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HAILEA HS SERIES CHILLER

PREFACE

Thanks a lot for purchasing a HAILEA HS series chiller. Designed professionally, HAILEA HS series chillers are made with advanced technologies and production line. The products have been tested with perfect testing system, excellent performance and stable quality are guaranteed. Tested and confirmed by authoritative organizations, the technology data reach advanced international level. For the complete use and understanding of this chiller, it is recommended that this instruction manual is thoroughly read and understood before operating and keep it handy for future reference. Failure to do so may result in damage to this unit.

SUGGESTIONS FOR SAFE OPERATION

Several symbols are used in this manual and on the product itself which are aimed at proper and safe operation in order to prevent you from injury 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)

Hazard seriousness level will be indicated by the term or shown by pictures. The symbol on the left is a general emphasis but specific details of the action which must be taken will be shown by a picture or explanatory text to the symbol.

- ⚠ This symbol advises you of an item which should be noted (including danger and warning).
- ⚡ This term indicates the possibility that continuing to work 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.

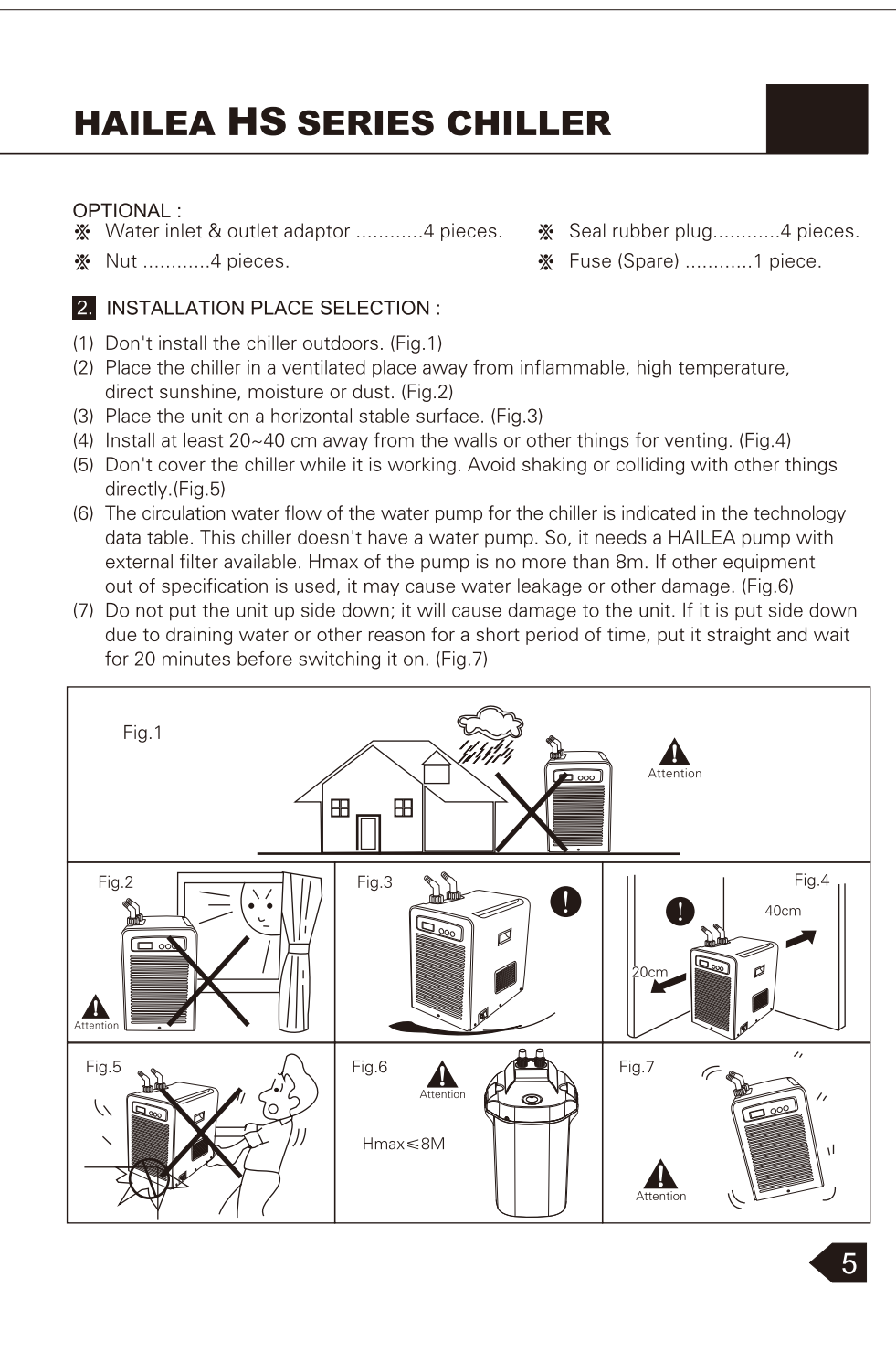
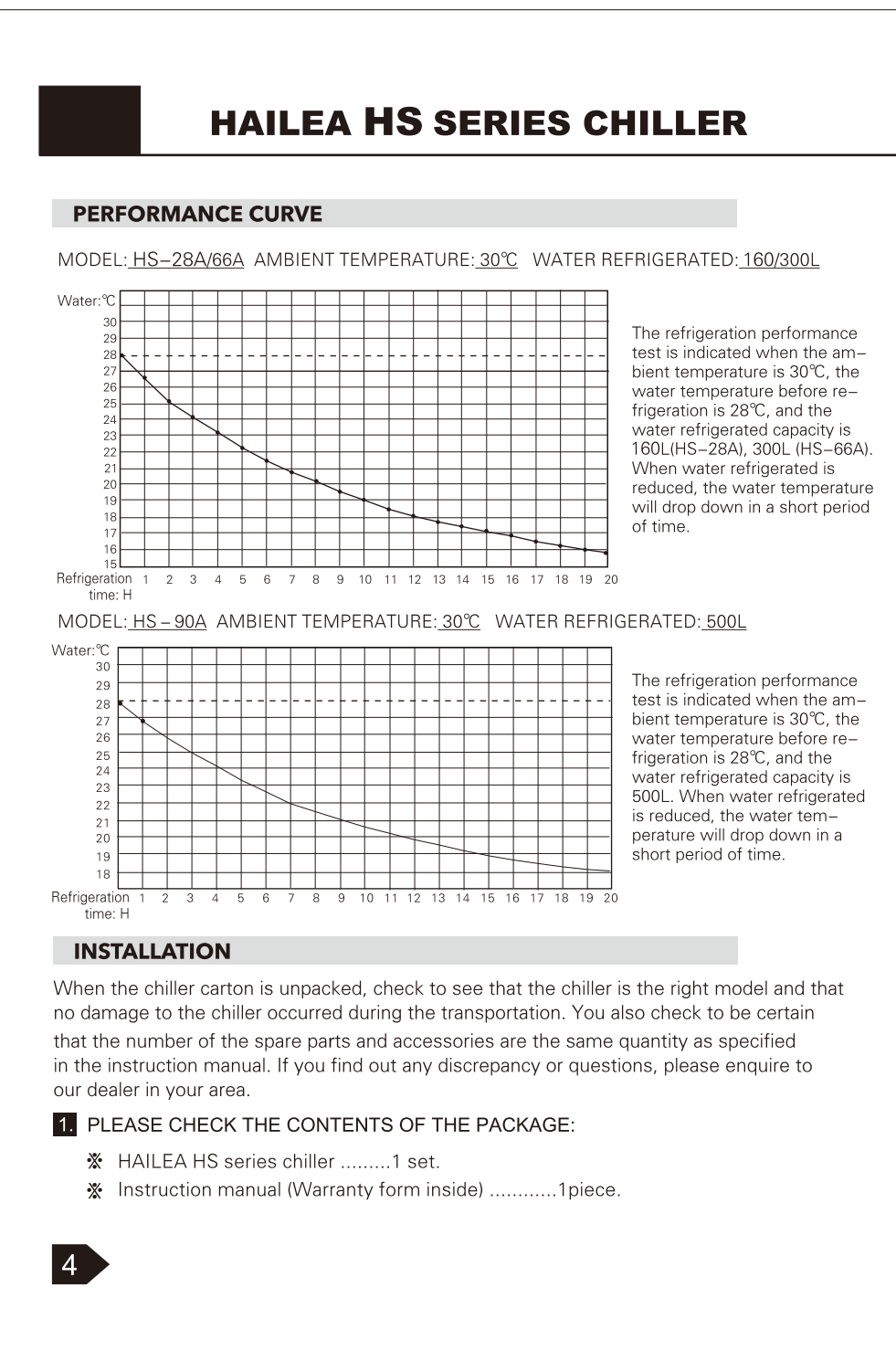
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FEATURES

