ELECTRIC CHILLER

AquaChill 100 Instructions / Warranty

Features:

1. Thermo-electric Chiller
2. For fresh and salt water aquariums
3. Micro-processor conducted
4. Silent - Easy to install
5. Temperature reach 22°C - 30°C
6. Reduces water temperature 3°C to 4°C in a 100L aquarium

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Safety precautions

Read the instructions carefully before use.

1. Do not disassemble nor modify the AquaChill 100 in order to avoid electrical shock or fire hazard. If opened warranty expires.
2. Do not use other electric wires or plugs than the ones supplied with the AquaChill 100.
3. To prevent electric shock, do NOT touch the power source with wet or sweaty hands, or when the power source itself is wet.
4. A pump with a water debit of 400 to 1000 liters per hour is recommended.

Parts List

AquaChill 100

1. Water inlet / outlet
2. Switcher (Pos O : strong cooling
   Pos -- : slow cooling / standby)
3. Function indicator LED (green)
4. Temperature adjuster knob
5. Cooling light indicator LED (red)
6. Upper cover
7. Ventilation (underneath)
8. Air outlet
9. Lower cover
10. 12V electric connecting wire set

Power source

11. Radiator fan
12. On / Off switch
13. Socket
14. Power source 115V/230V selector
15. Radiator grid
16. 12V socket

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Cautions

Please read carefully before installing the AquaChill 100

The AquaChill 100 must be placed in an area with good ventilation. Avoid exposing it to direct sunlight ***(fig. 17).*** DO NOT to put it in a small, confined place, in order to prevent a decrease in efficiency. Make sure you have enough air circulation

The AquaChill 100 is operated by a power source. ***Careful !!! Always put the position on 230V when the power source of your home is 220/230V (fig. 29). In case of a wrong setting (for example; using 115V position on 220/230V , the power source will be severely damaged (short circuit)***. No warranty applies in this case.

The Aquachill 100 produces heat while cooling, so make sure the air inlet and outlet of the Aquachill 100 is not blocked. Assure a good air flow, as it increases the efficiency of the Aquachill 100. ***(fig. 18)***

Always put the AquaChill 100 on a flat and stable surface. ***(fig. 19)***

The recommended content of the tank is approx. 100 liters. Indoor use only. ***(fig. 20)***

Avoid the power source and the AquaChill 100 body getting wet ***(fig. 21).***

Make sure the connections of the power cord and d.c. 12V are set correctly. This avoids electrical damage ***(fig. 22).***

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Installation

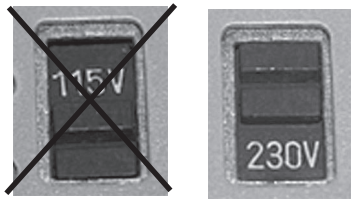
- Turn the screw(s) of the water inlet and outlet to the lowest position. ***(see direction fig. 23)***

- Put the tubes over the water inlet and outlet ***(fig. 24)***

- Push the tube until it reaches the lowest part of the outlet / inlet connection. ***(fig. 25)***

- Tighten the screw(s) by hand ***(see direction on fig. 26)***

Careful !!! Always put the position on 230V when the power source of your home is 220/230V . In case of a wrong setting (for example; using 115V position on 220/230V , the power source will be severely damaged (short circuit).



- Plug the connecting wire of the AquaChill 100 into the Power source (6-Pin connection) ***(fig. 27a & 27b)***

- Put the plug in the socket of power source before determining the voltage. Do not connect the power cord. ***(fig. 28)***

- After completion of the basic installation, let the water circulate 5 ~ 10 minutes. Make sure there are no air bubbles left in the water pipe. ***The AquaChill 100 is now ready for use.*** You can now connect the power.***(fig. 30a)*** Make sure the power cable is in a loop.***(fig. 30b)***

