



Audio-Visual & Lighting (AVL) Team Process Guide

Epworth United Methodist Church

Rev. Dr. Bo Gordy-Stith, Pastor of Media and Communication

July, 2026

Epworth UMC AVL Team Process Guide

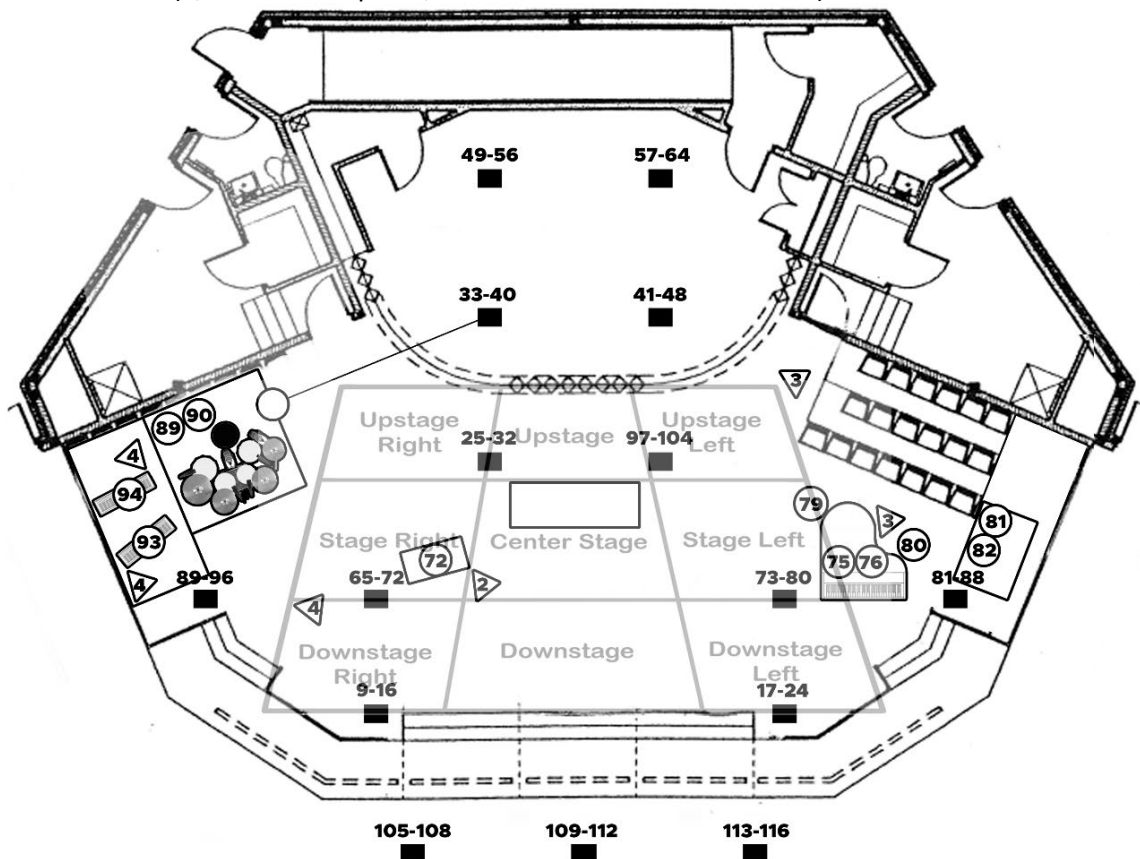
(REV11 260708)

Sunday Worship Stations (arrive at 8:45 to prep for rehearsal at 9:00)

- Live stream Sound Tech (at AVL Booth Board) Page 4
- House (Floor) Sound Tech (on sanctuary floor with iPad remote)
- ProPresenter/Lighting Operator (at Lightboard and PRO Computer keyboard) Pages 5-7
- Video Switcher (at ATEM/iMac station) Page 8 (separate from Camera Operator for training purposes – otherwise this station is combined with Camera Operator)
- Camera Operator (at PTZ Controller) Pages 8-10
- Producer/Live stream Monitor (at REG Computer) Pages 11-17

First to Arrive Check list (Shutdown Checklist is on Page 18)

1. **On Worship Platform** Verify all mic/monitor positions and floor box connections (black squares below), and set up floor lights
 - a. Microphones (circles in diagram below - #'s indicate box connection)
 - i. Choir condenser mics (stands)
 - ii. Piano mics
 - iii. Reader mic
 - b. Monitors (triangles in diagram below - #'s indicate monitor channel)
 - i. Praise Band (1 by KEYS + 1 hotspot by SYNTH) and Vocalists (1 in front of drums)
 - ii. Interpreter (1 next to reader lectern)
 - iii. Choir (2, 1 in front of piano, 1 between loft and shell curtain)



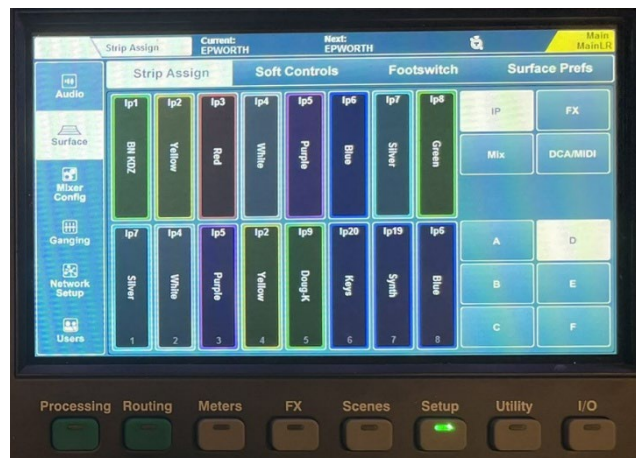
- c. Open the stage light box (next to choir loft, upper SL)
 - i. Turn on the eight lights while still in the box; disconnect cables from lights (do not unplug the cables from the box)
 - ii. Position lights 1-8 left-to-right on yellow X spikes along shell curtain (ensure antenna/green status light faces curtain); if curtains extend to floor use spikes in front of curtain for lights 1 and 8
 - iii. Extend stand brackets 45 degrees from center and tighten with knobs (**DO NOT OVERTIGHTEN**)
 - iv. Ensure lights are tilted forward 5 degrees from parallel with the floor toward the curtain
 - v. Ensure light box top is not pinching any cables when closing lid

2. In the AV booth

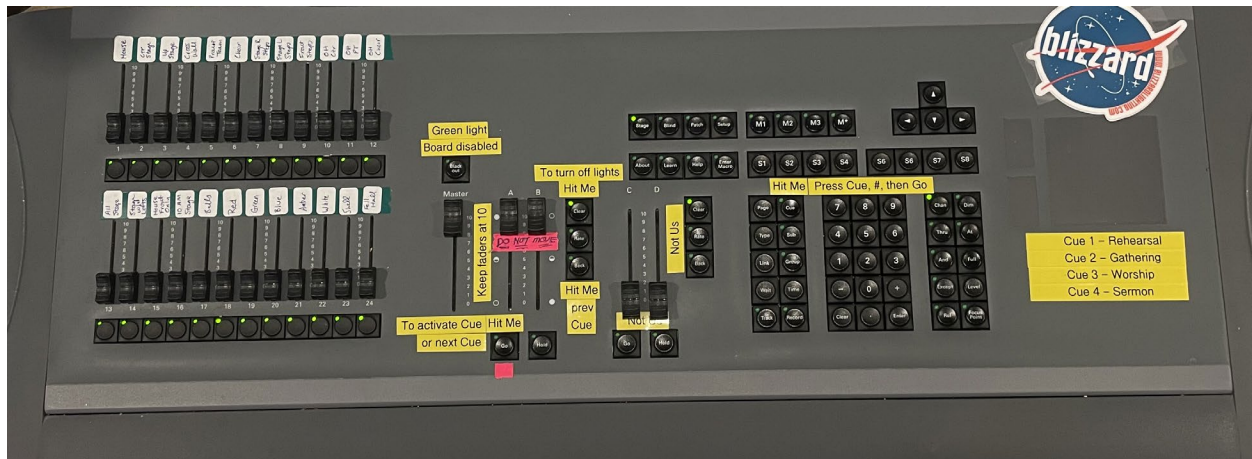
- a. Unlock door and close (leave door locked - do not prop the door open)
- b. On bottom floor, turn on lights on both floors (switches are to the left and right of the door)
- c. On top floor, remove covers and turn on sound board/system key (to the left of sound cabinet on left wall – quarter turn right). The red indicator light will pulse for approximately 30 seconds before going steady when the timing sequence is complete

