

03

INSTALLATION GUIDE

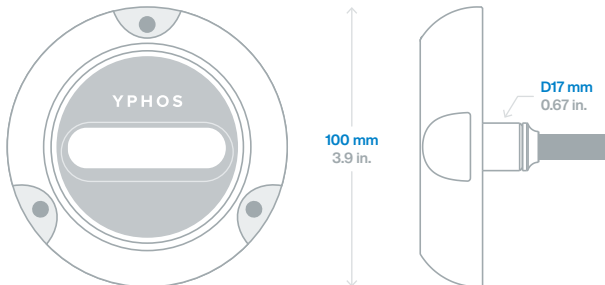
**YPHOS**



## Congratulations on your new lights! Evenings at the boat are going to be so much better.

This guide will assist you to install your new YPHOS lights. The following instructions refer to GRP (fiberglass) and wooden hulls – for other types of hulls please contact us for correct guidance. Always make sure that you are familiar with the operations to be done and consult a specialist to install the lights.

Always follow safety procedures and pay attention to all steps to ensure the longevity of your new lights. Always wear protective gear and take safety first.



## Intended Use

Model 03 is designed to operate as an LED illumination unit for mounting on GRP or wooden boat hulls. It can be installed partially or completely submerged in both fresh and sea water and can be used anytime – while the boat is still or underway. This installation manual does not supersede any National or Local Electrical Code.

## Important Warnings

- Installation must be performed by a qualified installer.
- Installation must be done outside of water.
- Choose a flat area, easily accessible from the inside to mount the fixture.
- Install this fixture only on transom or sides of the hull.
- Do not use power tools to secure the fixture.
- Do not use solvents to clean the fixture.
- Do not modify whole or any part of this product.
- Wear personal protection gear during installation.
- Complete an electrical mock-up before you modify the boat.
- This is a 12-24V DC light fixture. Do not connect to mains or other voltage than 12-24V DC.
- Do not look directly at the LEDs when in operation.
- Isolate power source prior to electrical installation.
- Each light should be individually fused.
- Do not allow exposed cable ends to come in contact with water. Capillary action will allow the ingress of water through the cable, damaging the fixture or corroding the cable. This is not covered under warranty.

## In the Box

Make sure that all the elements shown below are in the box. If you are missing elements or parts show signs of wear or damage, do not start the installation.



Model 03 LED Fixture  
with 3m (9ft) cable



2 x Fuses



3 x Tapping Screws  
DIN7981 C PHIL 4.2x32 A4

## You will also need:



Power Drill



Drill Bit  
Ø19mm (3/4")



Drill Bit  
Ø3mm (1/8")



Crosshead  
Screwdriver



Sealant  
3M™ Marine Adhesive  
Sealant Fast Cure 4200FC  
or similar



Clean Cloths

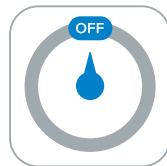
## Inspect & Test the Light

Apply voltage to the light and confirm that it works as intended before installation. Complete a connection mock-up with all the necessary equipment before you make any modification to the hull.



## Switch off power

This protects you and avoids damaging your equipment. Isolate the battery or power supply to make sure that your system is off.

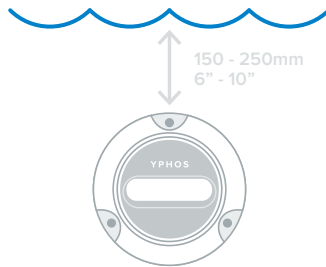


## Find the right spot

Select a flat surface to install the light fixture and make sure that you have full access to the inner side of the hull.

Make sure that no obstacles are restricting in any way the mounting screws or the cable.

Recommended installation depth is 150-250mm (6" - 10") below the water line.



