

 DockersOne



# DockersOne Userguide

Version 1.4 | DockersOne-UG-ES-V1.4

 SHIPCONTROLLER

## Important Information

	<b>Thoroughly review this manual and follow its instructions before installing and operating this device. Keep a copy of this manual for future reference.</b>
	<b>WARNING. Make sure to carefully follow the safety instructions and guidelines marked with this symbol. Not following them could cause personal injury or property damage.</b>

### ■ Meaning of the symbols used on the product, literature or packaging:

SYMBOL	MEANING
	<i>Read the manual</i> carefully and thoroughly before installing and using the system. Retain this manual for future reference; it contains vital information for the operation and maintenance of your Shipcontroller System.
	<i>The CE mark</i> on the product indicates that the manufacturer has declared conformity with all the essential requirements of European Union legislation regarding safety, electromagnetic compatibility, effectively use of radio spectrum, health, and environmental protection, allowing free circulation and sale within the European market.
	<i>Disposal.</i> The crossed-out wheeled bin symbol indicates that in the European Union, all electrical and electronic products, batteries, and accumulators must be disposed of at specific collection points when they reach the end of their life.
	<i>Safety Warning.</i> This icon indicates the imperative need to follow the accompanying instructions. Ignoring these recommendations may result in damage to people or property.
	<i>Note.</i> This icon highlights important instructions that, if not followed, may lead to improper operation of the equipment.

### ☑ CE Declaration of Conformity:

	<p>Hereby, Naocontrol SL declares that the Shipcontroller System is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address:</p> <p><a href="https://shipcontroller.com/files/Shipcontroller-RED-DoC-DOC23112901.pdf">https://shipcontroller.com/files/Shipcontroller-RED-DoC-DOC23112901.pdf</a></p>
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### ■ Manufacturer Information / Contact Information:

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Product website:	<a href="http://www.shipcontroller.com">www.shipcontroller.com</a>
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# 1. Safety and environmental protection warnings



☞ *Read carefully and follow the warnings and instructions in this manual and the documentation that accompanies the product.*

## Shipcontroller installation

 *The Shipcontroller system must be installed and adjusted by qualified authorized technicians, and following the installation instructions provided with each system.*

## Using Shipcontroller

 *Shipcontroller has been designed to help with low-speed maneuvers, particularly in anchoring or docking scenarios. Although it has been developed and manufactured to be highly safe and reliable, you should always follow good maritime safety and navigation practices, in particular:*

 *Make sure to follow suitable procedures and to have the adequate crew and resources to maintain control of the vessel at all times and minimize the risk of damaging persons or things.*

 *Turn the system off when not in use.*

## **ENVIRONMENTAL WARNINGS**

### Restriction of Hazardous Substances (RoHS)

#### **RoHS**

This system has been designed in accordance with RoHS regulations which restrict the use of substances harmful to the environment, such as lead, mercury or cadmium.

### Use of disposable or rechargeable batteries:



The remote control unit has been designed to use rechargeable batteries. Batteries must be disposed of according to current regulations, by placing them in a suitable container.

