



Everybody Sound Calibration Schedule Sept 8th, 2022

Sound Designer

Grant Porter

Asst. Sound Designer

Robert Cohen

Composer

Stephan Tsai

Production Sound Engineer

Huhao Yang

Asst. Production Sound Engineer

Henry Shen

Sound Board Operator/A1

Victoria Bloom

Playback Operator

Brett Castongia

Theatre Supervisor

Huhao Yang

Notes

Welcome to the Sound Calibration for Everybody!

Safety:

Hardhats are required anytime anyone is working above you. They are in the black cabinet upstage in the Hansen Theatre. Please do not hesitate to ask if you should be wearing a hard hat as safety is always first. Please wear closed toed shoes to load in and having clothing you are comfortable with. At the beginning of load in we will run through the schedule below and answer any questions.

If anyone feels unsafe or unsure about any tasks, let Huhao or Grant know Immediately

Tools:

If you own a multi tool, it might be useful to bring for this load in. If you do not have one, there will be tools available.

Time	Schedule
6:30 pm	<ol style="list-style-type: none"> 1. Meet at Hansen Lobby 2. Review calibration plan, calibration plot, and expectations
6:40 pm	<ol style="list-style-type: none"> 1. System check, make sure the system is functioning properly <ul style="list-style-type: none"> -Speakers -Amplifiers -Channels -DSP 2. Set measurement mics 3. Test Smaart lines
6:50pm	<p>Onstage speaker level set</p> <ul style="list-style-type: none"> -All loudspeaker levels will be at 75dB SPL C-Weighted slow -All pink noise will be run from Smaart at -18dBFS <ol style="list-style-type: none"> 1. Put the measurement mic in the center of the stage audience area (refer to the specification drawings) 2. Run the pink noise through Stage BL, Stage BR, Stage L, Stage R, Stage OH, Stage Main L, Stage Main R and calibrate each of them to 75db SPL
7:20pm	<p>Proscenium speaker & House system level set</p> <ol style="list-style-type: none"> 1. Put the measurement mic in the center of house (refer to the specification drawings) 2. Run the pink noise through ProsL, ProsR, ProsC, Stage House L, Stage House R and calibrate each of them to 75db SPL
7:40pm	<p>Subwoofer level set</p> <ol style="list-style-type: none"> 1. Keep the measurement mic in the same position 2. Run the pink noise through subs and calibrate each of them to 75db SPL
7:50pm	<p>Set delay time on ProsL&R and Sub to Stage House L& Stage House R</p> <ol style="list-style-type: none"> 1. Keep the measurement mic in the same position 2. Run the pink noise through ProsL, using Smaart and find the delay time from ProsL to measurement mic 3. Run the pink noise through Stage BL, using Smaart and find the delay time from StageBL to measurement mic 4. Calculate the time difference between the two and add this value to the delay time of ProsL in Qsys 5. Copy and paste the same value to ProsR and Subs
8:10pm	<p>Set delay time on Pros Center Cluster to Stage House L& Stage House R</p> <ol style="list-style-type: none"> 1. Keep the measurement mic in the same position 2. Run the pink noise through ProsC, using Smaart and find the delay time from ProsL to measurement mic 3. Run the pink noise through Stage House L& House R and find the delay time 4. Calculate the time difference between the two and add this value to the delay time of ProsC in Qsys
8:20pm	10 Mins Break
8:30pm	<p>Surround system level set</p> <ol style="list-style-type: none"> 1. Set the measurement mic directly underneath ONAX HovL 2. Run pink noise through the HovL and calibrate it to 75 db SPL 4. Repeat the steps for other overhead speakers 5. Move the mic near each Surround speaker, adjust the mic height to audience head height 7. Repeat the steps for all of the surround speakers
9:10pm	<p>Set delay time on SL1&2 to SL3</p> <ol style="list-style-type: none"> 1. Set the measurement mic in the center of house 2. Run the pink noise through SL 1, using Smaart and find the delay time from SL 1 to measurement

	<p>mic</p> <ol style="list-style-type: none"> 3. Run the pink noise through SL 3, using Smarrt and find the delay time from SL 3 to measurement mic 4. Calculate the time difference between the two and add this value to the delay time of SL 1 in Qsys 5. Repeat the steps for SL 2 6. Copy and paste the value to SR 1 and SR 2
9:30pm	<p>Set levels for the Hallway speaker</p> <ol style="list-style-type: none"> 1. Set the measurement mic under and in the center of Hall L1 and Hall R1 2. Run the pink noise through Hall L1, Hall R1 and calibrate each of them to 75db SPL 3. Same for Hall L2 and Hall R2
9:40pm	<p>System equalization & Trouble Shooting</p> <ol style="list-style-type: none"> 1. Place the measurement mic at House audience center and send -18dBfs through 2. Take transfer function of graphs of pink noise and ProL loudspeaker 3. Examine response curves and correct in Qsys 4. Repeat for each Proscenium speaker 5. Place the measurement mic at Stage audience center and send -18dBfs through 6. Take transfer function of graphs of pink noise and ProL loudspeaker 7. Examine response curves and correct in Qsys 8. Repeat for each Onstage speaker 9. Listen to the tuned system
10:30pm	<ol style="list-style-type: none"> 1. Clean up 2. Go home