
INSTRUCTIONS

ActiveAQUA[®]

HYDRO CULTURE

WATER CHILLERS



AACH10HP



AACH25HP



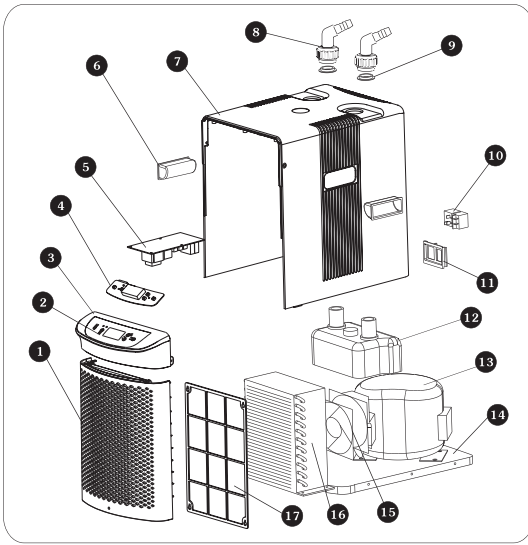
AACH50HP



AACH100HP

INSTRUCTIONS

AACH10HP CHILLER: 1/10 HP (10-40 GALLON)



- 1 Front cover
- 2 Control panel
- 3 Front trim cover
- 4 Button circuit board
- 5 Control circuit board
- 6 Handle
- 7 Top cover
- 8 Water inlet & outlet adaptor
- 9 Seal sleeve
- 10 Switch
- 11 Socket
- 12 Tank (with evaporator)
- 13 Compressor
- 14 Base
- 15 Fan motor
- 16 Condenser
- 17 Filter (front cover)

AACH10HP PERFORMANCE CURVE

THE REFRIGERATION PERFORMANCE TEST IS INDICATED WHEN THE AMBIENT TEMPERATURE IS 86°F (30°C), the water temperature before refrigeration is 82°F (28°C), and the water refrigerated is 150 L (40 gal). When water refrigeration is reduced, the water temperature will drop down to any degree above 39°F (4°C) in a short period of time.

AACH10HP

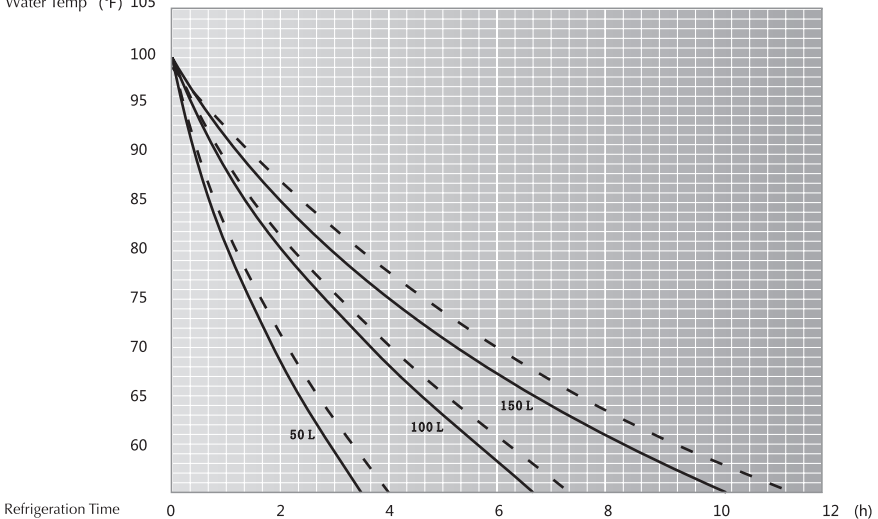
AMBIENT TEMPERATURE: 86°F

RESERVOIR CAPACITY: 50 L, 100 L, 150 L
13 gal 26 gal 40 gal

BOOST SHUT DOWN

BOOST SWITCH ON

Water Temp (°F) 105



INSTRUCTIONS

AACH10HP SPECIFICATIONS

Model	AACH10HP
Rated Voltage	110-120V
Rated Frequency	60Hz
Working Current	2.2A
Power	1/10 HP
*BTU	1020 BTU/H
Refrigerant	R134a
Refrigerant Weight	180–200g
Rate of Flow	132–396 GPH (500–1500 L/H)
Reservoir Capacity	10–40 gal (50–150 L)
Weight	34 lbs
Size	16.93" x 9.76" x 15.28"

