



Wireless Joystick Control

**EASY TO USE
EASY TO INSTALL
100% SAFE**

DOCKMATE TWIST transmitter

This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

DOCKMATE receiver



Information to the User (Part 15.105 (b))

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This in particular is applicable for the antenna which has been delivered with the DOCKMATE receiver.

Congratulations on your purchase of a DOCKMATE system. Please read the following instructions carefully before getting started.

DOCKMATE is a wireless system that enables you to maneuver your ship. With your fingertips you can control the engines, horn, bow- and stern thruster and anchor winch.



IMPORTANT:
Read the Precautions section before the first use!

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1. What's in the box ?

- This user manual
- Installation manual
- The DOCKMATE receiver
- The DOCKMATE TWIST transmitter
- Lanyard
- All necessary wiring cut to length
- Antenna
- Battery charger

2. Precautions

To avoid damage to your DOCKMATE and hurting yourself or others, you should read the following safety precautions before using the device. Keep these safety instructions in an area where all users can read them. When in doubt, contact PPA-Electronics regarding the use or operation of the unit.

PPA-Electronics is not responsible for injuries or damage caused as a result of improper use or installation by a non-qualified technician.

- 2.1. **The transmitter is sensitive to magnetic fields. Keep it at least 1m from any devices that generate magnetic fields like compasses.** Otherwise the operation of the joystick can be disturbed.



- 2.2. **Do not put the transmitter that is switched on onto the wireless charger.** Always switch it off first, before charging. The charger generates a magnetic field, that will disturb the joystick when it is turned on.



- 2.3. Switch off the receiver when malfunctioning. If you notice smoke, or when an unusual smell escapes from the receiver, switch it off. Make sure not to get burnt. Continuing using the device may lead to injury. The receiver should be checked by an authorized dealer after shutdown.
- 2.4. Do not disassemble the transmitter or receiver. Touching the internal parts may lead to injuries. Repairs may only be performed by licensed technicians.
- 2.5. Do not use near flammable gases or liquids. This may cause an explosion or fire.

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- 2.6. Keep out of reach of children.
The devices contain small parts which can be swallowed by children.
Beware for suffocation by plastic packaging.
- 2.7. The DOCKMATE may only be used by persons who have the necessary skills of maneuvering a yacht.
- 2.8. Be careful with the lanyard.
Keep it away from small children (choking hazard).
- 2.9. Do not use the DOCKMATE when the transmitter or receiver have been immersed in water. The units may be damaged beyond repair. Test both devices before use with the boat in a safe environment.
Contact your DOCKMATE dealer when any abnormality is detected.
- 2.10. Make sure you can operate the DOCKMATE like an expert before actually using it in a crowded harbor.
- 2.11. In very exceptional circumstances, the communication between the transmitter and receiver can be disturbed by radio frequency transmitters in the immediate neighborhood.
- 2.12. Never use the DOCKMATE if you are not on the ship. Remember that the use of the DOCKMATE from ashore or the jetty is a criminal offense in several countries.
- 2.13. Batteries should be charged as soon as the orange LED signal on the transmitter lights.
- 2.14. Please note that when the system is in operation each involuntary push on the buttons of the transmitter has an action as a result.
- 2.15. The transmitter and receiver may only be opened by an authorized technician.

3. Installation

The installation has to be done by a qualified engineer.
Our system consists of two major components; a transmitter and a receiver. These have already been paired so they recognize each other.

3.1. Installation of the receiver

Dimensions : 22 x 22 x 5,4 cm.

Install the receiver in a dry, not too warm area.

Install the receiver free of vibrations.

Place the receiver close to the dashboard, as close as possible to the controls of the parts to be controlled (throttles, horn, anchor winch, bow- and stern thrusters).

Please note that one-time settings are needed at the receiver.
(accessible by screwdriver?)

4. Use of the DOCKMATE



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We recommend that you always wear the lanyard around your neck while using the DOCKMATE.