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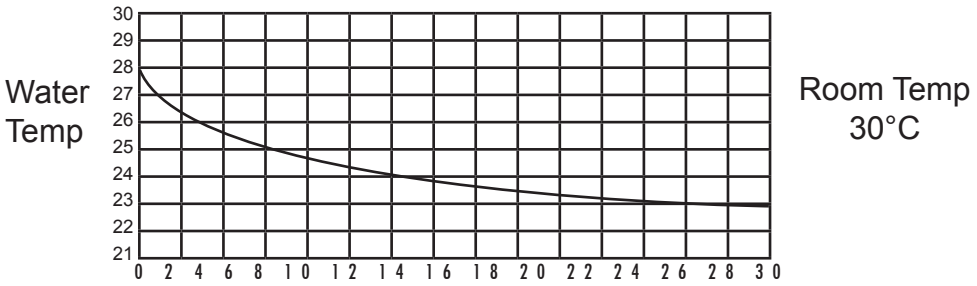
- Press the ‘On’ button ***(fig. 31)***, a green light appears on the AquaChill 100. While the AquaChill 100 is running, the cooling fan could make a little noise.

Setup

- Set the temperature adjuster to the desired temperature setting. ***(fig. 32)*** When the water temperature becomes higher than the temperature setting, an orange LED lights up, the AquaChill 100 starts cooling, and the cooling fan starts to run. If the water temperature drops below the temperature setting, then the orange LED turns off and the cooling fan stops running.
- On top of the AquaChill 100 you’ll find a switcher with 2 positions : (-) and (0). These have an individual function. ***(fig. 33)***
- Pos (-) is used for smaller aquariums with a tank capacity of less than 40 liters. This is the stand-by (and power-saving) position, and ideal for most smaller aquariums.
- Pos (0) is used for aquariums with a tank capacity of more than 50 liters, or when you have a high room temperature.Pos (0) is a full-power position.
- Cooling effect (at strong cool setting) : for a 100 liter aquarium, at room temperature of 30°C, it will take 24 to 36 hours to lower the water temperature with approx. 5°C. (The chart is for reference only, actual cooling will depend on the surroundings of the aquarium). ***(see below)***



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Maintenance

The AquaChill 100 has a very low maintenance, yet a few rules have to be applied :

- Do not clean the AquaChill 100 body with water, but wipe it with a dry cloth instead. ***(fig. 34)*** Do not disassemble the AquaChill 100, the warranty then expires.
- In case of insufficient air apport on the inlet or outlet of the ventilator due to dust , clean it with a brush or vacuum cleaner ***(fig. 35),*** thus prolonging the lifetime and efficiency of the AquaChill 100.
- Check the tubing of the water in- and outlet regurarly. If they are dirty, replace them.
- When moving the AquaChill 100 or his Power source, ALWAYS unplug the power cable first. ***(fig. 36)***

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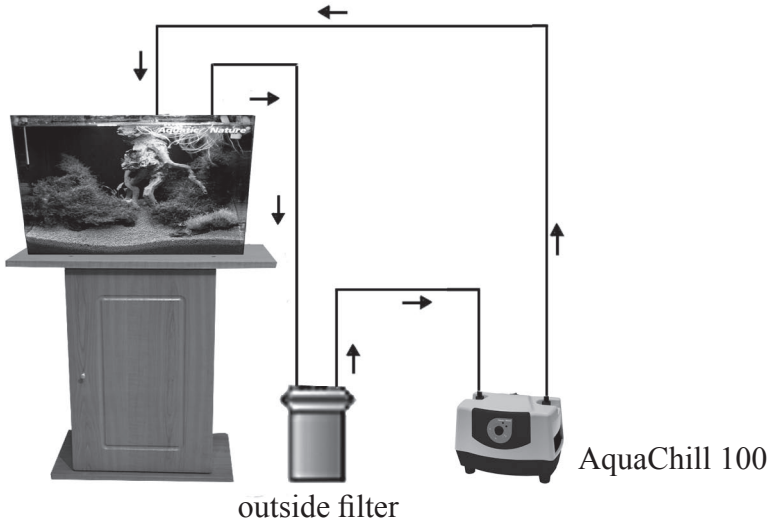
Actual Application Examples

1. User application with outside filter



To avoid a decrease in efficiency, minimize the length of the water tube between the AquaChill 100 and the tank (apply a correct position). In other words, keep the distance from the outlet of the filter to the inlet of the AquaChill 100 as short as possible.

Caution :

1. Make sure the AquaChill 100 **never** operates without water. This could lead to irreparable damage.
2. Place the AquaChill 100 preferably at the same height, or higher than the pump (filter).

