



## Ship Automation, AMS & Main Engine Remote Control Solutions

ALQAQNOOS provides a full range of **Ship Automation**, **Alarm Monitoring Systems (AMS)**, and **Main Engine Remote Control (M/E RC)** services, ensuring safe, efficient, and reliable operation of modern vessels. Our solutions are engineered to support critical shipboard functions, enhance situational awareness, and improve operational accuracy through advanced control and monitoring technologies.

### 1. Ship Automation Systems

#### Integrated Control for Smarter, Safer Vessel Operation

Our Ship Automation services cover the design, installation, troubleshooting, and upgrading of complete automation architecture onboard.



#### Capabilities include:

- Integration of automation networks for machinery, power management, and auxiliary systems
- Monitoring and control of pumps, valves, boilers, compressors, purifiers, steering gear, and deck machinery
- Installation and configuration of PLC-based control systems (Siemens, ABB, Mitsubishi, Omron, etc.)
- Replacement and retrofitting of obsolete automation modules
- Logic programming, system calibration, and safety interlock verification
- Performance diagnostics and fault-finding for automated machinery operations

#### Benefits:

- Enhanced vessel efficiency and reliability
- Reduced downtime and operational risks
- Improved safety through automated alarms and interlocks
- Full lifecycle automation support, from engineering to commissioning.

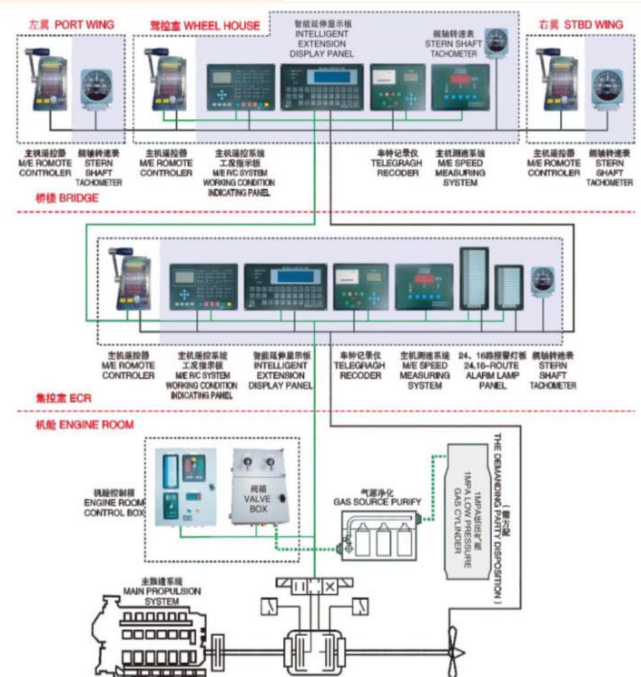
### 2. Alarm Monitoring Systems (AMS)

#### Centralized Monitoring for Engine Room & Vessel-Wide Operations

Our AMS services ensure continuous monitoring of all critical shipboard equipment, providing early detection of abnormalities to support preventive action.

#### Services include:

- Installation and configuration of AMS panels
- Integration with sensors, transmitters, switches, and field devices
- AMS software configuration and logic customization
- Upgrading legacy AMS into modern digital platforms
- Alarm testing, verification, and Class-approved calibration
- Troubleshooting of display issues, fluctuating readings, and communication faults



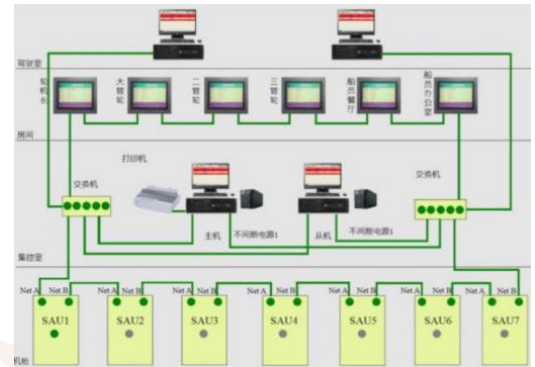


## System Monitoring Coverage:

- Main engine & auxiliary engines
- Boilers & steam systems
- Fuel, lube oil, and cooling systems
- Ballast, bilge, and cargo pumps
- Power management and switchboards
- HVAC & refrigeration systems

## Benefits:

- Real-time awareness of ship conditions
- Faster response to abnormalities
- Improved safety and Class compliance
- Seamless integration with automation and remote-control systems.



## 3. Main Engine Remote Control (M/E RC) Systems

### Precise & Safe Control of the Main Propulsion System

We provide full solutions for Main Engine Remote Control systems, supporting maneuvering, speed control, and safety functions.



## Technical Scope:

- Installation, calibration, and commissioning of M/E remote control units
- Interface integration with bridge console, engine side control, CPP systems, and governor
- Testing and tuning of telegraph commands and response accuracy
- Control signal troubleshooting (Pneumatic, Hydraulic, Electronic)
- Retrofitting outdated M/E RC systems with modern, reliable control modules
- Safety trips, slow-down, and shutdown logic verification

## Supported Functions:

- Ahead/Astern control
- RPM control & load control
- Emergency maneuvering mode
- Oil pressure, temperature, and control air interlocks
- Safety shutdown & alarm interfaces

## Benefits:

- Smooth and reliable propulsion control
- Reduced risk of engine failure due to control errors
- Improved maneuvering accuracy during berthing, unberthing, and navigation
- Compliance with SOLAS & Class safety requirements



发电机 & 功率管理系统PMS  
Generators & power management system PMS



轮机员呼叫 & 死人报警单元  
Engineer Calling & Dead-man Alarm unit



主机  
Main engine



锅炉  
Boiler



报警系统菜单  
Alarm System menu



液位测量 & 阀门遥控单元  
Tank Gauging & Valve Remote Control unit



## 4. Engineering, Retrofitting & Technical Support

### Complete Turnkey Solutions for Marine Control & Automation

ALQAQNOOS offers full engineering services to support vessel owners, shipyards, and fleet operators.

#### We provide:

- System assessment and modernization plans
- Custom automation panel fabrication
- PLC programming & software migration
- Signal testing & loop checking
- Class-approved commissioning documentation
- 24/7 onboard and remote technical support

#### Why Choose ALQAQNOOS?

- Professional, certified marine technicians
- Fast response for emergency repairs
- High-quality integration with existing systems
- Experience across multiple vessel types: Tankers, OSVs, Bulk Carriers, Tugs, and more

## Your Trusted Partner in Marine Automation

ALQAQNOOS ensures that your ship's automation, monitoring, and propulsion control systems operate with maximum safety, accuracy, and reliability. Whether it's a new installation, upgrade, troubleshooting, or complete system overhaul—we deliver solutions that meet the highest marine industry standards.

