

## Active Aqua Chiller

### Specifications:

Model:	AACH10 / AACH25 / AACH50 / AACH100
Watts:	150w / 280w / 360w / 950w
BTU:	960 / 2300 / 4100 / 10370
Amps:	2.2 / 3 / 4.4 / 9.6
Volts:	110 - 120v
Cord Length:	6'
Compatibility:	Active Aqua submersible water pumps

### Parts:

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

### Assembly Instructions:

1. Remove the chiller unit and all of the contained hardware from the box and packing 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 of 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, in the proper sized reservoir **(See attached performance chart)**. The outflow tube should hang freely in the reservoir to re-introduce the chilled water back into the holding tank.

#### 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.

#### 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, press it 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, an "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. 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 IF IT IS NOT NECESSARY\***

### Fuse Replacement:

1. Detach the power cord from the chiller. The fuse compartment is underneath the power cord socket located on the back of the unit.
2. Remove the notched fuse slide from the compartment by pulling it straight out. A small screwdriver or pointed tool may be needed to remove the slide.
3. Check the fuse and internal compartment for damage i.e. (blown fuse, melted terminals, etc.)
4. Replace the fuse if necessary and retry the operation.

### 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 1 degree above the set temperature.

An indicator light in the top right portion of the display will appear when the compressor is active; disappear when the water temperature has been reached, and 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. Overtime, nutrient deposits and other debris may accumulate inside the chiller impeding the operability.

**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-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 as stated in step 4.**

5. Plug in the pump and allow it to run for at least 1 hour so that the projected solution contacts all of the internal components used in the chiller during operation. Unplug the pump and empty the reservoir solution.
6. Repeat step 4 and 5 with plain water ONLY.
7. Remove the front grill from the unit so the air inlet filter is accessible. Clean both with a vacuum and/or brush.
8. Replace the air inlet filter and grill to the front.

#### Special Notes and Instructions:

- The cooling efficiency of this unit is relative to the surrounding environment i.e. install location, ambient air temperature, additional heat sources (grow lights, pumps, CO2 generators, air conditioners, dehumidifiers, etc.), and any other connecting parts that may impede the chiller's operation. Insufficient air exchange of the room occupying the chiller will reduce the operational efficiency if the ambient air temperature rises due to heat output from the chiller and/or other equipment.
- Follow the GPH (gallon per hour) recommendations so that the appropriate size pump may be implemented. A pump that is either too weak or too powerful may impede the operation. Vertical distance between the pump and the chiller will affect the size of pump that is needed. Ex. If the pump only needs to project water 2' to get the chiller unit compared to 10', a smaller one can be used.
- We recommend that the power source support ONLY the chiller unit and no additional appliances, in order to prevent a power surge or circuit overload.
- Remote operation of the chiller unit outside of the grow space will reduce the amount of heat generated within the garden.

#### 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 the power cord free of obstructions, such as heavy or sharp objects sitting directly on it.
- This chiller is for approved for indoor use ONLY.
- Keep the unit away from flammable vapors, direct sunshine, high temperature exposure, and high humidity.
- Do NOT submerge the chiller. Failure to do so will damage the unit and may inflict electric shock.

### The Hydrofarm Guarantee

Active Aqua water chiller systems are guaranteed to the original owner for 1 year from the date of purchase. Misuse, abuse, or failure to follow instructions is not covered. If you have a problem, recheck your system and pump. If this does not remedy the situation, contact the original place of purchase for a warranty assessment. Unauthorized returns will not be accepted. Save your receipt/invoice – a copy is required for all warranty work.