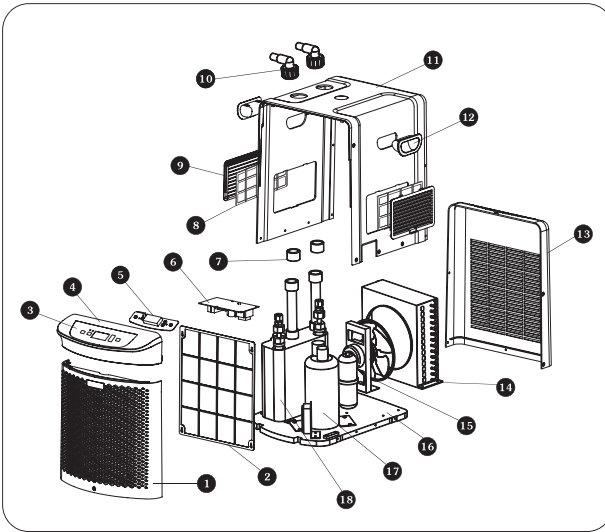
1. The rate of flow is decided according to the max jet of the pump (immersible pump or other external power filter) and the circulation equipment.
2. The refrigeration performance test is indicated when the ambient temperature is 100°F (34°C), the reservoir capacity is 10 gal to 40 gal, the chilling efficiency reaches its best.
3. The refrigeration efficiency is determined according to the installation location, heating source, lighting, pump filter and other connecting parts.
4. When there is not enough circulation in a room, the refrigeration efficiency is reduced.

**The BTU is measured at an ambient temperature of 97°F (36°C) and the chiller is working at 1100W/9.6A power.*

Recommended pump: Hydrofarm AAPW160 OR AAPW250 OR AAPW400

INSTRUCTIONS

AACH25HP CHILLER: 1/4 HP (26-80 GALLON)



- 1 Front cover
- 2 Filter (front cover)
- 3 Control panel
- 4 Front trim cover
- 5 Button circuit board
- 6 Control circuit board
- 7 Seal sleeve
- 8 Side filter
- 9 Side filter cover
- 10 Water inlet & outlet adaptor
- 11 Top cover
- 12 Handle
- 13 Back cover
- 14 Condenser
- 15 Fan
- 16 Base
- 17 Compressor
- 18 Tank (with evaporator)

AACH25HP PERFORMANCE CURVE

THE REFRIGERATION PERFORMANCE TEST IS INDICATED WHEN THE AMBIENT TEMPERATURE IS 86°F (30°C), the water temperature before refrigeration is 82°F (28°C), and the water refrigerated is 150L (40 gal). When water refrigeration is reduced, the water temperature will drop down to any degree above 39°F (4°C) in a short period of time.

AACH25HP

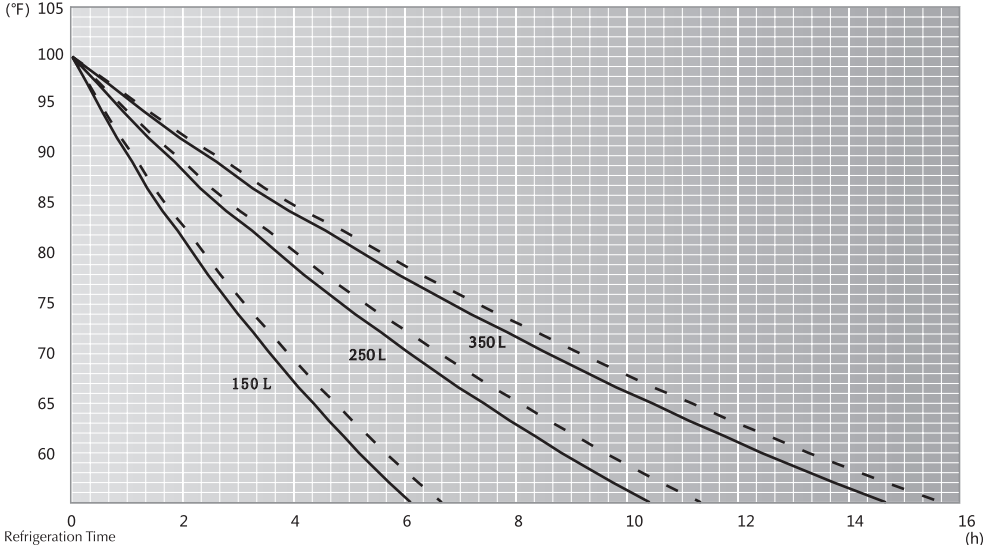
AMBIENT TEMPERATURE: 88°F

RESERVOIR CAPACITY: 350 L, 250 L, 150 L
92 gal, 66 gal, 39 gal

BOOST SHUT DOWN

BOOST SWITCH ON

Water Temp
(°F)



INSTRUCTIONS

AACH25HP SPECIFICATIONS

Model	AACH25HP
Rated Voltage	110–120V
Rated Frequency	60Hz
Working Current	4.7A
Power	1/4 HP
*BTU	3010 BTU/H
Refrigerant	R134a
Refrigerant Weight	210–240g
Rate of Flow	1500–3500 L/h 396–925 gal/h
Weight	41 lbs
Size	18.03" x 12.99" x 17.32"