### Product Disposal:



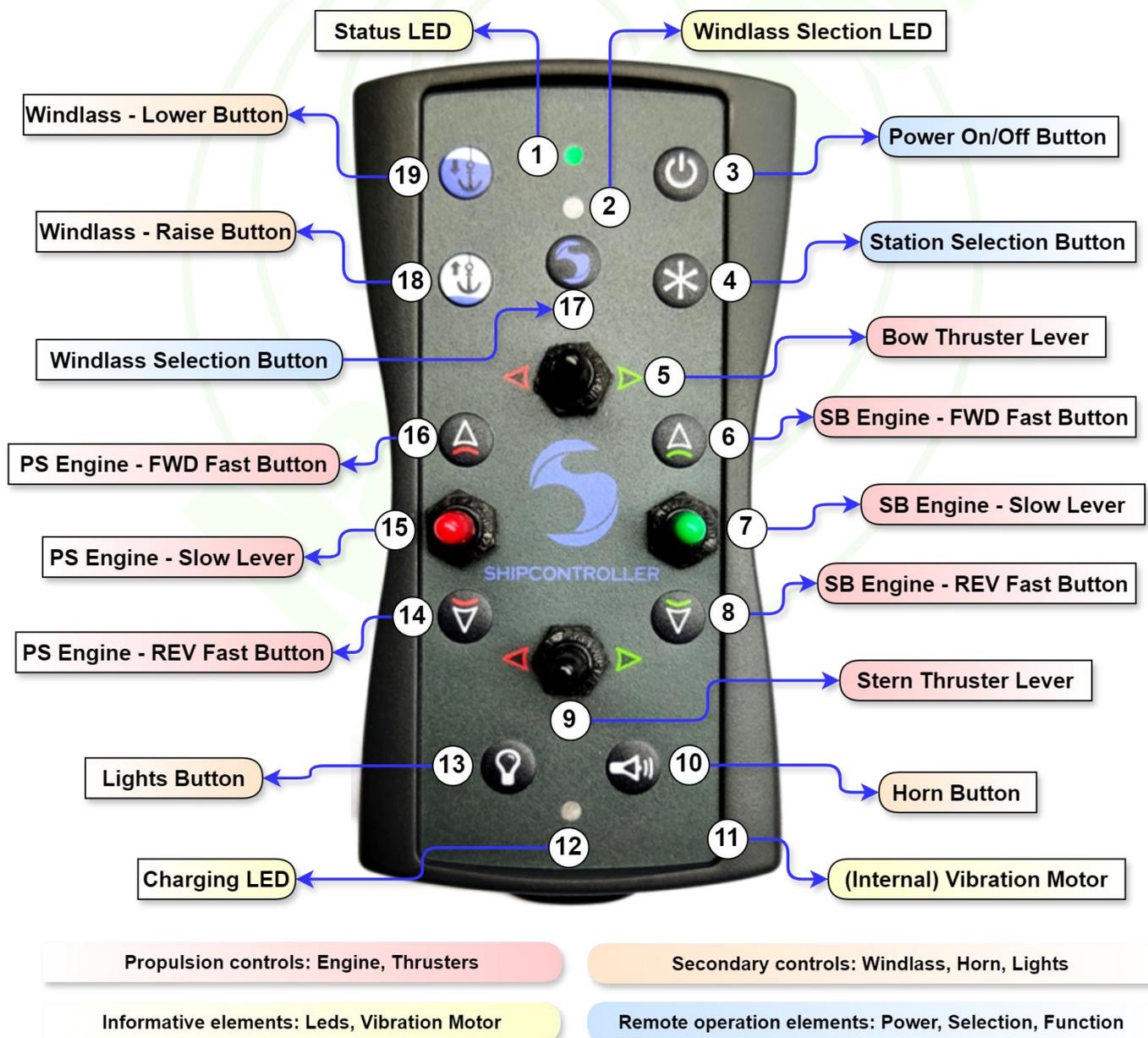
When you decide to discard this product, for example, at the end of its life cycle, do it according to the ordinances or regulations governing the disposal of electronics devices.

## 2. System overview

The *DockerOne Remote Control Unit* is a key component of the modular Shipcontroller system, compatible with most bow and stern thruster configurations and engine setups.

