



BRINGING THE OCEAN TO YOU,
WHEREVER YOU MAY BE®

INSTALLATION & MAINTENANCE GUIDE

FOUR-LAMP T5 HO LIGHT FIXTURES

Item #	Product Description
420013	4-Lamp T5 HO 20IN
420035	4-Lamp T5 HO 24IN
420151	4-Lamp T5 HO 30IN
420036	4-Lamp T5 HO 36IN
420037	4-Lamp T5 HO 48IN
420186	4-Lamp T5 HO 60IN
420038	8-Lamp T5 HO 72IN

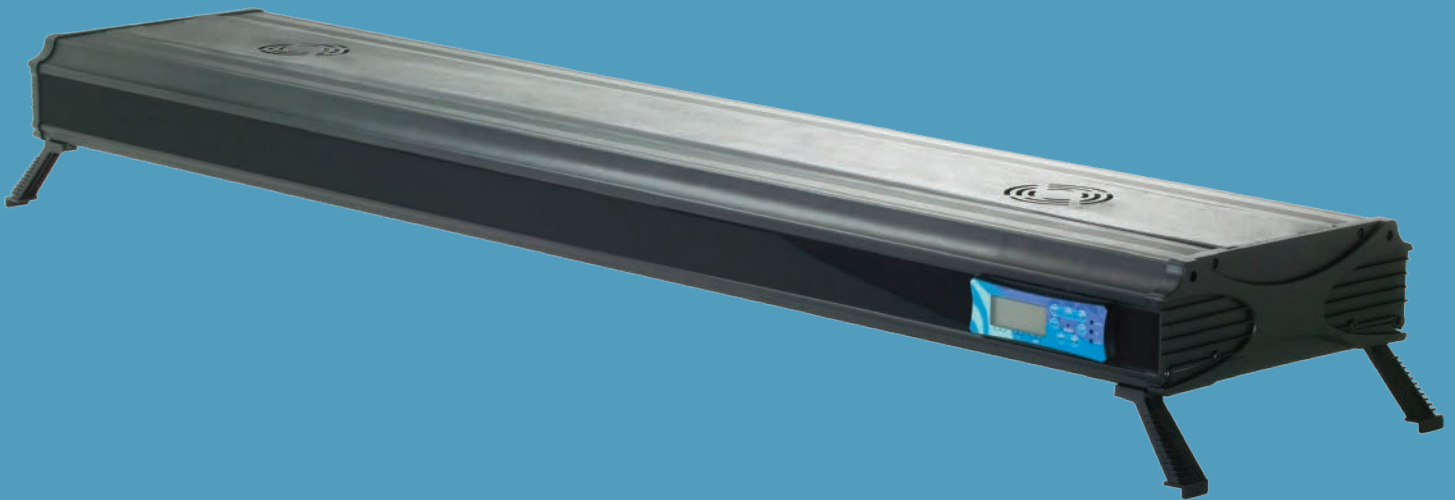


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This symbol indicates “**WARNINGS**” that are essential in order to protect against injury to people or damage to equipment.



This symbol indicates “**NOTES**” that are specific instructions on how to operate, control, adjust or maintain the units.



This symbol indicates “**TIPS**” that are intended to offer helpful advice for a better user experience.

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Thank you for purchasing an AquaticLife® Light Fixture for use with your aquarium!

We know you value quality and innovation and will be pleased with this product's performance.

We encourage you to take a few minutes to become familiar with this manual and note items that apply to your particular model. For additional information, please visit www.aquaticlife.com.

Your purchase includes a coupon on the side of the box. Save Life Rewards™ point coupons from Aquatic Life products and redeem them for free merchandise at www.aquaticlife.com. This is our way of saying thank you for your loyalty.