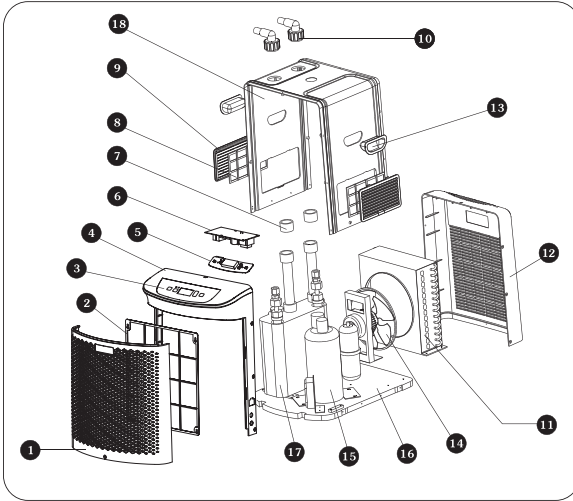
1. The rate of flow is decided according to the max jet of the pump (immersible pump or other external power filter) and the circulation equipment.
2. The refrigeration performance test is indicated when the ambient temperature is 100°F (34°C), the reservoir capacity is 40 gal to 90 gal, the chilling efficiency reaches its best.
3. The refrigeration efficiency is determined according to the installation location, heating source, lighting, pump filter and other connecting parts.
4. When there is not enough circulation in a room, the refrigeration efficiency is reduced.

**The BTU is measured at an ambient temperature of 97°F (36°C) and the chiller is working at 1100W/9.6A power.*

Recommended pump: Hydrofarm AAPW250 or AAPW550 or AAPW800

INSTRUCTIONS

AACH50HP CHILLER: 1/2 HP (52-132 GALLON)



- 1 Front cover
- 2 Filter (front cover)
- 3 Control panel
- 4 Front trim cover
- 5 Button circuit board
- 6 Control circuit board
- 7 Seal sleeve
- 8 Side filter
- 9 Side filter cover
- 10 Water inlet & outlet adaptor
- 11 Condenser
- 12 Back cover
- 13 Handle
- 14 Fan
- 15 Compressor
- 16 Base
- 17 Tank (with evaporator)
- 18 Top cover

AACH50HP PERFORMANCE CURVE

THE REFRIGERATION PERFORMANCE TEST IS INDICATED WHEN THE AMBIENT TEMPERATURE IS 86°F (30°C), the water temperature before refrigeration is 82°F (28°C), and the water refrigerated is 150L (40 gal). When water refrigeration is reduced, the water temperature will drop down to any degree above 39°F (4°C) in a short period of time.

AACH50HP

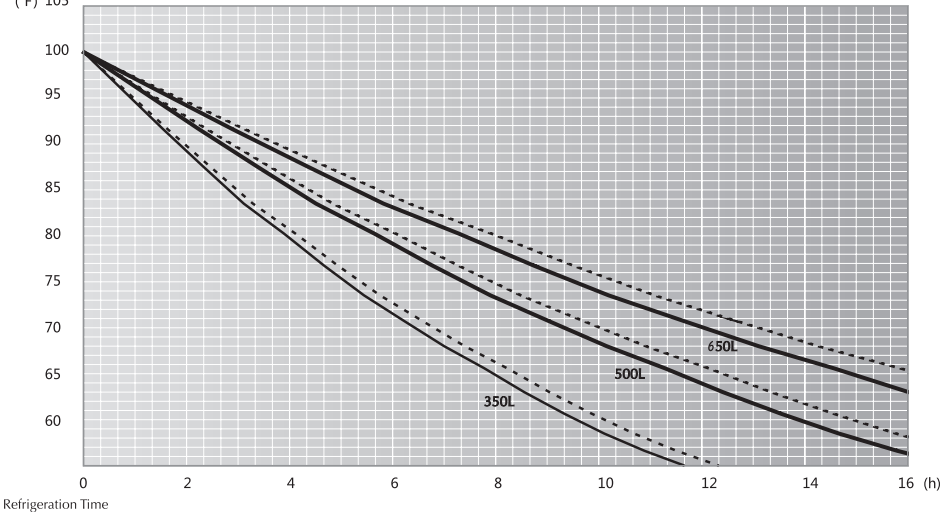
AMBIENT TEMPERATURE: 88°F

RESERVOIR CAPACITY: 350L, 500L, 650L
92gal, 132gal, 171gal

BOOST SHUT DOWN

BOOST SWITCH ON

Water Temp
(°F) 105



INSTRUCTIONS

AACH50HP SPECIFICATIONS

Model	AACH50HP
Rated Voltage	110–120V
Rated Frequency	60Hz
Working Current	5.4A
Power	1/2 HP
*BTU	4020 BTU/H
Refrigerant	R134a
Refrigerant Weight	250–280g
Rate of Flow	3000–6000 L/h 800–1600 G/h
Weight	48.5 lbs
Size	19.02" x 14.09" x 19.09"

