

Installation Profile



A GIFT FOR SAINT NICHOLAS: ASHLY GEAR TURNS TERRIBLE SOUND TO GOLD

TARPON SPRINGS, FLORIDA – St. Nicholas Greek Orthodox Church in Tarpon Springs, Florida is an impressive structure. Built in 1942, it earned a spot on the National Register of Historic Places to help preserve its gorgeous exterior and breathtaking interior, which features white walls and ornate, gilded trim together with classical oil paintings and stained glass. However, as fine as St. Nicholas Church appears to the eye, its sound reinforcement has long been profoundly disappointing. Reverberant and boomy acoustics, paired with utterly ineffective audio processing and loudspeaker placement, ensured that St. Nicholas would not be eligible for a spot on the National Registry of Intelligible Places, were such a registry to exist. Recently, Tampa-based A/V integrator **CSI** used cutting-edge sound reinforcement technology, centered on an Ashly Audio ne8800 DSP with a WR-5 NE remote control and a steerable line array, to reign in the boom and splash. As a result, longtime congregants are jubilant that they can finally understand what Father Michael Eaccarino is saying.

The old sound system started with a “prosumer” analog mixer paired with an equivalent-grade processor of mid-1990s vintage. Those pieces fed ten wall-mounted, 70-volt, eight-inch loudspeakers. Mounted five to a side, they were anchored at the very top of the soaring walls. Rather than face down at the congregants, the loudspeakers fired straight across the ceiling at the opposite wall, which did a fantastic job of energizing the already excitable room without delivering any direct sound to the pews. “To fix that problem, someone sold them on the idea of placing louvered air conditioning grills over each of the loudspeakers,” said Paul Garner, principal of CSI. “The idea was that they would reflect the sound down to the pews. It was a total joke. To make matters even worse, none of those loudspeakers, which spanned the length of the room – 80 feet front to back – were signal aligned. The first time I visited St. Nicholas, I stood at the back of the room while Father Michael spoke at the pulpit, I could not understand a single word he said. Literally, not a single word.”

Given the abysmal loudspeaker placement of the old system, almost anything Garner did would be an improvement. However, to move the system from abysmal to fantastic would take some ingenuity. Not only were the room's acoustics challenging, but its status on the National Register of Historic Places took the possibility of any structural changes off the table.

But so many years in a pitiful struggle against bad sound can make a Father hungry to have it all. "When I asked Father Michael if they had a sound person, he paused and then responded, 'every person is our sound person,'" said Garner. "Without guessing that it was possible, he went on to say that what he really wanted was a sound system that could take care of itself." Garner was happy to provide a concrete response to his rhetorical request. Indeed, Ashly's Protea™ Networkable ne8800 Digital Processor features a gain sharing automatic microphone mixer with automated feedback suppression for this turnkey "church-in-a-box" sound system.

Garner placed the Ashly ne8800 DSP processor using all eight microphone-level inputs in the equipment rack at St. Nicholas Church. To combat the room's favorite resonant frequency, which sits somewhere around 450 Hz and is capable of creating wicked sub-harmonic modes, he high-passed every signal to the minimum frequency required to capture intelligibility (for spoken word) or musicality (for the choir or cantors). To minimize any annoying high end, he rolled off everything above 10 kHz. "The ne8800 does a fantastic job of providing auto-leveling, auto-mixing, and auto-feedback suppression," Garner said. "With the full power of Ashly's processing, I was able to dial in every aspect of the sound reinforcement with any tool I could imagine. It's all there." When the church completes its Internet infrastructure, Garner will assign an IP address to the Ashly ne8800, which is network enabled out of the box. It will allow him to make changes from anywhere, including his Valrico, Florida office, saving a three-hour round trip to St. Nicholas Church.

"After the first service with the new system, a parishioner approached Father Michael," recalled Garner. "In broken English colored by a Greek accent, he said that he had been coming to St. Nicholas for thirty years and this was the first day he was able to understand the Father's words!" That's the sort of improvement that matters deeply.