The transmitter has the following features :

- ▶ **LINK LED**
Shows the status of connection with the receiver.
- ▶ **Status LED**
Shows the status of the transmitter
- ▶ **BUZZER**
Indicates no communication or low battery.
- ▶ **Keys anchor winch**
*By pressing the upper button you lower the anchor.
By pressing the lower button, you go anchor up. When pressed together, you can choose between windlass 1 and 2 (2 or 4 beeps) if the Dockmate receiver is fitted with AnchorX2 module.*
- ▶ **On / Off button**
*Press and hold to turn the transmitter on. Press 3 times quickly or hold for 3s to shut it off.
NOTE: When this button is pressed other signals are inhibited for safety, so the boat controls go to neutral, regardless of the position of the joystick.*
- ▶ **Take Command button**
*Pressing this button makes the Dockmate the active steering position.
NOTE: With the Gearbox driver installed it has no effect – Dockmate is always active then.*
- ▶ **Keys bow thruster:**
*By pressing the left button (port) the bow thruster gives thrust to the right so the bow is moving to the left.
By pressing the right button (starboard) the bow thruster gives thrust to the left so the bow is moving to the right.*
- ▶ **Keys stern thruster :**
*By pressing the left button (port) the stern thruster gives thrust to the right so the stern is moving to the left.
By pressing the right button (starboard) the stern thruster gives thrust to the left so the stern is moving to the right.*
- ▶ **Joystick:**
*By moving the joystick forwards, both engines (or one in single engine configuration) are switched forward.
By moving the joystick rearwards both engines are switched to the rear.
Moving the joystick to the left makes both (if installed) thrusters move the boat to*

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the left.

Moving the joystick to the right makes both thrusters move the boat to the right. Moving the joystick forwards and right in a 45° angle causes the left engine to go forward and makes the boat steer to the right.

The other 45° angle positions on the joystick work on the same basis.

The Dockmate Twist can be fully programmed by your dealer so that combining engines and thrusters in any position of the joystick is possible.

Twisting the joystick knob to the right causes the boat to rotate to the right (left engine switched forward, right engine switched rearward).

Twisting the joystick knob to the left will do the opposite.

Pressing the knob of the joystick will sound the horn.






When a “SpeedCtrl” Module is installed in the Dockmate receiver you can control the engines throttle by varying the pressure on the joystick.

When the thruster modules with SpeedCtrl are installed in the Dockmate receiver you can control the thrusters’ power by varying the pressure on the joystick

5. Charging the batteries

The Dockmate TWIST transmitter is fitted with a Li-Ion battery that has to be charged occasionally.




When the Dockmate TWIST transmitter is turned on, both LEDs will go white. Then the Status LED will show one of the following:

	Battery fully charged	More than 3.90V
	Battery OK	Between 3.45V and 3.90V
	Battery Warning	Between 3.45V and 3.30V
	Battery Failed	Less than 3.30V
	Battery Failed	Less than 3.00V

It is not possible to turn on the transmitter when the battery voltage drops below 3.30V.

It is highly recommended to charge the transmitter when the LED shows orange on the starting up.




The Dockmate TWIST transmitter will start to charge when placed on the Dockmate wireless charger. The LEDs on the charger will change in color from blue to green indicating the charging process. Also the Status LED on the transmitter will start to flash in different colors depending on the battery percentage (0-50%: , 50-80% : , 80-100% ).

When charging is completed the Dockmate transmitter will shut down automatically.





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6. Turning the transmitter on and off




Press the  key for 1 second to turn on the transmitter.

The transmitter will be automatically switched off after 30 minutes of non use. Alternatively the transmitter can be switched off by pressing 3 times the  button or holding it down for 3 sec.

After the transmitter is switched on, both LEDs will go white. Then the LINK light will go dark and the **STATUS** LED will show one of following:

	Battery fully charged	More than 3.90V
	Battery OK	Between 3.45V and 3.90V
	Battery Warning	Between 3.45V and 3.30V
	Battery Failed	Less than 3.30V

Then it will go dark and the **LINK** light will show the communication status:

	Communication OK, actively transmitting data	When moving the joystick or pressing a button
	Communication OK, standby mode	When not moving the joystick or pressing any button for more than 15s
	Communication lost	When communication could not be established or was interrupted. The transmitter also beeps.