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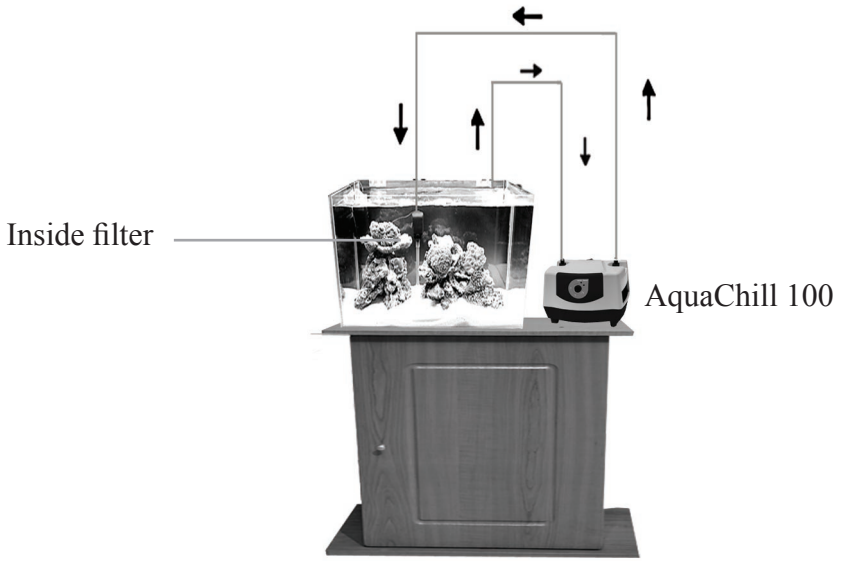
Actual Application Examples

2. User application with inside filter



To avoid a decrease in efficiency, minimize the length of the watertube between the AquaChill 100 and the tank (apply a correct position). In other words, keep the distance from the outlet of the filter to the inlet of the AquaChill 100 as short as possible.

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1. Make sure the AquaChill 100 **never** operates without water. This could lead to irreparable damage.
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Technical Specifications

Name	Aqua Chill
Model	100
Cooling method	Thermo-electric
Voltage	220/230V - 50Hz
Power	Stand-by : 5W Cooling : 120 / 180 W
Temperature Range	22°C ~ 30°C
Dimensions (mm)	Chiller : 270 x 200 x 170 Power source : 91 x 116 x 146
Weight (Kg)	3.5
Dimensions of Connecting tube	Inside dia 12 mm Outside dia 16 mm

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Trouble Shooting

	Problem	Possible reason	Solution
1.	AquaChill 100 not working. No powerlight	1. No power	1. Make sure the AquaChill 100 is plugged in. 2. On/Off switch should be in "ON" position 3. Adaptor not connected.
2.	Water temperature doesn't drop *	1. Air inlet is blocked	Clean the air inlet
		2. Bad ventilation.	Make sure you have a good ventilation
		3. Tubes are too long	Shorten the length of the water tubes.
		4. Aquarium light system too close to water level (too much heat)	Increase the distance between light and water surface
		5. Volume of the aquarium higher than 100 liters	Lower volume of aquarium
		6. Tubes are blocked	Clean tubes or replace them
		7. Distance between pump and AquaChill 100 is too big	Reduce distance between pump and AquaChill 100

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Trouble Shooting

Item	Problem	Possible reason	Solution
		8. Insufficient water supply	Clean filters
		9. Presence of air bubbles	Remove air bubbles

* Caution : due to certain circumstances, the water supply could come to a halt (for example due to a blocked pump). In this situation the water that is still in the Chiller cools off, until it's frozen. If this happens, wait 30 minutes until you restart the Chiller. NEVER let the AquaChill run out of water.

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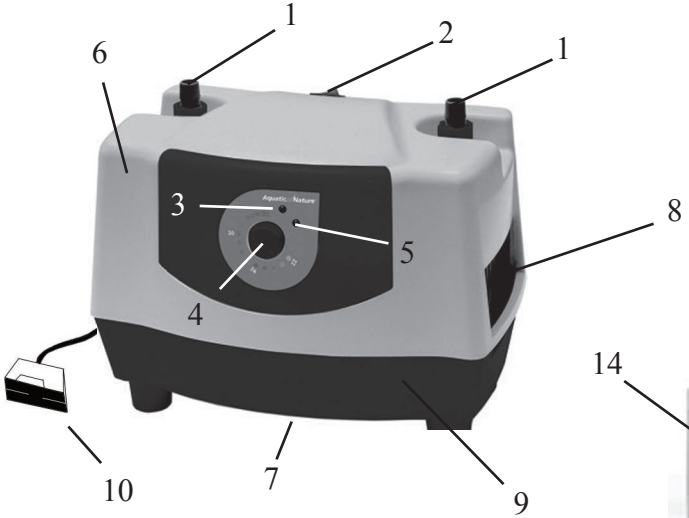