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Aquatic Life, LLC
Commerce, CA 90040
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customersupport@aquaticlife.com

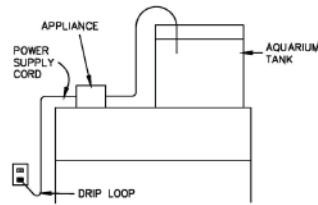
SAFETY INSTRUCTIONS



WARNING

TO GUARD AGAINST INJURY, BASIC PRECAUTIONS SHOULD BE OBSERVED, INCLUDING THE FOLLOWING:

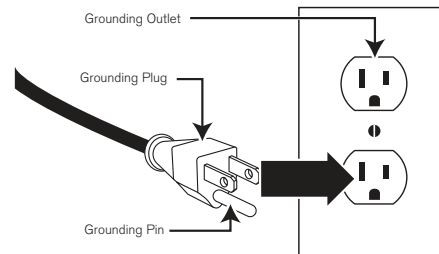
- A) **READ AND FOLLOW ALL SAFETY INSTRUCTIONS.**
- B) **DANGER** – To avoid possible electric shock, special care should be taken since water is employed in the use of aquarium equipment. For each of the following situations, do not attempt repairs by yourself; return the appliance to an authorized service facility for service or discard the appliance:
 - 1) If the appliance falls into the water, DON'T reach for it! First unplug it and then retrieve it. If electrical components of the appliance get wet, unplug the appliance immediately. (Non-immersible equipment only)
 - 2) If the appliance shows any sign of abnormal water leakage, immediately unplug it from the power source. (Immersible equipment only)
 - 3) Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
 - 4) Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or has been dropped or damaged in any manner.
 - 5) To avoid the possibility of the appliance plug or receptacle getting wet, position aquarium stand and tank to one side of a wall-mounted receptacle to prevent water from dripping onto the receptacle or plug. A "drip loop," shown in the figure below, should be arranged by the user for each cord connecting an aquarium appliance to a receptacle. The "drip loop" is that part of the cord below the level of the receptacle, or the connector if an extension cord is used, to prevent water traveling along the cord and coming in contact with the receptacle. If the plug or receptacle does get wet, DON'T unplug the cord. Disconnect the fuse or circuit breaker that supplies power to the appliance. Then, unplug and examine for presence of water in the receptacle.
- C) Close supervision is necessary when any appliance is used by or near children.
- D) To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, and the like.
- E) Always unplug an appliance from an outlet when not in use, before putting on or taking off parts, and before cleaning. Never yank cord to pull plug from outlet. Grasp the plug and pull to disconnect.
- F) Do not use an appliance for other than intended use. The use of attachments not recommended or sold by the appliance manufacturer may cause an unsafe condition.
- G) Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.
- H) Make sure an appliance mounted on a tank is securely installed before operating it.
- I) Read and observe all the important notices on the appliance.
- J) If an extension cord is necessary, a cord with a proper rating should be used. A cord rated for less amperes or watts than the appliance rating may overheat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.
- K) For added safety, the appliance must be plugged into a receptacle controlled by a GFCI (ground fault interrupter) circuit breaker. Device must be properly connected to a grounded three-prong receptacle.
- L) This appliance is intended FOR HOUSEHOLD USE ONLY.
- M) This Light Fixture is required to be used over a covered aquarium. A glass top or protective barrier is required to minimize the fixture's exposure to water.
- N) **SAVE THESE INSTRUCTIONS**



GROUNDING SETUP

This appliance should be grounded to minimize the possibility of electric shock. This appliance is equipped with an electric cord having an equipment grounding conductor and a grounding type plug. The plug must be plugged into an outlet that is installed and grounded in accordance with all appropriate codes and ordinances.

This appliance is for use on a normal 120-volt circuit, and has a grounding plug that looks like the plug illustrated below.



