





# MR16 RGBW Lights Installation/Operation Manual



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## Safety Instructions

 <b>WARNING</b>	
	<p>PLEASE READ THIS MANUAL COMPLETELY BEFORE INSTALLING AND USING THIS PRODUCT. SAVE THIS MANUAL FOR FUTURE REFERENCE AND KEEP IN THE VICINITY OF THE PRODUCT.</p>

**ALL ELECTRICAL WORK MUST BE PERFORMED BY A QUALIFIED LICENSED ELECTRICIAN AND CONFORM WITH ALL APPLICABLE ELECTRICAL SAFETY CODES**

Tous travaux électriques doivent être effectués par un électricien professionnel qualifié et conforme à tous les codes applicables sécurité électrique

**ALWAYS SWITCH OFF/DISCONNECT ALL EQUIPMENT IN THE WATER BEFORE SERVICING OR PERFORMING ANY MAINTENANCE**

Toujours éteindre l'équipement dans l'eau avant entretien ou de tout entretien

**DO NOT OPERATE THE FOUNTAIN WHEN PEOPLE ARE IN THE WATER**

Ne pas utiliser la fontaine quand les gens sont dans l'eau

**CAUTION: KEEP HANDS CLEAR OF THE IMPELLER WHEN OPERATING!**

ATTENTION: Garder les mains loin la turbine lors de l'utilisation!

**! WARNING !**




**ELECTRICAL SHOCK HAZARD**

Disconnect From Electrical Supply  
When Servicing This Equipment

Unplug Or Switch Off All Appliances In The  
Water Before Carrying Out Maintenance

This Product Must Be Properly Grounded

**DANGER**

STAY OUT OF WATER WHEN  
EQUIPMENT IS ENERGIZED





**WARNING**

HAZARDOUS VOLTAGE.  
Contact may cause  
electric shock or burn.  
Turn off and lock out  
power before servicing.

**DANGER**

**SPINNING IMPELLER**  
TURBINE ROTATIVE



**KEEP HANDS CLEAR**  
TENIR LES MAINS ÉLOIGNÉES

### WARNINGS

- Before entering, wading in or swimming in the water in which Otterbine Aerators or Fountains are installed, make sure they are **PHYSICALLY** disconnected from their electrical power sources.
- Aerators located in or near garden ponds and similar locations must be equipped with Ground Fault Circuit Interrupter.
- The permissible temperature range for this equipment is -12<sup>o</sup> to 40<sup>o</sup> C/10<sup>o</sup> to 104<sup>o</sup> F.
- If the power cord is damaged, it must be replaced by a special cord or assembly available from Otterbine/ Barebo, Inc. or an authorized Otterbine/Barebo, Inc. sales and service center.
- Avant d'entrer, pataugeant dans ou en nageant dans l'eau dans laquelle Aérateurs Otterbine ou fontaines sont installées, assurez-vous qu'ils sont physiquement déconnectés de leur source d'alimentation électrique.
- Aérateurs situés dans ou à proximité des bassins de jardin et des emplacements similaires doivent être équipés de disjoncteur.
- La plage de température admissible pour cet appareil est -12 o à 40 oC/10 o à 104 oF aux.
- Il est possible pour que l'eau devient légèrement polluées dans les rares cas où une fuite d'huile se produit.
- Si le cordon d'alimentation est endommagé, il doit être remplacé par un cordon spécial ou de montage disponible à partir Otterbine / Barebo, Inc ou une autorisation Otterbine / Barebo, les ventes Inc et centre de service.

