

Askoll

PURE^{XLHC}LED MARINE AQUARIUM KIT

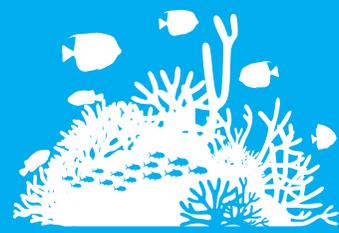
Instruction manual

Manuale di istruzioni

Manuel d'instructions

Bedienungsanleitung

Handleiding



EASYAQUARIUM



Congratulations!

By purchasing an Askoll PURE^{LED} Aquarium you will not only enjoy a fully made-in-Italy design that harmonises well with several interior design styles, but you will also be able to rely on a product that concentrates the best of Askoll technology, a company that can boast more than thirty years of experience in the design and production of articles for aquariums and ponds.

In just a few minutes, after starting installation, we are sure that you will appreciate a product conceived in every detail to make any operation easy and fast. You will enjoy even more the moment in which you will be able to dedicate your time to create a nature corner in your new Askoll PURE^{LED} Aquarium and you will be able to count on cutting edge devices to preserve the beauty of the aquatic world over time, in a simple way.

This aquarium is equipped with a LED lighting system characterized by such a light intensity and spectrum that make it suitable for a marine environment.

Before starting, kindly read and follow the warnings and hints contained in this manual carefully.

When choosing the suitable setup for your aquarium, follow the advice of a qualified retailer.

To enhance as much as possible the unique style of your Askoll PURE^{LED} Aquarium, Askoll recommends using the aquarium stands specifically created for this product line.

1. IMPORTANT SAFETY INFORMATION

The product has been designed and manufactured in conformity with the current and applicable directives to ensure safe use and operation throughout its life cycle. Using the product incorrectly (not in conformity with the instructions given in this manual) can damage the product and poses a safety risk for the user.

 WARNING	
	<p>Before using the product kindly read and understand this instruction manual in all its parts. This manual is an integral part of the product: keep it for future reference.</p>
	<p>This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.</p>

 WARNING	
To avoid electric risk:	
	Each power cable of the electric devices has to show a drip loop positioned lower than the plug-outlet connection point in order to prevent any drop from reaching such point.
	The electric devices plug and outlet should not get wet.
	Should the plug or outlet of any of the electric devices become wet, do not disconnect the cable. Disconnect power supply to the electric system acting on the main switch.
	Disconnect the plugs of the electric devices from the outlets before handling the product and/or immersing the hands in water.
	Never pull the cable of the electric devices to disconnect the plugs from the outlets. To disconnect them, grab the plugs and pull them.
	The product has glass components. Handle with care and place it according to the instructions of this manual avoiding to lean the tank directly on the edges.
	To avoid instability risk: check with a level that the support surface of the product is horizontal.
	Do not lean the product on inclined surfaces.
	After installation, do not move the product. If necessary, move it only if the tank is completely empty.
	Do not connect the electric devices of the product to the mains before having completed the installation or having repositioned the same after maintenance operations. Do not use the thermal heater and the pump dry.
To avoid the risk of burns:	
	After disconnecting the plug, let the hot parts of the thermal heater (about 30 minutes) and of the lighting unit (about 5 minutes) cool down, before handling them. On the thermal heater, the warning light indicates only that the heating phase is active. When the warning light is off, it does not mean that the thermal heater is cool.
	Check that the water level is always included in the min. and max. level range indicated on the label.
	After maintenance operations, if necessary, restore the proper water level.

⚠ CAUTION



Use the product exclusively as decorative aquarium for indoor domestic use.



Each component is an integral part of the product. It shall not be used on other products.



Do not use the product for use with foodstuffs.



Do not use the product as terrarium.



Do not use the product, if damaged and/or disassembled.



Do not damage and/or remove the sealant positioned on the joints of the tank glasses (edge seals).



Do not lean any rocks, stones or other heavy decorating elements directly on the bottom of the tank.



Do not place any item on the product.



Verify the integrity of the product before pouring water into the tank.



The thermal heater must always be immersed at least up to the minimum level marked on the same.



Install the electric devices of the product observing the voltage and frequency values shown on the devices and the temperature ones specified among the technical data under **par. 3.3**.



Connect the electric devices to mains protected by a residual current device with a sensitivity ≤ 30 mA.



After maintenance operations, if necessary, dry the external parts of the product and the stand.



To protect the polished surfaces of the product from scratches and scrapes, pay utmost care when cleaning and handling the same.



⚠ CAUTION



Do not cut the power cables. Power cables cannot be repaired. If the cable is damaged, the product has to be discarded.



Do not use extension cables. If the length of the power cable of the electric devices is not sufficient, refer to a qualified electrician.



Do not try to repair any product component: in case of damage replace the damaged component with original spare parts (**see chap. 9**).