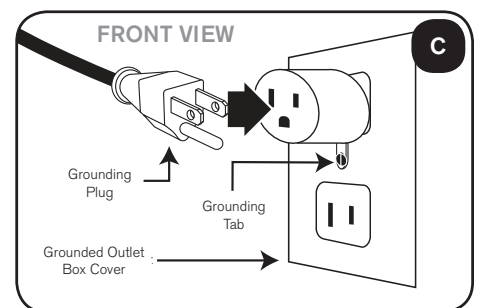
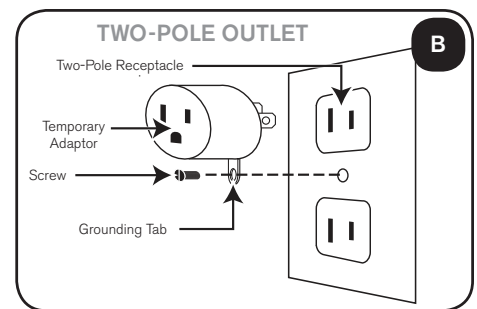
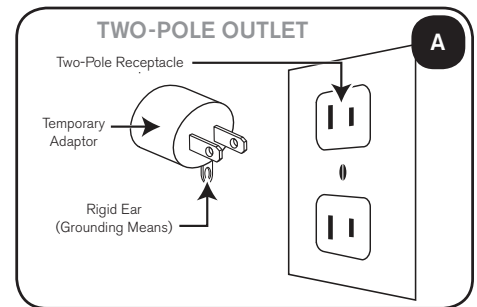
A temporary adaptor which looks like the adaptor illustrated in (A) may be used to connect this plug to a two-pole receptacle as shown in (A) if a grounded outlet is not available.

A temporary adaptor should only be used until a grounded outlet can be installed by a qualified electrician.

GROUNDING INSTALLATION

The green-colored rigid tab extending from the adaptor must be fastened to a permanent ground such as a grounded outlet box.

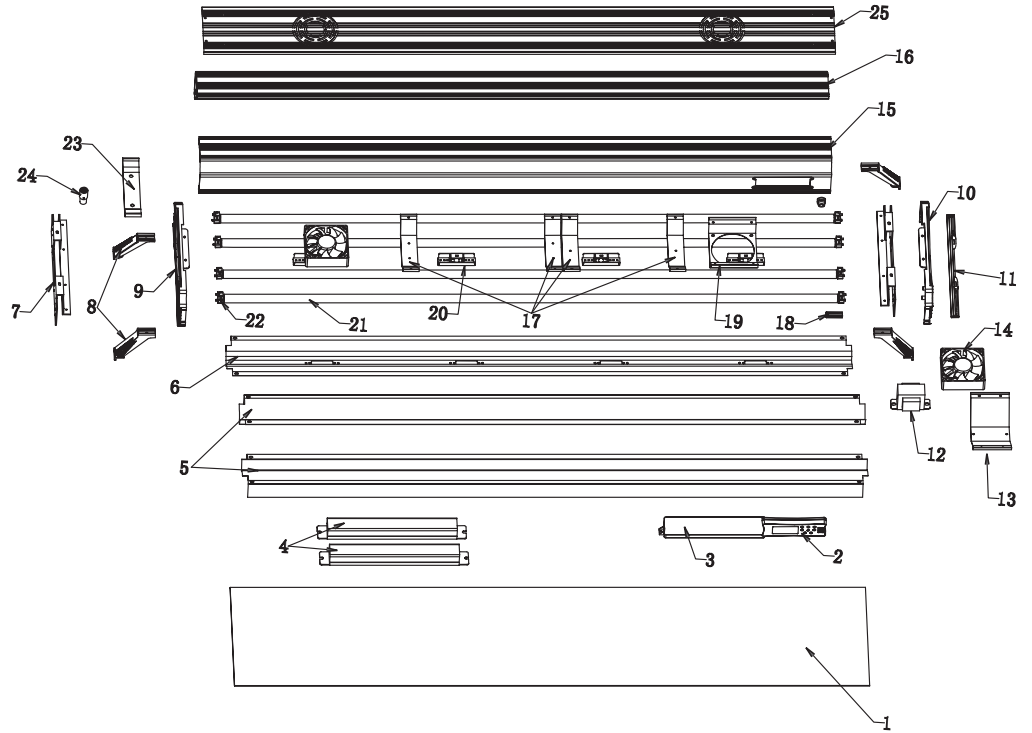
1. Plug temporary adaptor into two-pole outlet. (B)
2. Insert screw through rigid tab on temporary adaptor and into grounded outlet box. (C)



GROUNDING INSTRUCTIONS

THIS APPLIANCE SHOULD BE GROUNDED TO MINIMIZE THE POSSIBILITY OF ELECTRIC SHOCK.