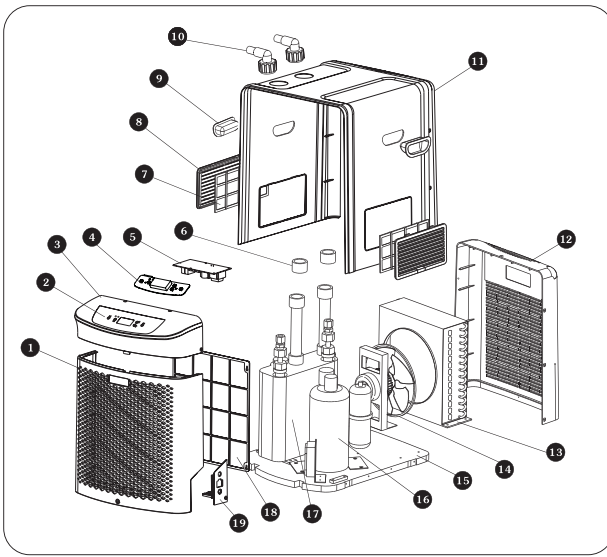
1. The rate of flow is decided according to the max jet of the pump (immersible pump or other external power filter) and the circulation equipment.
2. The refrigeration performance test is indicated when the ambient temperature is 100°F (34°C), the reservoir capacity is 90 gal to 172 gal, the chilling efficiency reaches its best.
3. The refrigeration efficiency is determined according to the installation location, heating source, lighting, pump filter and other connecting parts.
4. When there is not enough circulation in a room, the refrigeration efficiency is reduced.

**The BTU is measured at an ambient temperature of 97°F (36°C) and the chiller is working at 1100W/9.6A power.*

Recommended pump: Hydrofarm AAPW800 or AAPW1000 or AAPC1010

INSTRUCTIONS

AACH100HP CHILLER: 1 HP (80-250 GALLON)



- 1 Front cover
- 2 Control panel
- 3 Front trim cover
- 4 Button circuit board
- 5 Control circuit board
- 6 Seal sleeve
- 7 Side filter
- 8 Side filter cover
- 9 Handle
- 10 Water inlet & outlet adaptor
- 11 Top cover
- 12 Back cover
- 13 Condenser
- 14 Fan motor
- 15 Base
- 16 Compressor
- 17 Tank (with evaporator)
- 18 Filter (front cover)
- 19 Switch

AACH100HP PERFORMANCE CURVE

THE REFRIGERATION PERFORMANCE TEST IS INDICATED WHEN THE AMBIENT TEMPERATURE IS 88°F (31°C), the water temperature before refrigeration is 86°F (30°C), and the water refrigerated is 500L (132 GAL), 1000L (264 gal) and 2000 L (528 GAL).

AACH100HP

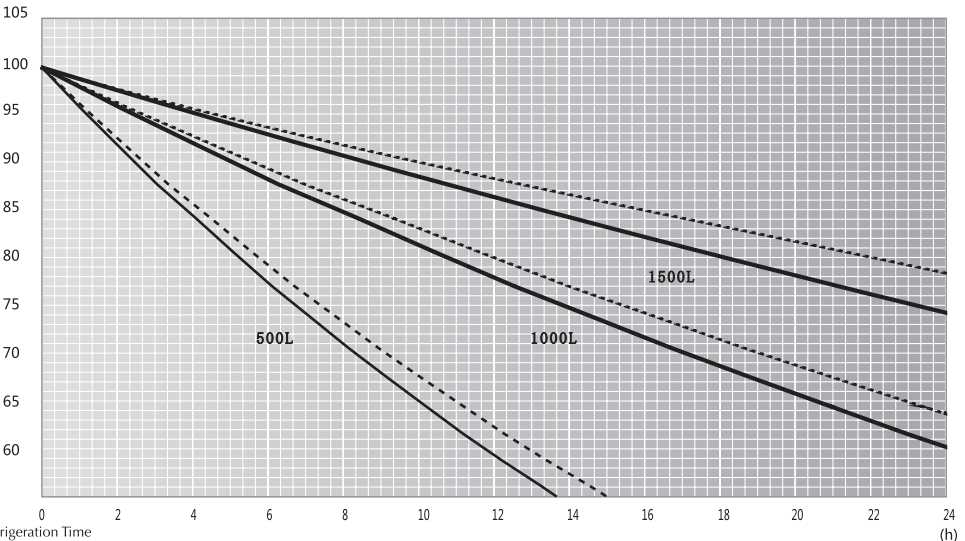
AMBIENT TEMPERATURE: 88°F

RESERVOIR CAPACITY: 500L, 1000L, 1500L
132gal, 264gal, 528gal

BOOST SHUT DOWN

BOOST SWITCH ON

Water Temp



Refrigeration Time

INSTRUCTIONS

AACH100HP SPECIFICATIONS

Model	AACH100HP
Rated Voltage	110–120V
Rated Frequency	60Hz
Working Current	10.2A
Power	1 HP
*BTU	10050 BTU/H
Refrigerant	R410a
Refrigerant Weight	420–450g
Rate of Flow	5000–15000 L/h 1320–3900 G/h
Reservoir Capacity	80–250 gal (300-950 L)
Weight	69 lbs
Size	21.92" x 15.75" x 20.28"