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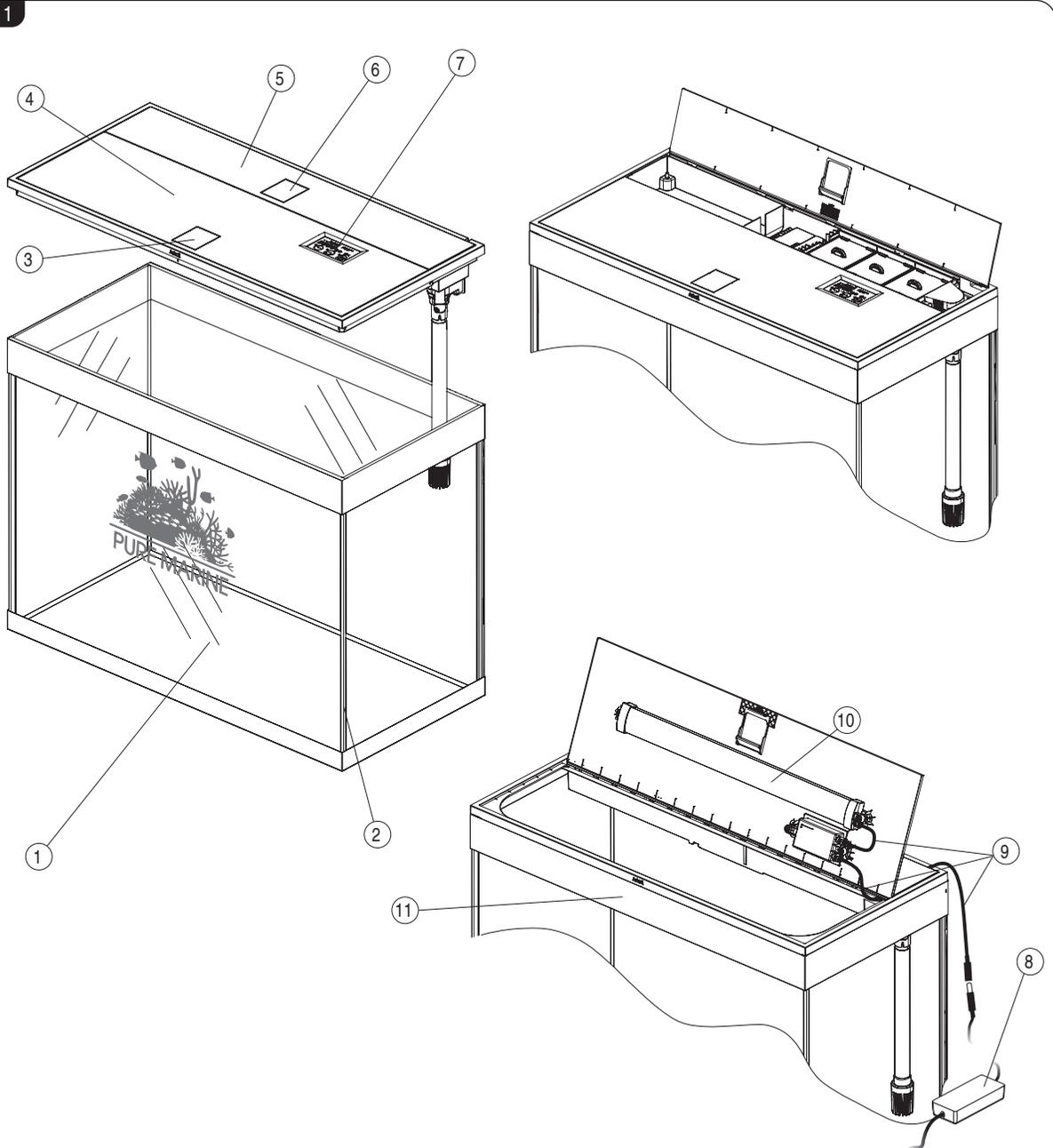
3. PRODUCT SPECIFICATIONS

3.1. Product identification

Name	Askoll PURE ^{LED} Aquarium KIT	
	Mod.	PURE XL HC LED MARINE
Components	Mod.	PURE LED UNIT XL MARINE
	Type	T-52103
Lighting unit	Mod.	THERM L (200W)
	Type	D-38200
Thermal heater	Mod.	PURE PUMP XL HC
	Type	C-04311

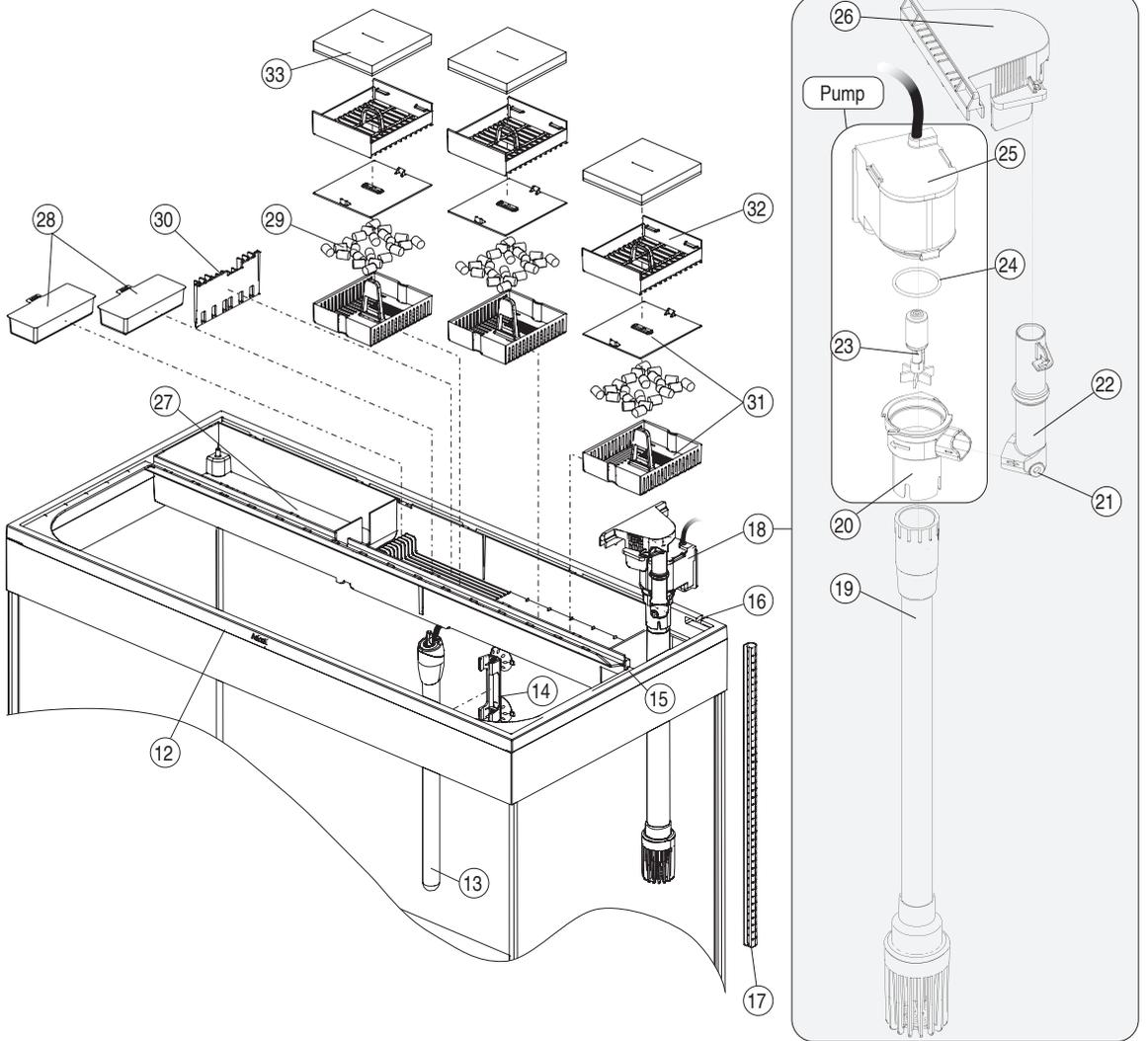
3.2. Names of components and contents of package