PARTS DIAGRAM



PARTS LIST

	Model Numbers					
	420013	420035	420151	420036	420037 & 420186	420038
420/460 Lamp(s):	410218	410039	410039	410041	410043	410041
10,000 K Lamp(s):	410219	410040	410040	410042	410044	410042
460/620 Lamp(s):	410222	410223	410223	410224	410225	410224
LED:	470103					
Aquarium Frame Mounts:	470065					
Fan:	None	None	None	470104 (1 qty.)	470104 (2 qty.)	470104 (2 qty.)
Ballast:	470020	470020	470020	470071	470072	470071
Lens Cover:	✓	✓	✓	✓	✓	✓
End Plate:	470106 (LEFT) / 470107 (RIGHT)					
Installation & Maintenance Guide:	✓					

PRODUCT SPECIFICATIONS

	Model Numbers					
	420013	420035	420151	420036	420037 & 420186	420038
Rated Voltage:	120 Volt AC					
Rated Cycle:	60Hz					
Power Factor:	0.55	0.55	0.55	0.55	0.59	0.55
Power Cord Length:	2 meters					3 meters
Dimensions without Frame Mounts: (L x W x H):	50.17 x 25.8 x 8.34 cm 19.75 x 10.16 x 3.28 in	60 x 25.8 x 8.34 cm 23.62 x 10.16 x 3.28 in	75 x 25.8 x 8.34 cm 29.53 x 10.16 x 3.28 in	90 x 25.8 x 8.34 cm 35.43 x 10.16 x 3.28 in	120 x 25.8 x 8.34 cm 47.24 x 10.16 x 3.28 in 150 x 25.81 x 8.34 cm 59.1 x 10.16 x 3.28 in	180 x 25.8 x 8.34 cm 70.86 x 10.16 x 3.28 in

FOUR-LAMP T5 HO INSTALLATION

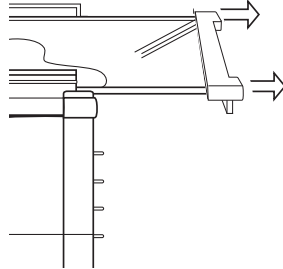
PACKAGING

The Aquatic Life Marine Light Fixture is shipped with the T5HO fluorescent lamps packaged separately inside in the shipping carton; the lens cover will need to be removed to place the lamps into the proper lamp position. Place the light fixture on a surface that will not mar or scratch the fixture.



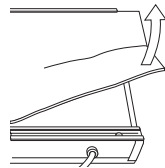
TIP: Use a large towel under the fixture while removing the shipping materials to avoid scratching the fixture.

1) Slide the Acrylic Lens Cover out of the fixture.



NOTE: The Lamps will be packaged under the packing materials, do not discard.

2) Remove the packing materials.



NOTE: DO NOT replace the Acrylic Lens Cover until the Aquarium Frame Mounts have been attached.

3) Your new fixture includes a plastic film on the Lens Cover to protect it during shipping. Peel the protective film off both sides of the Acrylic Lens Cover.

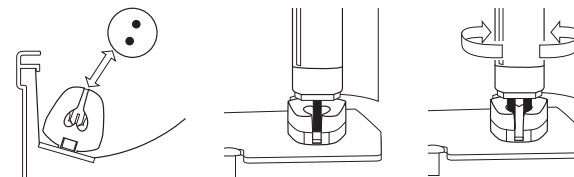


T5 HO LAMPS

The Lamps are packaged in a protective tube to help eliminate damage during shipping.

1) Remove the Lamps from their protective tubes.

2) T5 HO Lamps use a mini bi-pin connection to make contact with the fixture's sockets. To install, insert both ends of the Lamp into sockets and rotate 90 degrees. The mini bi-pin connections should now be horizontal in the socket.



