

Electrically-controlled moving equipment installed on a vessel presents special concerns. In particular, moving equipment has the potential to cause injury, the entrapment of clothing or body parts, or trips or falls.

Examples of electrically-controlled moving equipment include:

bathing platforms, hatch covers, winches, anchor chains, passerelles (gangways).

RAYMARINE STRONGLY RECOMMENDS THAT THE FOLLOWING BEST PRACTICES ARE FOLLOWED WHEN DESIGNING AND INSTALLING DIGITAL CONTROL SYSTEMS.



ENSURE INSTALLERS ARE QUALIFIED

Digital Switching installations are complex systems, requiring extensive software and electrical knowledge. Raymarine recommends certified installation and configuration by a Raymarine approved installer.



ENSURE COMMISSIONING AND FULL RISK ASSESSMENT ARE COMPLETED

Raymarine recommends that you conduct a risk assessment for all programmed circuits, and rigorously check the system during commissioning for correct and safe operation.



CONFIGURE A WATCHDOG ON ALL MOMENTARY SWITCH CHANNELS

Watchdogs actively monitor channels to ensure that, in the event of failure of IP communications involving momentary switches, all associated outputs are forced to an "Off" state, and prevented from latching.



INSTALL A KILL SWITCH

Has a physical "kill switch" or "dead-man's switch" been fitted in close proximity to any moving equipment?



INSTALL ALERT DEVICES

For moving equipment, has an audible and/or visual warning device been added (for example, a buzzer or strobe light) and configured to automatically activate when the equipment starts to move?



PREVENT CONTROL OF MOVING EQUIPMENT AWAY FROM VESSEL

Never allow electrically-powered moving equipment to be activated or controlled at a distance from the vessel, such as via GSM SMS text messages, for example.



ENSURE SOFTWARE FUSE RATINGS FOR EACH CHANNEL ARE CORRECT

The default fuse ratings for each channel may not be optimised for your unique system. Ensure that each software fuse rating is appropriate for each channel.



CONSIDER 2-BUTTON OR TIMED SWITCHES, OR PIN CODE KEYPADS

To prevent accidental or fraudulent activation of equipment that is critical to safe vessel operation, consider the use of a proven and robust confirmation mechanism.



INSTALL A SAFETY LIMIT SWITCH

Has a safety limit switch been considered (e.g. a micro-switch) to automatically stop equipment that is moved beyond fixed limits?



IMPLEMENT CURRENT DETECTION AND LIMITING

Implement current detection and limiting, to automatically cut power to a moving piece of equipment that has stalled due to a physical obstruction.