Depending on the equipment of the boat (gear lever system) the Dockmate can automatically take command after the transmitter is switched on. You can also take over command by pressing the "SEL" button.

7. Maintenance

The installation is 100 % maintenance free, except for battery charging.
Eventually the transmitter and receiver can be cleaned with a damp cloth.

8. Troubleshooting

PROBLEM	POSSIBLE CAUSE	SOLUTION
The receiver does not work.	The Dockmate transmitter is switched off. The Dockmate receiver does not receive D/C Volts.	Switch on (see point 6 in this manual). Check : fuse blown ?
The transmitter does not work.	The batteries are empty.	Charge the batteries (see point 5 in this manual).
The LED low battery on the transmitter is on.	The batteries are empty.	Charge the batteries (see point 5 in this manual).
The transmitter has fallen in the water.		Rinse with clear water and dry with a soft cloth. Open the transmitter by unscrewing the 4 screws on the back (behind) the grey rubber and put the transmitter in a well-ventilated area for 24 hours. Assemble and test the transmitter before use with the boat in a safe environment.

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9. Technical specifications

Transmitter

Battery	:	360mAh Li-ion
Housing	:	ABS + rubber according to IP67 specifications
Dimensions	:	70 x 150 x 40 mm
Weight	:	ca. 150 gr
Frequency	:	433,1 – 433,6 MHz
Operating temp.	:	-5°C to +50°C

Receiver

D/C Volts	:	12-24 V D/C
Housing	:	ABS according to IP50 specifications
Dimensions	:	22 x 22 x 6 cm
Weight	:	ca. 950 gr
Frequency	:	433,1 – 433,6 MHz
Operating temp.	:	-5°C to +50°C

10. Environmental Information

The equipment that you have bought requires the extraction and use of natural sources for its production. It may contain substances that are hazardous to health and the environment.

In order to avoid the dissemination of those substances in our environment, and to diminish the pressure on natural resources, we encourage you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials of your end-of-life equipment in an environmentally sound way.

The crossed-bin symbol marked on your device indicates you should use these systems.



If you need more information on the collection, reuse, and recycling of this product, please contact your local or regional waste administration. You can also contact us for more information on the environmental performance of our products.

11. Product registration

In order to benefit from our 3 years factory warranty, please go to www.dockmate.eu/productregistration and fill out the form.

12. Warranty

Each DOCKMATE has a 3-year warranty from the date of registration by the first owner. The warranty covers all defects and failures that are not caused by the customer. The manufacturer will repair or replace your product free of charge on the following conditions :

- The warranty is not valid in case of improper installation or improper use of the device. Products must have been used strictly in accordance with operating instructions supplied. Dockmate will have no liability for defects caused by accident, misuse, alteration or neglect.
- The electrical components must remain complete. They may not be disassembled, not tampered with, nor be modified in any way. The use of non-original electronic accessories can damage the device. This is not covered by the warranty.
- When the receiver has water damage, the warranty is not valid.
- Returns of defective equipment under this warranty :
 - ° Before returning, please contact the vendor of the device by phone or e-mail
 - ° Always include a brief description of the problem that occurs.
 - ° Do not forget to include your full contact and delivery details : name, telephone, complete address
 - ° To avoid damage during shipment, the unit must be adequately packaged. The manufacturer will accept no liability for units lost or damaged in transit from the customer.
 - ° Shipment costs are always for the buyer.
- The liability of the manufacturer is limited to replacing or repairing the unit. The manufacturer decides whether the device will be repaired or replaced.
- The buyer agrees that the liability of the manufacturer is limited to the purchase price of the equipment, regardless of the circumstances. The manufacturer is not responsible for damages resulting from the use of the device. The manufacturer can never be held responsible for any accidents and / or damage caused to persons and / or property.
- The repair or replacement of the equipment during the warranty period, does not extend the original warranty period.
- Without warning the manufacturer may at any time make changes to the specifications of the device, both to the hardware and the software.
- The manufacturer has taken all the necessary steps to ensure that the information in this guide is accurate and complete.

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