Warranty:

The Product is guaranteed free from defects in design, material and workmanship, for a period of 1 year from the invoicing of the Product to the Consumer. The application of any guarantee is excluded in case of use of the Product that does not conform to that of the Product itself and the instructions provided in the package or in the absence of presentation by the Consumer, in the context of the complaint, of the invoice as proof of the validity of the warranty period.

In the event of a defect on the Product within the terms of the warranty, the Consumer is required to contact the Seller from whom he purchased the Product to agree on the return for the analysis of the return. The authorization to return the Product will in no way constitute recognition of defects or non-conformities, the existence of which must be ascertained by the Manufacturer after the return of the Product. The costs of returning the Product are charged to the Consumer.

Once the actual non-conformity of the Product has been verified, the Manufacturer will decide, at its own discretion, whether to proceed at its own expense with the repair or replacement of the defective Product. In any case, the Manufacturer cannot be liable to the Consumer for economic, business and contract losses or for damage to image deriving from any non-conformity of the Product.

While using materials suitable for use in salt water, some of them may show signs of oxidation / corrosion over time. The Manufacturer cannot be held responsible for any oxidation / corrosion phenomena of the metal parts. Any problems arising from normal deterioration of the Product are excluded from the warranty.

When you lose the warranty of the assurance

- the price of the Product is not paid within the agreed terms;
- the instructions provided by the Manufacturer for the use, installation and maintenance of the Product are not observed:
- the Product has been modified without the consent of the Manufacturer;
- the Product has been used for a use other than that indicated in the instructions provided in the package
- there has been an attempt to repair the Product not made by the Manufacturer.
- when the damage to the product is attributable to the environmental conditions in which it operates or to phenomena not dependent on normal operation, such as irregularities in the voltage values or in the power supply current.

Note

The disputed Product must be returned complete in all its parts, in its original packaging and in perfect condition; failing that, any lack or damage cannot be charged to the Manufacturer and the restoration of the conditions will be borne by the Consumer.

In any case, the guarantee does not include accessory costs such as, purely by way of example, transport, shipping, travel, boring, miscellaneous, labor.

Recommendations

Upon delivery of the Product, check that it has not been damaged during transport.

During storage, the spotlight and all its accessory components must be protected from damage. The area intended to accommodate the Product must be sufficiently sturdy and flat to withstand the loads resulting from installation.

To install the Product, it is necessary to first make sure that the area where it will be housed is flat enough to allow fixing.

AMPERMARINE

Smart technologies for luxury yachts

(XWPT01)



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List of Contents

- 1. WUWLED wireless underwater projector
- 2. WUWLED transmitter
- 3. Filter box
- 4. Installation guide (XWPT01)
- 5. Wiring diagram
- 6. Fixing kit with fasteners (KFGX01), including:
 - Two internal supports
 - Two external supports
 - One centering tool. It's recommended to not

damage or dispose the centering tool after usage,

- as it may be used for future installations
- Two threaded nuts M4
- Two screws M4
- Two washers M4

Installation Guide

> NOTES:

- The following instructions are valid for use with fixing kit code KFGX01 (included).
- This fixing typology requires a minimum hull thickness of 30mm
- In case you may want to assembly the product with glue, please refer to the fixing codes
 KFCA01 and PICA01 (sold separately)

1. Assembly Projector

Before starting the installation, find where to position the projector. In working condition, the projector MUST ALWAYS stay below the waterline. Check if the internal part of the hull is free from obstacles and has the necessary space to place the transmitter. Also check that the thickness of the hull at that point is constant and at the least 100mm.

Once you have chosen the point where to install the projector, position the centering template:

1.1. Take the centering sheet inside the product box. Put the sheet on the chosen area and keep it stretched (fig. 1).

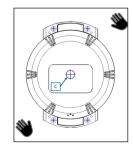
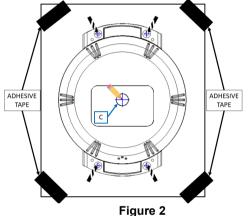


Figure 1

- 1.2. Secure the sheet on the 4 corners with adhesive tape (fig. 2).
- 1.3. Make 2 appropriate pre-holes in the 2 points marked on the hull (Ø 4mm, screwing depth: 24mm)



- 1.4. Mark piercing the sheet in the point C to indicate the center of the projector that will be the reference for the positioning of the transmitter (fig. 2).
- 1.5. Measure the coordinates (horizontal and vertical) from the center of the template and something that pass through the hull. Save these coordinates to place the transmitter later
- 1.6. Insert the two threaded nuts on the seats of the internal support (fig. 3).



Figure 3

1.7. Place the two internal support (2) as per fig. 4 and fix them using the provided AISI 316 screws (self-screwing, \emptyset 6.3mm, length 32mm, not supplied)

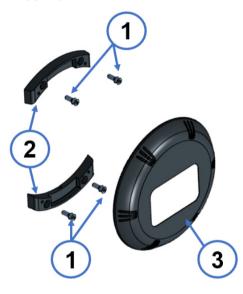


Figure 4

1.8. Take the projector, orientate it like in fig 5 and place it between the internal supports fixed on the hull.

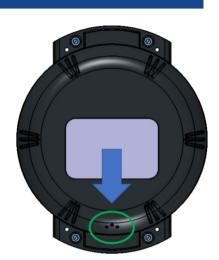
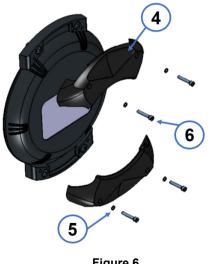


Figure 5

1.9. Take the external supports (4) (fig. 6) supplied and proceed with fixing with washer (5) and screws (6).



2. Assembly Transmitter

Before starting the installation, prepare the surface where the transmitter will be placed. Clean the surface using degreasing products removing trace of oil, dried salt and every element that could be compromise the perfect fixing of the transmitter on the hull.