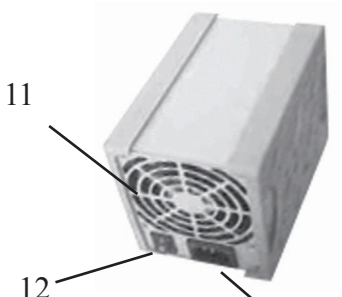

Side View

Fig. 17

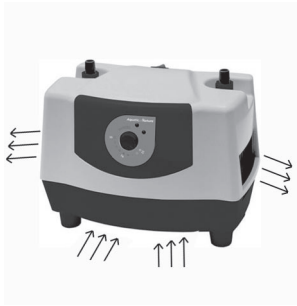

Fig. 18

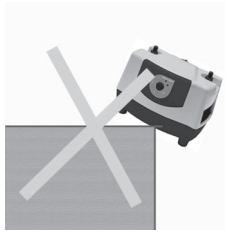

Fig. 19

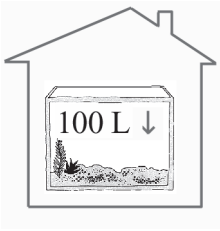

Fig. 20

Fig. 21

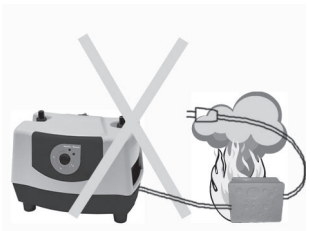

Fig. 22

Fig. 23

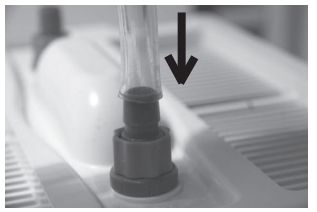

Fig. 24

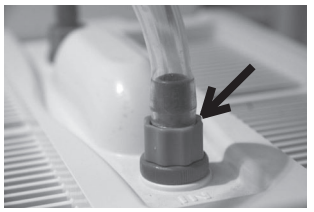

Fig. 25

Fig. 26

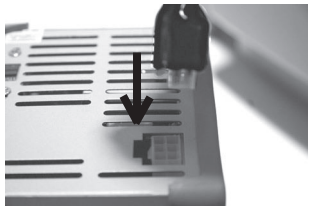

Fig. 27a

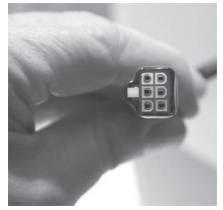

Fig.27b

Fig. 28

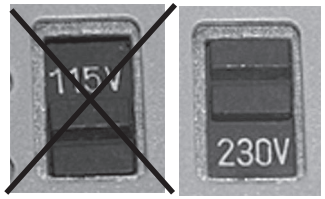

Fig. 29

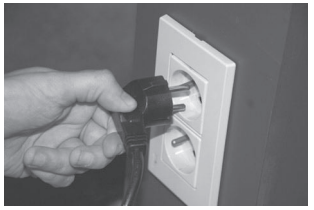

Fig. 30a

Fig. 30b

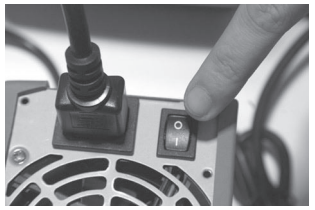

Fig. 31

Fig. 32

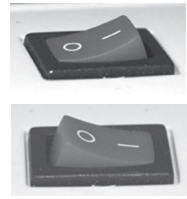

Fig. 33

Fig. 34

Fig. 35

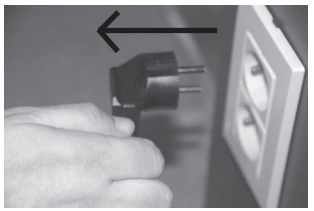

Fig. 36

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