1. The rate of flow is decided according to the max jet of the pump (immersible pump or other external power filter) and the circulation equipment.
2. The refrigeration performance test is indicated when the ambient temperature is 100°F (34°C), the reservoir capacity is 132 gal to 396 gal, the chilling efficiency reaches its best.
3. The refrigeration efficiency is determined according to the installation location, heating source, lighting, pump filter and other connecting parts.
4. When there is not enough circulation in a room, the refrigeration efficiency is reduced.

**The BTU is measured at an ambient temperature of 97°F (36°C) and the chiller is working at 1100W/9.6A power.*

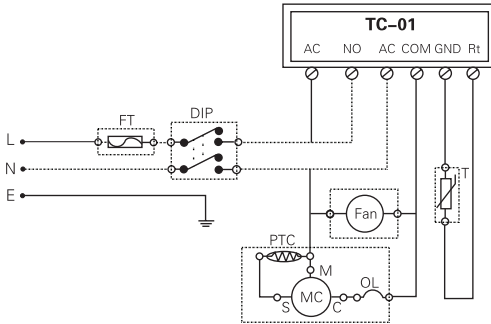
Recommended pump: Hydrofarm AAPW1010 or AAPC1010 or AAPC1020 or AAPC20

INSTRUCTIONS

COMPLETE PARTS LIST (SAME FOR ALL MODELS)

Chiller Unit	1 ea.
Inflow/outflow fitting kit:	1 ea.
a. Inlet/outlet fittings	2 ea.
b. Worm drive hose clamps	2 ea.
c. Rubber replacement collars (extras)	2 ea.
d. Replacement Fuse	1 ea.

CIRCUIT DIAGRAM



TC-01 Temperature controller
FT Fuse
PTC Motor starter
Fan Fan
MC Compressor
OL Motor protector
T Water temperature sensor

FEATURES

- Convenient microcomputer control system
- The high quality condenser is manufactured by American OAK production line
- Anti-corrosive pure titanium evaporator for fresh and salt water
- The compressor protection device system is built to shut off the circuit automatically to prevent the motor from burning out when it is overheating
- Temperature memory system that allows the chiller to refrigerate continuously according to the previous temperature setting
- Boost function accelerates the chilling process with two available options: 2-hour expedited chilling and continuous (24 hrs/day, 7 days/week) maximum chilling.

INSTRUCTIONS

INTRODUCTION

Thank you for purchasing the Active Aqua Series Chiller. The chiller represents a significant step forward in horticultural chiller engineering, offering state of the art technology at highly competitive prices. With this chiller, water temperatures for reservoirs can be quickly and economically maintained. The super silent design results in significantly lower noise levels which are quieter than any other similar chillers. The Active Aqua Series Chillers have a strong chassis with an ABS plastic housing which is anti-rust and anti-corrosive, ensuring that the chiller does not look out of place in any setting. For a complete understanding of this chiller, we recommend reading this instruction manual thoroughly.

SUGGESTIONS FOR SAFE OPERATION

Several symbols are used in this manual and on the product itself which are aimed at promoting proper and safe operation in order to prevent personal injuries or damage to the chiller. Please familiarize yourself with the symbols below before reading the manual or trying to operate the chiller.

TERMS AND SYMBOLS

Hazard levels will be indicated in writing or shown by pictures. The symbol on the left provides general emphasis of the hazard, but specific details of the action which must be taken will be shown by a picture or explanation near the symbol.



This term indicates the possibility that continuing to operate the chiller while ignoring this warning or operating the chiller incorrectly, may cause personal injury or equipment damage.



This symbol advises you of a potential hazard which should be noted (including danger and warning).



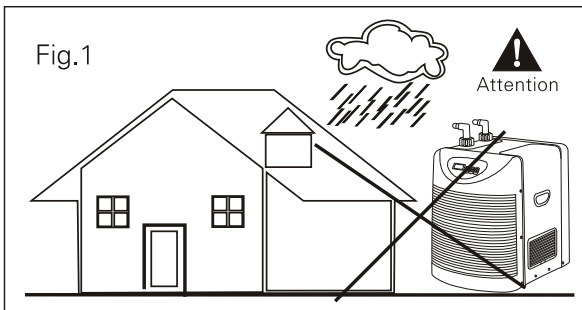
This symbol advises you of a mandatory action which must be taken in order to avoid danger.



This symbol advises you of an action which is prohibited in order to avoid danger.