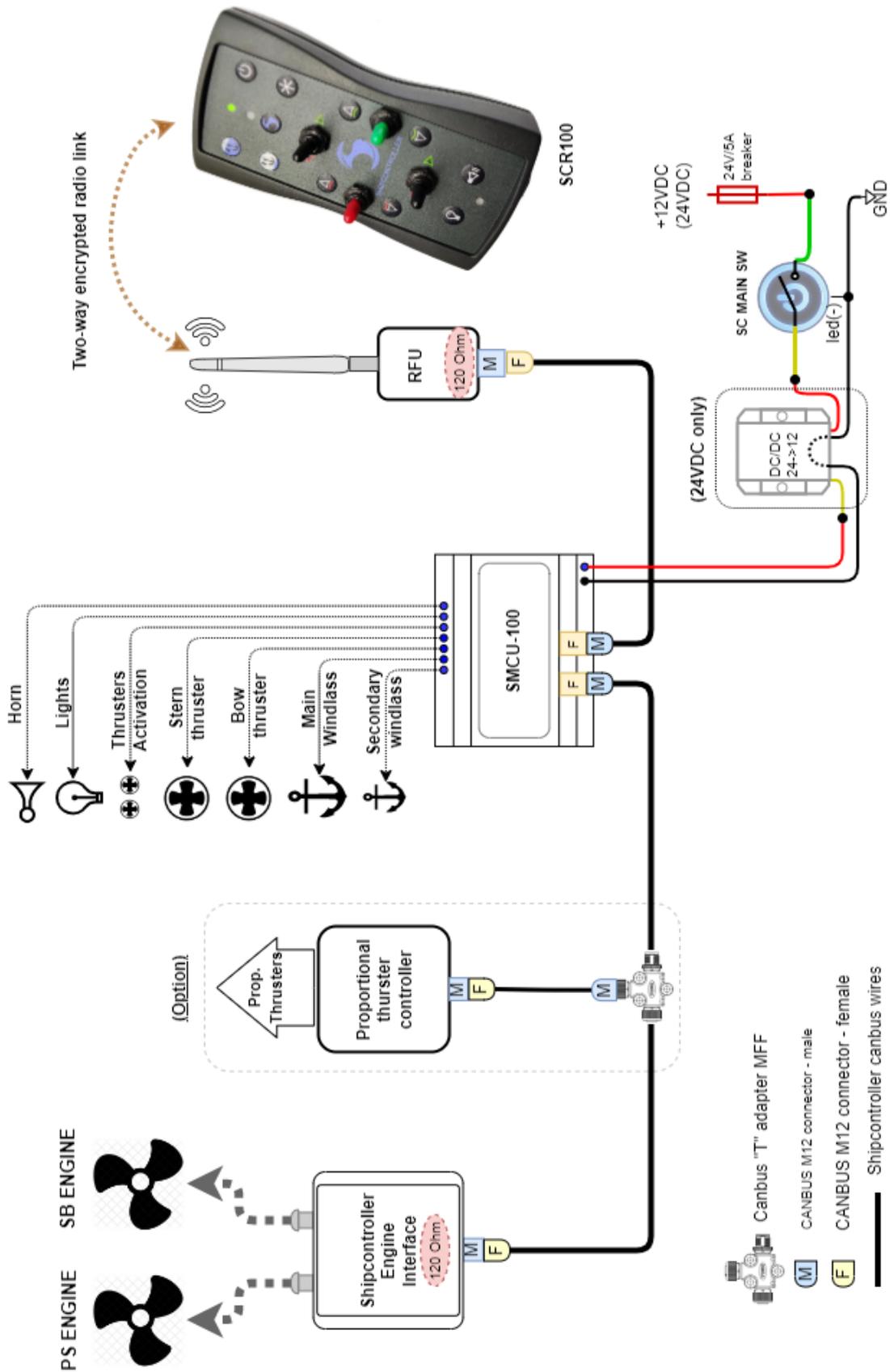
### Main Features:

- **128-Bit Encrypted Bidirectional Wireless Link:** Ensures secure data transmission.
- **Two-Step Engine Control:** Forward and reverse with two RPM levels.
  - Availability of two-step thrust depends on the boat's engine type and electronic controls.
- **Thruster Control:** ON/OFF control for bow and stern thrusters.
  - Compatible with proportional thrusters via an optional interface.
- **Anchor Windlass Control:** Supports up to two anchor windlasses.
  - Select between primary and secondary windlass with a dedicated button.
- **Auxiliary Channels:** Controls for siren and deck lights.
- **High-Quality Pushbuttons:** IP67-rated internal pushbuttons with long service life.
- **Rechargeable Lithium Polymer Battery:** Wireless charging compatible with Qi standard.
- **IP65-Rated Durability:** Water- and dust-resistant for reliable performance.



## 2.1 Typical installation schematic

### SHIPCONTROLLER SC100 SYSTEM - GENERIC ENGINE INTERFACE



## 2.2 Device description

### 2.2.1 Status LED

LED	Meaning
	Red light permanently on: * Radio link not established: either no radio coverage, or the Shipcontroller base system is turned off or unavailable.
 Blink 1/sec.	Red light blinking once per second: * Battery low.
 Blink 1/sec.	Green light blinking once per second: * Radio link established. * No engine control. All other functions available.
	Green light permanently on: * Radio link established. * Engine control available. All functions available.
 Blink 5/sec.	Green light blinking 5 times/second: * Command transmission in progress (a button or control lever on the remote has been activated).
	Green and red lights blinking at the same time (5 times/second): * Diagnostics failure.