## Prepare the Area

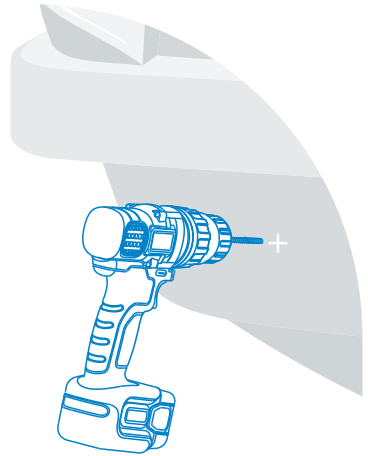
Use the provided template to mark the drilling locations.

Thoroughly clean the surface and remove any debris, coatings, fluids or solid particles to ensure proper adhesion.

## Drill

Use a  $\varnothing 3\text{mm}$  (1/8") drill bit for the screw pilot holes and a  $\varnothing 19\text{mm}$  (3/4") drill bit for the cable hole.

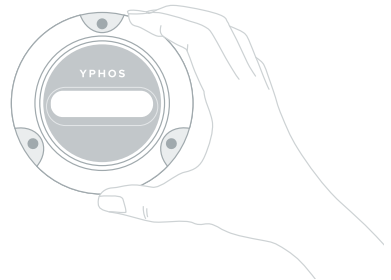
Clean the surface again before you continue.



## Dry Fit

After the surface is completely clean and dry on both sides, gently guide the cable through the cable bore and dry fit the fixture onto the hull.

Make sure that the light fixture fits properly, the holes are aligned and that the fixture sits flat on the hull before proceeding to the next steps.



## Apply the Sealant

Gently pull the fixture away from the hull. Apply a continuous bead of sealant on the back of the luminaire and inside the drilled holes on the hull. Align the fixture with the pilot holes and press firmly against the hull.

Use 3M™ Marine Adhesive Sealant Fast Cure 4200FC or similar.

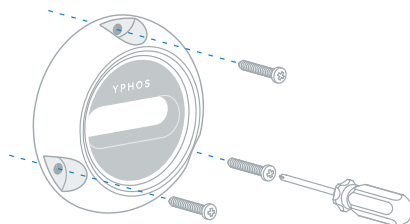


## Mounting

Use a crosshead screwdriver to fix the fixture onto the hull. During this step, sealant should be evenly squeezed around the fixture.

If there is any dry spot around the fixture, repeat the previous step and make sure that you apply more sealant.

Use a soft cloth to remove any excess of sealant. Add extra sealant in the inner side of the hull, around the hole.



Tighten the screws only with a hand tool - do not use power tools.

## Let the Sealant Cure

Let the sealant fully cure before you launch the boat back into the water and do not leave your boat unattended for the first 24 hours. Inspect for leaks during this time and act accordingly if needed.

Consult the sealant's manufacturer guide to learn how long it takes for the sealant to fully cure.





## Electrical Guidelines

Do not connect the lights to any voltage other than the rated 12V-24V DC. Isolate power source prior to installation.

Color coding of Model 03 wires is as follows:

Red: **12V or 24V DC**

Black: **Ground**

Blue: (present in some models): **Y:link**

Always use appropriate type and size of cables. If you extend the factory built-in cables, always make waterproof connections and make sure that the correct cable gauge is used following the ABYC recommendations for DC connections.

Individually fuse each light - consult the table below.

Secure the cables and make sure that the wires are not under stress.

If lights are not synchronized, turn off for 10 seconds and on again. The Y:link enabled lights offer absolute synchronisation between fixtures and can also be addressed.