## Lamp Installation

**IMPORTANT: Always replace the sealing O-ring when changing the lamp.**  
(O-ring is included with Otterbine lamp replacement kits)

### Lamp Replacemet Kit

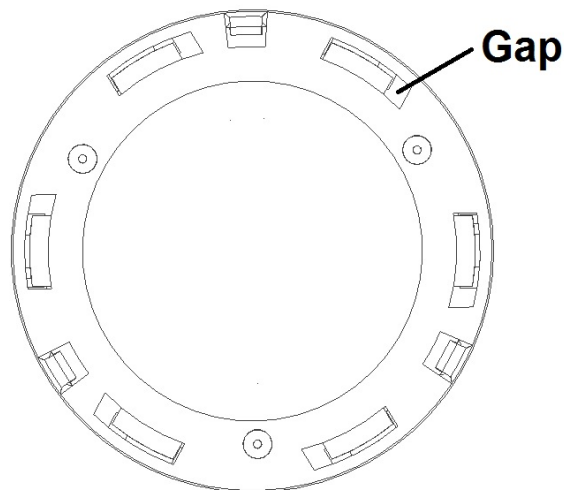
PN: 09-0030-060 (MR16 RGBW Lamp w/O-ring)

- A. **Physically disconnect the power from the unit and the light set.** Allow the lights to cool to avoid skin burns.
- B. Remove the light fixture(s) from the float and from the water. Dry excess water off of the light fixture.
- C. Remove the light ring from the housing by twisting it counter-clockwise and lifting it off.
- D. Remove the glass lens and O-ring.
- E. Remove the lamp by pulling it straight out of the socket.
- F. Push the lamp pins straight into the socket to avoid damage.

**Note: The socket will be damaged if the lamp is not installed properly, be certain the lamp pins are in straight alignment with the socket when removing and replacing the lamp.**

- G. Reinstall the glass lens and a new O-ring onto the top of the housing. Place the light ring on top of the housing so it rests in the tabs and twist it clockwise until it snaps into place.

**Note: If the light ring is on the housing properly, there will be approximately a 1/8" gap to the right of each tab on the housing when looking from the top. If this gap is not present, the light ring is not on properly and needs to be twisted further clockwise.**



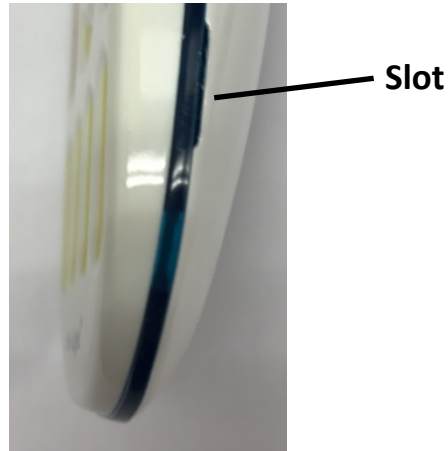
- H. Reinstall the light fixture(s) to the float.
- I. Reconnect power to the unit and the light set.

## Wireless Remote Control

The lamps may be controlled by the wireless remote control. The wireless remote control operates at 2.4GHz and is capable of controlling lamps in up to four (4) zones. It has a maximum range of 30m (98ft).

## Batteries

The wireless remote control uses two (2) AAA batteries. Batteries can be replaced by removing the rear cover of the remote control. There is a small slot located on the lower side of the remote. Use a fingernail, screwdriver, or other tool to begin to pry the cover off. Slowly work your way around the cover until it comes off.



Replace batteries observing the correct polarity.



Replace cover by snapping the cover back on the unit.

## Linking

In order for the remote to control the lamps, the lamps need to be linked to the remote. The remote control can control lamps assigned to four (4) zones. When a remote is supplied with a set of lamps, the lamps will be linked to zone 1. Follow the instructions below to link the lamps to a remote:

- A. Turn power off to the lamps.
- B. Turn power on to the lamps
- C. Within three (3) seconds of turning on the lamps, press the desired zone on button three (3) times.



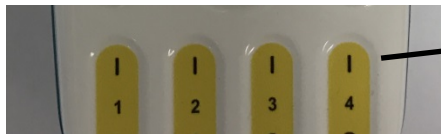
**Zone On Buttons**

- D. If successful, the lamps will blink three (3) times and then be steady on.

## Unlinking

Follow the below instructions to unlink the lamp from the remote.

