

# **D-D The Aquarium Solution Advanced ATO Controller User** Manual

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**D-D The Aquarium Solution Advanced ATO Controller** 



# Specifications:

• Product: D-D Advanced ATO

• Power Requirement: 12V

• Minimum Clear Tube Length: 40mm

## **Product Usage Instructions**

# Installation and Setup:

- 1. Ensure the siphon break is positioned higher than the water level in the reservoir to prevent siphoning.
- 2. Place the Advanced ATO controller in a location away from splashing water and high humidity. Do not mount directly above open water.
- 3. Attach the optical sensor bracket and float sensor to their respective positions as per the diagram provided.
- 4. Connect the clear refill tube to the pump and position it securely in the top-up reservoir.
- 5. Cut and fit the clear tube with the siphon break connector ensuring proper positioning above the water level.
- 6. Securely attach the remaining clear tube to the sump/aquarium using the refill tube holder.
- 7. Connect the power adapter to the controller and plug into a suitable mains power outlet.

## **Product Usage:**

1. The pump LED will illuminate and activate when the water level drops due to evaporation, refilling the sump/aquarium back to the operating level.

# **UNPACKING**

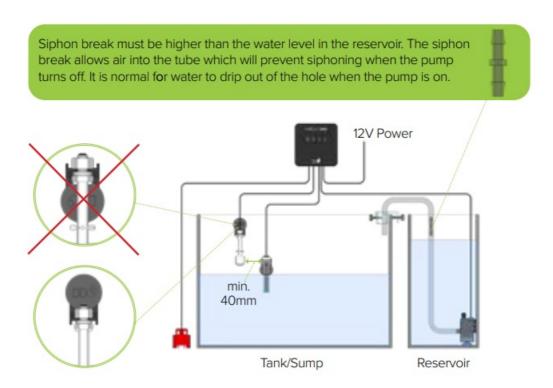
Once opened, please inspect the product for any visible damage and check all parts are included. Please contact your retailer immediately if any defects are found during unpacking.

#### **Box Contents:**

- Advanced ATO controller with optical sensor
- · Magnetic bracket for optical sensor
- · Float sensor with magnetic bracket
- Flood detection sensor
- Low voltage submersible pump
- Clear 8/11mm refill tube, 2 meters
- · Anti siphon connector
- · Refill tube holder
- Multi region power adapter, DC12V 1A

#### **INSTALLATION AND SETUP**

Siphon break must be higher than the water level in the reservoir. The siphon break allows air into the tube which will prevent siphoning when the pump turns off. It is normal for water to drip out of the hole when the pump is on.



The Advanced ATO controller needs to be fixed in a suitable location away from splashing water and areas of high humidity. It should not be mounted directly above open water. Do not connect power to the ATO unit until setup is complete.

1. Attach the bracket to the optical sensor so that the magnetic part is below, as shown in the diagram. Then position at the normal operating level of your sump / aquarium, the cable should be facing upwards and the waters surface level with the indicator line marked on the sensor. Avoid setting up the sensor in an area with micro bubbles or in an area of high illumination as this may affect the sensor operation.

- 2. Mount the float sensor to its bracket with the magnetic part facing upwards, as shown in the diagram. The float sensor is used as a secondary backup and should be positioned with the cable facing upwards and bottom of the float toggle just above the optical sensor. Allow a minimum gap of 40mm between the sensors to avoid interference. Plug the connector on the end of the cable into the right hand sensor port on the controller.
- Connect the clear refill tube to the pump and position it in the top up reservoir. The pump should be securely
  fixed in an upright position using its suction cups. Laying the pump flat may prevent the integrated sensor
  detecting a low water level properly.
- 4. Cut the clear tube just above the maximum fill level of the top up reservoir and fit the siphon break connector so the hole in the side will always be above the water level, as shown in the diagram.
- 5. Attach the remaining piece of clear tube to the siphon break connector and secure the other end to the sump / aquarium using the refill tube holder. The open end of the PVC tube must be positioned above the water level in the sump / aquarium.
- 6. Push the splash proof power connector on the end of the pump cable into the connection on the controller and secure together with the locking ring.
- 7. Position the red flood detection sensor on the cabinet base or on the floor next to the cabinet, the two metal pins must be facing down. Plug the connector on the end of the cable into the remaining sensor port on the controller.
- 8. Connect the power adapter to the controller and plug into a suitable mains power outlet socket, the controller will beep once, and the power LED will illuminate green. Setup is now complete, when the water level drops due to evaporation the pump LED will illuminate and the refill pump activate, refilling the sump / aquarium back to the operating level.

## **ALARMS AND ALERTS**

LED	STATUS	EXPLANATION	ACTION
Power	Solid green	Unit is powered on	No action required.
	Off	No power to the controller	Check power connections and plug socket.
Pump	Solid Blue	Refill pump is running	No action required.
	Rapid red flashin g with alarm	Refill pump is not detected o r damaged	Check that the refill pump is connected to the con troller properly. Replace the pump if faulty.
	Red flashing wit h alarm	Low water level detected in f reshwater reservoir	Refill the freshwater reservoir. Check that the pump is positioned correctly.
	Off	Refill pump not activated	No action required.
S1	Rapid red flashin g with alarm	Optical sensor has detected a high or low water level	Check that the anti-siphon connector is fitted corr ectly and the hole in the side is clear. Check for c auses of high or low water levels in the aquarium/ sump.
	Red flashing wit h alarm	Time out alarm, the refill tim e is longer than it should be	Check that the pump is operating and the refill tu be is connected properly. Clean the impeller on th e pump.
	Off	No alerts	No action required.
S2	Rapid red flashin g with alarm	Float sensor has detected a high water level	Check the optical sensor is operating correctly. C heck for causes of a high water level in the aquari um / sump.
	Red flashing wit h alarm	Leak detector sensor has be en activated	Check for leaks or water spillages.
	Off	No alerts	No action required.

# **MAINTENANCE**

We recommend checking the sensors regularly to make sure they are clean, any build-up of algae or debris may prevent correct operation and should be removed with a soft brush, scratching the surface of the optical sensor must be avoided. The refill pump should be cleaned every 4 to 6 months, it is important that the intake grill and

impeller are removed and cleaned. Any minerals or additives added to the freshwater reservoir may cause deposits inside the pump and more frequent cleaning may be required.

#### LIMITED WARRANTY

Warranty is only valid for units correctly installed, used and maintained, all faults caused by improper use or water damage are not covered. Should any defect in material or workmanship be found within 12 months of the date of purchase D-D The Aquarium Solution Ltd undertakes to repair, or at our discretion replace the defective part free of charge. Our policy is one of continual technical improvement and we reserve the right to modify and adjust the specification of our products without prior notice. Any warranty claim without valid proof of purchase will not be accepted.



For further information on the D-D Advanced ATO or other available products visit <a href="https://www.theaquariumsolution.com">www.theaquariumsolution.com</a>

D-D Advanced ATO www.theaquariumsolution.com

#### FAQ:

• Q: What should I do if water drips out of the hole when the pump is on?

A: It is normal for water to drip out of the hole when the pump is on as the siphon break allows air into the tube to prevent siphoning when the pump turns off.

• Q: Where should I position the red flood detection sensor?

A: Position the red flood detection sensor on the cabinet base or on the floor next to the cabinet with the two metal pins facing down.

#### **Documents / Resources**



**D-D The Aquarium Solution Advanced ATO Controller** [pdf] User Manual Advanced ATO Controller, ATO Controller, Controller

## References

- **D&D** Aquarium Solution | D-D The Aquarium Solution
- User Manual

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