### 2.2.2 Selected windlass indicator

This led indicates which anchor windlass is selected:

- Led off: Main windlass selected
- Led flashes twice: secondary windlass selected

To switch between windlasses, press the windlass selection button [17].

### 2.2.3 Power button

Push to turn the remote on/off.



**Auto power-off function:** The *DockerOne* remote will automatically turn off 30 seconds after the base system has been turned off, provided no buttons or levers are activated during this period.

### 2.2.4 Station selection button

In certain engine control configurations, activating engine control from the remote is required to operate the engines remotely. When engine control is activated from the remote, other stations on the boat will lose control. Similarly, if control is regained from a boat station, the remote will lose control and indicate this with a flashing status LED and two short vibrations. See section 3.3 for more information.

### **2.2.5 Bow thruster control lever**

Move the lever toward the green arrow to activate the bow thruster to starboard, or toward the red arrow to activate it to port. The lever automatically returns to the neutral (center) position when released.

### **2.2.6 Starboard fast forward button**

If your system supports proportional engine control, pressing this button will activate fast forward motion of the starboard engine. Note that "fast" is relative and does not imply high RPM or speed.

If proportional control is unavailable, this button will instead initiate a slow forward maneuver for the starboard engine.

### **2.2.7 Starboard engine control lever**

Move this lever forward on the remote control to activate slow forward motion of the starboard engine. Move it backward to activate slow reverse motion. The lever automatically returns to the neutral (center) position when released.

### **2.2.8 Starboard engine fast reverse button**

If your system supports proportional engine control, pressing this button will activate fast reverse motion of the starboard engine. Note that "fast" is relative and does not imply high RPM or speed.

If proportional control is unavailable, this button will instead initiate a slow reverse maneuver for the starboard engine

### **2.2.9 Stern thruster control lever**

Move the lever toward the green arrow to activate the stern thruster to starboard, or toward the red arrow to activate it to port. The lever automatically returns to the neutral (center) position when released.

### **2.2.10 Horn button**

Press this button to activate the yacht's horn.

### 2.2.11 Vibration warnings

The remote control unit includes an internal vibration motor to provide additional notifications for certain events, such as:

Vibration signal	Meaning
One short pulse	* Start test completed. * Engine control recovered.
Continuous, while holding down any button or engine control lever	* Radio link not established or lost. * Concurrent control prevented this remote from taking control (in systems with multiple remotes). Ensure other remotes are turned off. * Engine control not available.
Continuous, as long as any side propeller or windlass control lever is activated	* Radio link not established or lost.
Two long pulses	* Engine control lost.

### 2.2.12 Battery charge indicator

This LED indicator lights up when the remote control unit is placed on a powered Qi wireless charger. The indicator states are as follows:

- Off: charging adapter disconnected or turned off.
- Red: battery charging.
- Green or blue: charging completed.

Disconnect the charger from the power supply once charging is complete.

### 2.2.13 Lights on/off button

If the light control output is enabled, pressing this button briefly will toggle the output state between on and off.

### 2.2.14 Port engine fast reverse button

If your system supports proportional engine control, pressing this button will activate fast reverse motion of the port engine. Note that "fast" is relative and does not imply high RPM or speed.

If proportional control is unavailable, this button instead initiates a slow reverse maneuver for the port engine.

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### 2.2.15 Port engine control lever

Moving this lever forward on the remote control activates slow forward motion of the port engine. Moving it backward activates slow reverse motion. The lever automatically returns to the neutral (center) position when released.

### 2.2.16 Port engine fast forward button

If your system supports proportional engine control, pressing this button will activate fast forward motion of the port engine. Note that "fast" is relative and does not imply high RPM or speed.

If proportional control is unavailable, this button instead initiates a slow forward maneuver for the port engine.