3) Install Lamps in the following sequence:

- 1st 420/460 Lamp, in sockets closest to front of fixture
- 2nd 460/620 Lamp, in second sockets from front of fixture
- 3rd 10,000 K Lamp, in third sockets from front of fixture
- 4th 420/460 Lamp, in sockets closest to back of fixture

The Timer will control the Lamps in the above arrangement. Any change in the sequence of Lamps will change the Timer's ability to control the Lamps as designed.

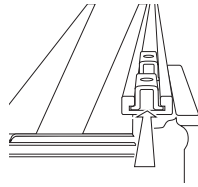
FOUR-LAMP T5 HO INSTALLATION



NOTE: The metal Anchors ship attached to the Aquarium Frame Mounts.

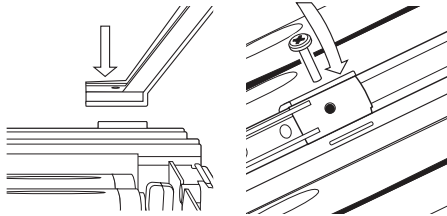
AQUARIUM FRAME MOUNTS

- 1) With the small End Plate still removed, attach the four Aquarium Frame Mounts. Slide the metal anchors into the channel located on the bottom side of the light fixture. Place two anchors per channel; two for the front and two for the back.

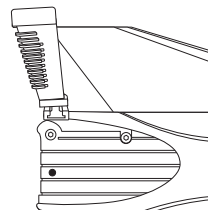


NOTE: Not all of the Aquarium Frame Mounts are the same. Position the Mounts so that the horizontal ribs in the side of the Mount point away from the fixture. The Mounts are designed to angle away from the fixture to provide a wide stable base.

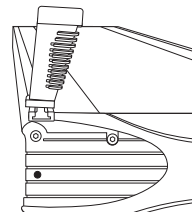
- 2) Place each Aquarium Frame Mount over a metal Anchor and insert the included screw through the Mount and into the Anchor. Tighten the screw until the Anchor pulls against the inside of the channel and secures the Mount to the fixture.



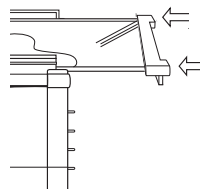
CORRECT PLACEMENT:



INCORRECT PLACEMENT:



- 3) Slide the Acrylic Lens Cover back into the track.

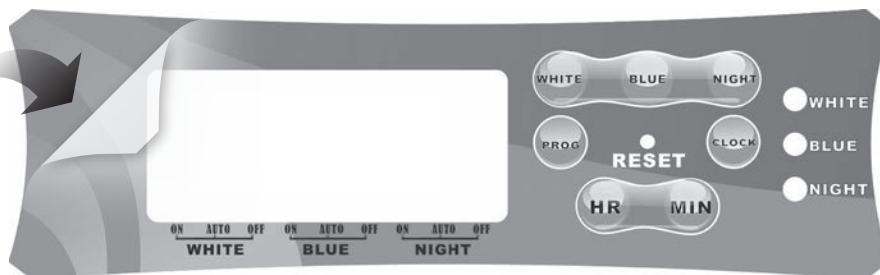


- 4) Place the fixture over a covered aquarium and adjust (slide) the Aquarium Frame Mounts so that the base of each Mount is firmly resting on the aquarium frame. Tighten the screws to secure the Mounts to the fixture.

SUSPENSION SYSTEM (OPTIONAL ACCESSORY, ITEM # 420063)

The light fixture can be hung from overhead supports with optional suspension hardware. The fixture is equipped with Mounting Points on the housing for easy connection. Refer to the Installation Guide included with the suspension hardware.

NOTE:
REMOVE
PROTECTIVE
FILM



RESET BUTTON:

If the fixture is powered off or unplugged without turning the lamps off manually at the timer, the timer may “lock” and not have any display.

To reset the timer to its pre-programmed settings, press the Reset Button in the middle of the Timer Panel. A paper clip or similar small object will be needed to press the Reset Button.