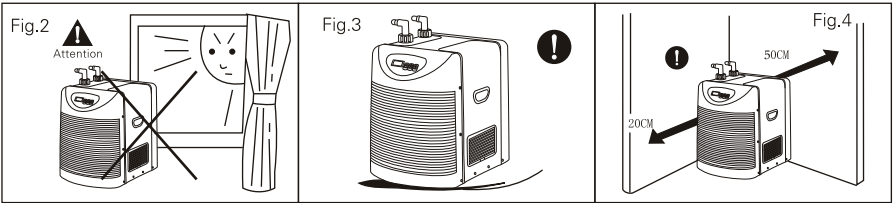
WHERE TO INSTALL

1. Do not install the chiller outdoors. (Fig. 1)
2. Place the chiller in a ventilated space away from flammable materials, high temperatures, direct sunlight, moisture, and dust. (Fig. 2)
3. Place the unit on a stable horizontal surface. (Fig. 3)

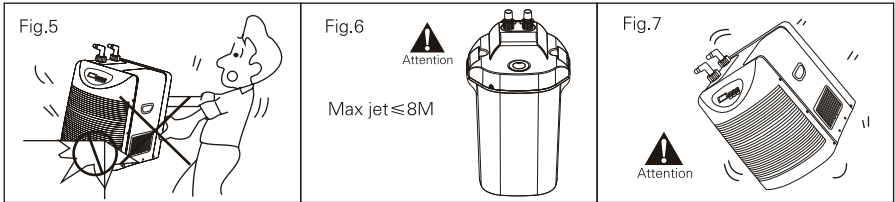


INSTRUCTIONS

4. Install at least 12-16 inches (30-40 cm) away from walls in order to give the chiller adequate ventilated space. (Fig. 4)



5. Do not cover or move the chiller while it is operating.
6. The circulation water flow of the chiller is indicated in the technology parameter table. This chiller does not have a water pump, so it needs a pump with an available external filter. Using a pump without an external filter may cause a water leak or other damage. (Fig. 6)
7. Do not put the chiller on its side or upside down as this will cause damage to the chiller. If the chiller is placed on its side, readjust the unit to its correct upright position and wait 20 minutes before turning it on. (Fig. 7)

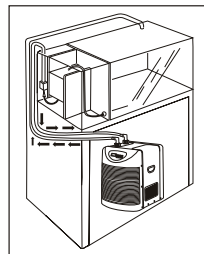
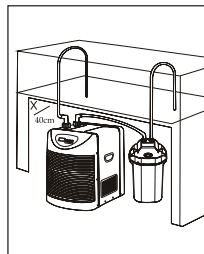
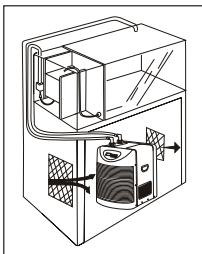


ASSEMBLY INSTRUCTIONS

1. Remove the chiller unit and all of the contained hardware from the box and packaging material.
2. Set the chiller unit upright in the desired area on a stable surface ensuring there is at least 1' of clearance around the body (sides, top and back) of the unit.
3. Install the inlet/outlet fittings onto the inflow and outflow threaded sites

NOTE: If the inflow and outflow fittings are different sizes, typically the larger one is used on the inflow and the smaller one on the outflow.

4. Attach the desired length of tubing onto each inflow and outflow fitting adapter with the worm drive hose clamps. The inflow should connect the chiller to the appropriate sized submersible water pump, such as an Active Aqua Water Pump, in the proper sized reservoir (**see attached performance curve chart**). The outflow tube should hang freely in the reservoir to re-introduce the chilled water back into the holding tank.



INSTRUCTIONS

NOTE: Please note that the filter (with the pump) must be located below the reservoir water level. If you wish to place the unit at the side of the reservoir, you must fill the filtration system with water before turning it on.

OPERATION

1. Do NOT power on the chiller unit yet. Fully submerge the water pump to be used, plug it in, and ensure that water is moving freely between the holding reservoir and the chiller unit.
2. Plug the chiller into a grounded outlet and ensure the power switch located on the back of the unit is in the "ON" (I) position.

WARNINGS:

- Do NOT cover the chiller unit with anything during operation.
- Place the chiller in the upright position ONLY for operation and storage purposes.
- Avoid direct contact with liquids to the external body of the chiller unit. Failure to do so may result in damage to the unit or electric shock.
- Keep power cord free of obstructions, such as heavy or sharp objects sitting directly on it.
- This chiller is approved for indoor use ONLY.
- Keep the unit away from flammable vapors, direct sunlight, high temperature exposure, and high humidity.
- Do NOT submerge the chiller. Doing so will damage the unit and may inflict electric shock.

SETTING THE TEMPERATURE:

1. Press and hold the SET button down for approximately 3 seconds to enter the water temperature programming mode. The previous water temperature setting will display.
2. Use the \wedge or \vee buttons on the control panel to increase or decrease the desired water temperature. Press the SET button once more, or wait approximately 8 seconds to select the desired temperature.