## Fuse recommendations

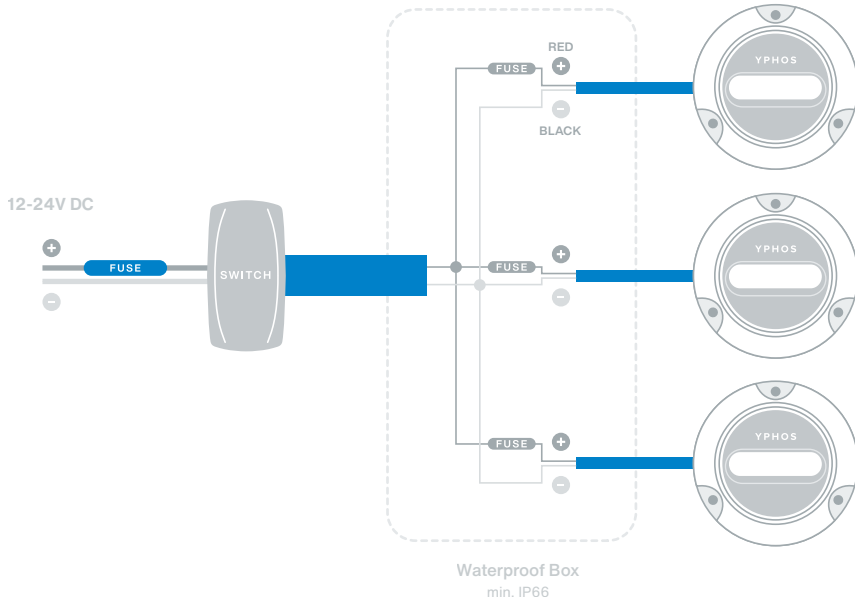
Individually fuse each light with the appropriate type of fuse. Consult the table on the right to select the correct fuse rating for your lights.

Two blade-type fuses are supplied with each light. These fuses are compatible with the YPHOS Hubs (fused Junction Boxes) and any blade fuse holder.

Version	24V	12V
White	4 A	8 A
Blue	4 A	8 A
White + Blue	4 A	8 A
RGBW	4 A	8 A

## Basic Wiring Diagram

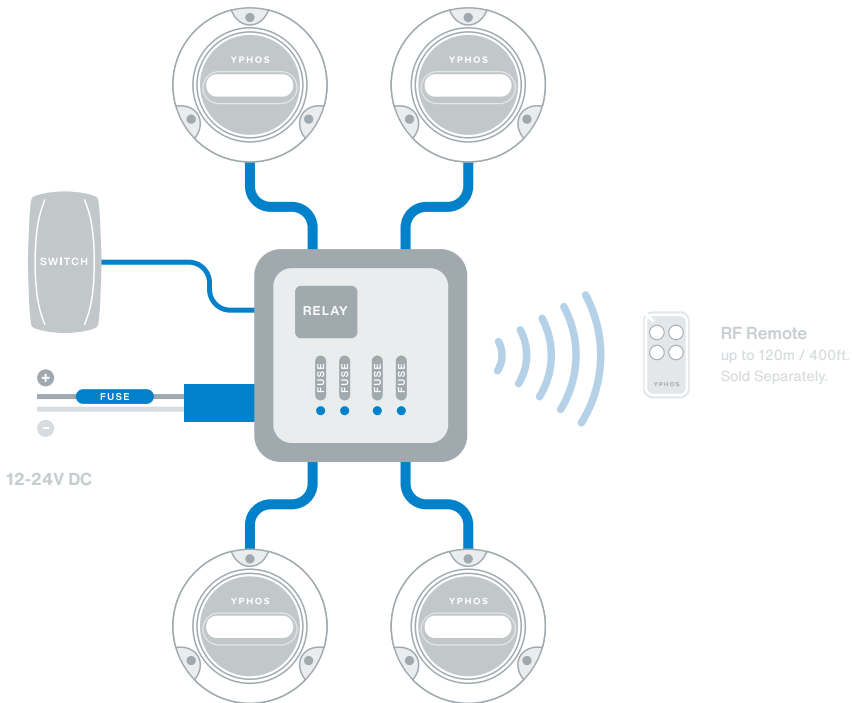
applies to: 03 White  
03 Blue  
03 Dual Color  
03 RGBW Standalone<sup>1</sup>



Each light should be individually fused with the appropriate fuse.