Check that the package contains all the components shown in the following figures.



- 1) Glass tank
- 2) Edge seals (glass sealant)
- 3) Light cover door
- 4) Light cover
- 5) Filter cover
- 6) Filter cover door

- 7) Timer
- 8) Led Driver
- 9) Lighting unit cable
- 10) Lighting unit
- 11) Decorative trim



- 12) Frame
- 13) Thermal heater (with glass tube)
- 14) Heater bracket with suction cups
- 15) CO₂ tube connection
- 16) Fairlead seat
- 17) Cable guide
- 18) Pump unit
- 19) Intake tube
- 20) Volute
- 21) Delivery for circulation in the tank
- 22) Delivery tube
- 23) Impeller
- 24) Pump gasket
- 25) Pump motor
- 26) Delivery (water outlet nozzle)
- 27) Accessories compartment
- 28) Chemical cartridges (in bag): 2 CARBON cartridges and 2 ZEO cartridges
- 29) Ceramic cylinders (in bag)
- 30) Chemical filtration separator
- 31) Biological baskets with cover (for ceramic cylinders)
- 32) Baskets for mechanical filtration sponges
- 33) Mechanical filtration sponges

3.3. Technical data

Description		PURE XL HC LED MARINE
Capacity	L	130
	Imp gal	28,6
Product weight	kg	28,3
Maximum allowed weight of the aquarium	kg	215
Height	cm	57
Width	cm	76
Depth	cm	36
Water temperature (min. / max.)	°C	from +5 to +35
PUMP / LIGHTING UNIT / THERMAL HEATER		
Power supply	V / Hz	See data provided on the individual electric devices making up the product.
Consumption	W	
IP protection rating		

4. PREPARING THE PRODUCT FOR USE

4.1. Unpacking

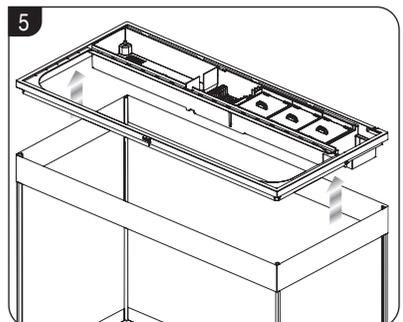
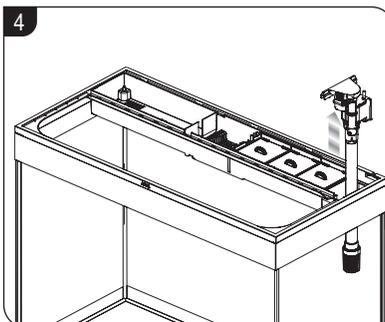
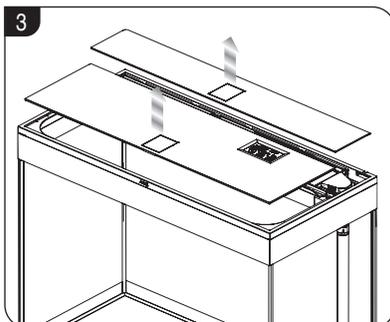
⚠ WARNING



The product has glass components. Handle with care and place it according to the instructions of this manual avoiding to lean the tank directly on the edges.



- 1) Open the carton's top flaps and remove the polystyrene sheet.
- 2) Extract the product as indicated on the packaging itself. Always handle it with care.
- 3) Place it on a flat, smooth and clean surface; take care not to scratch or damage the glass tank bottom.
- 4) Remove the transparent film on the covers and upper frame.
- 5) Remove the lighting and filter covers from the frame (**fig. 3**) and place them on a flat, clean surface without scratching them.
- 6) Remove the pump unit (**fig. 4**) and place it on a flat surface.



- 7) Remove the frame from the tank (**fig. 5**) and place it on a flat, clean surface without scratching it.
- 8) Carefully remove the thermal heater and led driver from their packaging inside the tank, along with the cable guide.
- 9) Dispose of the packaging material in observance of local regulations.
- 10) Check that the product has all the components indicated in **par. 3.2**.

4.2. Positioning

The product must be positioned with care, in observance of the following instructions:

⚠ WARNING



To avoid instability risk: check with a level that the support surface of the product is horizontal. Do not lean the product on inclined surfaces.



⚠ CAUTION



It is advisable to place the product on the foreseen aquarium stand. Alternatively, use a sturdy support able to bear the maximum allowed weight of the aquarium (see technical data **par. 3.3**). Such support must have a levelled, smooth and clean support surface.



In order not to ease algae proliferation: place the product far from heat sources and direct exposure to sunlight.

- 1) Place the product with the writing "PURE MARINE" (or "FRONT") on the front side and at such a distance from the power outlet to allow the creation of a drip loop for each power cable of the electric devices.
- 2) Remove the label "PURE MARINE" (or "FRONT") and dispose of it in accordance with the regulations in force in the country where disposal takes place.

4.3. Assembly

⚠ CAUTION



To prevent the risk of scratching the product: clean it exclusively using a soft cloth moistened with water. Do not use abrasive products, toxic substances or detergents.

