# SEMAPHORE · PORT ADELAIDE RSL

**CASE STUDY** 







# HISTORIC NEWLY RENOVATED SEMAPHORE - PORT ADELAIDE RSL CHOOSES INTEGRATED AUDIO SOLUTIONS FOR THEIR AUDIO VISUAL UPGRADES

Located in a historic building on the bustling foreshore of Semaphore Beach, South Australia, the Semaphore · Port Adelaide RSL turned to Integrated Audio Solutions to consider and resolve a number of distinct audio-visual upgrade requirements.

Charged with overseeing the RSL club's entertainment and in-house audio-visual systems was Paul Glover. Paul approached Integrated Audio Solutions with a specification and direction that succinctly outlined the club's present and future requirements.



# System Design Brief - Stage 1

Foremost in the initial specification was the need for the audio system to have a smooth coverage for a seated audience of 110 patrons. This meant no sub-extensions as the larger acts brought in their own PA requirements. Underpinning this requisite was the need to have an operating system that was both logical and easy to use, with little or no technical input or guesswork required, to bring the very best out of the installed 'small house' componentry. The installed system also needed to be as resilient as possible so as to accommodate the inevitable technology changes likely to occur in the future.

# **Audio System**

To resolve the primary needs outlined in the brief Integrated Audio Solutions's Kostas Psorakis, began the process of plotting the halls dimensions. Given the historic nature of the venue detailed technical plans for the building were unavailable. Kostas instead had the hall rendered in CAD in order to position the house speakers to optimize and precisely match the acoustic performance of the audio system.

The fundamental system brief coupled with Integrated Audio Solution's CAD predictions, drove the imperative to install two full-range 12" speakers that could handle the RSL's demanding performance expectations. To meet these demands the Electro-voice TX1122 was selected. These speakers come highly regarded for the exceptional sound quality at high levels, extreme sensitivity (for bodied low level background playback) and high-power handling. The Electro-voice TX1122 was deemed the perfect fit.





DYNACORD L2800 FD DSP AMPLIFIER



#### **Audio System**

The system electronics driving the TX1122's where then housed by Integrated Audio Solutions in a durable and purpose-built equipment rack. The amplification heart was delivered via the new Dynacord (sister company to Electro-Voice and part of the Bosch Group of companies) L 2800 FDI series DSP amplifier. This distinctive and well respected amplifier has fully integrated speaker processing with FIR - Drive Technology allowing fully optimized component correction. This feature makes for a sonically great speaker and offers complete speaker component protection.

# **Wireless Microphones**

The wireless microphone of choice for the Semaphore project where two Electro-Voice R 300 HD Handhelds. These robust, all-metal, cost-effective radio microphone receiver / transmitter units come with excellent gain-before-feedback qualities. An antenna front mounting extension kit was also incorporated to further maximize their performance capabilities.



## **Flexibility**

The system was also designed to operate as two separate modes. This offered both 'Band' and 'Presentation' options or a combination thereof with extra inputs for use when needed.

Band Mode

The existing 'House' system was also retrofitted to the new audio system with the addition of a A/V Stage Box that adequately duplicated most of the existing console input and outputs. Normal operating procedures in this arrangement are readily maintained with the left and right main outputs and artist foldback being fed directly to the Yamaha MTX3 processor inputs for processing control and overall system protection.

### **Presentation Mode**

The installed system is multipurpose to meet an array of needs in this challenging environment, but it has been designed so as it can easily be operated as a simple presentation system without the house mixer.

This configuration offers both peak performance and ease-of-use for non-technical staff and allows two wireless radio microphones and one handheld wired microphone to be used concurrently for roving MC and lectern-based productions. In addition, an MP3 (iPod MP3 type player) input connection has been supplied to provide background music playback and ambient fill.

Presentation Mode is accessible via Yamaha Wall Panels and custom A/V stage box.







