

# Arctic Chiller



# Aqua One®

1/6HP, 1/3HP, 3/5HP

Inspiring Excellence in Fish Care!



Instruction version: 13/10/2010

[www.aquaone.com.au](http://www.aquaone.com.au)

# Important Safeguards

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

1. Read and follow all safety instructions and important notices in these instructions as well as on the product itself.

2. This appliance is not intended for use by children or infirm persons without supervision. Young children should be supervised to ensure that they do not play with the appliance.

3. To avoid possible electric shocks, 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 yourself. Return the appliance to an authorised service facility for service or discard the appliance.

a. If the appliance or any electrical component of the appliance (non-immersible equipment only) falls into the water or gets wet, do not reach for it. Unplug it and then retrieve it.

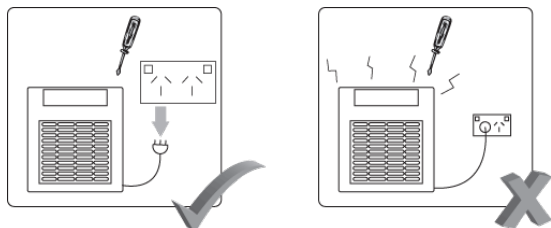
b. If the appliance shows any sign of abnormal water leakage, immediately unplug it from the power source.

c. Carefully examine the appliance after installation. It should not be plugged in if there is water on parts which are not intended to be wet.

d. Do not operate the appliance if it has a damaged cord or plug, or if it is malfunctioning, or dropped or damaged in any manner.

4. A “drip loop” (see graphic) should be arranged for each cable connecting an aquarium to a power supply. The drip loop is the part of the cable below the level of the power supply. It prevents water travelling down the cable and coming into contact with the power supply. If the plug or the socket does get wet, do not unplug the appliance. Disconnect the fuse or circuit breaker that supplies the power to the appliance, then unplug and examine for presence of water in the socket.

5. Always unplug the appliance from the electrical outlet when not in use, before putting on or taking off parts, before any type of maintenance or cleaning.



6. Never yank the cable to pull it from the socket. Pull the plug carefully to disconnect.

7. Do not use the appliance for reasons other than the intended use. The use of attachments that are not recommended or sold by the manufacturer may cause the product to be unsafe. This is not recommended.

8. Do not install or store the appliance where it will be exposed to weather or temperatures below freezing.

9. Make sure any component mounted on a tank is securely installed before operating it.

10. Ensure input voltage is the same voltage as your local power supply.

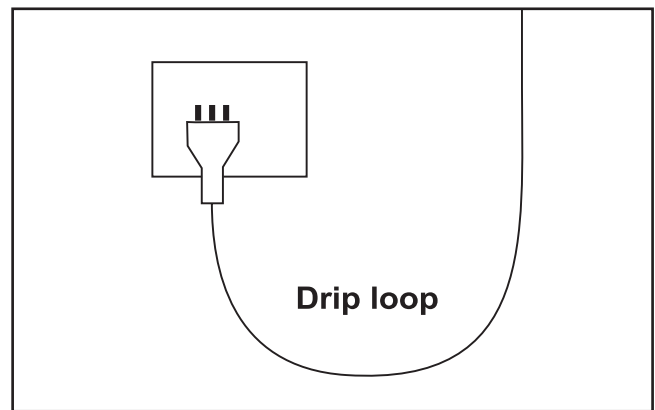
11. If an extension cable is used it should have the proper rating. Care should be taken to arrange the cord so that it will not be tripped or pulled.

12. A G.F.C.I (Ground fault circuit interrupter) & surge protector is recommended for all electrical appliances.

13. Ensure your hands are dry when turning the power switch on/off and when inserting/removing the power cable from the socket.

14. If you are in any doubt about the electrical installation or safety of this product you must consult a qualified electrician.

15. This product is intended for indoor use only.



**For Guarantee Conditions, please refer to the Guarantee form that is enclosed with this product.**

All products are supplied with fitted plugs. This plug should not be tampered with in any way or removed. Removal or tampering with the plug invalidates our guarantee offered with this product.