## Wiring Diagram for YPHOS Hubs (Fused Junction Box)

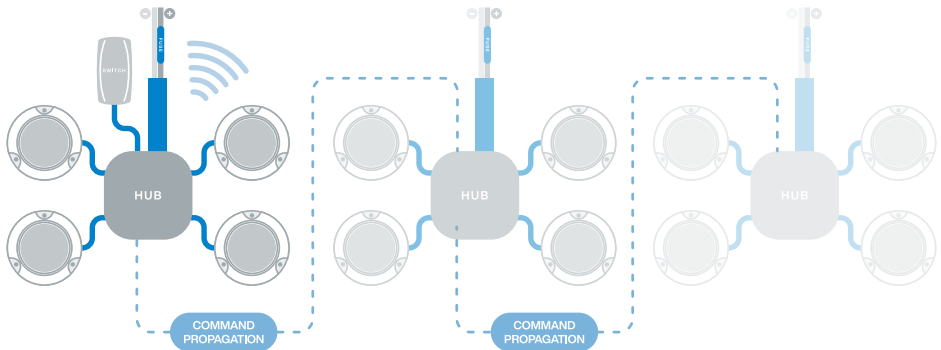
applies to: 03 White  
03 Blue  
03 Dual Color  
03 RGBW Standalone<sup>1</sup>



<sup>1</sup> Standalone mode refers to using the Model 03 RGBW without using/connecting the Y:link (blue wire). Refer to the Y:link Hub installation manual for more information regarding Model 03 Y:link wiring.

## Wiring of Multiple Yphos Fused Junction Boxes

Each fused Junction Box (Basic Hub or Y:link Hub) can be used with up to 4 fixtures. You can interconnect multiple Hubs to power and control more lights. Commands through the switch, the RF remote or the Y:link channel are propagated from one Hub to the next.



You can also use the Model 03 RGBW with the WiFi Brain and the smartphone app.

You can use the Model 03 RGBW with addressable DMX/RDM functionality. Contact us for more information.

## Operation Modes

All Model 03 fixtures have integrated operation modes to enhance the experience. You can cycle through the modes by triggering the control switch OFF and ON again within 2 seconds. The operation modes follow a cycle pattern as follows:

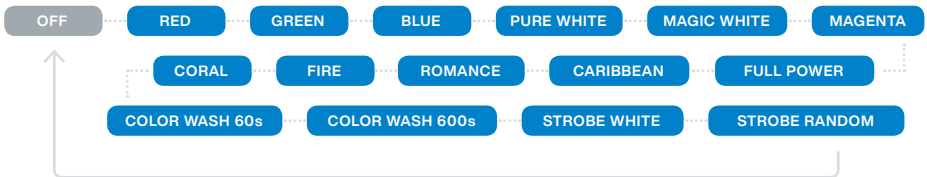
### 03 Single Color



### 03 Dual Color



### 03 RGBW



When connected to an Y:link Junction Box or Controller, Model 03 RGBW lights have additional presets and more elaborate light shows. Use the YPHOS app for even more extensive control options.

## Maintenance

YPHOS lights do not require scheduled maintenance. All parts are designed and manufactured to last for years. However, we do recommend using a soft cloth or sponge to clean the lens from algae or sea growth to maintain maximum light efficiency. This will be done easier if performed while the light is still in the water. Getting the boat out of water will allow these formations to harden and scrubbing may damage the product nano-coating and finishing.

## Troubleshooting

### Light does not turn on

Check that power is supplied to the light and that there is no damage to the wiring.

Check if fuse is blown or if polarity is reversed. If you are using YPHOS Hubs, check the on-board LED indications.

### Light appears dim or less bright than normal

Check that the lens is clean. Confirm that voltage is 12-24V DC and stable. Make sure that the correct cable type and gauge has been used and that cables are not damaged.

### Light is flickering

Flickering can be caused if voltage is below the rated values. Make sure that flickering is not confused with the Strobe mode.

## Warranty

All YPHOS model 03 lights are covered by a warranty against defects in material and workmanship that affect the proper operation for a period of 2 years from the date of original purchase. The obligation of YPHOS under this Warranty is limited to the repair or replacement, at YPHOS's decision, of defective YPHOS products or parts. No other, consequential or not, direct or indirect damages are covered by this Warranty and YPHOS. Damages to the product occurring from improper use, installation, shipping, neglect or by disasters are not covered by this Warranty.

For more information visit [www.yphos.com/warranty](http://www.yphos.com/warranty)



