

## Smart Level Control User's Guide

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### IMPORTANT SAFETY INSTRUCTIONS

**WARNING** - To guard against injury, basic safety precautions should be observed, including the following:

### READ AND FOLLOW ALL SAFETY INSTRUCTIONS

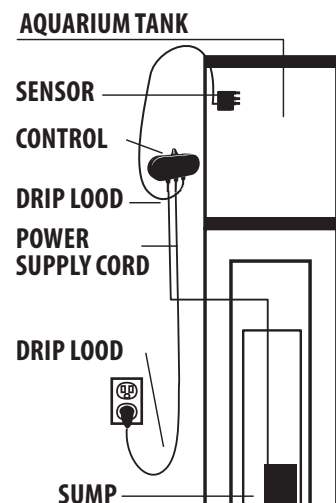
**DANGER** - To avoid possible electric shock, special care should be taken in the use of aquarium equipment. For each of the following situations, do not attempt repairs yourself; return the appliance to an authorized service facility for service or discard the appliance.

1. A) If the appliance shows any sign of abnormal water leakage, immediately unplug from the power source  
B) Carefully examine the appliance after installation. It should not be plugged in if there is water on parts not intended to be wet.  
C) 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.  
D) 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.
2. Close supervision is necessary when any appliance is used by or near children.
3. To avoid injury, do not contact moving parts or hot parts such as heaters,

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reflectors, lamp bulbs, etc.

4. 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.
5. 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.
6. Do not install or store the appliance where it will be exposed to the weather or to temperatures below freezing.
7. Make sure an appliance mounted on a tank is securely installed before operating it.
8. Read and observe all the important notices on the appliance.
9. 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 over heat. Care should be taken to arrange the cord so that it will not be tripped over or pulled.