- 1) Clean the tank with a cloth moistened with water (fig. 6).
- 2) Install the thermal heater with its provided bracket (fig. 7). **IMPORTANT:** For proper installation, make sure the adjustment knob is below the bottom edge of the decorative trim. Place the thermal heater in the aquarium and press its suction caps against the wall so that they adhere. Set the desired water temperature using the adjustment knob referred to the graduated scale in °C (fig. 8).
- 3) Restore the frame to the tank.
- 4) Unwind the thermal heater cable and route it out of the tank via the pump compartment (fig. 9).
- 5) Restore the pump in its compartment, tidy away the thermal heater power cable (fig. 10).
- 6) Pick the baskets for the mechanical filtration sponges. Take out the sponges, rinse them under running water and replace them in the baskets (fig. 11).
- 7) Pick the biological baskets with their cover (fig. 12).
- 8) Take the ceramic cylinders, one CARBON cartridge and one ZEO cartridge.
- 9) On a washbasin, open the bags containing the ceramic cylinders, then pour them into the biological baskets and rinse them under running water; rinse also the CARBON and ZEO cartridges after having extracted them from the bag (fig. 13).
- 10) Reposition the biological baskets, the basket for the mechanical filtration sponges, and the CARBON and ZEO cartridges in the proper frame spaces (fig. 14).
- 11) Dispose of the plastic bags in observance of local regulations.
- 12) Restore the light cover to the frame after removing the sticker securing its power cable (fig. 15).
- 13) Route the power cables for the three electrical devices (lighting unit, pump unit and thermal heater) out of the tank through the fairlead seat (fig. 16).
- 14) Restore the filter cover to the frame and hook up the lighting unit to the led driver with its connector (fig. 17).
- 15) Gather all cables into the provided cable guide (fig. 18).

4.4. Installation

⚠ WARNING



Do not connect the electric devices of the product to the mains before having completed the installation. Do not use the thermal heater and the pump dry.



After installation, do not move the product. If necessary, move it only if the tank is completely empty.

⚠ CAUTION

When choosing the suitable setup for your aquarium, follow the advice of a qualified retailer.



Make sure that the equipment material or any other objects present in the tank do not obstruct the inlet grids placed at the lower end of the intake tube.



Do not lean any heavy objects on the intake tube.



After installation, check the correct water level.

- 1) Open the light cover and slowly fill the tank with water until it reaches a level included between the min. and max. levels, as shown on the label inside the tank (fig. 19).
- 2) Close the light cover and check the tank for leaks.

5. STARTING UP THE SYSTEM

5.1. Routine operation

⚠ WARNING



To avoid electric risk, each power cable of the electric devices has to show a drip loop positioned lower than the plug-outlet connection point in order to prevent any drop from reaching such point.

- 1) Read the warnings in **Chap. 1**.
- 2) After having connected the plug of each electric device verify the operation of the same (in case of malfunction refer to **chap. 7**):
 - Water should flow out of the delivery.
 - The warning light of the thermal heater should turn on if the water temperature is lower than the setpoint.
 - The programming timer should be on, with its two first digits flashing.