### 2.2.17 Windlass selection button

Use this button to select between the main and secondary windlass. For more details, refer to Section 3.5.

### 2.2.18 Anchor windlass control buttons

- The "down arrow" button lowers the anchor.
- The "up arrow" button raises the anchor.

Read section 3.5 for more details.

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## 3. Remote control operation

The remote control unit includes arrows and symbols near buttons and levers to indicate their effects on boat maneuvering. *Many users prefer to orient the remote control unit to match the boat's orientation at all times, helping to prevent maneuvering errors.*

### 3.1 Power on/off

To turn on the unit, press the On/Off button. To turn it off, press the On/Off button again. The vibrator will signal shutdown with two short pulses.

#### Auto power off function:

The remote control will automatically turn off 30 seconds after losing the data link (red LED on) if no lever or button is used during this time. For example, if the Shipcontroller system on the boat is turned off, the remote unit will power down after 30 seconds of inactivity.

### 3.2 Checking the radio link

The remote control continuously monitors the quality and reliability of the wireless link, indicating link status to the user through LED signals and vibration.



*If the radio link is lost or interrupted (due to shutdown of the remote or base unit, loss of coverage, malfunction, or other causes), the following will occur:*

- **None of the remote control or telemetry functions will be available.**
- **All controlled systems will immediately return to their idle (neutral/stop) position.**
- **Promptly notify or proceed to the boat's steering position to regain control.**

### 3.3 Engine control

#### 3.3.1 Engine control activation

The procedure for activating engine control from the remote depends on the specific configuration of electronic controls on your boat and the corresponding Shipcontroller system setup.

The **DockerOne** remote control unit allows you to:

- Transmit an engine control activation request by pressing the "\*" (Station Selection) button on the remote.
- Indicate engine control status via the green LED (blinking or permanently on).

Please refer to the engine interface manual provided with your system for detailed information on the engine control activation procedure.

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### 3.3.2 Engine control signaling

If your system configuration supports engine control status signaling, the status will be indicated as follows:

- **Green LED blinking (once per second):** Engine control not available.
- **Green LED permanently on:** Engine control available.

If your boat's electronic engine control system does not support engine control status signaling, the status LED will remain on as long as the radio link is established.

### 3.3.3 Engine control priorities

In the event that engine control levers and/or engine control buttons are operated simultaneously, the following priority rules apply:

- Controls for each engine (port and starboard) are independent and can be activated simultaneously without restriction.
- **Forward takes priority over reverse.** For example, if both fast forward and fast reverse buttons for the starboard engine are activated, the fast forward maneuver will be executed.
- **“Fast” buttons take precedence over “slow” control levers.**

## 3.4 Thrusters control

Push the bow or stern thruster control levers sideways toward the green (starboard) or red (port) markings next to the levers to activate the thrusters in the corresponding direction. These levers can be used simultaneously without restriction.

In general, you can use the boat's built-in thruster controls while the Shipcontroller is on; however, avoid using the Shipcontroller remote unit's thruster controls simultaneously with the boat's thruster controls.

## 3.5 Windlasses control

The **DockerOne Remote Control** can operate two windlasses. To control the windlasses:

1. Check the selected windlass by viewing the **Selected Windlass Indicator** [2]. If the indicator is off, the main windlass is selected. If the indicator flashes, the secondary windlass is selected.
2. If needed, switch the windlass selection using the **Windlass Selection Button** [17].
3. Use buttons [18] or [19] to raise or lower the selected anchor.

### Active Windlass Memory Feature:

The **DockerOne** remote will retain the selected windlass setting when powered off.

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## 3.6 Horn and Lights control

The **DockerOne** remote includes two auxiliary control channels designed to operate the horn and the deck lights or a spotlight, though they can be repurposed as needed.

### “Light” Button:

This button functions as a toggle switch. Each press and release changes the output state between on and off.

### “Horn” Button:

This button operates as a momentary pushbutton. The control output remains active while the button is pressed and held, and becomes inactive when the button is released.

## 3.7 Battery charging

The remote control unit is equipped with an internal rechargeable lithium-ion battery. Use a Qi-compatible wireless charger to charge the battery (a suitable Qi charger is available as an optional accessory).

(A suitable Qi wireless charger is offered as an option).