3. On Sound Board, recall Scene 2) EPWORTH

- a. Press the gray button below the touchscreen labeled **Scenes**
- b. On the touchscreen, press the **2) EPWORTH** box, then the **Go** box, then **Yes** on the nag screen
- c. Press the **Custom (D)** button on the bottom left of the board
- d. To setup different inputs (PT mics), press the gray Setup button under the touchscreen
 - i. On the touchscreen, press the Surface button (second down in the left column)
 - ii. Drag top row to line up input with the slot in the bottom row
 - iii. Drag input from top to bottom row
- e. Review settings on all channels for Mains, Live stream, and Monitors



4. **On Light Board**, verify main slider is 100% (top), all submaster sliders on the left side of the board are down (set to 0), and the blackout button is **not** pushed/lit green.
 - a. Power on ACER monitor (on shelf above lightboard)
 - b. Push Cue (yellow tape) #1 (on the number pad), then Go (pink tape) for rehearsal.
 - i. Cue 1 – Rehearsal
 - ii. Cue 2 – Congregation Arrives
 - iii. Cue 3 – Opening Worship Setting
 - iv. Cue 4 – Worship with Choir Lighting (SL) only
 - v. Cue 5 – Sermon worship Setting
 - c. Go downstairs and verify light button next to center door in sanctuary is off



5. **On ATEM Switcher**, turn on black power stick between PRO and switcher monitors.
 - a. Turn on lower large black monitor by pressing button on the upper right side marked with yellow tape (indicator in the center will change from red to blue when monitor is on)
 - b. Turn on upper large black monitor by pressing button on the lower left side marked with yellow tape
 - c. **NOTE – be sure to turn on the large monitor prior to turning on the PRO computer**
6. **On PRO/MAC/ASL/REG Computers**, turn on all computers with **PWD: Lti2347\$\$**
 - a. Ensure all monitors are on
 - b. Turn on OBS on ASL/REG computers

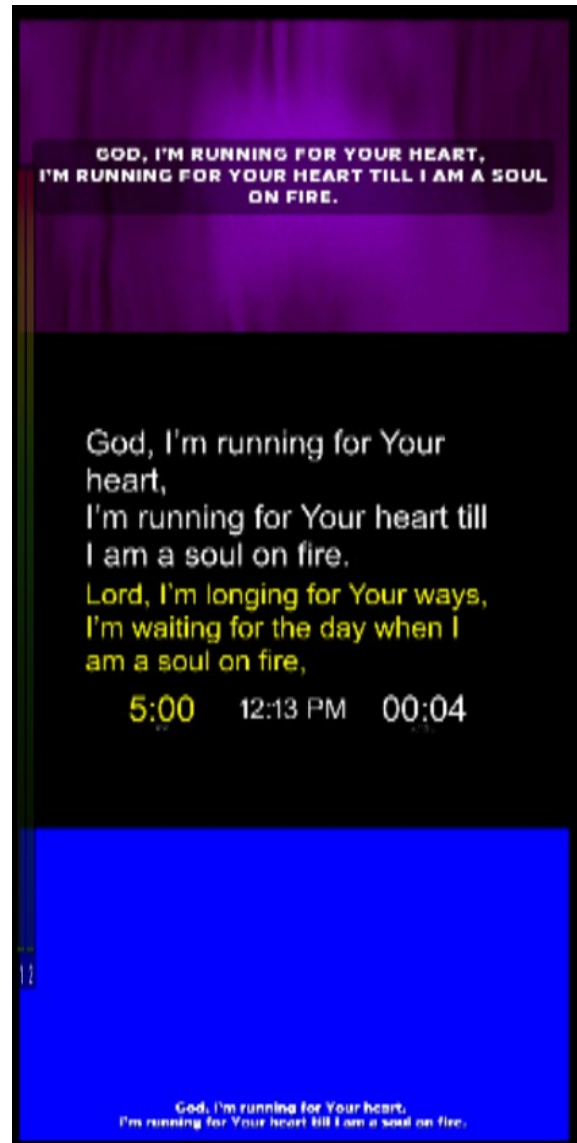


Sound Board Operator - Mixing checklist

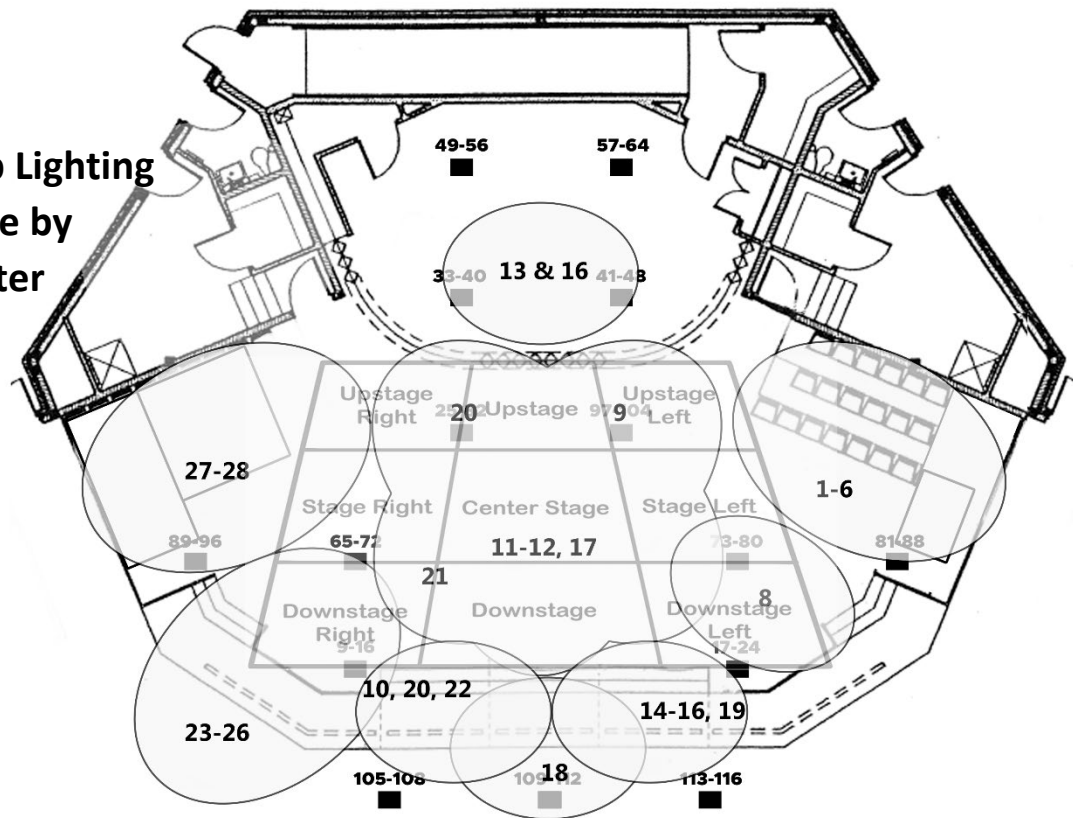
1. Check gain on every channel (once the service starts, don't touch gain again)
 - a. Set your gains so that your meters are kissing yellow
 - b. bring your faders near Unity/0dB
 - c. Rule of thumb: keep main LR fader around -6 dB to account for summation and to give yourself a little headroom to boost up to Unity
2. Activate HPF (hi-pass filter – low cut) and check frequency
 - a. The “important on basically every input” filter
 - b. A very drastic EQ filter that cuts out very low frequencies that are likely not in the original sound/ instrumentation
 - c. Mike stand thump be gone
 - d. Solo and listen: if you can hear a change, you've gone too far
 - e. The listed frequency is called a corner frequency where the level is -3 dB
 - f. The slope steepness or how drastic the filter is can be adjusted
 - g. Rule of thumb: 100 MHz is an excellent starting point
3. Know why every EQ change is happening if not, zero out
 - a. Parametric and graphic: why estimate with a GEQ when you can use PEQ for precision
 - i. GEQ = 1/3 Octave Spacing with fixed frequencies
 - ii. PEQ = hi variable and separated by bands
 - b. Q = the bell curve width that is either including or excluding certain frequencies
 - c. Cuts versus boosts
 - i. Always try to cut in lieu of boosting
 - ii. Set a narrow band high and sweep to find trouble
 - iii. It's difficult/Impossible to try and add frequencies to a signal that aren't there in the first place. **Remember: get it at the source. EQ is a Band-Aid**
4. Check dynamic processing, especially threshold ()
5. Pan to center unless naturally panned input
6. Mute FX and check FX sends
7. Bring up faders (allow for volume adjustment for all in room)
 - a. Balance - Intra-instrumental
 - b. Balance between parts of a (drum kit)
 - c. Inter-instrumental - different parts
 - d. Blending band and vocals (Shoot for 60:40 Vocals/Instrument mix)
 - e. DCA - remote control groups (vocalists)
8. When mix feels right, unmute FX
2. **All sound board channels are post-fader sends** – the main/house board channel ON/OFF controls what you get everywhere downstream (Mix/Reverb sends). Keep Live stream channels on; cue by turning them on or off on the main board control. DRUM/ORGAN/AUD mics are for the Live stream only (not in house)
3. **Only cue Pastors, Choir, Kids/Bells, Reader mics and Computer/iPod inputs when in use**
4. During worship, anticipate when the next person or persons will need a live mic (always, always **look ahead after you confirm a solid signal at the start of each segment by checking/cueing**)
5. Reverb is only for singers while they are singing – and is also a post-fader send. We use AUD L/R mics (in sanctuary overhead) for speaker reverb.