#### The Audio Processor

The beating heart of the system control comes in the guise of the versatile and cost-effective Yamaha MTX-3 processor. This system was coupled with a Yamaha EXi8 in order to handle extra audio playback devices inputted into the system for wall panel control in presentation mode. One of the Yamaha DCP4V4S wall panels was programed to start and stop the SD card on the MTX-3 for playback of the RSL's traditional Ode which is played at 6PM on any days that club is operational.



YAMAHA DCP4V4S WALL PANEL



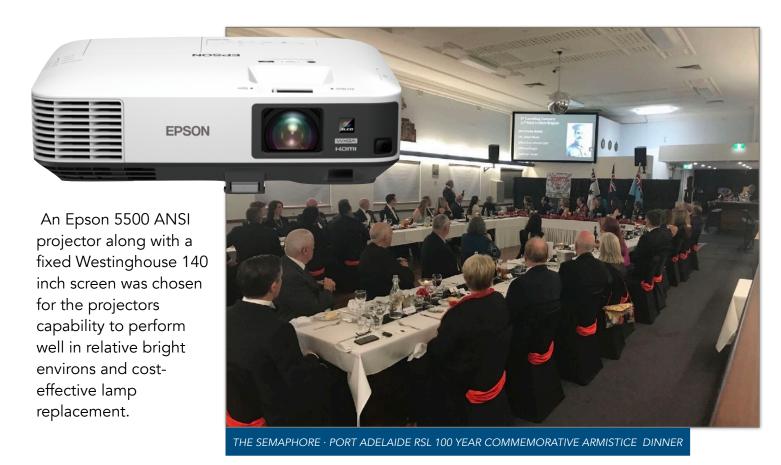


#### **Unrestricted Vision**

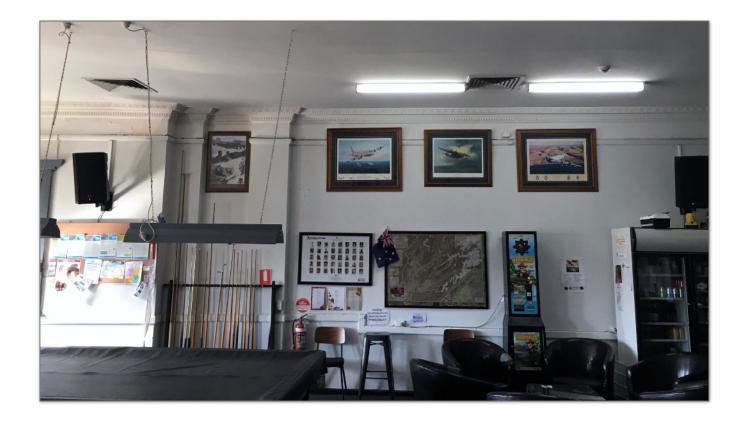
To round off the installation a ATEN HDMI 4x4 4K vision matrix mixer was installed allowing for set top box, Blu-ray DVD player, and the HDMI inputs from the halls A/V panel to be outputted to an Epson projector and display screens via ATEN 4K CAT6 range extenders.

An I/R extender kit was fitted giving the remotes the capability to "see around corners" thus allowing bar staff to easily change program material without necessarily leaving their work stations and going to the equipment rack.









### **POOL ROOM AUDIO**

# **Dual-Roll System**

The Semaphore / Port Adelaide RSL also required their new speaker system to be dual purpose and be portable enough to use at the occasional foreshore event.

The pool room system centers on a pair of Electro-voice ELX200 12P self-powered 12 inch speakers. The EV's where chosen for their efficient Class-D power amplifiers and matched high-sensitivity transducers, allowing for excellent balanced body, even at low levels.







KOSTAS PSORAKIS PROJECT MANAGEMENT · SYSTEM DESIGN

ADAM BUDGEN SYSTEM DESIGN · PROGRAMING

JUSTIN JONES SYSTEM INSTALLATION · FABRICATION

STAGE / PERFORMANCE