

HAILEA®
SINCE 1989

HE SERIES CHILLER

INSTRUCTION MANUAL

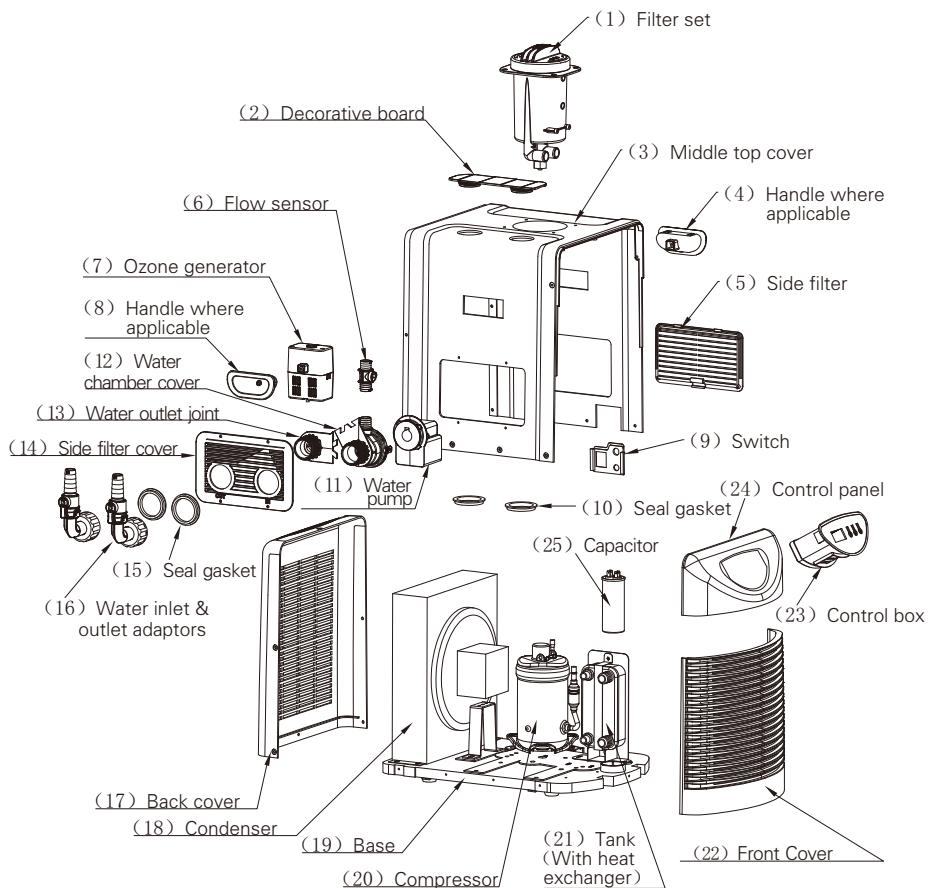


MODEL:

HE-300/400/500/1000

Before operating this appliance, please read this instruction manual completely and keep it handy for future reference.

PARTS LIST



INTRODUCTION

Thank you for purchasing a HAILEA HE series chiller! Imagine experiencing the transformative power of cold therapy without the constant hassle of managing ice. That's the reality with the HAILEA HE series Cold Therapy Chiller. These innovative systems offer an economical and technologically advanced solution to keep your ice bath refreshingly cold (low to mid 40°F/4°C) for extended periods, so that even in hot weather you can count on your cold bath being consistently cool.

Excessive temperatures in your tub can now be quickly and easily controlled by selecting the correct model from the HE chiller range, which use a heat exchanger that is manufactured from 304 stainless steel alloy, designed for applications that need the chiller to withstand higher pressures than our standard line of water chillers.

The system design and high efficiency compressor reduce the forces on the rotor, which results in significantly lower noise levels, whilst the digital temperature controller ensures that the selected temperature is maintained. Our chillers use the environmentally friendly R-513A or R134a refrigerant.

HE series chillers are robust, with a strong chassis and aesthetic, non-corrosive, ABS plastic housing which ensures that the chiller does not look out of place in any surroundings.

Please read this installation and maintenance manual carefully before operating the chiller to prevent errors or improper use.

FEATURES

1. Micro-computer control system for accuracy and ease of operation.
2. Powerful cooling design to keep your ice bath refreshingly cold (low to mid 40°F/4°C) for extended periods.
3. Uses environmentally friendly R-513A/R134a Freon-free refrigerant.
4. Uses 304 stainless steel heat exchanger, chiller can withstand higher pressure.
5. Over-current protection device system.