Presentation/Lighting Director Checklist

1. **On PRO computer (ProPresenter operator)**
 - a. Open ProPresenter
 - b. Click the Service (Verify the Date) under PLAYLIST and review ITEMS list
 - c. Click a song, background, then a lyric slide and verify on the right side of the screen (Operator View)
 - i. Audience View at top (and on Switcher Screen 1)
 - ii. Stage View in middle (and on Switcher Screen 7)
 - iii. Live stream Lower Third (blue screen) on bottom (and on the OBS feed on the ASL/REG computers)
 - d. Operate/Verify lyrics slides are in order during rehearsal (edit if not using Reflow)
 - e. Review other transition screens for accuracy using Worship Order in notebook
 - i. Verify Announcement video/audio output on Video Switcher screen
 - ii. Check to see if Sermon slides have downloaded and add them to playlist in order
 - f. Go to theme screen for pre-service (after rehearsal)
 - g. After rehearsal (Praise Team, Choir, and Bell Choir), **change lighting cue to #2**
 - h. **When Praise Team begins, change Lighting cue to #3**
 - i. **When Choir Sings, change lighting cue to #4**
 - j. **When Sermon begins, change lighting cue to #5**
 - k. **When Sermon is over, change lighting cue to #3**
 - l. **At close of final song, change lighting cue to #2**



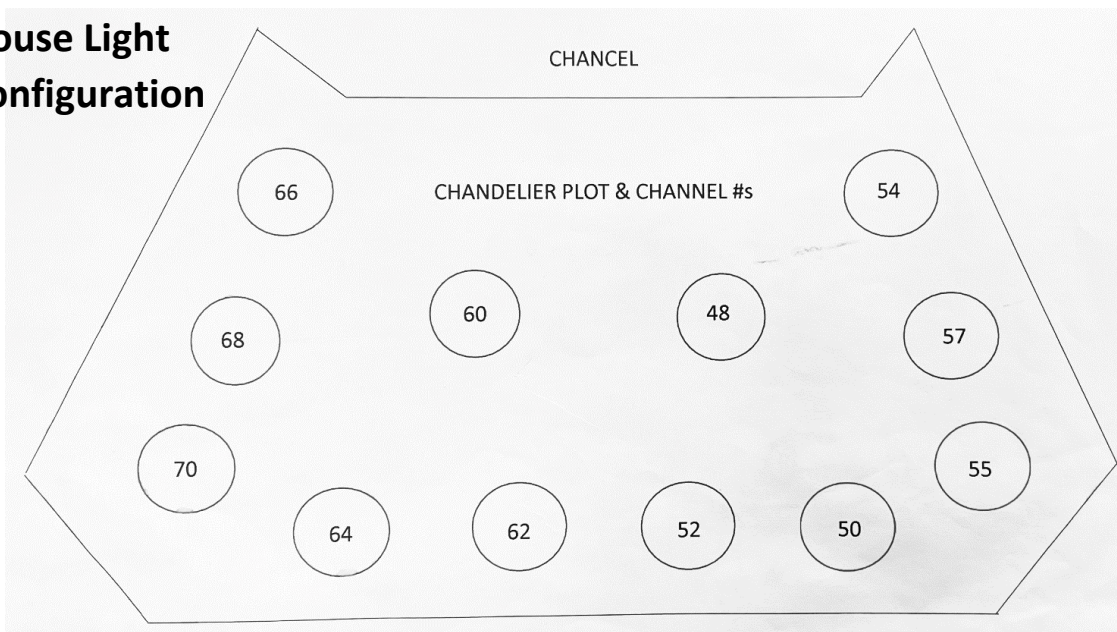
Worship Lighting Coverage by Submaster



LED Lighting Instrument Channel Assignments

Channel Numbers									Submasters
Instrument	1	2	3	4	5	6	7	8	
Red	29	34	39	97	102	107	112	117	18
Green	30	35	40	98	103	108	113	118	19
Blue	31	36	41	99	104	109	114	119	20
Amber	32	37	42	100	105	110	115	120	21
White	33	38	43	101	106	111	116	121	22

House Light Configuration



Lighting Channels at Epworth UMC (instrument #s: 1 on SL (Organ) - 48 on SR (praise team))

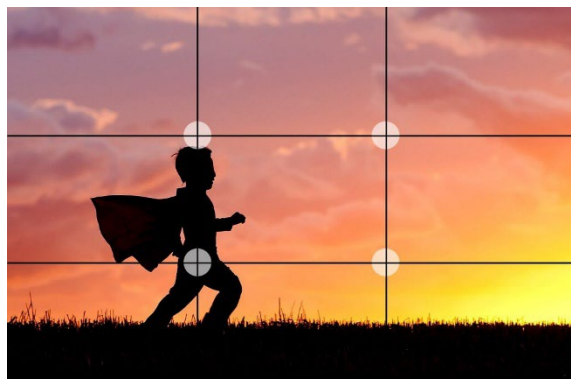
Chan.	Instrument	Approximate areas lit by each channel
1	1,3	Organ area
2	2,4	Choir - rear
3	5,7	Choir - SL to center
4	6,8	Choir - to SL stair
5	9,11	Piano when on SL for band and toward center
6	10,12	US of Pulpit
7	13	Pulpit area
8	14,16	Pulpit area
9	15,17	Rear band to SL part of risers (hanging banner area)
10	18	SR of SR railing
11	19	Baptism (currently is a solo light on SR - needs re-aimed)
12	20,22	Solo - @ center stage
13	21,23	High Center (lower cross)
14	24	SL of SL rail (low light)
15	25	SL of SL rail and steps (low light)
16	26,28	High Center (higher cross)
17	27,29	Solo - @ center stage - like ch. 12 but higher, also used to front light center risers)
18	30	Center Steps special - used for welcome speeches, etc.
19	31	SL of SL rail to carpet (bright)
20	32,34	SR - part of shell to Sacristy door area
21	33,35	Interpreter (will light on chancel or one level lower, used for shows so they are not in the way) SR part of stage lip right of interpreter - for host(s) on stool(s) (Lianne and Donna in Legends)
22	36	
23	37,39	SR communion rail wash
24	38,40	Same as ch. 23 but higher - general wash on SR
25	41,43	First SR steps to floor
26	42,44	SR steps to halfway up Sacristy door
27	45,47	Choir low
28	46,48	Choir high
51		Organ side ceiling lights (over organ, drum kit)
58		Choir side ceiling lights (over choir risers)
59		Floor
63		Center chancel work lights (always left on)