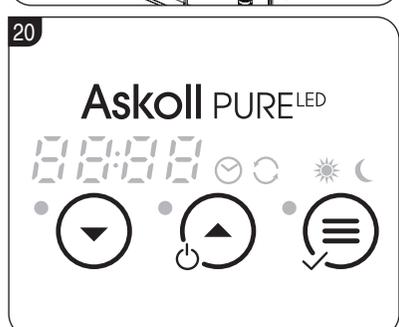
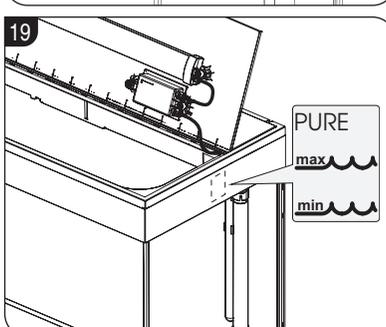
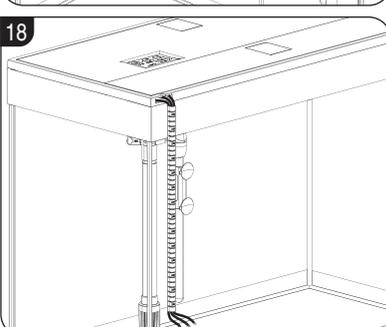
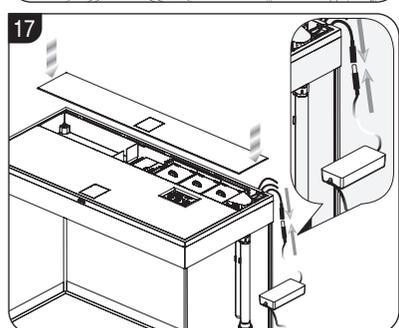
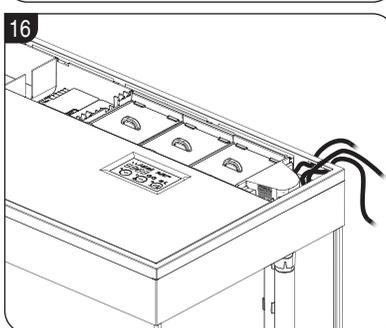
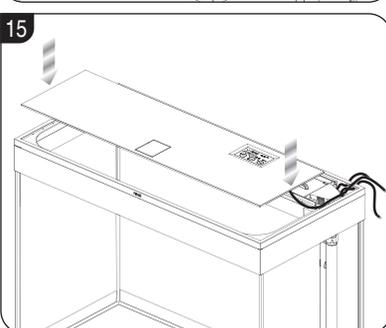
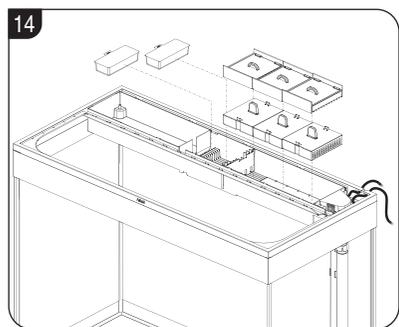
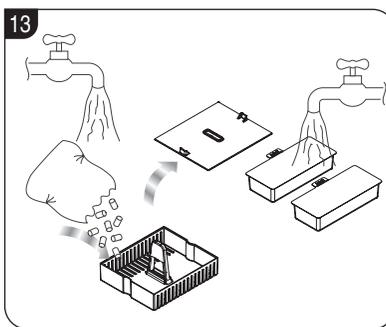
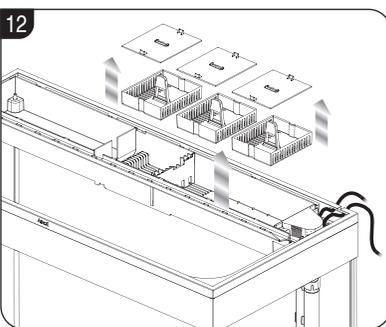
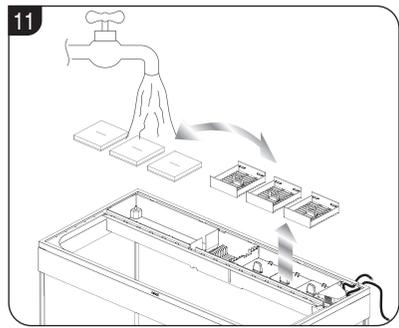
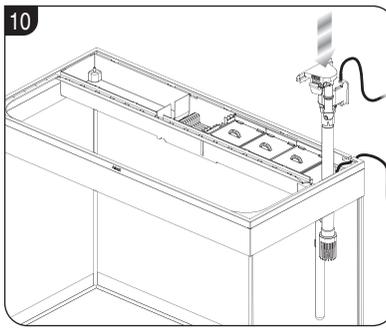
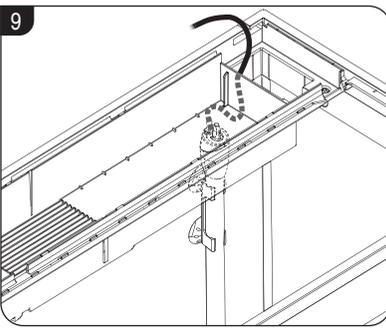
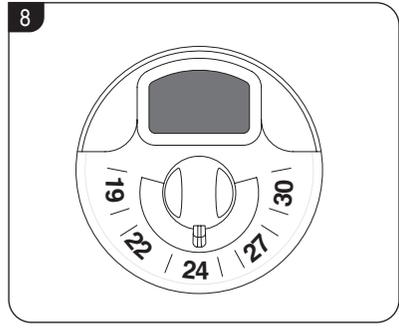
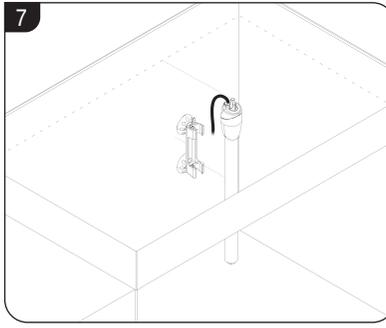
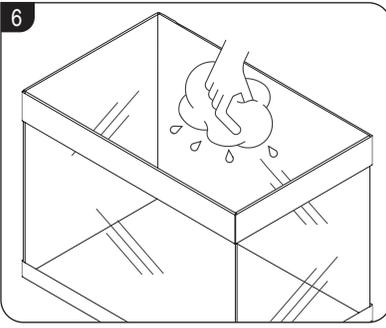
5.1.1. Programming the timer and lighting system

PURE XL HC^{LED} MARINE aquariums are equipped with an integrated digital electronic timer that controls the switching-on sequence of the white, red and blue LEDs that make up the lighting unit. Thanks to a simple interface (fig. 20), the timer allows performing several functions:

- Light on / off in manual mode.
- Light on / off in automatic mode, at set times.
- Managing the Rolling Filtration Timer (RFT), the system that every 15 days reminds the user to replace the CARBON and ZEO cartridges to keep the aquarium under ideal conditions.

The timer has three touch sensitive buttons, 4 status icons and 4 digital digits. If you set automatic light on/off times, the unit runs a daily cycle with the following steps:

- 1) Switching-on of the blue actinic light 2 hours before the switching-ON time set by the user, with a progressive raising of the light intensity for about 30 minutes (only the blue LEDs are on).



- 2) Switching-on of the day light at the switching-ON time set by the user, with a progressive raising of the light intensity for about 30 minutes (the white and red LEDs become on; the blue LEDs remain on).
- 3) Switching-off of the day light at the switching-OFF time set by the user, with a progressive lowering of the light intensity for about 30 minutes (the white and red LEDs switch off; the blue LEDs remain on).
- 4) Complete switching-off of the blue actinic light 2 hours and 30 minutes after the switching-OFF time set by the user, with a progressive lowering of the light intensity for about 30 minutes (complete switching-off of the blue LEDs).

You can always turn the light on and off manually, even if the timer is set to automatic mode.

The timer is equipped with a lock function to prevent accidental pressure of the keys. Key locking is activated automatically after 3 minutes of inactivity. The locked status is signaled by the "bloc" message that appears as soon as the block is activated and at each subsequent pressing of any keys. To remove the locked status and access the timer functions, it is necessary to press the ,  and  keys quickly in sequence. Unlocking is confirmed by the appearance of 4 dashes on the clock digits for a few moments. If during the programming phase the current time or the on/off times settings are not completed, the lock will not activate after 3 minutes of key inactivity.

There is also a demo mode (DEMO), which simulates the complete daily cycle in a few seconds to highlight the potential of the led lighting system when controlled by the integrated timer (point F).

IMPORTANT

Turning the light off manually with the button  on the Timer and turning the light off automatically at the set time do not disconnect the lighting unit from the power supply.

The PURE LED aquarium timer does not need batteries. If there is a mains power failure, the system maintains the user settings for at least 12 hours.

A. Setting the clock time on first start up (hours and minutes)

Once the lighting unit is connected to the power supply, the timer waits for the time to be set (it displays icon  and the two hour digits flash).

- 1) Set the hour by pressing  to increase and  to decrease the setting. Then press  to set the minutes.
- 2) Set the minutes by pressing  to increase and  to decrease the setting. Press  to confirm. The time has now been set.

