Important safety instructions

WARNING - To guard against injury, basic safety precautions should be observed, including the following: **read and follow all safety instructions**

DANGER - To avoid possible electric shock, special care should be taken in the use of aquarium equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorized service facility for service or discard the appliance.

1. If the appliance shows any sign of abnormal water leakage, immediately unplug from the power source.
2. Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.
3. Do not operate any appliance if it has a damaged cord or plug, or if it is malfunctioning or if it is dropped or damaged in any manner. Inspect power cord insulation to be sure there are no cuts or exposed wire. If so, discard and order a new replacement.
4. 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 at right, 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.
5. Close supervision is necessary when any appliance is used by or near children.
6. To avoid injury, do not contact moving parts or hot parts such as heaters, reflectors, lamp bulbs, etc.
7. 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.
8. 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.
9. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.

Save these instructions
Smartwave

Dear Hobbyist,

We thank you for choosing this quality product and we ask that you read carefully the following instructions to understand and appreciate the fantastic and unique characteristics of the Smartwave Controller.

Introduction

Smartwave is the new controller for movement and circulation pumps designed by Hydor. In nature, river and sea currents are a vital part of the natural life cycle of aquatic creatures as they promote oxygenation, transport nutrients and food and remove residues that would otherwise pollute.

Smartwave helps recreate these currents which allow a healthy aquarium and uniform water temperature by selecting one of the 2 available programs:

- **Alternate**: pump 1 ON - pump 2 OFF; pump 1 OFF - pump 2 ON.
- **Synchronous**: pump 1 and 2 go ON and OFF together.

**Details:**

- 2 outlets, both for up to 100W;
- 2 selection knobs, 1 for program (alternating-synchronous), 1 for time interval setting (seconds, minutes, hours);
- Feeding program;

Compact, Smartwave is easy to conceal by hanging it inside the aquarium cabinet.

Designed for Korallis, Smartwave works with most movement pumps available on the market compatible with quick ON-OFF (5 seconds= 6.3 million on/off per year)

**Box contents**

- Koralis Smartwave
- Instruction manual

---

**Description**

a. System ON-OFF switch
b. Program selection knob: alternate, synchronous, feed mode
c. ON-OFF time selection knob
d. LEDs indicating pump functioning
e. LED indicating system is ON
f. Pump's connection channels
g. Electrical Supply cable
h. Hanging eyelet

**Norme di sicurezza**

**Attention:** before operating this system please verify that all components are undamaged especially the cord.

- Before any kind of intervention, ALWAYS disconnect electrical supply of any appliance placed in the water.
- Be sure that the voltage of the mains supply corresponds to the voltage shown on the unit's label.
- The cord of this product cannot be replaced or repaired;
- In case of damage the entire unit must be substituted.
- Do not cut or pull on the electrical cord.
- Always disconnect from mains gently and make sure hands are dry
- To prevent any accidental electric shock keep all connections dry
- Make sure the plug is clean and free of any humidity, moisture and/or calcium/salt deposits
- Please keep these instructions in a safe and dry place.
Installation

Choose carefully where to position your new Smartwave, make sure it is an accessible and safe place, no risk of falling in water (aquarium or sump), out of reach of children and possibly not too humid. Use a screw or very strong Velcro (both not included) to attach the controller to the cabinet or where desired.

Attention: remember that each channel/connector can tolerate up to 100W Max. Position your pump/s (not included) in your aquarium depending on your personal needs and then follow the simple instructions to program your controller.

Programming with 1 pump connected

- Connect your pump to one of the Smartwave channels (if connected to the right-hand channel, when the system is turned on, the pump will start in ON, if connected to the left-hand side the pump will start in OFF)
- Select "1" with program knob (B) fig 1
- Select time exchange between ON-OFF with right-hand knob (C) fig 2
- Turn Smartwave on with the ON-OFF switch (A) fig 3
- The blue LED will confirm the correct start up of the system and will light up when the pump is working (pushing water).
- From the moment Smartwave is turned on the pump will run on and off following the time set.

Programming with 2 pumps connected

Each channel/connector can tolerate up to 100W Max. ATTENTION: pumps will follow programs set, they can not be programmed separately. DO NOT exceed 100W per channel.

- Connect your pump to one of the Smartwave channels
- Select program knob (B) fig 1 select "1" if you wish the pump to function in alternate mode or "2" if you wish the pump to function in synchronous mode.
- Select time exchange between ON-OFF with right-hand knob (C) fig 2
- Turn Smartwave on with the ON-OFF switch (A) fig 3
- The blue LEDs will confirm the correct start up of the system and will light up when the pumps are working (pushing water).
- From the moment Smartwave is turned on the pump will run on and off following the time set.

Manual Feeding Program

If you wish to stop manually the pump/s at any time to feed the aquarium, you can do so by selecting the fish icon with the program knob (B). To restart the pump/s simply exposition the knob on the previously selected program (1 or 2).

The pump/s can be stopped for as long as necessary, without interfering on the pump exchange settings or on the automatic feeding program (if previously set).

Automatic Feeding Program

When feeding fish and especially invertebrates, it is advisable to stop the pumps. With Smartwave you have the possibility of setting the feeding program which will stop the pump/s once or twice a day depending on how many times food distributions are planned. The feeding program must be set before Smartwave is turned on.

- With Smartwave turned OFF, Select the fish icon with program knob (B) fig 1
- Select the number of feedings by positioning the right-hand knob on the 1 fish icon or the 2 fish icon (1 or 2 feedings);
- Turn Smartwave on with the ON-OFF switch (A) fig 3
- The blue LEDs (1 flash=1 feeding; 2 flash=2 feeding) will confirm the program has been selected correctly and the pump/s will stop for 5 minutes. It is advisable that during these 5 minutes you program also the automatic feeder, so both systems will be perfectly coordinated.
- Proceed with programming the pump/s as explained in the in the Programming paragraphs.

Attention:

- The first feeding will occur always at the time when the feeding program was activated.
- 1 feeding a day = the pump/s will stop once a day, every 24hrs, exactly when the program was activated. Ex. If the feeding program was activated at 8.00am, from that moment on the pump/s will stop every 24hrs at 8.00am.
- 2 feedings a day = the pump/s will stop twice a day, at an 8hrs distance. Ex. If the feeding program was activated at 8.00am the pump/s will stop for the first time, they will then top for the second time at 4.00 pm. The following day the pump/s will stop at the same times (8am and 4pm).
- To cancel the feeding program, turn OFF Smartwave completely, wait a few minutes until the LEDs have turned off, then Proceed with programming the pump/s as explained in the in the Programming paragraphs.
European union: disposal information

This symbol means that according to local laws and regulations your product should be disposed of separately from household waste. When this product reaches its end of life, take it to a collection point designated by local authorities. Some collection points accept products for free. The separate collection and recycling of your product at the time of disposal will help conserve natural resources and ensure that it is recycled in a manner that protects human health and the environment.

Guarantee

The device is guaranteed for a period of 24 months from the date of purchase, against defects in material and/or workmanship. Our guarantee does not apply to claims the cause of which is due to installation and operation faults, lack of maintenance, misuse of the device, effects of frost, fungus and lime deposits or amateur repair attempts. The consumable materials and parts subject to wear and tear, that must be periodically replaced for normal maintenance of the device, are not included in our guarantee. The certificate of guarantee must be completed by the retailer and is to be sent with the device in case of return, together with the purchase receipt recording the date of purchase.