out and fed independently. In either case, there is a digital delay in the sound booth to correct front fill timing in relation to cluster output.

FRONT FILL

14 EV	Pro-8A Lip	Coaxial	Lip of Stage
14 EV	Pro-8A Lift	Coaxial	Lip of Pit

FRONT OF HOUSE MIX CONSOLE / PROCESSING

The FOH in house mix console is Mackie SR40.8 It has (40) inputs with (8) group outputs and (2) mix outputs. It also has (8) auxiliary outputs and an 8X8 matrix output. The processing racks and Playback racks are listed in the Inventory.

FRONT OF HOUSE MIXERS

1	Midas Verona	V/480/ 8/TP	40X8X8	F.O.H. Mixing Console
1	Mackie	CR1604	16X4X2	" " " "
2	Mackie	1402-VLZ	14X1X2	" " " "

AMPLIFIER RACK (ROOM 221)

1	Meyer Sound	CP-10S2 Channel		Parametric Equalizer
2	Meyer Sound	M-1A		Electronic Crossover
4	Crest Audio	4801	Stereo	Power Amplifier
12	QSC	1200	Stereo	Power Amplifier
4	QSC	1700	Stereo	Power Amplifier
4	QSC	1400	Stereo	Power Amplifier

FRONT EFFECTS RACK

2	Furman	PL8		Power Conditioner
2	Audio Digital	ADD-2	2 Channel	Effects Processor
1	BSS	DPR-422	2 Channel	Compressor/Desser
2	BSS	DPR-901	2 Channel	Compressor Dynamic Equalizer
2	DBX	160A	1 Channel	Compressor/Limiter (Stereo)
1	Eventide	DSP-7000	2 Channel	Effect Processor
1	Klark Teknik	DN360	2 Channel	Graphic Equalizer
1	Klark Teknik	DN514	4 Channel	Noise Gate
1	Klark Teknik	DN3600	2 Channel	Programmable Graphic EQ
1	Klark Teknik	DN3601	2 Channel	Programmable Slave Graphic EQ
1	Lexicon	PCM80	Stereo	Effects Processor
1	Meyer Sound	LD-1A	8 Channel	Line Driver
1	Roland	SDE-330	2 Channel	Digital Delay
1	Yamaha	Pro-R3	2 Channel	Effect Processor (Stereo)

PLAYBACK RACK

	Denon	DNC635	Stereo	CD/MP3 Player
	Denon	DN790R	Stereo	Cassette Deck

DIGITAL PLAYBACK/RECORD

1	SV-3900	Stereo	DAT Deck (rental)
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SELF POWERED STAGE MONITORS

9	Meyer Wedges	USM-100P HF 1.4" Throat, 3" Diaphragm Compression Driver LF 15" Cone Driver, 700 Watts
1	Subwoofer Meyer	USW-1P 2) 15" Cone Drivers 700 Watts

MONITOR SPEAKERS

6	JBL	121	12" Cone, 1" Compression Driver (Internal X over)	Wedges
12	JBL	152	15" Cone, 2" Compression Driver (Bi-Amp)	Wedges
2	JBL	4825	12" Cone, 1" Compression Driver (Bi-Amp)	Wedges
8	JBL	3110A	800Hz Crossover Point (for JBL 152)	X over
4	JBL	2152	2) 12" Cones, 1) 2" Compression Driver (side fill)	Full Range
2	JBL	4842	2) 8" Cone (side fill)	Subwoofers
2	JBL	4852	2) 15" Cones, 1) 2" Compression Driver (Side Fill)	Full Range
8	Galaxy			Hotspots

AUDIO CONTROL ROOM

Audio Control Room- The audio control room, (1AC) is located at the rear of orchestra level, house left. This room contains the main power switch for the audio systems and the central patch bays. The Control Room Console Panel has 48 inputs. Outputs include: 1 main to cluster, 4 to stack, 2 to fold back, 8 to auxiliary, and 2 to monitor amp. 1AC is also the location for the System Control Panel with final volume controls for cluster, bar, lip/lift, and slf speakers.

The control room also has program distribution to under balcony speakers, backstage, lobby, and infrared systems. Other items in the control room include: Nakamichi MR-1 cassette deck, ADD-1 digital delay, Clearcom MS-808 4-channel intercom, infrared modulator, RTS 2500 Series card racks, QSC 1200 monitor amp and 2 JBL 4406 monitors. Clearcom is distributed from this room to all related production areas. (Light booths, follow spot booth, fly rails, etc.)