If not any other programming operation is carried out, the lighting system is pre-set to switch the day light on at 10:00 a.m. and switch it off at 6:00 p.m. according to pre-set ramps. Therefore the blue light will switch on at 08:00 a.m. and will switch off completely at 8:30 p.m. To set the on/off times to your preference or to set the only manual mode, refer to point C.

B. Manual mode

By pressing the key  it is possible to switch on in sequence the day light ( icon on), the actinic blue light ( icon on) and to switch off the light completely.

C. Programming the automatic light on/off times

CAUTION: For a correct execution of the daily cycle, the time frame between the switching-ON time and switching-OFF time set by the user should not exceed 19 hours and 30 minutes.

- 1) Unlock the timer by pressing the ,  and  keys quickly in sequence.
- 2) Hold down button  until the text "light" displays (wait for the countdown 3..2..1 \Rightarrow "light" to terminate).
- 3) The time digits will now display "Auto" and icons  and  will flash. To set the only manual mode, press  until the text "man" displays. Confirm by pressing .
- 4) Once you have set automatic mode "auto", icon  and the hour digits will flash. Set the on time (hour and minutes) in same way as for the clock time (points 1 and 2, par. A).
- 5) Once you have set the on time, icon  and the hour digits will flash. Set the off time (hour and minutes) in same way as for the clock time (points 1 and 2, par. A).
- 6) Once you have finished, the timer will display the clock time again.
- 7) The timer is now programmed to run the automatic daily light cycle, as indicated at the start of this chapter.

D. Changing the clock time (hours and minutes)

If you need to change the clock time, proceed as follows:

- 1) Unlock the timer by pressing the ,  and  keys quickly in sequence.
- 2) Press and hold down  until the clock digits display "time" (you must wait for 2 countdowns to complete: 3..2..1 \Rightarrow "light" \Rightarrow 3..2..1 \Rightarrow "time").
- 3) The icon  and the hour digits will flash: set the clock time (hours and minutes) as indicated in par. A.

E. Turning the RFT function on and off

The RFT is on by default (On). To turn it on/off, proceed as follows:

- 1) Unlock the timer by pressing the ,  and  keys quickly in sequence.
- 2) Press and hold down  until the clock digits display "RFT" (you must wait for 3 countdowns to complete: 3..2..1 \Rightarrow "light" \Rightarrow 3..2..1 \Rightarrow "time" \Rightarrow 3..2..1 \Rightarrow "RFT").
- 3) The clock digits display "On" and icon  flashes; press  to deactivate (OFF) or activate (ON) the RFT function. Confirm by pressing .
- 4) Once you have finished, the timer will display the clock time again.

When the RFT function is on, the timer will flash every 15 days to remind you to do scheduled maintenance. To reset the indication, press .

F. Turning the DEMO function on and off

- 1) Unlock the timer by pressing the ,  and  keys quickly in sequence.
- 2) Hold down buttons  and  simultaneously until the clock digits display "DEMO" (you must wait for the countdown 5..4..3..2..1 \Rightarrow "DEMO" to terminate). The DEMO function is now active.
- 3) To turn DEMO mode off, press . The timer will display clock time again.

G. Restoring the factory defaults (timer reset)

- 1) Unlock the timer by pressing the ,  and  keys quickly in sequence.
- 2) Press and hold down buttons  and  simultaneously until the clock digits display "RSET" (you must wait for 2 countdowns to complete: 5..4..3..2..1 \Rightarrow "DEMO" \Rightarrow 5..4..3..2..1 \Rightarrow "RSET").
- 3) The timer will now restore the factory default settings.

5.1.2. Filtration

CAUTION



Always close the filter cover after the necessary operations have been performed, to prevent algae growing on the filters due to their exposure to direct light.

The water of each aquarium has to undergo continuous mechanical, biological and chemical filtration in order to provide the best habitat for the living beings present in the tank.

Mechanical filtration, which uses double layer sponges, removes suspended particulates to keep the water clear. You can always check the degree to which the sponges are soiled by simply opening the filter cover.

Biological filtration, done by the nitrifying bacteria which grow in the pores of the ceramic cylinders, minimises the level of toxic chemicals in the water, which are harmful for the aquatic fauna, transforming the ammonia produced by the fish into nitrates. It takes around 4 weeks for a sufficient amount of bacteria for effective purification to develop in the filtration media. For this reason, fishes have to be added very gradually to allow the nitrifying bacteria to have enough time to settle, multiply and be effective.

Chemical filtration is carried out by the CARBON and ZEO cartridges:

- CARBON: Activated carbon for purifying the previously filtered water from bad odours, colourants, pharmacological residues and other undesired compounds.
- ZEO: zeolite, a natural origin material, is used to remove the ammonia produced by the fish, supporting the action of the biological filter and limiting the build-up of nitrates.

The regular replacement of the CARBON and ZEO cartridges (**par. 6.2**) allows keeping the main unwanted compounds under control, thus maintaining the water clear and crystalline.

5.1.3. Heating

WARNING



To avoid the risk of burns:

After disconnecting the plug, let the hot parts of the thermal heater (about 30 minutes) and of the lighting unit (about 5 minutes) cool down, before handling them. On the thermal heater, the warning light indicates only that the heating phase is active. When the warning light is off, it does not mean that the thermal heater is cool.

CAUTION



The thermal heater is factory calibrated. Variables like low ambient temperature, large temperature fluctuations, lack of covers, positioning of the product close to cooling sources, may require a higher power to provide for a better temperature control.



Prevent the bottom (sand or other material) or any other objects in the aquarium from getting in contact with the thermal heater. It is necessary to assure a free water circulation around the glass tube.



Install the product close to the pump (**fig.9**) to ensure that the heated water is distributed evenly and completely throughout the aquarium.

The thermal heater allows adjusting aquarium water temperature (from 18°C to 31°C) using the adjustment knob referred to the graduated scale (**fig. 8**). Once it has been started up for the first time and the water has reached the setpoint, the thermal heater will keep the temperature constant by turning off and on as needed. Wait for the water to reach the temperature set on the thermal heater before putting fish or other animals into the aquarium. Check the temperature with an aquarium thermometer (not provided).