Video Switcher Checklist

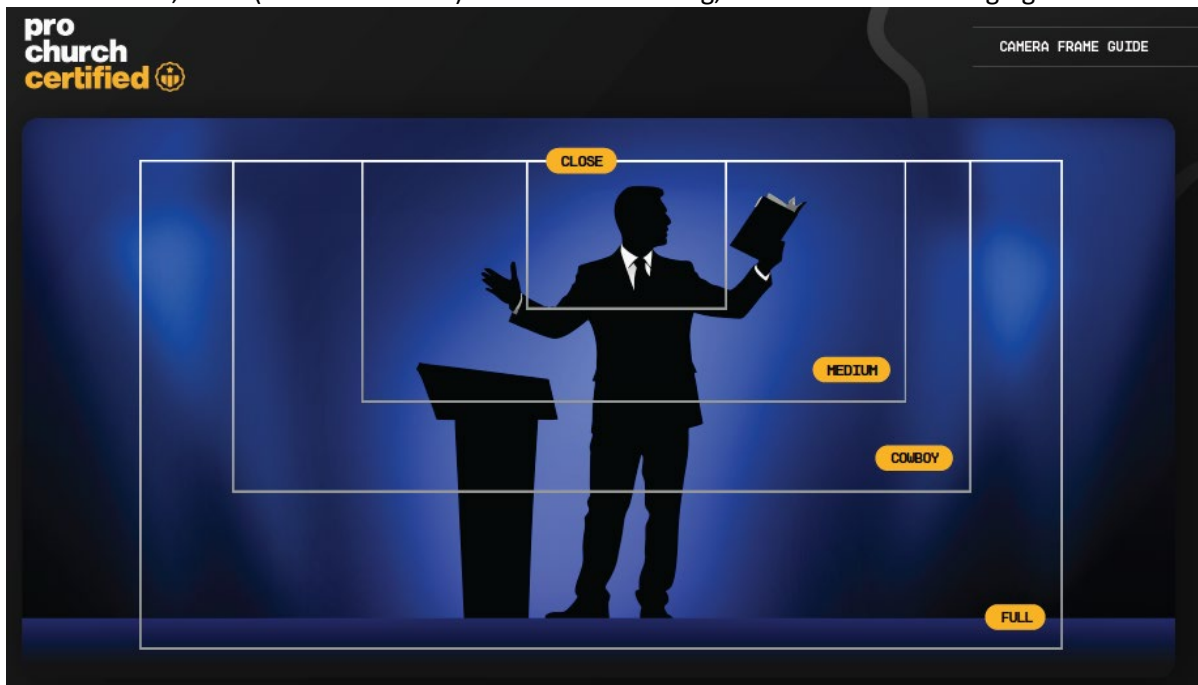
1. **On iMac computer**
 - a. Open Blackmagic Switcher program (looks like a Bullseye)
 - i. Ensure Mix Effects 1 setup has ASL input selected/cued
 - ii. **Click on Mix Effects 2 tab at top of screen**
 - b. Open Chrome browser (Geek Squad), turn on both front projectors
 - i. click the Chrome button and the Sound Team user account
 - ii. click the Left Projector tab
 - iii. click the Power Button on the screen – verify the left screen powers up
 - iv. repeat process for the right screen
 - v. verify signal to projector in ATEM Software Control and on monitor
 - c. Click on the Blackmagic Switcher program and verify Streamdeck button box is lit and cues work (test a cue and transition). If not lit, open Streamdeck program, click on Blackmagic Switcher program, and unplug and re-plug the USB cord on the back of the iMac if necessary
 - d. Verify video signal from PRO computer on switcher monitors 1 (Theme Screen) and 7 (stage or confidence monitor)
 - e. Verify lyrics overlay on ASL/REG OBS feeds
2. Ensure rear projector is on (Using Stage CAM) or use remote at center post under ON AIR) to turn it on and verify we are sending Confidence Monitor (7) to Aux 1 (Rear Projector)
3. Verify we are sending PRO to Aux 5 and 6 (front projectors)
4. During rehearsal, verify audio signal on ME2 screen (colored meter bars on the left side) and on the OBS screen on ASL/REG computers

Camera Operator Checklist

6. Verify 1, 2, and 3 presets on CAMs 1-3 and 5 are Wide, Medium, and Zoom, respectively
7. Zoom CAM 4 (preset 1); Verify CAMs 4, 11, 12, and 13 are properly aimed (NOTE: CAMs 11-13 will not operate unless sound board is on – which turns on the stage outlets)
 - a. If not, shift CAM view to left or right screen (if CAM 4) or to rear projector (if CAMs 11-13)
 - i. For CAM 4, ensure ASL stand is on spike and lowered all the way, get ladder (in room beside Fellowship Hall next to the right of the kitchen) and adjust CAM 4; then return ladder
 - ii. For CAMs 11-13, go to stage and manually adjust (also hold piece of paper in front of the lens IOT set white balance
 - iii. Return to booth, set front projectors to PRO (1) and rear projector to confidence monitor (7)
8. When framing shots, primarily use [Rule of Thirds](#) predominantly (action or subject facing center)



9. For all shots, close (and closer shots) are more interesting, but also more challenging to follow



10. Always setup a mix of shots across available cameras, including close, medium, and wide
- a. Use the wide shot as a bail-out shot in case of emergency (can also use ASL shot)
11. For worship movements except the sermon, transition shots every 10-15 seconds (fisheye cams – 11-13 – and title slides will be shorter: 3-5 sec)
- a. Sermon close shots can linger 30-60 secs
12. Go wide for all worship movement transitions (end of Praise song, sermon, prayer, etc.), movements involving the congregation (like singing, applauding, or unison prayer) or when the speaker mentions the congregation (i.e., show of hands) **then go close as the next movement begins**
- a. ALWAYS know what is coming next and prepare a shot for it
13. Use settings 4-9 on the PTZ CAMs for quick transitions (fine tune with joystick if necessary)
14. Shotlist for typical worship service
- a. **Praise Team/Choir sings**
 - i. Singers and Singers + Band
 - ii. CAMs 11-13
 - iii. Close shots of soloists (set shots during rehearsal at 9)
 - iv. Choir (whole or sections) if they are singing
 - v. Congregation wide shots from 1-3 or STAGE
 - vi. ASL
 - b. **Vicki Welcome**
 - i. Close, close, close!
 - ii. Congregation wide shots from 1-3 or STAGE (especially when she mentions congregation)
 - c. **Kids' Time (change Front Right Projector to ME2 (Mix Effects 2))**
 - i. Med shot of Kids lineup with leader (from 1-3 or Cowboy of leader from STAGE)
 - ii. Close shots of kids OK, but watch nose-picking and yawning/boredom!
 - iii. Congregation wide shots when leader mentions them and at prayer Amen

d. Prayer/Scripture at Podium

- i. Setup CAM 1 shot 4 as close (as you can get) podium shot
- ii. Quick wide shots OK, particularly when congregation is repeating a unison line
- iii. Juxtapose Reader and ASL from CAM 3 (Medium)

e. Choral Anthem/Bell Choir Anthem

- i. Shot of Choir is OK, but not very interesting (don't go to sleep on these)
- ii. Preset shots of men and women singers to use for interest (esp. when they are singing)
- iii. Use STAGE for choir and Doug as well as for close of Doug at piano (during interludes or at beginning)
- iv. Go close for solos, although this can be very challenging (setup with preset during rehearsal)
- v. Don't forget ASL!
- vi. Quick wide shots

f. Sermon

- i. Juxtapose Reader/Pray-er, ASL, and preacher from CAM 3 (Medium) during prayer before sermon (can also use close of pray-er and preacher)
- ii. After med shot of sermon start, quick PRO of Theme screen; use quick shots of PRO graphics if we have them during the sermon – return to these as appropriate, esp. when speaker mentions or refer to them
- iii. Close, close, close! (esp. during poignant moments in stories); try to stay between head and elbows to get hand movements (always have a medium shot to bail out to!)
 - 1. Avoid lining up stuff on the altar coming out of speaker's head
- iv. Congregation wide shots from 1-3 or STAGE (especially when preacher mentions congregation)
- v. Shot of preacher and choir when preacher turns to choir
- vi. ASL can be very effective – esp. during stories

g. Benediction (same as Welcome)