1. Microcomputer control system for the convenience of user.
2. Digital temp.-controlling technology to keep the set temperatures accurate and stable.
3. High efficiency and energy saving. Water temperature will fall down quickly and economically.
4. Adopts Freon-free R134a refrigerating system, which is safe and environment friendly.
5. Anti-corrosive pure titanium evaporator for fresh & sea water dual use.
6. Auto overcurrent power off protection system.
7. Temperature memory system that makes the chiller refrigerate continuously according to the previous temperature when the power is supplied again to protect the animals and plants in the aquarium.

TECHNOLOGY DATA

Model	HS-28A	HS-66A	HS-90A
Rated Voltage	220-240V (110-120V)	220-240V (110-120V)	220-240V (110-120V)
Rated Frequency	50Hz (60Hz)	50Hz (60Hz)	50Hz (60Hz)
Working Current	1.1A (2.2A)	1.8A (3.6A)	2.4A (4.4A)
Power	170W	144W	172W
Water Refrigerated	160L	300L	500L
Water Temp. Before Refrigeration (Ambient Temperature 30°C)	28°C	28°C	28°C
Refrigeration Time	20h	20h	20h
Water Temperature After Refrigeration	18°C	16°C	18°C
Refrigerant	R134a	R134a	R134a
Refrigerant Weight	180g	220g	260g
Rate of Flow	250-1200L/h	1000-2500L/h	1200-3000L/h
Weight	12kg	19.8kg	19.8kg
Size	496x218x155mm	435x295x170mm	490x320x165mm



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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 to be utilized 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.

INSTALLATION METHODS :

Note: The chiller must be operated with circulation & filtration systems. The chiller can be installed in a hidden position such as inside an closed style aquarium cabinet. But if your cabinet has no ventilation grilles, they must be made. When the grilles are being made, make sure the air intake grilles must be in exact alignment with the aspiration grilles of the chiller and the air outlet grilles on the cabinet should be made as high as possible for easy air outlet. The chiller should be installed with its aspiration grilles as near as possible to the grilles of the cabinet to allow for fresh air circulation.

The chiller also can be installed under an open style aquarium cabinet. As you know, it should be installed at a minimum distance of at least 20-40 cm from each side of the cabinet, so as to allow a fresh air flow in the intake area. For fresh air circulation, it is suggested to put your chiller out of the aquarium cabinet.

For sea water, it must be filtered before arriving at the chiller, or the evaporator will become dirty and this will affect the refrigeration. If the chiller is placed under a fish tank fitted with a filter system, a water intake tube must be provided with the water pump which arrives directly to the input connector on chiller to ensure the intake water is pure.

Please note that the filter (with the pump) must be located below the aquarium water level. If you wish to place the unit at the side of the aquarium, you must do so after priming it.

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BEFORE STARTING THE OPERATION OF THE CHILLER, PLEASE CHECK THE FOLLOWING POINTS:

- (1) Check if the water level inside the aquarium is appropriate.
- (2) Make sure that no water leakage from the hose connections.
- (3) Insert the power plug with its full contact into the power outlet so that the plug itself does not wobble.
- (4) Make sure there is nothing wrong with the water circulation & filtration systems, especially the circulating tube must not be clogged.

OPERATION

Note: Before starting the chiller, you must run the pump & make sure that there is water in the aquarium. There are three buttons on the control & command panel to switch and display the water temperature and the set temperature, and adjust the set temperature.

AQUARIUM TEMPERATURE DISPLAYS & SET TEMPERATURE DISPLAYS

Press the "SET" button, the aquarium water temperature and the set temperature will appear alternately on the display. The indicator "1" turns off to indicate the aquarium water temperature. When the indicator twinkles, it indicates the set temperature.