REMARK

The thermal heater only guarantees water temperature control when the set temperature is higher than the ambient temperature. The maximum temperature rise (Δt) of water in relation to the ambient temperature is around 10 °C.

5.2. In case of power failure

Power failures have the following effects:

- Gradual reduction, after a few hours, of the effectiveness of the biological filter, thus potentially damaging the aquarium ecosystem.
- The timer may need reprogramming if the power failure lasts more than 12 hours or so.
- The water temperature may fall in proportion to the duration of the power failure.

For malfunctions, refer to **Chap. 7**.

6. MAINTENANCE AND CLEANING

⚠ WARNING

To avoid electric risk:



Disconnect the plugs of the electric devices from the outlets before handling the product and/or immersing the hands in water.



Never pull the cable of the electric devices to disconnect the plugs from the outlets. To disconnect them, grab the plugs and pull them.



Do not connect the electric devices of the product to the mains before having completed the installation or having repositioned the same after maintenance operations. Do not use the thermal heater and the pump dry.



To avoid the risk of burns:

After disconnecting the plug, let the hot parts of the thermal heater (about 30 minutes) and of the lighting unit (about 5 minutes) cool down, before handling them. On the thermal heater, the warning light indicates only that the heating phase is active. When the warning light is off, it does not mean that the thermal heater is cool.



Check that the water level is always included in the min. and max. level range indicated on the label.



After maintenance operations, if necessary, restore the proper water level.



Do not use detergents or other chemical products which may damage the product's components or contaminate the aquarium itself.

⚠ CAUTION



Always close the filter cover after the necessary operations have been performed, to prevent algae growing on the filters due to their exposure to direct light.

⚠ CAUTION



Perform a frequent and accurate cleaning (at least once every 15 days) of parts affected by the salt condensate. To remove the salt scaling that is most difficult to clean, mere lemon juice can be used. Then rinse thoroughly to remove any acid residues.

6.1. Maintenance and cleaning jobs

Observe the indicated maintenance and cleaning schedule to keep your product in excellent working order.

Frequency	Part	Job
Every week	Mechanical filtration	Visually inspect the sponges; if they are clogged, rinse them out or replace them
	Tank	Check that the water level is between the MIN and MAX marks and top it up as needed.
Every 15 days	Chemical filtration	Replace the CARBON and ZEO cartridges (par. 6.2 Rolling Filtration System)
Every month	Mechanical filtration	Replace the mechanical filter sponge (2 sponges for the XL model). For the L and XL models, replace the sponges closest to the water outlet nozzle (par. 6.2)
Every 6 months	Pump unit	Clean the pump unit (par. 6.3)

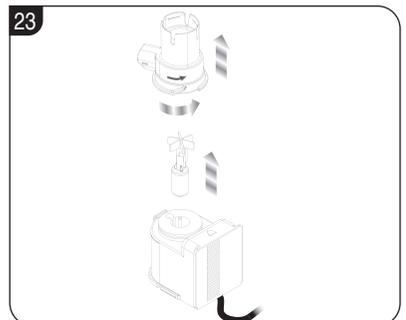
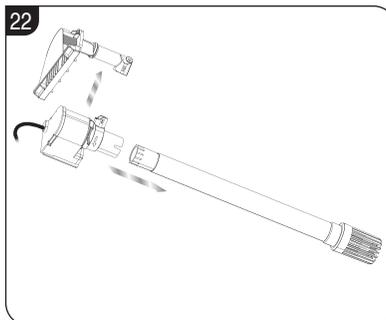
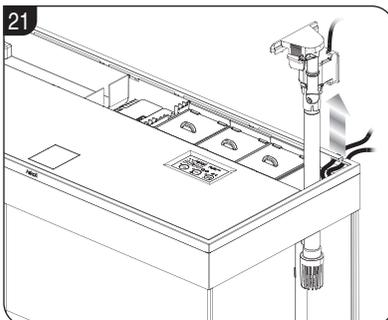
6.2. Rolling Filtration System

To keep the filters working properly and ensure the best water conditions in the aquarium, Askoll recommends that you replace the sponges and cartridges according to a specific maintenance schedule, the Rolling Filtration System (RFS).

This can be done quite easily by purchasing the original Askoll PURE MARINE FILTER MEDIA KIT maintenance kit from your trustworthy retailer (see product code under **chapter 9**). The Kit contains 1 sponge for mechanical filtration, 1 CARBON cartridge and 1 ZEO cartridge.

Replace the sponges and cartridges as follows:

- 1) After disconnecting the plug of each electric device, open the filter cover.



- 2) Remove the sponges and cartridges and dispose of them according to local regulations.
- 3) Replace the sponges and cartridges at the specified intervals (**par. 6.1**).
- 4) Close the filter cover.

The timer integrated in Askoll PURE^{LED} aquariums activates a convenient light warning every 15 days (icon ☺ flashing) suggesting the replacement of the CARBON and ZEO cartridges. To turn off the RFT indication, simply press (⊖).

To turn off the RFT function, refer to par. 5.1.1. - E.

6.3. Cleaning and servicing the pump unit

- 1) After disconnecting the plug of each electric device, remove the filter cover and extract the pump unit cable from the fairlead seat and cable guide.
- 2) Extract the pump unit (**fig. 21**).
- 3) Detach the intake tube and delivery tube (with delivery) from the volute (**fig. 22**).
- 4) If necessary, replace the pump (dispose of it as indicated in **Chap. 10**), otherwise go to the next step.
- 5) Turn the pump volute counterclockwise to remove it, then extract the impeller (**fig. 23**).
- 6) Rinse the impeller under running water (**fig. 24**).
- 7) Clean the impeller's seat carefully with a non-abrasive brush (**fig. 25**).
- 8) If necessary, also clean the intake tube, delivery tube and delivery under running water.
- 9) Reassemble and restore the pump carefully along with the other components, proceeding in the reverse order to the disassembly procedure.