- A. Turn power off to the lamps.
- B. Turn power on to the lamps
- C. Within three (3) seconds of turning on the lamps, press the desired zone on button five (5) times.

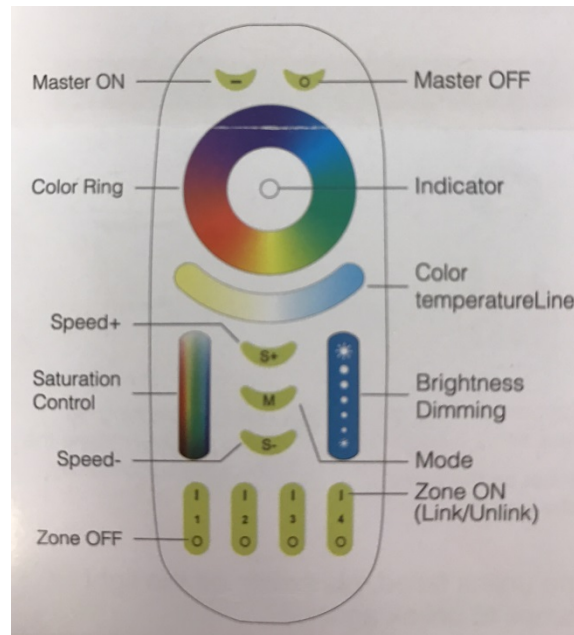


**Zone On Buttons**

- D. If successful, the lamps will blink ten (10) times and then be steady on.

## Operation

The remote uses a technology similar to a cell phone touch screen. The “buttons” on the remote are touch sensitive areas that will respond to fingers or a touch stylus. When the remote is sensing a touch, an orange indicator light will be visible in the center of the circular area on the face of the remote. If the remote gets stuck and the light will not go out, remove and replace the batteries to reset the touch sensor.



Button operation is described below:

- A. Master On – Will turn on all lamps linked to this remote.
- B. Master Off – Will turn off all lamps linked to this remote. Holding the master off button will set all linked lamps to night light mode.
- C. Color ring – Touch the area of the ring corresponding to the desired color to change the color of the lamps for the active zone.
- D. Indicator – Indicates that a button on the remote is being pressed. If the indicator light is blinking fast, it indicates that the remote batteries need to be replaced.
- E. Color Temperature – This area of the remote will change the lighting color of the active lamps to white and set the desired color temperature. Touching toward the right will select higher color temperatures and touching to the left will select lower color temperatures.
- F. Saturation Control – This control will adjust the amount of white light added to the selected color of the active lamps. The higher up the control, the more white light will be added.
- G. Brightness Dimming – This control adjusts the brightness of the selected colors for the active lamps. The higher up the control, the brighter the lights.
- H. Mode – This control will initiate one of the preprogrammed sequencing modes on the active lamps.
- I. Speed + – This control will speed up the preprogrammed sequencing mode if it is currently running on the active lamps.
- J. Speed - – This control will slow down the preprogrammed sequencing mode if it is currently running on the active lamps.
- K. Zone On – Turns on the lamps linked to zone 1 and makes zone 1 lamps active for the remote.
- L. Zone Off – Turns off the lamps linked to zone 1. Holding the zone off button will set all zone 1 lamps to night light mode.



## **WiFi iBox Controller - Optional**

The WiFi iBox controller allows the MR16 RGBW lamps to be controlled via smartphone app. The iBox provides a bridge between a WiFi wireless network and the RF control for the lamps. The iBox has a range of 30m (98ft) and must be located within 30m (98ft) of the lamps to be controlled. WiFi range is dependent on the device being used to connect to the iBox. Typical rule of thumb for the range of 2.4GHz WiFi is 46m (150ft) indoors and 92m(300ft) outdoors.

### **Installation**

The Mi-Light application will need to be installed on the device that will be used to control the lamps. The application can be found by searching for Milight in the apple store, searching for Milight from the Google Play store, or by scanning the code found in the instructions that come with the WiFi iBox controller.

