

Emmaus Church , Northfield, MN

Sound System Upgrade Project

Sanctuary Space

Summer, 2014

Project Description:

The sound system upgrade project was resulted from a variety of needs. First of all, the current mixing console was developing problems and would need repair or replacement. The age of the console was a strong motivator to consider replacement. Other needs included installation of a Hearing Assistance system, upgrade for wireless handheld mics and the need for increased flexibility & coverage with stage monitors. A proposal came together and funding sources were identified from the church budget and individual gifts. The final project included the following:

- Replace mixing Console: Behringer X32 Digital mixing console with a S16 Digital snake accessory. Add CAT6 cabling from mix position to S16 digital snake in the stage location. Add internet port for mixing console to allow remote connection from iPads and laptops.
- Expand the number of stage monitor channels from 2 to 6 and include an in-ear monitor system as the sixth channel (for percussion and bass). Locate new power amp channels in the stage area. Add stage monitor speaker jacks in the stage area for the additional monitor channels.
- Upgrade the Wireless handheld mics and increase from 3 to 4. Move the wireless receivers from the mix position to stage position.
- Install a Hearing Assistance system with four receivers and one transmitter to be located at the mix position.
- Re-number all mic input jacks (approx 40 jacks) for efficient and logical integration into the new mixing console channels.
- Integrate the mixing console outputs into the existing building distribution sound system, A-V recording system, Hearing Assistance system and main sanctuary loudspeakers.
- Test and repair Electronic Keyboard speakers (stand-alone sound system for keyboard).
- Repair mic stands as needed.
- Re-furbish sound closet in the stage area. Add lighting, 20amp electrical circuit, and carpet. Install 16U equipment rack for S16 Digital Snake, Wireless receivers (5) and additional power amps for stage monitors (2).

Design Phase:

A new jack layout drawing, project list and standard input and output channel list for the mixer was created and published in a drawing. The design phase was completed by mid July.

Installation:

Installation started in late July and was completed in the second week of August. The upgraded system went into use on Wednesday, August 13.