6.4. Cleaning the lighting unit

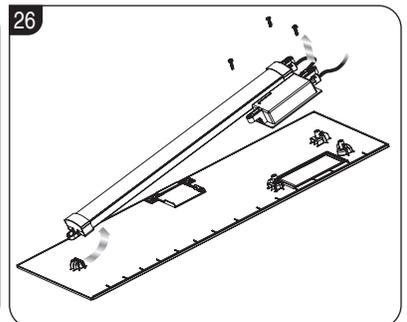
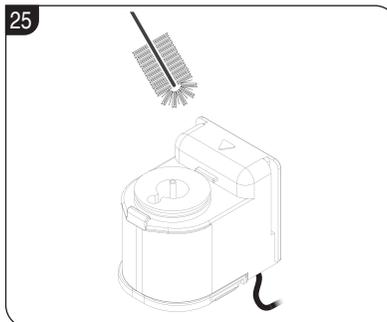
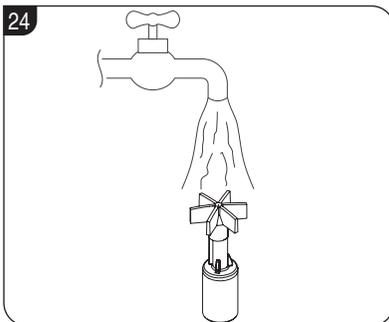
- 1) After disconnecting the plug of the lighting unit, remove the filter cover and the light cover.
- 2) Place the covers on a surface protected with a cloth so as not to scratch them.
- 3) If the light cover or the lighting unit (with the timer) need replacing, disassemble the two elements by unscrewing the three screws which keep them together using a suitable Phillips screwdriver (**fig. 26**).
- 4) Clean the lighting unit with a damp cloth.
- 5) Reassemble and reposition the components carefully repeating the above described procedure in opposite order.

6.5. Cleaning the thermal heater

- 1) After disconnecting the plug of each electric device, let the hot parts of the thermal heater cool down (about 30 minutes) before handling the product.
- 2) Clean the glass tube to remove any scaling and deposits, which may jeopardise the effectiveness of the heating and sensitivity of the thermostat.
- 3) Reassemble and reposition the components carefully repeating the above described procedure in opposite order.
- 4) Await about 30 minutes to allow the thermal heater to adapt to water temperature and then connect the plug.

7. TROUBLESHOOTING

PROBLEM	CAUSE	SOLUTION
The lighting is not working	Missing connection of the led driver to the power outlet	Connect the led driver to the power outlet
	Missing connection of the lighting unit to the led driver	Connect the lighting unit to the led driver with its connector
	Other	Contact your retailer
Water temperature low	The thermal heater is not plugged into its power outlet	Plug the thermal heater into its power outlet
	The thermal heater adjustment knob is set too low	Set the temperature to the correct value (par. 5.1.3)
	The ambient temperature is too low	Add a supplementary thermal heater
	Other	Contact your retailer
No water flow	The pump is not plugged into its power outlet	Plug the pump into its power outlet
	The pump is jammed	Clean the impeller (par. 6.3)
	Other	Contact your retailer



PROBLEM	CAUSE	SOLUTION
Low water flow	The intake tube, pump, delivery tube or delivery is clogged	Clean the parts (par. 6.3)

8. STORAGE AND REPACKING

To store the product:

- Carefully clean and dry off all parts of the product. The mechanical filtration sponges and the CARBON and ZEO cartridges have to be disposed of in compliance with the regulations in force in the country where disposal takes place.
- Store the product and its components in suitable containers.
- Keep the product indoors in a dry place, out of the weather and freezing temperatures.

9. OPTIONAL MODULES AND SPARE PARTS

9.1. Optional modules

The product can be fitted with the following optional modules (not included):

Module	Description
ROBOFOOD programmable fish feeder	Battery powered programmable fish feeder which can dispense up to two meals a day
PURE aquarium stand	Specifically designed, it is the best fitting for the aquarium, enhancing its style and providing a sturdy and suitable support to the same

9.2. Spare parts

For part numbers in circles refer to **fig. 1** and **fig. 2**.

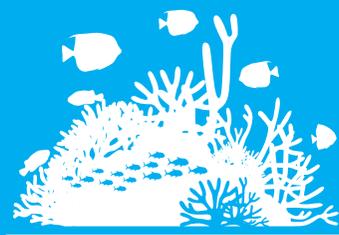
Model	PURE XL HC LED MARINE	
Component	Codes	
PURE PUMP pump (20) (23) (24) (25)	EUR	AB350098
	UK	AB350099
Impeller (23)		AB350100
Led Driver (8)	EUR	AB350102
	UK	AB350103
Lighting unit (with timer) (10)		AB350104
Thermal heater THERM (13) (14)	EUR	AA230004
	UK	AA230009
Heater bracket with suction cups (14)		AB230001
Delivery and intake KIT (19) (22) (26)		AB350101
Baskets KIT (n. 1 biological basket for ceramic cylinders, n. 1 basket for mechanical filtration sponges, n. 1 chemical filtration separator) (30) (31) (32)		AB350018
Cable guide (17)		AB350022
Light cover and filter cover (4) (5)	white	AB350071
	black	AB350072
PURE MARINE FILTER MEDIA KIT (28) (33)		AC350017
Askoll PURE MAX MINI ceramic cylinders 100g (29)		AC350006

10. PRODUCT DECOMMISSIONING

On the package and/or in the product, the symbol indicating the separate collection of electric and electronic equipment is printed in a visible, readable and indelible way. It consists of a crossed-out wheeled bin. The user shall convey the discarded product to the collection centres in his own Municipality or return it to the retailer when purchasing a new equivalent product, on a one-against-one basis. Suitable separate collection, which allows for the following recycling, treatment and compatible environmental disposal of the discarded product, contributes to prevent to affect negatively the environment and the health, besides easing reuse and/or recycling of the material of which the product is made. Abusive disposal of the product by the user implies the application of the administrative sanctions set forth by the regulations in force in the country of disposal.



Askoll



Askoll Due S.r.l.
Via Industria, 32/34 - 36031 DUEVILLE (VI) - ITALIA
www.askoll.com