SUGGESTIONS FOR SAFE OPERATION

Several symbols are used in this manual and on the product itself to ensure safe and proper operation to prevent injury to yourself or others or damage to the chiller. The meanings of these symbols are explained below. Please be sure you understand their meanings before you read this manual.

EXPRESSIONS (TERMS AND SYMBOLS)

The degree of danger will be indicated by the terms or shown by pictures. The symbols on the left are a general indication but specific details of the action which must be taken will be shown by a picture or explanatory text beside the symbol.



This symbol advises you of an item which should be noted (including danger and warning).



This term indicates the possibility that continuing working while ignoring this attention, or working incorrectly without full understanding, may cause personal injury or equipment damage.



This symbol advises you of an action which must be taken (is mandatory) in order to avoid danger.



This symbol advises you of an action which must not be taken (is prohibited) in order to avoid danger.

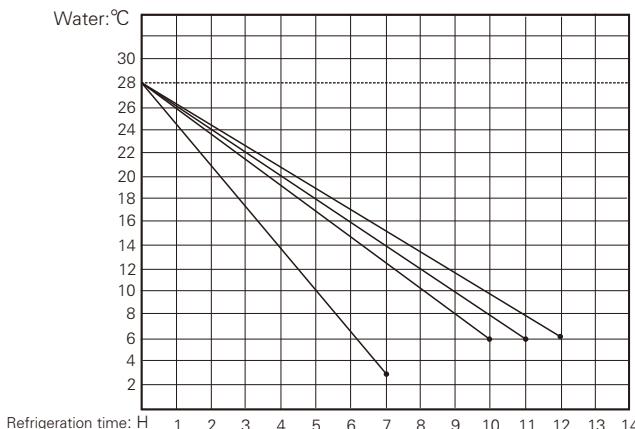
SPECIFICATIONS

Model	HE-300	HE-400	HE-500	HE-1000
Voltage	220–240V /110–120V			
Frequency	50Hz / 60Hz			
Working Current	1.8A / 4.5A	2.0A / 5.0A	2.8A / 5.8A	3.2A / 11.2A
Power	1/4HP	1/3HP	1/2HP	1HP
Water Flow Rate	3000L	3000L	3000L	3000L
Refrigerant	R-513A	R-513A	R-513A	R-513A
Refrigerant Weight	160g	200g	340g	460g
Weight	16.3Kg	16.4Kg	35Kg	
Dimensions (mm)	355x435x470mm	355x435x470mm	390x445x515mm	430x545x550mm

1. The rate of flow is dictated by the duty of the pump or water supply system which must be purchased in addition to the chiller.
2. The refrigeration performance test is carried out at an ambient temperature of 30°C without any other additional heat sources.
3. The cooling rate and efficiency will be affected by the installation location and any heat sources, such as heat from lighting or pumps.
4. Refrigeration efficiency will decrease when there is insufficient ventilation within the cabinet or room due to heat from the unit.

EXAMPLE PERFORMANCE CURVES

Water Volume Cooling Examples				
Ambient Room Temperature	30°C	30°C	30°C	30°C
Water Temperature Before Refrigeration	28°C	28°C	28°C	28°C
Refrigeration Time	12h	11h	10h	7h
Water Volume Refrigerated (Example A)	300L	300L	300L	300L
Water Temperature After Refrigeration	6°C	6°C	6°C	3°C



The refrigeration performance test is carried out at an ambient temperature of 30°C without any other additional heat sources.

INSTALLATION

! CAUTION: Do not turn the box or the appliance upside down. Keep the packing box and materials in case the device need to be moved or transported.

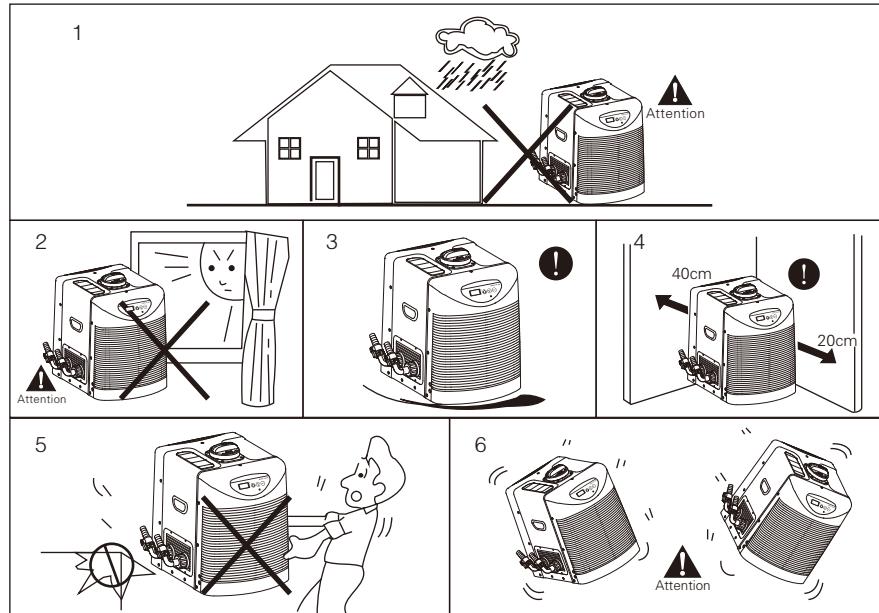
When the chiller carton is unpacked, check to see if the chiller is the right model and that no damage to the unit has occurred during transportation. You should also check that all spare parts and accessories are included as listed below.