POWER

Your Aquatic Life Light Fixture is equipped with a built in Digital Timer and a single power cord. The Timer enables independent control of the three lighting zones in the fixture. Connect the power cord into a grounded outlet (GFCI). The display will illuminate when power is supplied.

TIMER

The Digital Timer controls three Zones in the Light Fixture: WHITE, BLUE, NIGHT. Each of these Zones can be programmed to operate at different times throughout the day.

TIMER SET-UP

Setting the Time

- 1) Press CLOCK on the Control Panel until the time begins to flash. Press the HR and MIN buttons to scroll to the current time. Press CLOCK when current time is set.
- 2) The clock is equipped with a quick summer time mode that forwards the clock ahead one hour for Daylight Savings Time. Press both the HR and MIN at the same time and the clock will advance one hour and display S in the top right corner of the display. To change back to standard time, repeat the step above and the time will revert back one hour. The S on the display will disappear.

Zone Programming: Setting the on/off times for the Lamps to operate.

- 1) Simultaneously press both the “PROG” button and the button of the Zone Lamp type that you want to set at the same time (WHITE, BLUE or NIGHT). Three arrows above the Zone that is being programmed will begin to flash. START will appear on the display.
- 2) Press the HR and MIN buttons to adjust the START time.
- 3) Press PROG to scroll to the END time.
NOTE: For ease of programming, the clock displays a 24 hour format instead of AM or PM.
- 4) Press the HR and MIN buttons to adjust the END time. This is the time the Zone will power off.
- 5) Press CLOCK to return to the current time. The current time will automatically display if there is no activity for 60 seconds.
- 6) Repeat steps 1 through 5 for each Lamp type (Zone) that requires a new time of operation.

Pre-Programmed Times of Operation:

For ease of use, the timer is pre-programmed with START and END times. If the timer is in the Pre-programmed mode the display will show an R in the right hand corner of the display.

Zone 1	WHITE	START 9:00 - END 17:00
Zone 2	BLUE	START 8:00 - END 20:00
Zone 3	NIGHT	START 20:00- END 6:00

Manual Override

To override the timer during normal operation, press the button of the desired Zone. Press the button until the display triangle appears above the ON or OFF of the Zone selected.

To return to the AUTO mode, press the desired Zone button until the display triangle appears above AUTO.



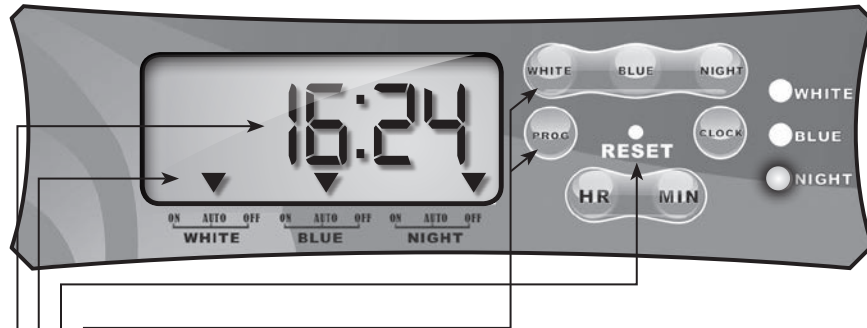
NOTE: For ease of programming, the clock displays a 24 hour format instead of AM or PM.



NOTE: When the programmed on/off times are activated, a triangle indicator will appear on the digital display above AUTO. Press the button of the Lamp type to toggle between the ON / AUTO / OFF modes.



To view a video demonstration
on the Digital Timer go to
www.youtube.com/AquaticLifeLLC



- Simultaneously press *PROG* and zone button to initiate programming mode
- Press *RESET* button to restore to factory presets
- Three arrows above *ON*, *AUTO*, *OFF* in the same zone indicate zone is being programmed
- Clock and Timer use a 24 hour format. (This display is currently showing 4:24 PM)
- Press *PROG* to cycle through current settings

Q: WHY DO THE LAMPS NOT TURN ON?