HOUSE MIX POSITION

Clear Com, at house mix, may only be accessed one channel at a time. The house mix position in the Atwood Hall is 6 ft. deep by 8.5 ft. wide. It is located approximately 80 ft. from the lip of the stage at orchestra level and there are no obstructions between FOH mix engineer and any FOH speaker. The space needed for the house mix position normally negates 8 seats. Depending on your mix console requirements, amount of process gear, and drive racks, some seats immediately surrounding the mix position may become "obstructed view" seats.

There are a total of (48) hardwired mic lines available at the mix position. These mic lines terminate in a custom-made multi pin connector at a panel to which you connect the house 48 send XLR fan. The house mix panel also has XLR output connectors to the main (1) cluster, (8) XLR aux outputs, (4) XLR outputs to stack positions, and (2) XLR outputs to fold back. There are also (2) 6 in. conduits with pull lines, which run from house mix to DSR. These conduit runs are approximately 125 ft. long. A (12) send Canare snake lives in one of them. As an alternative, there are several usable routes from stage to house mix for you to run your custom show harness through the house.

Power to house mix consists of (3) 20 amp circuits. Two of these are dedicated audio power, and one is common building power.

There are total of (4) channels of Clear Com.

STAGE MANAGERS RACK

Audio Stage manager rack (1AS) is permanently located DSR. It contains: 4 channel Ramsa WR-M10 mixer, Clearcom MS-808 4-channel intercom, QSC 1200 monitor amp, patch bay, aux input panel, 8 balanced tie lines to all other stage and pit boxes, and Mic inputs 1 thru 24. The mono output from the WR-M10 in this rack is connected to the main cluster thru a system-summing amp. Transformer coupled splits for the first 48 Mic inputs are returned to a panel on 1AS for a monitor mixer, and sent to Audio Control room (1AC) and house mix position. House mix desk provides phantom voltage when monitor mixer is in use.

FX MONITORS

All cluster EQ, electronics, and power amps are in a separate amp rack room. This is also the location of all under balcony, aux system power amps, and FX power amps. There are a total of (4) FX QSC 1400 power amps. The FX amps are used for running passive crossover stage monitors. The FX amp input can be fed from fold back buss 1 or 2, or an independent input. The list of monitors available from our inventory include: 12 custom built bi-amp floor wedge models 152 with (1) 15" JBL 2225H cone and (1) 2" JBL 2445J horn driver on a JBL 2380A horn in each box run with an external JBL 3110A external crossover, 6 custom built floor wedges model 121 with (1) 12" JBL 2204H cone and (1) 1" JBL 2344A horn with a JBL 2426H driver, 2 JBL 4825 floor wedges with crossover and 4 JBL 4406 studio monitors. (9) Meyer Wedges USM-100P HF 1.4" Throat, 3" Diaphragm Compression Driver LF 15" Cone Driver, 700 Watts

(1) Subwoofer Meyer USW-1P with 2 15" Cone Drivers at 700 Watts

AUDIO POWER

There is a 100 amp three-phase service dedicated for audio use located on the SR wall. Below the service, house has installed a 50-amp dual-phase Hubbell connector as a feeder for a Hubbell spider. The feeder cable for the spider is 50 ft. long. The spider has (2) 20amp twist lock outlets and (6) 20 amp Edison outlets.

For those companies needing to use their own power distribution system, there are (3) 400 amps three-phase company switches on the SR wall.

UNDER BALCONY SYSTEM

There are three basic seating levels in the Atwood Hall: orchestra, mezzanine, and balcony. For those seats under a mezzanine or balcony overhang, there is an under balcony speaker system. These speakers derive their signal from omni directional mics mounted on the face of the overhang. The signal to the under balcony speakers is therefore delayed as a function of the time it takes for the sound to travel from the stage to the face of the overhang. Controls in the sound booth allow for volume adjustment of these speakers. For those FOH engineers who require a discrete delayed send to the under balcony speakers, bring your delays, and we can patch each level as a separate feed.

PROGRAM/PAGING SYSTEM

All dressing rooms, wardrobe, or green rooms, can get a program feed from any one of the three theatres. The light, sound, follow spot booths and lobby of any given theatre can get a program feed only from that theatre.

The system also allows you to interrupt the program feed, and page members of your company. Permanently installed page controls are located in the sound booth. We can also carry in a portable page control panel and plug it in DSL, DSR, the lighting booth, or at a directors/designer location in the middle of the house on the main floor. If your company must use your own paging system, you can still tie into house distribution. You must supply a balanced line level signal that can toggle between program and page, and house will input that signal to our distributed speaker systems.

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