TEMPERATURE DISPLAY:

Press the SET button once to display the current set temperature value of the chiller unit, then press the SET button again to display the actual temperature value of the water. The blinking display indicates the set temperature.

TEMPERATURE ERROR ADJUSTMENT:

1. When the reservoir water temperature differs from the set temperature value, a "II" indication should appear in the display.
2. Press and hold the \wedge and \vee buttons at the same time for approximately 6 seconds to enter the error adjustment programming mode. The display will blink once this status is active.
3. By pressing either the \wedge or \vee buttons, the error adjustment range can be modified +/- 1.5 degrees Celsius. **DO NOT USE THIS FUNCTION UNLESS IT IS NECESSARY.**

INSTRUCTIONS

BOOST FUNCTION

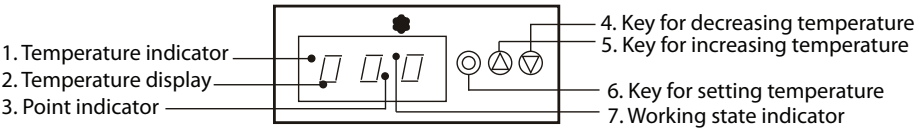
The boost feature accelerates the chilling process with two available options: 2-hour expedited maximum chilling and continuous (24 hrs/day, 7 days/week) maximum chilling.

To engage the boost feature, press BOOST once. The LED on the left marked "2 hours" will light. The boost function is now set to accelerate chilling for 2 hours, after which boosted chilling will stop and the chiller will return to the regular setting.

To set the boost function to constant operation, press BOOST twice. The LED under "24/7" will light. The chiller will now continue in boosted mode until the BOOST pad is pressed again.

COMPRESSOR OPERATION:

The refrigeration compressor will automatically turn off when the water reaches, or is below, the set temperature. When the compressor turns off, it will stay off for approximately 3 minutes or until the



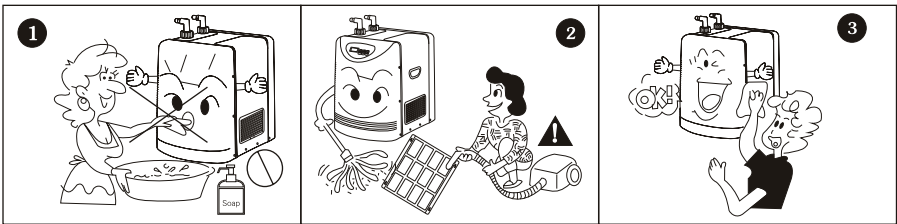
water is 3 degrees above the set temperature.

An indicator light in the top right portion of the display will appear when the compressor is active. The indicator light will disappear when the set water temperature has been reached, and will blink when the compressor is in the 3 minute protection mode.

ERROR CODE:

Certain text will appear on the display panel in the event of an error. "P1" is an example that means there is a defect in the temperature sensor. If error codes are appearing on the display, return the unit to the original place of purchase for a warranty assessment.

CLEANING AND MAINTENANCE

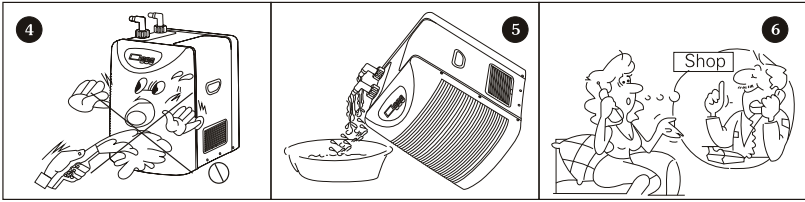


Flushing of the internal chiller components is recommended at least once every 1-2 months to ensure optimum performance and efficiency. Over time, nutrient deposits and other debris may accumulate inside the chiller, reducing its effectiveness.

Note: Do NOT use soap or detergents for cleaning the internal components of the chiller system.

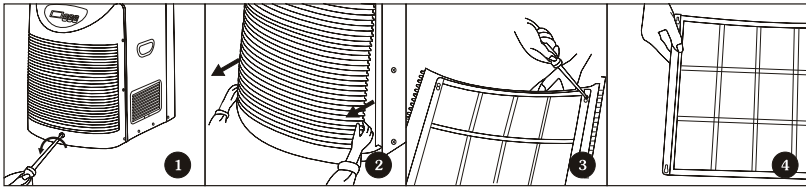
1. Disconnect the chiller and submersible water pump from the power supply.
2. Clean off the pump with a high powered hose or sprayer to remove debris and dirt from the pre-

INSTRUCTIONS

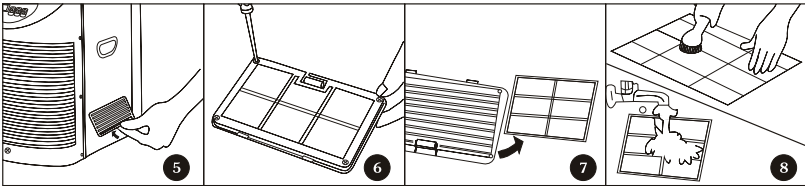


filter and housing. Clean the pre-filter as well if one is used.