1. PLEASE CHECK THE CONTENTS OF THE PACKAGE:

- HAILEA HE Series Chiller-1piece
- Instruction manual-1piece
- Water inlet & outlet adaptors -2pieces

2. INSTALLATION POSITION:

- (1) Our standard line of chillers are not intended for outdoor use. (Fig.1)
- (2) Select a position as cool as possible and keep the unit away from flammable sources, high temperature, direct sunshine, moisture or dust. (Fig.2)
- (3) Place the unit on a horizontal stable surface. (Fig.3)
- (4) Install at least 20-40cm away from any wall or structure for venting. (Fig.4)
- (5) Do not cover the chiller whilst it is working, avoid shaking or colliding with other objects directly.
- (6) Never store or stand the chiller upside down or on its side as this may damage the unit.
If it has been stored in this orientation, then stand the correct way up and wait for at least 20 minutes before starting. (Fig.6)



3. SUGGESTIONS FOR INSTALLATION:

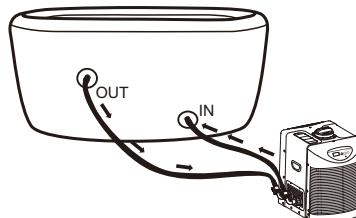
1. Electrical work must be done by a qualified electrician.
2. Provide a separate power outlet to be used only for the unit.
3. Ensure that the power source conforms to the power requirements specified on the product nameplate.
4. The power supply should be fitted with earth leakage breaker.
5. Disconnect the power supply during installation.

4. INSTALLATION METHODS :

Please Note:

- This chiller is not designed for use with seawater.
- Place the setup in an area that can withstand wetness, moisture, and condensation, so you don't risk water damage.
- Make sure the Chiller are on a solid, flat, waterproof surface.
- The chiller includes a built-in pump, a built-in washable/reusable filter and all necessary hose fittings for a seamless installation.
- The pump is not self-priming. Ensure the chiller is positioned below the water level of your cold therapy tub for optimal performance.
- An overly long tubing run from the tub drain to the chiller inlet may reduce pump efficiency.

Ensure the chiller is positioned below the water level of your bathtub for optimal performance.

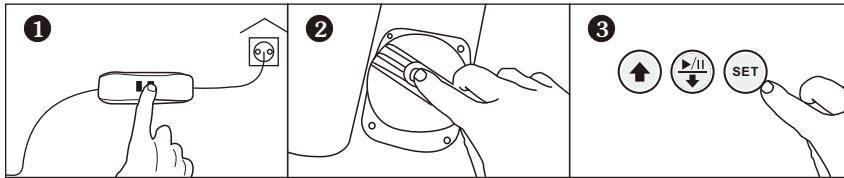


5. BEFORE OPERATING THE CHILLER, PLEASE CHECK FOLLOWINGS:

- (1) Check if the water level inside the tub is suitable for the continuous supply of water.
- (2) Make sure that there are no water leaks from the hose and pipe connections.
- (3) Insert the power plug fully into the power outlet so that the plug itself does not wobble.
- (4) The power plug must be readily accessible and visible to the tub occupant but installed at least 1.5 meters (5 feet), from the tub water.
- (5) Double check the circulating & filtration system, especially that the circulating tube is not clogged.