- i. Close, close, close!
- ii. Congregation wide shots from 1-3 or STAGE (especially when she mentions congregation)

Live stream Monitor Checklist

1. On REG Computer (Live stream monitor)

a. Turn on OBS (if not turned on already)

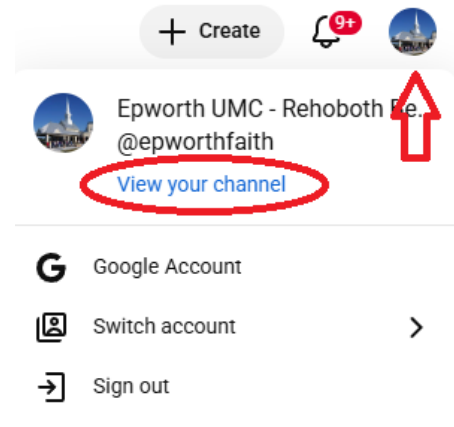


- i. At the top of the screen, click the Scene Collection option and verify **AVBooth Scenes** is checked
- ii. Verify good sound signal for top (SDI-USB) channel. If not:
 1. check the mute button (to ensure it is white with sound waves and not red with an X beside it – see above)
 2. check the volume slider
 3. click the three-button icon above the mute/unmute button for the channel, click Properties, click the drop-down arrow at the far right of the Device Line and select/reselect the **SDI (USB Capture SDI)** option
 4. if none of the above steps resolve the problem, ensure you've got a good signal from the switcher screen and the sound board Live stream output is unmuted and the slider is at unity

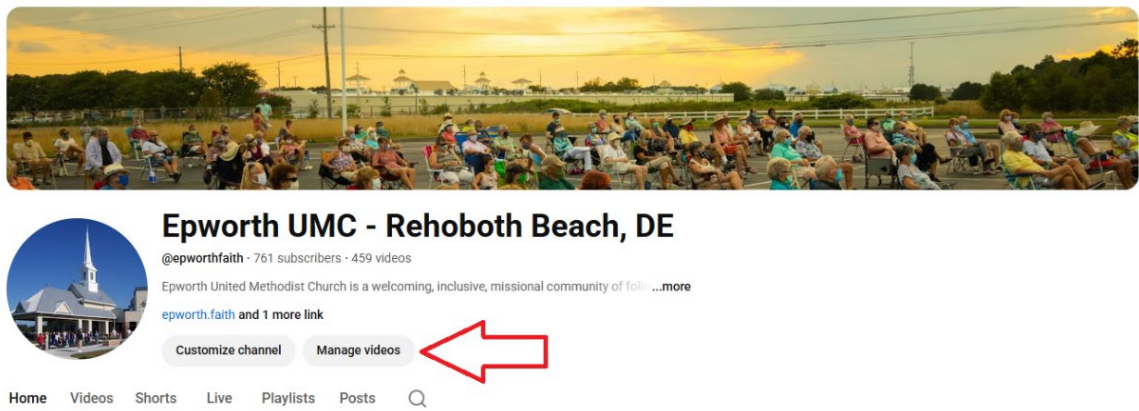
iii. Verify the bottom (Yeti Classic) channel is muted (button is red with an X and sound meter is grayed out)

b. Click on Chrome browser

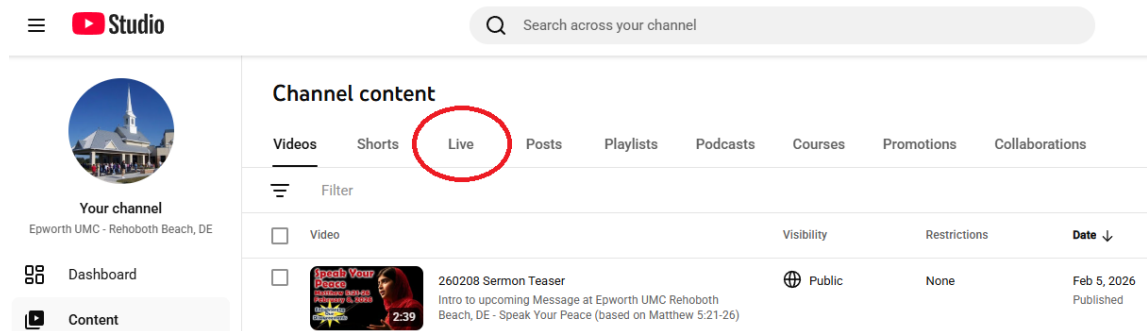
1. Click on YT-REG tab on browser
2. Click logo at top right and click "View Your Channel"



3. Click right blue tab across from channel name: "Manage Videos"



4. Click Live under Channel Content at top of page



5. Mouse over video for this Sunday (note the time) and click on logo third from left: “View in Live Control Room”

Channel content

Videos Shorts **Live** Posts Playlists Podcasts Courses Promotions Collaborations

Filter

☐	Live stream	Type	Visibility	Restrictions	Date
Upcoming					
☐		Sunday, March 8, 2026 9:50 AM Blend...	Streaming software	Pub... ▼ None	Mar 8, 2026 Scheduled
Live replay					

View in Live Control Room

- ii. Click on FB tab on browser

1. Under the “What’s on your mind?” box, click “Live Video”

Share a thought...

Epworth United Methodist Church

2.2K followers • 21 following

Open Hearts - Open Minds - Open Doors a Reconciling Ministries church

Methodist Church

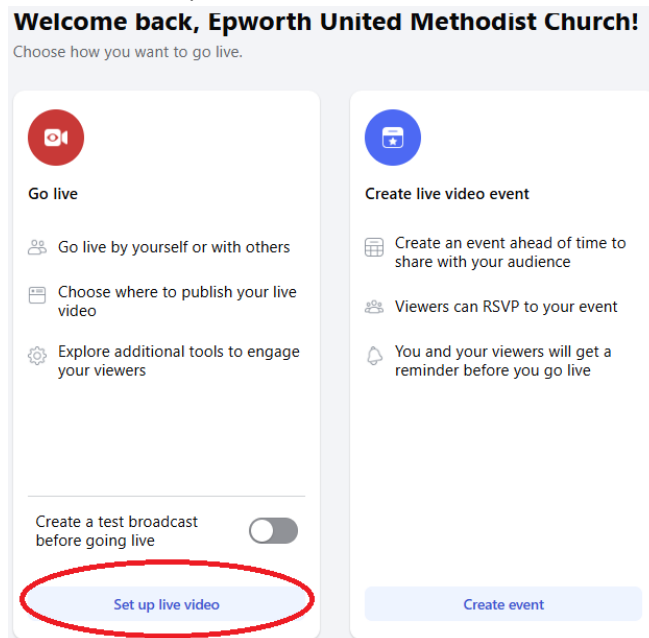
Professional dashboard Edit Advertise

All About Photos Followers Mentions More

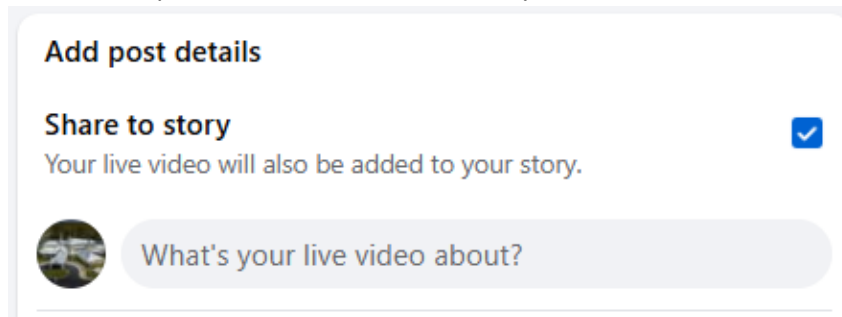
What's on your mind?