3. Reconnect the pump to the chiller inflow tubing and place it in a clean reservoir.
4. Fill the reservoir with clean water and a flushing agent formulated to remove salt deposits and excess nutrients from the plant system and grow medium (available at most indoor gardening and hydroponic retailers). Note: Using a flushing agent is completely optional.



1. LOOSEN SCREW ON FRONT PANEL
2. GENTLY REMOVE FRONT PANEL
3. LOOSEN FILTER SCREWS
4. REMOVE FILTER
5. LIFT AND REMOVE SIDE PANEL
6. LOOSEN SCREEN ON SIDE PANEL
5. REMOVE FILTER
8. REMOVE DUST WITH BRUSH, VACUUM, OR RINSE



TROUBLESHOOTING

SYMPTOM	CAUSE	SOLUTION
The unit doesn't run and the display is blank	Power is not turned on	Turn on the power
	Plugged in incorrectly	Be sure the power cord is fully plugged in
The unit cycles on and off	Wrong voltage and/or frequency	Apply to correct power source
	Chiller is in protection mode	A. Check if the water circulation is normal B. If the fan and the chiller dissipate heat normally, wait for 3 minutes and the unit will automatically turn on again
Performance is decreased or there is no refrigeration	Fan is not working	Return to place of purchase
	The set temperature is higher than the aquarium water temperature	Reset temperature
	The air inlet or outlet are clogged	Clean the air inlet/outlet with a brush or a vacuum cleaner
Loud operation	Not installed on a flat surface	Reinstall correctly

WARRANTY



LIMITED WARRANTY

Hydrofarm warrants the chiller to be free from defects in materials and workmanship. The warranty term is for one year beginning on the date of purchase. Misuse, abuse, or failure to follow instructions is not covered under this warranty. Hydrofarm's warranty liability extends only to the replacement cost of the product. Hydrofarm will not be liable for any consequential, indirect, or incidental damages of any kind, including lost revenues, lost profits, or other losses in connection with the product. Some states do not allow limitation on how long an implied warranty lasts or the exclusion of incidental or consequential damages, so the above limitations or exclusions may not apply to you. Hydrofarm will, at our discretion, repair or replace the chiller covered under this warranty if it is returned to the original place of purchase. To request warranty service, please return the chiller, with original sales receipt and original packaging, to your place of purchase. The purchase date is based on your original sales receipt.

GARANTIE LIMITÉE

Hydrofarm garantit que le chiller ne présente aucun défaut de pièces et main-d'œuvre. La période de garantie est d'un an à partir de la date d'achat. Une utilisation incorrecte, abusive, ou le non-respect des instructions n'est pas couvert(e) par cette garantie. La responsabilité de la garantie Hydrofarm couvre uniquement le coût de remplacement du produit. Hydrofarm ne pourra être tenu responsable des dommages consécutifs, indirects ou fortuits de tout type, y compris les pertes de revenus, de profits ou autres en rapport avec le produit. Certains états n'autorisent aucune limite concernant la durée de la garantie implicite ou l'exclusion des dommages fortuits ou consécutifs ; les limites ou exclusions mentionnées ci-dessus peuvent donc ne pas être applicables à votre cas. Hydrofarm se réserve le droit de réparer ou remplacer le chiller couvert par cette garantie si celui-ci est renvoyé au lieu d'achat d'origine. Pour solliciter le service de garantie, veuillez renvoyer le chiller avec sa facture et son emballage d'origine à votre lieu d'achat. La date d'achat est indiquée sur votre facture originale.

GARANTÍA LIMITADA

Hydrofarm garantiza que el chiller no presentará defectos de fabricación. La garantía tendrá una duración de un año desde la fecha de compra. En caso de no respetarse estas instrucciones o de un uso inadecuado del producto, la garantía no cubrirá los posibles daños. La cobertura de la garantía ofrecida por Hydrofarm únicamente incluye los costes de sustitución del producto. Hydrofarm no será responsable de ningún daño indirecto, accidental o derivado de ningún tipo, incluyendo pérdidas de ingresos o beneficios, o cualquier otra pérdida relacionada con el producto. En algunos estados no se permiten limitaciones sobre la duración de una garantía implícita o la exclusión de los daños accidentales o derivados; en cuyo caso las limitaciones y exclusiones anteriores no serán de aplicación. Hydrofarm, a su discreción, podrá reparar o sustituir el chiller cubierto por esta garantía siempre que se devuelva al lugar original de compra. Para reclamar la garantía, devuelva el chiller con el ticket de compra y el embalaje original al lugar de compra. La fecha de compra será la indicada en el ticket original.