



**AUTOMATION**

**SUPERYACHT ALARM**

# Superyacht Alarm & Control System Update

## BRIEF

The original CSI alarm system was obsolete, failing and needed to be replaced, the Mitsubishi Main Engine Control and Monitoring system had obsolete displays, the fire detection system was being replaced but the original system also monitored and controlled the watertight doors and Navigation Lights, which the new system would not cover.

## SOLUTION

P&S Automation designed, built, installed and commissioned a replacement system to fully comply with the owners requirements and provide scope for future extensions to the system.

## NOTABLE PROBLEMS TO OVERCOME

The finished system had to look like it was meant to be there – not something fitted afterwards, so an overlay plate on the console was never going to be suitable.

## ECR CONSOLE



*The Original Console*

The engine room control console was obsolete, Rittal had scrapped the drawings and could only provide a replacement “upright lid section” if we supplied a sample. This was not an option.

We made a drawing of this lid section during the engineering survey and had a new section built from scratch - this was fitted on site in France without a hitch.



*The Finished Product*

## BRIDGE PANEL



*The Original Bridge Panel*

The new panel on the Bridge needed to look the part as well - we made a new drop in enclosure to replace the original engraved panel.



*The Finished Bridge Panel*

## INTERFACE TO MITSUBISHI CONTROL SYSTEM

Along with the digital alarms in the CSI system, we also had to replace the Mitsubishi display in the ECR (for it to become a spare for the two displays on the bridge) while retaining the Bridge panels.

## INSTALLATION WHILST CREW LIVING ON BOARD

We had to keep alarm coverage active for Bilge, Power Generation & Fire throughout the installation as the vessel was in the water with the crew living on board. We managed this by installing the new system before the original had been decommissioned, then changing the field wiring over channel by channel.

## SYSTEM OVERVIEW

The replacement system provided by P&S Automation utilises 3 off Exor solid state HMI's (workstations), 2 off Allen Bradley Compact Logix PLCs (to provide redundancy), and an EtherNet network managed by Allen Bradley Stratix EtherNet switches.

The input and output sensor supplies are isolated by DC/DC converters, protected by electronic resettable fuses and monitored by Earth Monitors.

The system is fully documented, which has allowed Classification Society Plan Approval but will also allow Allen Bradley system integrators worldwide to be able to repair the system in the unlikely event that it suffers a fault whilst the ship is away from Europe.



*The Finished Installation*

*For further information and advice on replacement solutions for your control and monitoring requirements, please contact P&S Automation by email at [enquiries@PandSautomation.com](mailto:enquiries@PandSautomation.com), or by phone: 01245 322777 or 07715 524605.*

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