OPERATION

1. Once the tub is full you can plug in your chiller, and then press the RESET button of the GFCI protector to switch on the chiller.(Fig.1)
*Please note: default mode of the GFCI protector is OFF, not ON.
2. Press the gravity prime valve on top of the filter cartridge (cover) for about 10 seconds to gravity prime to the pump, the pump is not capable of selfpriming/suction. Then the chiller will start operating in about 1 minute. (Fig.2)
3. Temperature setting: Press the (SET) button for more than 3 seconds to enter the programming mode, indicated by a beep and the current set temperature value will flash on the display. Press the "↑" button for increasing temperature or "↓" button for decreasing the temperature to set your desired temperature.(Fig.3)



■ TEMPERATURE DISPLAY SWITCHING

Short pressing the (SET) button, temperature display on the screen can be switched between the temperature of the tub and the setting temperature.

■ ADJUSTING THE SET TEMPERATURE

Press the (SET) button for more than three seconds to enter the programming mode, indicated by a beep and the current set temperature value will flash on the display. Press the "↑" button for increasing temperature or "↓" button for decreasing the temperature to set your new required parameters. You will hear a beep with each press whilst in programming mode. Press the (SET) button again to save or just wait for eight seconds. The display will revert to the temperature of the tub water whilst the chiller is working. The available temperature set range is from 4°C to 28°C.

■ CHILLER PROTECTION SYSTEM

A protection system is built into the chiller which prevents the refrigeration compressor from starting for three minutes between cooling cycles during normal operation or after a reset or when in use for the first time. If used with a third-party external temperature controller then the chiller will see this as a reset and delay for 3 minutes before starting the compressor.

■ AUTOMATIC ON & OFF SWITCHING OF THE REFRIGERATION COMPRESSOR

When the refrigeration compressor has not been running for over three minutes and the water temperature is 2 °C above the set temperature, the compressor will start to work again automatically.

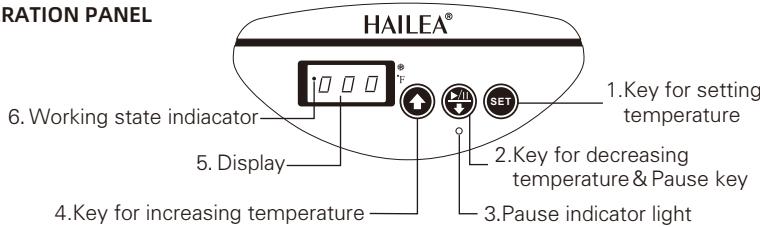
The compressor will continue to run and cool the water then stop working automatically when the tub water temperature reaches or falls below the set temperature.

The indicator light 6 shows that the chiller is working. The light turns off when the tub water temperature reaches the set temperature & the compressor stops running, the light twinkles to show that the protection device is delaying the compressor from restarting for three minutes.

■ FAULT DISPLAY SYSTEM

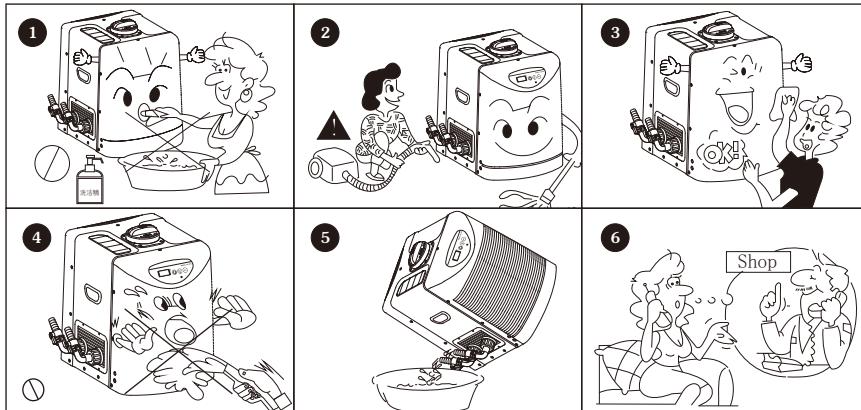
Some breakdowns will automatically show on the display. When water temperature sensor/probe has become loose (in a open circuit) or damaged, the letter E1 or E2 will appear on the display and the protection device will respond to stop the chiller.