Photo/video Reel **Live video**

2. Click the “Set up live video” box on the left Go Live box



3. Under “Add post details” click the “What’s your live video about?” box



- a. For Title: Date ("Sunday," Month DD, YYYY) "9:50 am Blended Worship at Epworth UMC," e.g., Sunday, March 15, 2026 9:50 am Blended Worship at Epworth UMC.
NOTE: Copy and paste this from the first section of the Title on the YouTube channel.
- b. For Description: Theme (Scripture) and link to Worship Series page. **NOTE: Copy and paste this from the second section of the Title on the YouTube channel.**

Create post

Epworth United Methodist Church

Public

Title (required)

Description (Required)

You can now tag a brand partner to your post.

Add to your post

Save

Title
Sunday, March 15, 2026 9:50 AM Blended W... **Edit**

Category
Nonprofits & Activism

Privacy Scheduled for
Public Mar 15, 2026, 9:50 AM

Viewers waiting Likes
0 0

Title (required) ⓘ
Sunday, March 15, 2026 9:50 AM Blended Worship at Epworth UMC

Description ⓘ
Forgiveness and Reconciliation: Repair Harm (Luke 19:1-10)
<https://epworth.faith/lent-forgiveness-reconciliation/>

4. In FB, copy FB stream key

Select a video source ⓘ

Webcam Streaming software

Preview streams via streaming software are subject to our [Community Standards](#) and Facebook Live policies, and may be retained by Facebook for review and enforcement.

Streaming software setup

Copy and paste the stream key into your streaming software.

Stream key

FB-1351251757032759-0-Ab7rWxYWX6ZUN3_gllc34B **Copy**

This stream key is valid until you log out of Facebook. Once you start to preview the broadcast you have up to 4 hours to go live.

You can use this stream key to go live on Facebook and other platforms simultaneously. [Learn more about multistreaming.](#)

Advanced settings

Add post details

Share to story ☒
Your live video will also be added to your story.

Epworth United Methodist Church

Public

Sunday, March 15, 2026 9:50 AM Blended Worship at Epworth UMC

Forgiveness and Reconciliation: Repair Harm (Luke 19:1-10)
<https://epworth.faith/lent-forgiveness-reconciliation/>

Check in Feeling/activity

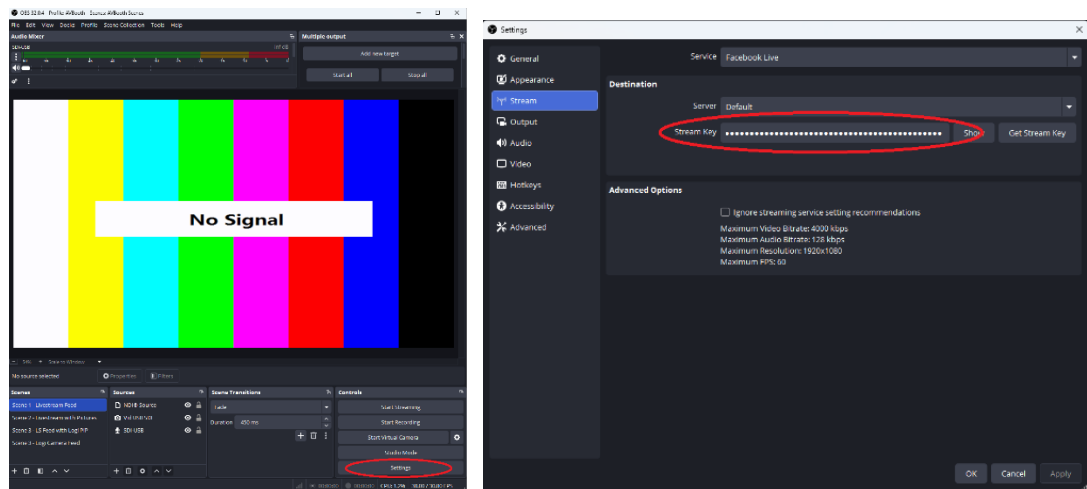
Edit Post Details

Crosspost to more Pages

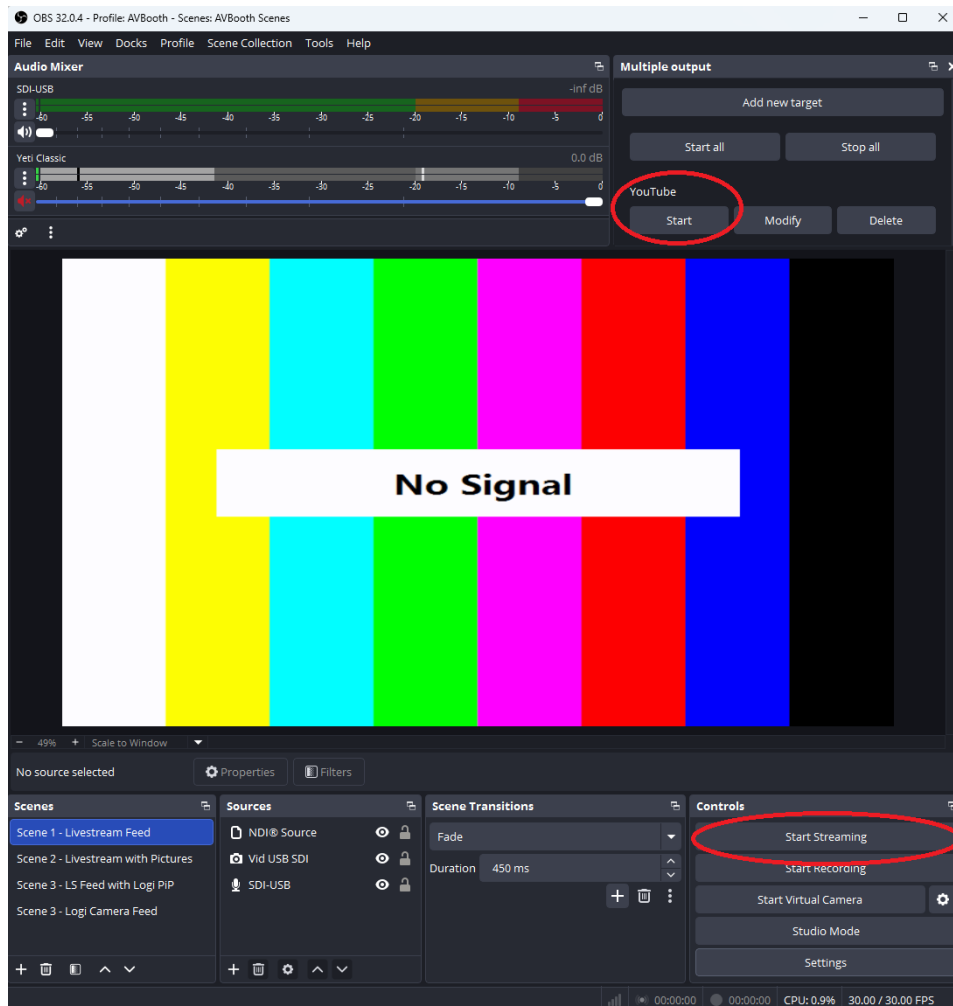
Share to Page's groups

Audience settings

5. in OBS, click on “Settings,” then “Stream.” Delete old Stream Key; paste the new FB key)

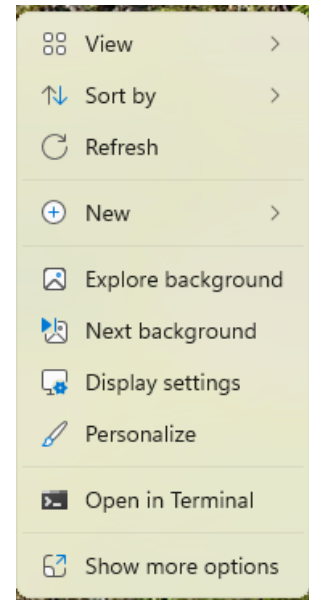
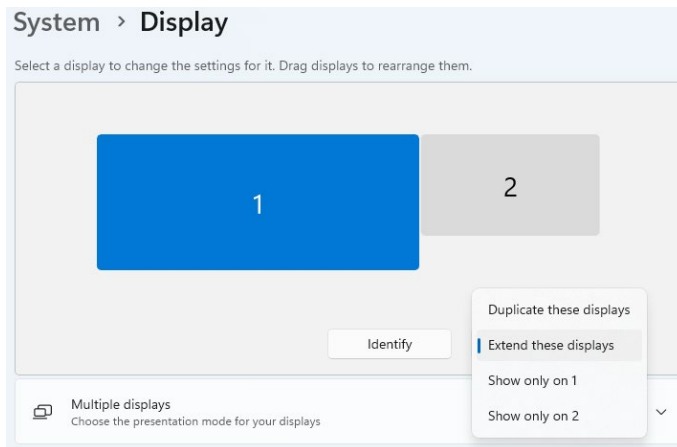