The iBox controller is supplied with a cable and 5V USB power supply. Plug the power supply into an appropriate outlet and connect the cable from the power supply to the iBox controller. When the iBox controller is powered up, the sys light will blink.

When purchased with a set of lamps, the iBox controller will be shipped already linked to the supplied lamps and set for the controlling device to connect wirelessly directly to the iBox controller. The lamps will be linked to zone 2 of the iBox controller. For other configurations, please refer to the instructions provided by the manufacturer of the software.



## Troubleshooting

- A. Lamps don't turn on
  - a. Verify that the lamps have power.
    - i. The standard lighting transformer has a photo eye and only powers the lights when it is dark.
    - ii. If the lamps are on a timer verify that the timer is sending power to the lamps.
  - b. The lamps themselves have to be turned on in order for them to turn on with the power supply. Try turning on the lamps with the remote or smart phone. If the lamps are on a timer or photo cell, do not turn off the lamps with the remote or smart phone app.
  - c. Lamps are not linked to the remote / iBox controller. Relink the lamps.
  - d. Remote is set to the wrong zone. Try using the master on button.
- B. Remote indicator light is stuck on
  - a. Remove and replace batteries
- C. Remote indicator light flashing
  - a. Batteries are low – Remove and replace batteries.
- D. Lamps are on, but remote control doesn't control the lamps.
  - a. Incorrect zone selected. Try operating the lamps with each zone active.
  - b. Remote is out of range of lamps. Try operating from a closer location, or from a different angle.
  - c. Lamps are not linked to the remote. Relink the lamps.
  - d. Lamps are submerged. Water will block radio waves. Make sure the lamps are above the surface of the water.

**Limited 3 Year Warranty – 3 Months on Lamps**  
**Otterbine® Product**

**WARRANTY:** Barebo, Inc 3840 Main Road East, Emmaus Pennsylvania 18049, USA. hereby warrants, subject to the conditions hereinbelow set forth, that should the **OTTERBINE** product prove defective by reason of improper workmanship or materials at any time during the warranty period the Purchaser at retail will be guaranteed that **BAREBO** will repair or replace the said **OTTERBINE** product as may be necessary to restore it to satisfactory operating condition, without any charge for materials or labor necessarily incident to such repair or replacement, provided that:

- a) The enclosed Warranty Registration Card should be mailed to **BAREBO** within fifteen (15) days of the original receipt by the Purchaser at retail in order to avoid delays:
- b) The **OTTERBINE** product must be delivered or shipped, prepaid, in its original container or a container offering an equal degree of protection, to **BAREBO** or a facility authorized by **BAREBO** to render the said repair or replacement services or, if purchased from an authorized **OTTERBINE** dealer, to such dealer;
- c) The **OTTERBINE** product must not have been altered, repaired or serviced by anyone other than **BAREBO**, a service facility authorized by **BAREBO** to render such service, or by an authorized **BAREBO** dealer, and the serial number of the **OTTERBINE** product must not have been removed or altered: and
- d) The **OTTERBINE** product must not have been subjected to lightning strikes and other Acts of God, vandalism, freezing-in, accident, misuse or abuse, and must have been installed in conformance with applicable electrical codes (including proper electrical protection), and also installed, operated and maintained in accordance with guidelines in the Owner's Manual shipped with the Otterbine product.

No implied warranties of any kind are made by **BAREBO** in connection with this **OTTERBINE** product, and no other warranties, whether expressed or implied, including implied warranties of merchantability and fitness for a particular purpose, shall apply to this **OTTERBINE** product. Should this **OTTERBINE** product prove defective in workmanship or material, the retail Purchaser's sole remedy shall be repair or replacement as is hereinabove expressly provided and, under no circumstances, shall **BAREBO** be liable for any loss, damage or injury, direct or consequential, arising out of the use of, or inability to use, the **OTTERBINE** product, including but not limited to retail Purchaser's cost, loss of profits, goodwill, damages due to loss of product or interruption of service, or personal injuries to Purchaser or any person.

# *Water Works With Otterbine!*



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