For UK a 3 pin adaptor is supplied with the product and this must be used.

# Before First Use / Preparation

## IMPORTANT INFORMATION

The maximum ambient temperature is 50°C. This chiller is rated to decrease the water temperature by up to 7-8°C for the listed aquarium volume. If the chiller is used inside a cabinet, there must be adequate ventilation in the cabinet for heat to escape. At minimum you should consider utilising at least two cross flowing vents in the cabinet ideally with an exhaust fan for heat removal.

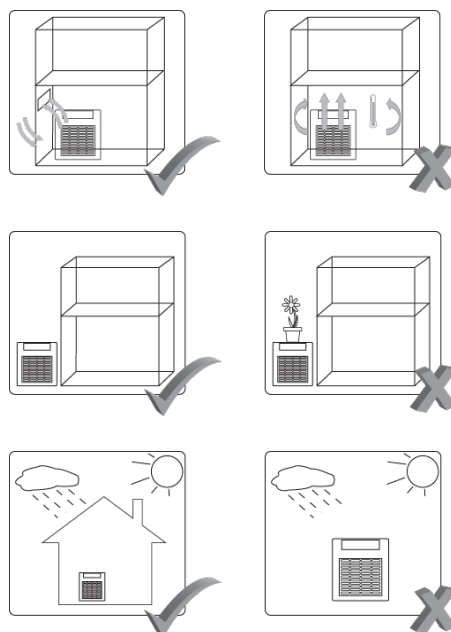
Read and follow all the instructions, even if you feel you are familiar with the product and find a place to keep the instructions handy for future reference.

Your attention is drawn particularly to the sections concerning “**IMPORTANT SAFEGUARDS**” and the “**GUARANTEE CONDITIONS**”. Please ensure you retain your original purchase receipt in the event that guarantee service is required. Carefully unpack the filter making sure you keep all the packing material until all the parts of the product have been found and the product has been assembled.

This product is shipped to you in a factory sealed carton. Should the product malfunction in any way or if the unit is damaged and requires replacement, contact the retailer where the product was purchased for inspection.

## Hints & Tips

1. Place the unit on a level surface.
2. Allow adequate ventilation. Allow sufficient clearance to the front and sides of the chiller to allow adequate air flow.
3. Do not cover the unit. Covering the vents on the front, back and sides of the chiller could cause the unit to overheat and will prevent the unit from cooling efficiently.
4. Do not place items on top of the chiller.
5. Keep the chiller away from direct sunlight, moisture, dust and flammable materials.
6. Do not tilt the chiller. If the unit has been transported or stored on the side it must be left upright for 24-48hrs before being turned on.
7. Heat is generated by light units, especially metal halides as well as submersible pumps and other electrical equipment. Consider the heat input of these items and consider switching off some of these components in extreme heat conditions.



# Installation

1. Place the chiller in a well ventilated, level area.
2. The chiller is supplied with 19mm inlet and outlet hoses. Attach the hose to the inlet fitting. Use the supplied hose clamp to secure the hose. The water being supplied to the chiller should be pre-filtered to avoid buildup in the internal pipes.
3. Attach the hose to the outlet fitting. Use the supplied hose clamp to secure the hose. The outlet should not be placed close to the pump that is feeding the chiller. Use the supplied hose clamp to secure the hose. The water being supplied to the chiller should be pre-filtered to avoid buildup in the internal pipes.
4. Attach the hose to the outlet fitting. Use the supplied hose clamp to secure the hose. The outlet should not be placed close to the pump that is feeding the chiller.
5. Turn on the water supply to the chiller. Allow it to run for a few minutes before turning the chiller on at the power supply.
6. Check all hoses and connections for any kinks or leaks.
7. Plug the chiller in at the power supply.
8. There is a power switch located at the back of the unit. Switch on the chiller.
9. Set the chiller to the desired temperature. Press and hold the set button (fig. 1) on the control pad for 5 seconds, until the display flashes displaying P and a 2 digit number. This is the temperature the chiller is set to. Use the up and down buttons to select the desired temperature. Once the correct temperature is displayed, press the set button again.