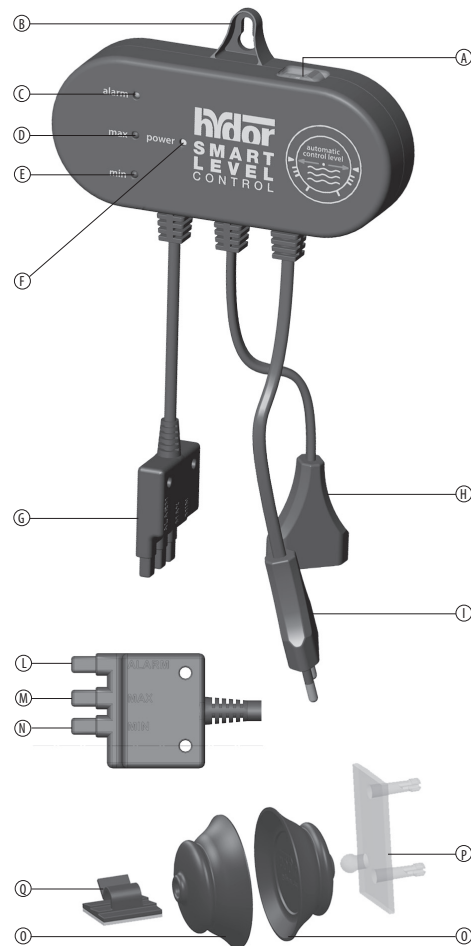


**SAVE THESE INSTRUCTIONS**

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### Assembly

fig 1



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fig 2

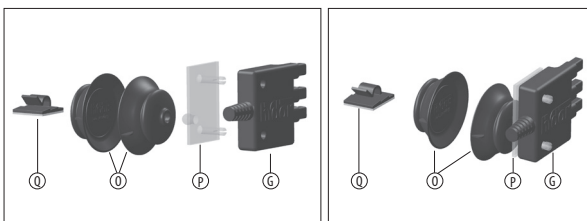


fig 3

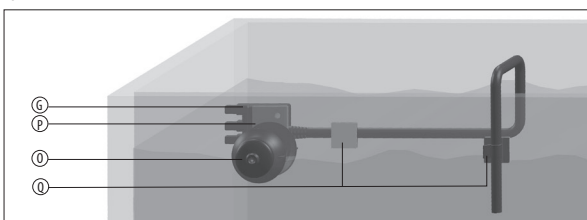


fig 4



fig 5

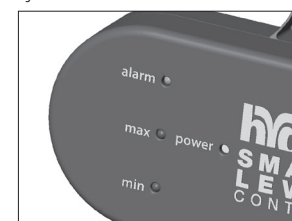
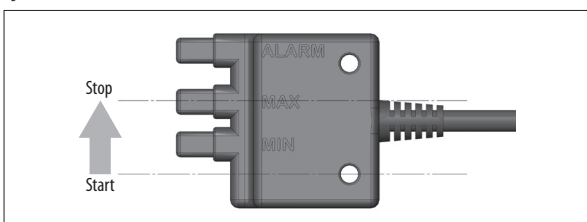


fig 6



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fig 7

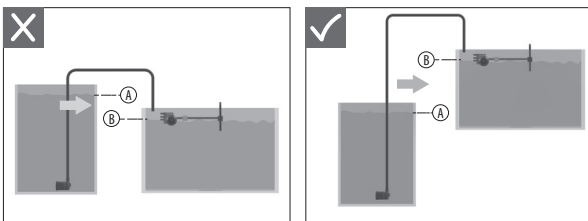


fig 8

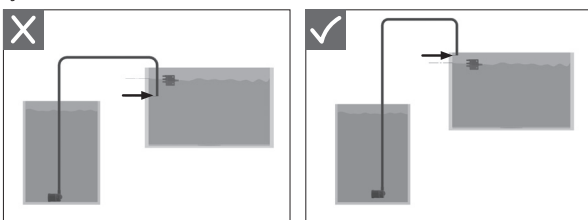


fig 9

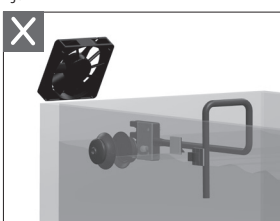
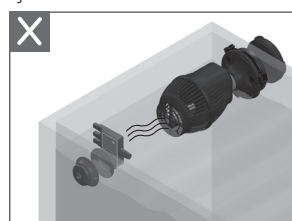


fig 10



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### Smart Level control

Dear Customer,  
Thank you for choosing what we are sure you will find is a first-class product. Please read the instructions below carefully, so you can fully appreciate its features and functions.

**General overview of the product**  
**Smart Level Control** is the new system created by Hidor for the automatic control of the water level in your aquarium.  
**Smart Level Control** allows the water level of your aquarium to be topped up automatically.  
**Smart Level Control** is an intuitive, user-friendly system, equipped with a sensor for checking the water level and a power supply socket for a top-up pump with a maximum power of 50 Watt (not included).

This compact device is easily concealed, and can in fact be hung inside the aquarium cabinet.

#### Content of the box

- Smart Level Control
- Plastic support for sensor
- Magnetic suction cup
- 2 cable clips with adhesive
- Instructions

#### Description -fig. 1-

- |                       |  |
|-----------------------|--|
| A. ON-OFF switch      | G. Level sensor                          |
| B. Hole for fastening | H. Top-up pump power supply socket       |
| C. Alarm LED          | I. Smart Level Control power supply plug |
| D. Max. level LED     | O. Magnetic suction cup                  |
| E. Min. level LED     | P. Sensor support                        |
| F. Power LED          | Q. Adhesive cable clip                   |

Carefully choose where to position your Smart Level control system. It must be easily accessible, clearly visible, not exposed to humidity if possible, and there must be no risk of it falling into the water (aquarium or sump). Keep out of children's reach.

#### How the system works

The electronic sensor of the Smart Level Control system accurately monitors the water level of the sump or aquarium, maintaining it above the MIN level and below the MAX level.  
When the water level FALLS below the MIN level, the system tops up to the MAX level.  
When activated, the ALARM sensor immediately blocks top-up and sets off an audible alarm.