Verify the timer control is either in AUTO or ON mode. If the timer is in AUTO mode, make sure the time is programmed correctly

Q: WHY DO THE LAMPS TURN ON AT THE WRONG TIME?

The clock and timer use a 24 hour time format (Military Time). For example, 1:00 PM will show 13:00 on the display. Verify that the correct START/END times are set according to the 24 hour format.

Q: WHY IS THE TIMER NOT RESPONSIVE OR HAS NO DISPLAY?

If the light fixture was unplugged or encountered a power loss for an extended period of time, the timer might need to be reset. There is a small reset button on the front of the timer panel. Use the end of an ink pen or paper clip to press the small reset button. This will restore the light fixture to factory settings.

NEED ASSISTANCE?

Before contacting Aquatic Life, did you press the RESET button on the timer?

Aquatic Life Customer Support
1-888-548-3480 (USA Toll-Free)
1-818-768-6943
Monday – Friday, 8 am to 4 pm (PST)

Q: WHY CAN THE TIMER NOT BE PROGRAMMED?

The PROG and zone (WHITE, BLUE, NIGHT) buttons must be pressed at the same time to initiate the programming mode. When in the program mode, three arrows will be displayed pointing to the zone being programmed.

Q: WHY DO THE LAMPS FLASH, BUT DO NOT STAY ON?

Verify the lamps are in the sockets properly and the lamps are not broken or damaged.



WARNING: The fixture is not waterproof. Do not spray or submerge the fixture.



TIP: Keep the fixture's Acrylic Lens Cover and Glass Cover over the aquarium clean to allow maximum light penetration into the aquarium.



WARNING: The fixture is hot during operation and must cool before servicing. Unplug the fixture from the power supply and allow to cool for 15 minutes before changing Lamps.

HOUSING

Unplug the Light Fixture and wipe the housing with a clean moist/semi-dry cloth to remove dust, salt and other debris that may have built up on the fixture.

LENS COVER

Wipe the Acrylic Lens Cover with fresh water or an acrylic cleaner to maintain peak light transmission. If the Lens Cover is allowed to become dirty, it will reduce the amount of light that enters the aquarium.

T5 HO LAMP REPLACEMENT

Depending on the type of aquarium inhabitants, the Lamps may need to be replaced every 9 to 18 months. It is best to review the requirements for your animals prior to replacing the Lamps. Consult your local store or supplier for a recommendation for frequency of replacement.

To access the Lamps, follow the Installation procedure for Lamps on page 5.

The instructions will show how to remove the End Plate and Lens Cover. This will give access to the Lamps.

The Lamps are secured in two places, the left and right sockets.

- 1) Gently grasp the ends of the Lamp to be removed and rotate the Lamp so that the pins are vertical and can be lifted out of the sockets.



NOTE: Both ends of the Lamp must rotate at the same time.

- 2) Insert the new Lamp (with pins in a vertical position) into the socket and gently rotate the Lamp 90 degrees. The Lamp pins should now be in a horizontal position within the socket.

420/460: Light which produces an identifiable or measurable change when it interacts with matter. Actinic lighting is visibly blue and will need a full spectrum bulb to help offset the color distortion. The light wavelength promotes the growth of Zooxanthellae algae, essential for the growth and well-being of all photosynthetic corals and invertebrates. 420/460 Lamps produce a peaked wavelength on the light spectrum at 420 nm and again at 460 nm.

10,000 K: A spectrum that produces a full range of white light that is beneficial to Marine organisms. The Lamp mimics the color of light that can be found in equatorial regions of the world. 10,000 K Lamps produce light over a broad range of the light spectrum up to 700 nm.

Drip Loop: To arrange an electrical cord so it hangs down well below the outlet before running back up again. Any water running down the cord will drip down from the loop, rather than running uphill to enter the outlet.

GFCI: Ground Fault Circuit Interrupter, a device used to measure if any electrical current is "leaking" from the circuit. If a "leak" is determined the GFCI will switch the power off.