The switching temperature can be set to a variance of either 1, 2 or 3°C. In order to change this, press the Set and Up arrow buttons (fig. 2) together for 5 seconds. Either a 1, 2 or 3 will be displayed. Use the up or down keys to switch between these settings then press Set to confirm the value. The chiller will turn on once the temperature reaches this value above the set temperature and switch off once the aquarium temperature is below the set temperature. For example if the chiller is set to 25°C with 2°C variance, the chiller will switch on at 27°C and switch off at 24.9°C.

**NOTE:** If installing the chiller on an existing aquarium, drop the temperature by only 1-2°C per day.

If the chiller is switched off it will take a minimum of 3 minutes for it to come back on.

# Maintenance

**When performing any maintenance on this unit, ensure the power has been switched off at the power supply and the plug has been disconnected.**

It is recommended to clean the intakes on the chiller once a month. Failure to do so may cause the chiller to overheat and suffer permanent damage. In order to clean the unit, remove the plastic covers then using a soft bristled brush, thoroughly brush the entire grill. Vacuum the area to remove any dust/dirt that has come loose.

**CAUTION:** When cleaning the chiller, do not use water on the external parts or the radiator. The chiller must remain dry at all times.

If the chiller has not been run for an extended period (for example after being switched off during winter), flush the chiller with freshwater or freshly mixed salt water. Discard the water that is flushed out of the unit.

## CALIBRATION

This unit can be calibrated to  $\pm 1.5^{\circ}\text{C}$  from the displayed temperature. Calibration should be done using an accurate thermometer and can be used to calibrate the chiller to aquarium temperature where heat is generated in water before it is supplied to the chiller, for example by heaters or pumps. To calibrate the temperature press and hold the Up and Down buttons (fig. 3) together for 5 seconds. A temperature of between  $-1.5^{\circ}\text{C}$  and  $1.5^{\circ}\text{C}$  will be displayed. Use the Up and Down buttons to set the desired calibration value then press the set button to confirm the value.

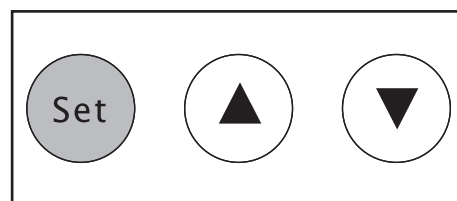


Fig. 1

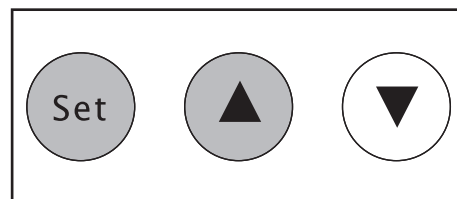


Fig. 2

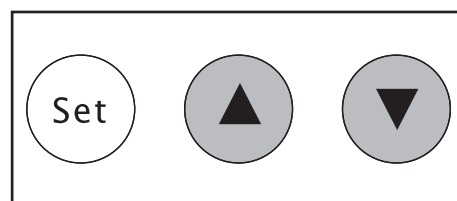


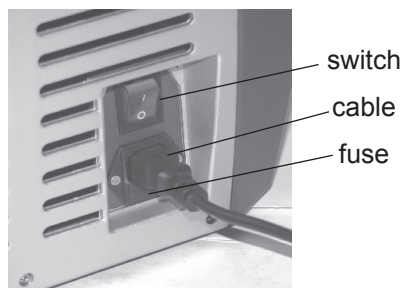
Fig. 3

## Trouble Shooting

## Specifications

### CONTROL PANEL DOES NOT COME ON

1. Check the chiller is plugged in.
2. Check the switch is in the “on” position.
3. Unplug the unit. Unscrew the fuse on the chiller and verify that it is not blown. Replace if necessary. The fuse is located beneath the power cable and the power switch in the location shown below.