To charge the battery:

1. Turn off the remote control unit.
2. Turn on the Qi charger and place the remote on top, adjusting its position until the battery charging LED lights up.
3. Wait until the charging LED changes to green or blue, indicating a full charge.
4. Disconnect the charger.



***Always disconnect the charger when charging is complete.***

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## 4 Technical information

### 4.1 General

Dimensions: 125mm x 65mm x 27mm  
Weight: 135gr.  
Operating temperature: 0°C ~45°C  
IP degree of protection: IP65

### 4.2 Electrical

Power supply: 3.7V/350mAh LiPo  
rechargeable battery, with  
protection circuit.  
Battery charging: Internal Qi standard receiver

### 4.3 Radio system

Type: Bidirectional data link  
Radio band: ISM 2.4GHz  
Maximum transmission power: 10mW ERP  
Modulation: DSSS + Offset QPSK  
Estimated coverage: < 500m outdoors (LOS)  
< 80m indoors  
Access protocol: IEEE 802.15.4  
Addressing: 64-bit  
Data encryption: AES, 128 bits.  
Approvals: CE (ETSI), FCC, C-TICK, IC, Telec.

## 5. Problem diagnosis and solutions

Symptom	Meaning. Suggested actions.
When you turn the remote control unit on, the green and red LEDs blink several times and then the remote control turns off.	<ul style="list-style-type: none"> <li>• The start-up diagnosis system has detected a fault.</li> <li>• The radio module is self-configuring.</li> <li>• Battery is discharged.</li> <li>• <i>Turn off and on, then try again. If the problem persists, contact technical support.</i></li> </ul>
The remote does not turn on.	<ul style="list-style-type: none"> <li>• Battery is fully discharged.</li> <li>• Faulty remote control unit.</li> <li>• <i>Recharge the battery. If this does not solve the issue, contact technical support.</i></li> </ul>
The remote turns on, but the status LED remains red, and the remote vibrates when any button or lever is used.	<ul style="list-style-type: none"> <li>• The Shipcontroller base system is turned off. Turn it on.</li> <li>• You are outside the radio coverage area.</li> <li>• <i>Radio system fault. Contact technical support.</i></li> </ul>

## 6. Maintenance instructions

### CLEANING:

Use a soft, damp cloth. Do not use detergents or solvents.

### RECHARGEABLE BATTERY:

Rechargeable batteries naturally age, reducing their charge capacity over time. If you notice a decrease in usage time, request a replacement battery.

### EVERY TWO YEARS:

- Conduct a thorough inspection of the Shipcontroller system's wiring and connections.
- Request a technical check, including opening the remote control unit and Shipcontroller modules to verify the tightness and condition of all connections, components, and circuit boards.
- Verify the calibration of the engine control interface (for analog control systems).
- Inspect the remote control unit's tightness and structural integrity.

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## 7. Warranty information

Naocontrol, S.L., henceforth referred to as "The Manufacturer," warrants that the Shipcontroller system is free from defects in materials and workmanship for a period of three years from the actual purchase date, as shown on the purchase invoice.

### Warranty Coverage:

This warranty is limited, at the Manufacturer's discretion, to the repair or replacement of defective components.

### Exclusions from Warranty:

- Transportation costs for damaged or repaired parts.
- Costs for diagnostics, uninstallation, installation, or adjustment of the Shipcontroller system or any associated systems.
- Damage, malfunctions, or losses due to abuse, negligence, improper installation, repair, or maintenance; unauthorized alterations or modifications, failure to follow manual instructions and warnings, use beyond operational ranges, or any other abnormal, excessive, or improper usage.
- Damage, malfunctions, or losses caused by accidents, natural disasters, force majeure, or water damage due to improper use.
- Damage or losses from the inability to use the product, related systems, or the vessel where the product is installed.

### Warranty Claim Procedure:

- To make a warranty claim, the system's identification number from the documentation or a copy of the purchase invoice is required.
- It is recommended to process warranty claims through an authorized Shipcontroller installer or distributor. Alternatively, claims may be made directly with the manufacturer via emailing [info@shipcontroller.com](mailto:info@shipcontroller.com) for warranty assistance.

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