6. On REG Computer, in OBS, we send the main signal to FB, using the “Start Streaming” Button under Controls at the bottom (push this first), and the secondary signal to YT, using the Start button under YouTube in the Multiple output box at the top (second)



7. On REG computer, right click screen (not in an app) and click on Display settings.

Then click on the button beside the “Identify” button and choose “Duplicate these displays” on the dropdown menu, then press “Keep changes”



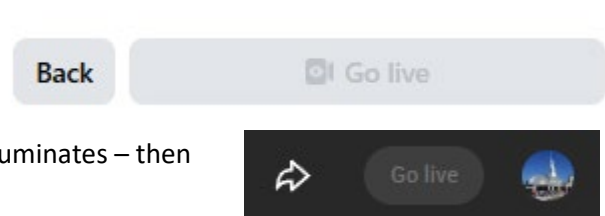
Ensure that OBS screen is not blocked, so sound Board operator can see it on the secondary screen next to the sound board.

2. On ASL Computer (Live stream monitor)

- a. Turn on OBS (if not turned on already)
- b. Click on Chrome browser
 - i. Click on YT-ASL tab on browser
 1. Click logo at top right and click “Your Channel”
 2. Click right blue tab across from channel name: “Manage Videos”
 3. Click Live under Channel Content at top of page
 4. Mouse over video for this Sunday and click on logo third from left: “View in Live Control Room”
- c. Verify ME1 shows ASL interpreter in the correct position – to the right of MM1 inset screen (CAM04, preset 1)
- d. Verify MM1 and MM2 are feeding to the ASL and REG Live streams, respectively

3. On ASL/REG Computers

- a. Start ASL (YT) and REG (FB and YT) Live streams and verify signal out
 - i. Wait until FB “Go live” button at bottom left illuminates – then click on it
 - ii. Wait until YT “Go live” button at top right illuminates – then click on it
- b. Turn on ON AIR sign



Sunday Worship Shutdown

1. At Sanctuary middle door – turn sanctuary lights on from the panel beside the door (top button)
2. **On Light Board**, verify sanctuary lights are on and hit “Clear” button under pink tape (verify lights are out on shell curtain)
2. **On Worship Platform**
 - a. Return lights 1-8 to box in order, from right to left and top to bottom
 - b. Turn the eight lights off; connect cables to lights (note they are sized to reach)
 - c. Return box to rear wall, plug in and verify red/orange charging indicator is lit on all eight lights (ensure plug panel switch is on and lit)
 - d. Close and secure light box
3. **On PRO computer** – close ProPresenter and shut down the computer (the screen will go to sleep mode)
4. **On ASL/REG computers**
 - a. End live stream (on YT; not necessary on FB), close all programs, and shut down the computer
5. **On iMac computer**
 - a. Turn off R/L front projectors using Chrome browser
 - i. In Chrome, click the Left Projector tab
 - ii. click the Standby Button on the screen – when prompted click OK
 - iii. verify projector is off
 - iv. repeat process for the right screen
 - b. close all programs and shut down the computer
6. Return iPad to stand, turn off and plug in to recharge
7. Turn off black power stick between **ATEM Switcher** and iMac monitor (this will power off ATEM switcher and both large monitors)
8. **On Sound Board**, save setting 2) Epworth and power down
 - a. Press “Scenes” button, then “Store” option under modify on screen, then Yes when prompted to overwrite “2) Epworth”
 - b. Push “Processing” button, then push “Shut Down” option on screen and “Yes”
9. **In the AV booth**
 - a. Turn off sound board/system key (to the left of sound cabinet on left wall – quarter turn left). Leave key in switch
 - b. Cover sound board and light board
 - c. Verify sound board and cabinet components are off
 - d. At bottom of spiral stairs, turn off lights on both floors (switches are to the left and right of the door)
 - e. Close and lock AV booth door

[Equipment Manuals](#)

Training Videos

Soundboard-specific and Live Streaming Mix

[Vocal Compression - How to Mix Live Vocals \(feat. Jon Thurlow\)](#) (Attaway Audio)

[Live Stream Audio Compression](#) (Attaway Audio)

[Allen & Heath SQ Console Mixing Playlist](#) (Attaway Audio)

[How to Mix Audio for Live Streaming | A Guide for Churches](#) (Churchfront) – 60 minutes (advanced)

[How to Mix Worship Music for Church Online](#) (Churchfront) – 30 minutes (advanced)

[Transforming a Worship Mix from Good to GREAT feat. James Attaway](#) (Churchfront) – 35 minutes (advanced)

[WHY You Should Level Sources for Broadcast](#) | MxU NOW

[Mixing Console Basics: GET ON THE BUS!](#) | MxU NOW

[How to Create a Broadcast Audio Mix for your Church](#) (Ryland Russell)

Remote Camera Control and Switcher Operation

[Stream Deck and PTZOptics Camera Control](#)

[Listen to a director call shots for a live church service](#) (Pavement Media)

[Live Video Production Training | Framing, Panning, Tilting and Zooming](#) (Pavement Media)

[10 Camera Angles to Enhance your Churches Live stream](#) (Ryland Russell)

[Church Video Production Training, Tips and Terminology](#) (Worship Resources for Churches)

Epworth AV Equipment 2020-2025 History (AV Suite purchased and installed April 2008)

- **October 2020 – Digital Video Installation** (three remote-controlled cameras on back wall and one fixed ASL camera) and switching software (\$13,595 from **Iron Hill outreach fund**)
- **December 2020 – BlackMagic hyperdeck** for digital recording/playback (\$1000 **donation**)
- **June (1) and November (2) 2021 – Replaced three failing computers** for screen presentation, ASL Live stream, and REG (FB/YT) Live stream – (\$2400 budgeted and \$1200 **donation**)
- **September 2021 – Replaced both VGA front projectors** after one failed (and was no longer supported by the manufacturer) with WUXGA (digital) projectors (\$18,910 **donation**)
- **January 2022 – Owl camera** for hybrid online meetings – 2021 (\$1000 **budgeted**)
- **January 2023 – Added remote-controlled stage camera** (\$3567 **donation**) and 8 colored stage lights (\$6236 **donation**)
- **March 2024 – Wired organ to output to our sound system** (\$3000 **donation**)
- **September 2024 – Replaced/added choir mic** after one damaged (\$2000 **donation**)
- **January 22-23, 2025 – Three additional stage cameras** (HD POV) and **4 SDI inputs on each side of the stage** (8 total) (\$6751) and **two replacement Shure SLXD headset mics** (for pastors) (\$1661) – (\$8412 total – CAPEX **donation**)
- **January 22-23, 2025 - Rear replacement Laser Projector and Screen** for confidence monitor for Praise Team (\$8750 **donation**)
- **March 13, 2025 - Replacement/upgraded soundboard** - Allen & Heath AH-SQ-7 96kHz XCVI FPGA processing 48 Input Channels (\$10,801 - CAPEX **donation**)
- **May 6, 2025 - Sliding Window in AVL Booth** (\$3315 budgeted)
- **July 14, 2025 – Hearing assist upgrade** to Large-area Dual FM and Wi-Fi assistive listening system with 4 FM R37 receivers (\$3619 – CAPEX **donation**)
- **October 20, 2025 – Replaced two projector air filters** and ordered three spares (\$127); replaced damaged 8-XLR channel snake for drums (\$290); replaced two batteries for stage lights (@ \$194 – total \$388) and added 2 3’ PowerCon cables (\$60) (Total \$865 budgeted)
- **November 10, 2025 - Replace/upgrade our eight hand-held microphones** (no longer supported by the manufacturer) with Shure SLXD handheld mics. Includes rechargeable batteries/docking stations (\$8539 CAPEX **donation**)
- **June 2, 2026 – replaced damaged choir mic** purchased September 2024 (\$1100 budgeted)
- **August 2026 – Fly (hang) 3 main speakers** (EV EVH-1152D/96-WHT F.01U.272.811 WHITE) from the ceiling at center directly above the worship platform (\$27,694 CAPEX **donation**)