### THE CHILLER IS NOT COOLING THE WATER OR NOT COOLING ADEQUATELY

1. The chiller is not placed in an area with sufficient ventilation. Ensure the air intake and outlets are not obscured.
2. The radiator needs to be cleaned. Refer to maintenance instructions.
3. The set temperature is higher than the water temperature. Check the set temperature and adjust if necessary.
4. The water flow is too slow or too fast. Ensure flow rate through the chiller is as per the recommendations.

### THERE IS NOISE COMING FROM THE CHILLER UNIT

1. The chiller is not placed on a level surface.
2. The noise is being caused by vibrations due to objects sitting on or leaning against the unit. Ensure nothing is in direct contact with the chiller.

### AN ALARM IS SOUNDING AND THE DISPLAY IS FLASHING

1. If the display is flashing “LLL” the temperature is below the minimum operating temperature (0°C). Switch the unit off until air temperature is above this temperature.
2. If the display is flashing “HHH” the temperature is above the maximum operating temperature (50°C). Switch the unit off, check for obstructions around the air intake/outlets. The unit will not operate if air temperature is above the maximum operating temperature.

**Chiller Model:** Arctic 1/6HP  
**Dimensions:** 39x32x46cm  
**Max Aquarium Volume:** 300L  
**Flow Rate:** 800-2200L/hr  
**Inlet/Outlet Size:** 19mm  
**Power Requirements:** 220 ~ 240V  
**Power:** 1/6HP  
**Refrigerant:** R134A  
**Suitable:** Marine

**Chiller Model:** Arctic 1/3HP  
**Dimensions:** 46x39x52cm  
**Max Aquarium Volume:** 650L  
**Flow Rate:** 1200-3600L/hr  
**Inlet/Outlet Size:** 19mm  
**Power Requirements:** 220 ~ 240V  
**Power:** 1/3HP  
**Refrigerant:** R134A  
**Suitable:** Marine

**Chiller Model:** Arctic 3/5HP  
**Dimensions:** 48x52x52cm  
**Max Aquarium Volume:** 1000L  
**Flow Rate:** 1800-4800L/hr  
**Inlet/Outlet Size:** 19mm  
**Power Requirements:** 220 ~ 240V  
**Power:** 3/5HP  
**Refrigerant:** R134A  
**Suitable:** Marine

**Disposal of used Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems)**



This symbol on the product or on its packaging indicates that the product must not be disposed of with normal household waste. Instead, it is your responsibility to dispose of your waste equipment by arranging to return it to a designated collection point for the recycling of waste electrical and electronic equipment. By separating and recycling your waste equipment at the time of disposal you will help to conserve natural resources and ensure that the equipment is recycled in a manner that protects human health and the environment. For more information about recycling this product, please contact your local city office, your household waste disposal service or the shop where you have purchased the product.





# Aqua One - Guarantee 1 + 1 Year

The additional 1 Year **Extended Guarantee** applies when you REGISTER online with Aqua One. Register your Extended Guarantee at [www.aquaone.com.au](http://www.aquaone.com.au)

## About this Guarantee

The Manufacturer or Distributor, of Aqua One goods, is collectively known herein as "Aqua One". Please refer to contact details for Aqua One below or on the applicable Aqua One website. Any product that is covered by its own Guarantee (as enclosed with the product) is subject to the conditions of that Guarantee.

The benefits given to the purchaser, under Guarantee, are in addition to all other statutory rights and remedies which the purchaser has in respect of goods under legislation in the applicable country of purchase. This Guarantee shall not affect any such rights and should be read subject to such legislation.