LED: (Light Emitting Diode) A diode is the simplest sort of semiconductor device. The semiconductor material for LED's is typically aluminum-gallium-arsenide (AlGaAs). In pure aluminum-gallium-arsenide, all of the atoms bond perfectly to their neighbors, leaving no free electrons (negatively-charged particles) to conduct electric current. Light is produced from energy that can be released by an atom. It is made up of many small particle-like packets that have energy and momentum but no mass. These particles, called photons, are the most basic units of light. Photons are released as a result of the moving electrons.

Nanometer: (nm) A unit in which wavelengths of light are expressed. 1 nm = 0.000000001 meter (1 billionth of a meter).

Power Factor: A measure of the effectiveness with which an electrical device converts volt-amperes to watts

T5 HO Lamp: A type of high output fluorescent lamp with a 5/8" diameter. This slim profile makes T5 lamps more efficient than standard fluorescent tubes. T5 HO lamps offer many benefits; including lamp life, power efficiency, high lumen output per watt and small size. Like all fluorescent lamps, T5 HO Lamps contain mercury and should be disposed of properly. Visit www.lamprecycle.org to learn more about disposal.

REGISTERING YOUR PRODUCT(S) WITH AQUATIC LIFE

Register your product online at: www.AquaticLife.com

Benefits of Registraton:

Confirmation of Ownership

Provides a record in the event you need to contact us about your product in the future.

Your Safety

Allows us to contact you with important product notifications.

Improved Product Support

Helps us continue to tailor our products and services to meet your needs.

LIMITED WARRANTY (UNITED STATES AND CANADA)

Aquatic Life, LLC warrants that this product (excluding lamps and media) shall be free from defective electrical components and leaks or cracks due to defects in materials or workmanship for a period of twelve (12) months from the date of purchase. If a defect is shown, Aquatic Life, LLC will, at Aquatic Life's sole discretion, either repair or replace the product without charge. No cash refunds will be made. This warranty is provided solely to the original consumer purchaser of the product and may not be transferred or assigned.

This warranty does not apply to damage resulting from accident, misuse, abuse, lack of reasonable care, failure to follow safety and installation instructions, use of the product with non-standard electrical service, or any other defect not resulting from defects in the electrical components of the product or defects in materials or workmanship. This warranty will not be effective unless and until the Aquatic Life product is shown to have been used in accordance with the safety and installation instructions accompanying the product.

THIS CONSTITUTES AQUATIC LIFE'S ENTIRE WARRANTY AND AQUATIC LIFE MAKES NO OTHER WARRANTIES, WHETHER EXPRESS OR IMPLIED, WITH RESPECT TO THE PRODUCT. AQUATIC LIFE, LLC SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES, INCLUDING, WITHOUT LIMITATION, WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. IF AQUATIC LIFE, LLC CANNOT LAW FULLY DISCLAIM IMPLIED WARRANTIES UNDER THIS LIMITED WARRANTY, ALL SUCH WARRANTIES, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE LIMITED IN DURATION TO THE DURATION OF THIS WARRANTY. AQUATIC LIFE IS NOT RESPONSIBLE FOR DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY OR CONDITION, OR UNDER ANY OTHER LEGAL THEORY. AQUATIC LIFE, LLC EXPRESSLY DISCLAIMS ALL ALLEGED DAMAGES FOR LOSS OF MARINE LIFE, PERSONAL INJURY, AND/OR PROPERTY DAMAGE.

Some states and provinces do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitations on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state or province.

Aquatic Life, LLC shall not have any obligations under this warranty unless the owner notifies Aquatic Life, LLC in writing of any alleged defect(s) within 30 days of discovery of the defect(s). Any notice to Aquatic Life, LLC must be delivered by United States or electronic mail to the following address:

U.S. Mail
Aquatic Life, LLC
2416 W. Victory Blvd, #136
Burbank, CA 91506

Electronic Mail: customersupport@aquaticlife.com

Aquatic Life, LLC shall be allowed a reasonable period of time to investigate any warranty claim and to perform any testing Aquatic Life, LLC deems necessary to determine the cause of the defect. This warranty shall be interpreted under the laws of the State of California.



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