2020-2026 six-year summary: \$126,000 total outlay (\$21,000 annually, of which 93% was funded by designated donations, half of which (\$59,065) came from the CAPEX \$500,000 gift fund)

Proposed Timing and Explanation of Future installations – listed in order of priority

1. **2027** - Control panel for the **Blackmagic video switcher** (\$8000). When we switched to digital video in October 2020, we did not have the budget for a physical switcher, so we opted for a virtual switcher on one of my old (2011) computers and a button box. Our video operators remotely control the sanctuary cameras to set up shots on another piece of equipment and then switch to different shots using the virtual workaround. A physical switcher would make this job more accessible to operators of diverse skill and experience levels.
2. **2027** – Replace/upgrade **light control board** - Chamsys QuickQ console which has remote control capabilities and would include the installation and initial programming/training (\$5000). The timing would enable us to use the equipment for the CAMP Winter Concert.
3. **2028** – replace six floor monitors
4. **2028** – replace Marshall CV506 Miniature Full-HD Camera (damaged beyond repair Oct. 5, 2025). \$600
5. **2028 – Remote-controlled shades** for Bayside sanctuary windows (\$11,000 plus electrical installation) – not sure we still want to prioritize this solution at such a high price.

Equipment List

Microphones

1. Sound Board - **Allen & Heath AH-SQ-7 96kHz XCVI FPGA processing 48 Input Channels**
2. 3 Choir Condenser - **Earthworks FlexWand (FW) 730 Integrated Microphone Boom Stand**
3. 2 Choir Condenser - **Audix M1250B** - Mini XLR Female Audio Cable 3-Pin Mini Connector (TA3F) to Male XLR (pair for choir/bell choir)
4. 1 Lectern Condenser - **Shure Microflex MX418D/C Condenser Desktop Mic** for Lectern
5. 2 Speaker Bodypack - **Shure SLX-D1 14D (514-558 MHz) body/belt packs** (2 - two) with rechargeable batteries
 - a. **Acacia LIZ Roadster Headworn Microphone for Shure Wireless** - Tan
6. 8 Wireless Dynamic Handheld - **SLXD2/B87A Wireless Handheld Microphone** Transmitter - J1 Band (8 for praise team), with rechargeable batteries
 - a. **4 Shure SLXD4D Two-channel Digital Wireless Receiver** rack-mounted
7. 2 wireless handheld mics – **Shure Beta 87A QLXD2 with 1 rack-mounted receiver**
8. **4 Crown PCC-160 Phase Coherent Cardioid Microphones**
 - a. 2 Soffit Condenser mics above Choir and Band and 2 Soffit Condenser mics in ceiling
9. 2 Piano mics – **Audix SCX25A**
10. 9 Drum mics – **5 Shure SM57, 1 Shure SM58, 2 Sennheiser e604, 1 Shure Beta 52A** and snake (**CBI 25' 8-channel Drop Snake**)

Speakers

1. **Williams AV FM 557 PRO WAP FM Plus Large-area Dual FM and Wi-Fi assistive listening system with 4 FM R37 receivers**
2. 2 Main Speakers and woofer – **2 BagEnd Opal-1 Mains and 4 Bag End PD 12EI Woofers**
3. 12 Chandelier fill speakers – **EVIDC8.2HC**
4. 5 stage monitors – **Modular Sound Systems Bag End Time-Align Loudspeaker TA1200-RF** and 2 **Galaxy Audio Hot Spots**
5. 1 in-ear transmitter/monitor for drummer – **Shure P3RA J13 (566-590 MHz)**
6. 2 AV booth monitor speakers - **Yamaha**
7. 8 lobby speakers – **EVID C4.2**
8. Nursery/Starnes room speakers – **EVID C4.2** (bypassed)
9. Choir rehearsal room speakers – **EVID C4.2** (bypassed)

Computers

1. **EpworthAV-REG 211201 (Alienware Aurora R12)** with RTX3060 Ti and 231208 **Dell S3422DW 34" Curved Screen**
2. **EpworthAV-PRO 250218 (XPS 8960)** Service Tag: 550ZJ74 i7-14700 16GB
3. **EpworthAV-ASL 210615 (XPS 8940)** Service Tag: 522QDF3
4. **Video Switcher iMac (2011)**
5. **iPad for floor sound**

Projectors

1. Two front sanctuary **Sony VPLPHZ60 6000 lm WUXGA Laser Projectors** configured for rear projection and **2 Blackmagic Design Micro Converter - SDI to HDMI 3G** with Power Supply (installed September 2021)
2. One rear sanctuary **Sony Pro VPLPHZ61 LCD Laser Projector, 7000 lm, WUXGA Resolution** laser projector with **Decimator Design MD-HX Mini 3G/HD/SD-SDI to HDMI Cross Converter** with Scaling & Frame Rate Conversion and **Da-Lite Da-Snap, 87" x 139" with HD Progressive 1.1 - 21912V screen/frame**
3. One spare (for chapel) **Hitachi CP-x8160 LCD Projector**

Lights

1. **ETC Express 125** Light control console
2. **Sensor Dimming System SR48+ Dimmer Rack** 100,000 RMS symmetrical @ 240 VAC
3. **Unison External Processing Rack**
4. 12 Chandeliers x 6 light cylinders with **EVIDC8.2HC** speaker in center (72)
 - a. various down lights
5. 48 **ETC Source 4 575 W Par** Stage lights (take Osram HPL 575/115/X (UCF) replacement bulbs)
6. 8 **Blizzard SkyBox 5** Lights (battery fail dates below):
 - a. 10/23/23 SN 4841-123669-0245 (8)
 - b. 11/11/23 SN 4841-123669-0249 (1)
 - c. 11/28/23 SN 4841-123669-0003 (5)
 - d. 12/9/23 SN 4841-123669-0004 (6)
 - e. 3/24/24 SN 4841-123669-0250 (7)
 - f. 5/11/25 SN 4841-123669-0231 (3) **replaced 10/16/25**
 - g. 9/27/25 SN 4841-123669-0246 (4) lasts an hour and then fails - **replaced 10/16/25**
 - h. 2/13/26 SN 4841-123669-0232 (2) problems fully charging during CAMP Concert/Rehearsals

Cameras

1. **PTZOptics PT-JOY-G3 IP PTZ Camera Controller** | Third Generation | Visca over IP Joystick Keyboard
2. **Blackmagic Design ATEM 2 M/E Production Studio 4K**
3. **iMac to control switching software**
4. **Blackmagic Recording deck**
5. 1 Rear center-mounted **PTZOptics PT30X-SDI-WH-G2 30X Optical Zoom** | **PTZ Camera** | 3G-SDI, HDMI, CVBS, IP Streaming | 1920 x 1080p | 60.7 degree FOV (White)
6. 2 Rear side-mounted **PTZOptics PT20X-SDI-WH-G2 20X Optical Zoom** | **PTZ Camera** | 3G-SDI, HDMI, IP Network RJ45, CVBS | 1920 x 1080p | 60.7 degree FOV (White)
7. 1 Rear/left mounted **PTZOptics PT20X-ZCAM 20X Optical Zoom Static Camera** | 1920x1080 | 30fps | HD-SDI | IP (White) (for ASL)
8. 1 Stage Left wall-mounted **PTZOptics 30X-SDI-GY-G2 30X Optical Zoom** | **PTZ Camera** | 3G-SDI, HDMI, CVBS, IP Streaming | 1920 x 1080p | 60.7 degree HFOV (Gray)
9. 2 Mic-stand mounted **Marshall CV506 Miniature Full-HD Camera** (3G/HDSI & HDMI)

Instruments

1. **Allen Q-345C** Organ
2. **Yamaha 6' G3E Grand Piano**, black
3. **Tama Superstar Classic** Maple Shell Drumset
4. Doug's electronic keyboard – **Technics SX-P50**
5. Lee Ann's synthesizers
 - a. **Roland RD-88**
 - b. **Complete Kontrol S49**