## 1.0. Terms and Conditions of Guarantee.

- 1.1. Aqua One warrants to the purchaser, for 1 Year from date of original purchase, to repair or replace goods where fault is found due to defective materials or faulty workmanship and where goods do not operate in accordance with the instructions.
- 1.2. All claims for repair or replacement must be made at place of purchase.
- 1.3. The original and dated Proof of Purchase (receipt) must be supplied with all goods claims. Please also provide this Guarantee where possible.
- 1.4. The Guarantee covers the Aquarium against gluing breakdown resulting in leakage.
- 1.5. All goods subject to claim under Guarantee should be prepared for transportation in the original packaging or other comparable packaging which offers the same degree of protection.
- 1.6. Where goods are repaired or replaced under Guarantee, these goods are Guaranteed for the remainder of either the original Guarantee or Extended Guarantee period.
- 1.7. Where claims on inspection reveal goods are in normal working order, Aqua One will request reimbursement of all reasonable costs incurred.

## 2.0. Other Terms and Conditions – Extended Guarantee

- 2.1. The Extended Guarantee period is for an additional 1 Year and commences on expiration of the standard guarantee period.
- 2.2. Application for Extended Guarantee is FREE of any registration cost to the purchaser on completion of the Extended Guarantee questionnaire which is found on the applicable Aqua One website (refer below).
- 2.3. Upon receipt and acceptance of the questionnaire, Aqua One will forward (by way of email) a Certificate of Extended Guarantee to the purchaser.
- 2.4. For more information on how we collect, hold, use and disclose personal information provided to us, please refer to our Privacy Statement on the Aqua One websites or write to our Privacy Officer, in your country of purchase.
- 2.5. Where Aqua One determines goods are being used in a manner contrary to the instructions, specifications or this Guarantee, Aqua One reserves the right to terminate Extended Guarantee for such goods and will provide written notice to the purchaser.

## 3.0. Exclusions and Limitations

Where permitted by local law, the following exclusions and limitations apply in regard to Guarantee:

- 3.1. Goods claims where fault is due to, but not limited by a) misuse b) neglect c) abuse d) fire or flood e) normal wear and tear f) accidental breakage g) Acts of God h) mains voltage fluctuation or supply problems i) connection to any voltage other than what is stated on the rating plate j) modification or tampering to electrical cord or plug, k) vermin, insects or foreign object l) liquid spillage or submersion of goods not designed to sustain such use or duress.
  - 3.2. Where inspections reveal goods are in normal working order including where noise or vibration is consistent with normal goods operation.
  - 3.3. Attempted repairs or modifications by unauthorised persons, including but not limited to the drilling of holes in the aquarium glass by unauthorised persons.
  - 3.4. Where the goods factory rating plate has been removed, altered, damaged or is rendered illegible.
  - 3.5. Where goods are not installed, operated or maintained in accordance with Aqua One's goods instructions, specifications or this Guarantee.
  - 3.6. Replacement or repair of worn consumables or replacement of lost goods, parts or components.
  - 3.7. Costs associated with goods transportation, removal, installation, postage or cost of insurance.
  - 3.8. Any damage incurred whilst installing, transporting or moving the goods.
  - 3.9. Subject to certain local statutory rights and obligations to the contrary, and this guarantee shall not affect those rights or obligations, where, to the full extent permitted by law: 1. all express and implied warranties and conditions under statute or general law, are expressly excluded and Aqua One, where permitted, will limit liability as follows and at Aqua One's option to: in regard to goods either a) the replacement of goods or supply of equivalent goods b) the repair of goods or the cost of replacing the goods or of acquiring equivalent goods OR in regard to services either c) the re-supply of services d) the cost to re-supply services.
2. Aqua One will not be liable for any loss or damage, including consequential loss or damage either directly or indirectly, or for any incidental expenses, of any kind, and in any way whatsoever.

The additional 1 Year Extended Guarantee applies when you REGISTER online with Aqua One. Register your Extended Guarantee at [www.aquaone.com.au](http://www.aquaone.com.au)

(1) Consumables include items such as replacement light tubes.

Aqua One may be contacted in: Australia Kong's (Aust.) Pty. Limited PO Box 863, Ingleburn 1890 NSW Australia <a href="http://www.aquaone.com.au">www.aquaone.com.au</a>
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