- 2.1. Using the coordinates of the point 1.5, find the center of the transmitter and mark it on the hull.
- 2.2. Draw a line parallel to the waterline 133.5mm above the center just marked (fig. 7).

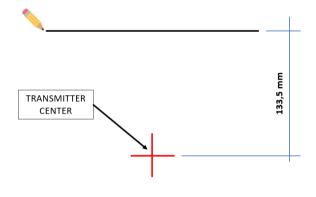


Figure 7

2.3. Draw a line perpendicular to the line just marked 133.5mm from the center (fig 8).

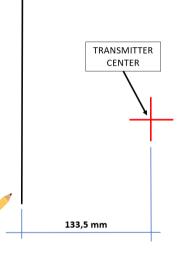


Figure 8

- 2.4. Make sure that the minimum distance between transmitter and projector is 90mm (MAX 100mm). if necessary, use spacers (strictly non-metallic) in order to reach the required distance.
- 2.5. Apply on the entire surface of the base of the transmitter silicone paste for marine use that does not contain particles or metal additives (fig. 9).



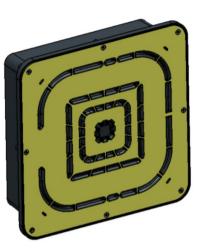


Figure 9

2.6. Apply the transmitter aligning it to the two perpendicular lines previously drawn (fig. 10).



Figure 10

2.7. Carefully, without moving the transmitter, secure it using adhesive tape (large enough) and keep it for 24 hours. Be sure to avoid contact with water during this time, respecting the indication of the bonding product used.

Note:

After 24 hours, gently remove the tape from the transmitter.

Power supply

- Please refer to the attached wiring diagram for visual reference
- Very important: The calibration of the product SHALL be done singularly. During the calibration of the first WUWLED, no other WUWLED have to be wired to the supply power. See the product calibration section for additional details.

For the connection the following materials are necessary:

- 2 unstable SWITCHES (5A/250V, N.O.). Recommended use IP67 waterproof switch. Mark the two buttons so to be recognizable to determine the blue or white lighting of the spotlight (for example **B** for blue and **W** for white). Recommended: Pulskit24 (not included)
- 4 electrical cables (AWG24 = minimum copper section 0.2mmq) of different colors, of sufficient length to connect the transmitter to the switches.
- 2 electrical cables (AWG13 = minimum copper section 2.5mmq) of color red/black, of sufficient length to connect the transmitter to the general power supply.
- The use of a magneto-thermic switch of 3A (not supplied) for the WUWLED on the general power supply is recommended.
- Appropriate terminals for connection between electrical cables.
- Electrician scissors.
- Cable ties.
- Electronic filter box (provided inside the WUWLED box)

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Follow the provided wiring diagram drawing to power up the product.

Filter Vs Transmitter:

- 1. Connect the transmitter green and yellow cable to the corresponding green and yellow cables coming from the filter, using the appropriate terminals.
- 2. Connect the transmitter white and brown cable to the corresponding white and brown cables coming from the filter, using the appropriate terminals.
- 3. Connect the red wire of the transmitter to the red wire of the filter.
- 4. Connect the black wire of the transmitter to the black wire of the filter.

Filter Vs switch:

- Connect the switch terminals (previously called W) to the green and yellow cables coming from the filter, using the appropriate terminals (polarityindependent connections).
- 2. Connect the switch terminals (previously called **B**) to the white and brown cables coming from the filter, using the appropriate terminals (polarity-independent connections).
- Connect the red wire of the filter to the red wire (AWG13) that will be connected to the power supply using the appropriate terminals.
- 4. Connect the black wire of the transmitter to the red wire (AWG13) that will be connected to the power supply using the appropriate terminals.

Filter Vs Earth connection:

1. Connect the earthing wire(yellow-green wire), to the earthing on-board conductor.

Product calibration

Very important: The calibration of the product SHALL be done singularly. During the calibration of the first WUWLED, no other WUWLED have to be wired to the supply power. When the calibration of the first WUWLED is done, remove it from the supply power and proceed to the calibration of the second WUWLED, and so on. Only when each WUWLED has been calibrated you can connect all of them at the same power line.

Make sure there are no metallic objects or other electronic devices within 40 cm of the product. Once the assembly phase has been completed, the Product must be calibrated as indicated below:

➤ press and hold the button corresponding to **BLUE** color, after 5 seconds continuing holding **BLUE** button pressed, press and release the button corresponding to **WHITE** color 3 times, then release both buttons and wait for 90 seconds.

Press the blue or white button to turn on the spotlight. To turn off the device, press both buttons simultaneously. Always following the wiring diagram provided, it is possible to control the switching of the device via the dashboard.

> Note:

If the product is uninstalled and reinstalled, the calibration must be performed again. When applying the antifouling cycle pay attention to exclude the glass area.

Periodically clean the glass to remove any deposits that could alter the intensity of the light beam. The glass can also be cleaned with the boat in the water.



Always keep a distance of minimum 40cm from the transmitter when in use.