#### Sensor

##### Description -fig. 1-

- L. Alarm Water Level
- M. Maximum Water Level
- N. Minimum Water Level

##### Positioning of the Sensor -fig. 2-

- O. Magnetic suction cup
- P. Transparent plastic support
- G. Sensor
- Q. Adhesive cable clip

#### Installation

Mount the transparent plastic support (P) onto the sensor (G) as indicated (fig. 2).  
Insert one of the two magnetic suction cups (O) onto the transparent support (P), then position the sensor horizontally as shown at the desired level, placing the second magnetic suction cup on the outside (O). For the sensor to be positioned correctly, the maximum thickness recommended for the surface between the two magnetic suction cups must be 10 mm - 0.4 in. Position and fix the cable of the sensor, using the adhesive cable clip provided (Q) so as to prevent the sensor from rotating and guarantee the system functions correctly (fig. 3).

**N.B.:** Clean the inside of the aquarium carefully before applying the adhesive cable clip.  
**N.B.:** If the sensor is slanted or not positioned horizontally, the system may not function correctly.

- **Once the sensor (G) has been positioned correctly:**
- Connect the top-up pump to the outlet socket (H) of the Smart Level Control;
- **N.B.:** The max. power of the top-up pump applicable to the Smart Level Control is 50W. Check the data on the top-up pump ID plate before switching on the system.
- Switch on the Smart Level Control using the ON-OFF switch (A) fig. 4
- The green LED indicates "Power" is on;

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When the switch is ON, Smart Level Control will calibrate the sensor. During this operation, the ALARM, MAX and MIN LEDs (fig. 5) will flash; once calibration is complete, the functioning cycle will begin automatically.

#### IMPORTANT: calibration of the top-up phase

**N.B.:** For the system to function correctly, the sensor requires a top-up time of between 25 seconds and 10 minutes.

Top-up time is the time required for the pump you have connected to the Smart Level Control to take the water level of your aquarium / sump from the MIN level up to the MAX level of the sensor (fig. 6). The MIN and MAX levels can be shown by switching on the LEDs on the Smart Level Control.  
Use a pump with an adequate delivery capacity, or a delivery capacity that can be adjusted.  
If neither of these two alternatives is possible, the delivery capacity of the top-up pump can be reduced by applying a valve to the delivery pipe of the pump to make sure the top-up time for the aquarium/sump is between 25 seconds and 10 minutes.

#### LEDs and alarms

1. **Alarm water level:** Should the water reach "ALARM" level, the power supply of the top-up pump will be disabled, all the LEDs will come on, and an audible alarm will go off (short and repeated in rapid succession) until the level drops below ALARM. **N.B.:** This alarm may go off when the water is topped up in a shorter time than indicated above, or if the sensor is positioned incorrectly.
2. **Max. top-up time exceeded:** the system has a top-up time control system set at a maximum of 10 minutes. If the MAX level is not reached within 10 minutes, the power supply of the pump is disabled, along with the MIN, MAX and ALARM LEDs, and an audible alarm is activated (long and repeated in slow succession). This may occur if the pump is functioning dry, or if top-up time lasts for more than 10 minutes, as indicated above. In such cases, Smart Level Control will shut down and must be restarted. To restart the system, press OFF and then ON (A).

#### Notes for proper installation

1. The water level of the top-up container (A) must be lower than that of the aquarium (B) (fig. 7).
2. Keep the top-up pipe above the maximum desired water level, so as not to trigger a "siphon effect" (fig. 8).
3. If a fan is used to cool the surface of the water, do not direct the air flow towards the sensor (fig. 9).
4. Avoid directing the flow of movement pumps towards the sensor (fig. 10).

#### Maintenance

The sensor (G) should be cleaned at least every 3 months; remove any material that may have collected on the sensor (G) to ensure it functions correctly. The sensor (G) may be applied using different methods; it is up to the customer to select and verify the suitability of any other methods used.

#### FAQ

##### The system does not top up the water

- If the sensor has been installed correctly:
1. Check the power supply of the Smart Level Control;
  2. Check that the top-up tank is not empty;
  3. Check that the top-up pump is connected to the outlet of the Smart Level Control;
  4. Check that the top-up pipe is positioned as shown in the drawings.

##### The Smart Level Control alarm has gone off

If the sensor has been installed correctly:  
Top-up time has not taken place within the interval specified; water has reached the ALARM level, or has not reached the MAX level in the period of time established.

1. Check that top-up time has not taken place within the interval specified under "Installation".

#### 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, furring 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.