■ OPERATION PANEL



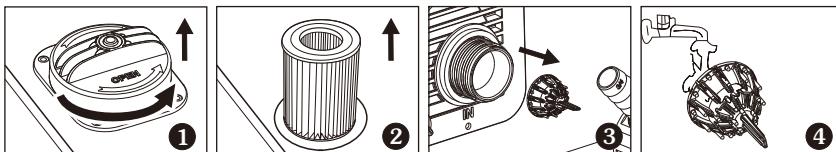
CLEANING AND MAINTENANCE

1. Cleaning of the circulating system and the filtration system is recommended each month to maintain maximum refrigeration operation and efficiency. Always unplug the cord from the outlet before cleaning. Rinse collected debris from the filter media, inlet & outlet pipe, flow diverter, impeller and chamber cover in clean lukewarm tap water. Soap or detergents are not recommended for circulation filter maintenance because they can be bad for the fish's health. (Fig.1)
2. Remove the dust from the air inlet and outlet with a brush or vacuum cleaner. To avoid electric shock, during operation do not insert wires or tools into the exhaust outlet or the air inlet. (Fig.2)
3. The plug, electric supply switch and temperature adjuster must be cleaned with dry soft cloth. (Fig.3)
4. NEVER immerse the unit into water or flush it directly with water to prevent damage to the electric insulation of the chiller. (Fig.4)
5. Disconnect the power supply plug if the unit is not to be used for a long time. Remove the inlet & outlet pipes and tilt the front of the chiller to remove water from the unit. Clean all of the parts with a soft cloth and cover it with a plastic bag and store upright in a safe and dry place. (Fig.5)
6. If you still have any other questions, please contact your dealer. (Fig.6)



FILTER CARTRIDGE REPLACEMENT AND FILTER BASKET CLEANING STEPS

1. Open the filter cover counterclockwise (Fig.1).
2. Remove the dirty filter element and replace it (Fig.2).
3. Take out the inlet filter basket (Fig.3).
4. Remove dust or rinse thoroughly with water (Fig.4).

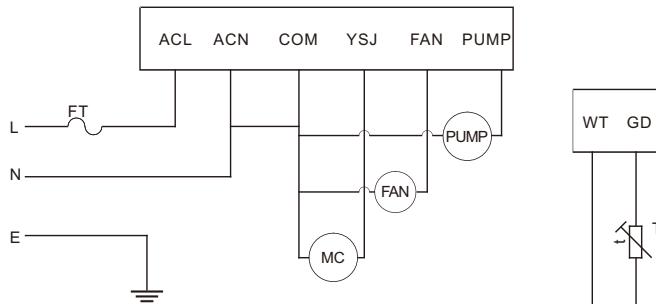


GUIDE TO SIMPLE PROBLEM SOLVING

Before calling service personnel, please check the following chart for possible cause to the trouble you are experiencing.

SYMPTOM	CAUSE	SOLUTION
The chiller does not run and the display is dead.	Power not turned on	Turn on the power
	Loose plug	Be sure the power cord is fully plugged in
	The fuse has blown	Change for a new fuse
The chiller switches on and off	Connected to wrong voltage and/or frequency	Connect to correct power source, according to the name plate
Refrigeration capacity reduces or even no refrigeration	The chiller protection device is operating as normal	Wait for 3 minutes and the chiller will turn on again automatically
	The setting temperature is higher than the tub water temperature	Change the setting temperature
	The air inlet and outlet are clogged with dirt	Clean the dust from the air inlet and outlet with a brush or a vacuum cleaner
	Loss of refrigerant/gas	Refill the chiller with the correct refrigerant/gas. Carried out by a qualified engineer.
	Too much water flow	Reduce water circulation
Runs noisy or with vibration	The base is not flat	Mount on a level surface

CIRCUIT DIAGRAM



LIMITED WARRANTY



1. This product is warranted by us against defects due to faulty workmanship or materials.
2. 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.
3. HAILEA's warranty liability extends only to the repairs or replacement cost of the product. HAILEA 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.
4. Chillers manufactured by HAILEA but sold to overseas, are covered by warranty by the dealer through which the product were purchased, as provided for in the laws of the country in which they are sold. If this product malfunction or failure, as listed in the warranty conditions, occurs during the warranty period, the authorised dealer will, at their discretion, repair or replace the chiller covered under this warranty if it is returned to the original place of purchase. In order for the warranty to be recognised it is necessary to submit documentation according to the requirements of the law of the country in which the device is sold and according to the conditions of the dealer or HAILEA authorized service agent.

Guangdong Hailea Group Co., Ltd.(HQ)

Factory Address: Hailea Industrial Zone, Hailea Road,
Raoping County, Guangdong Province, 515700, China

Tel: +86-768-8888888 Fax: +86-768-8883813
www.hailea.com E-mail: info@hailea.com

Guangzhou Oversea Sales Branch

24/F, East Tower, Twin City International Plaza, No.
263, Huasui Road, Zhuijiang New Town, Guangzhou
City, Guangdong Province, 510623, China

Tel: +86-20-3837 2888 Fax: +86-20-3837 2791
www.hailea.com E-mail: info@hailea.com