ADJUST THE SET TEMPERATURE

Press the (SET) button for more than three seconds to indicate that the programming function is enabled and the previously set temperature value will appear on the display, press the "Δ" button for increasing temperature or "▽" button for decreasing temperature to choose your required temperature. Temperature setting is from 3°C to 32°C. Then press the (SET) button to confirm or just wait for eight seconds, the chiller will store the set temperature. Then the aquarium water temperature will appear on the display while the chiller is working.

TEMPERATURE ERROR ADJUSTMENT (□□)

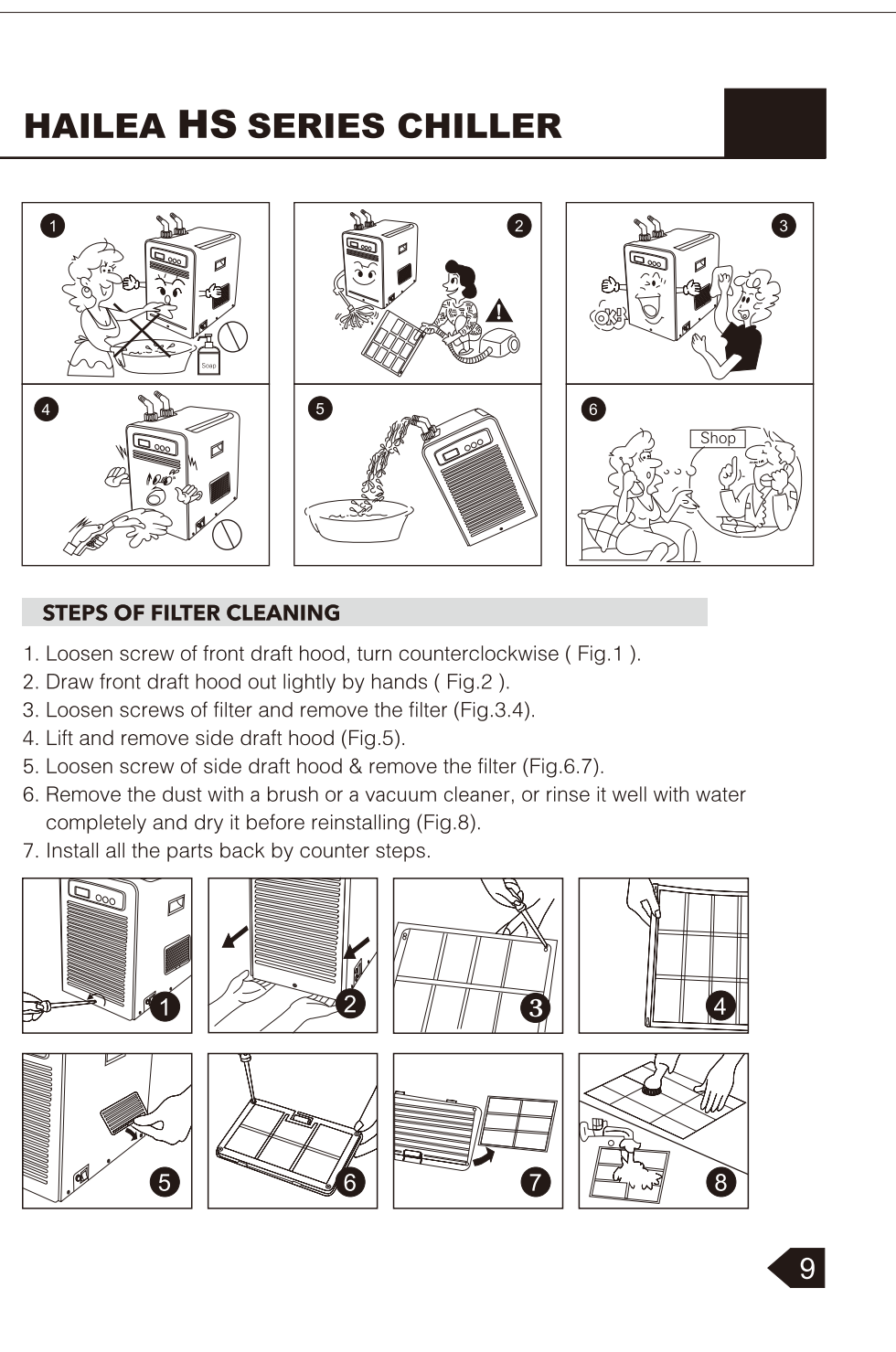
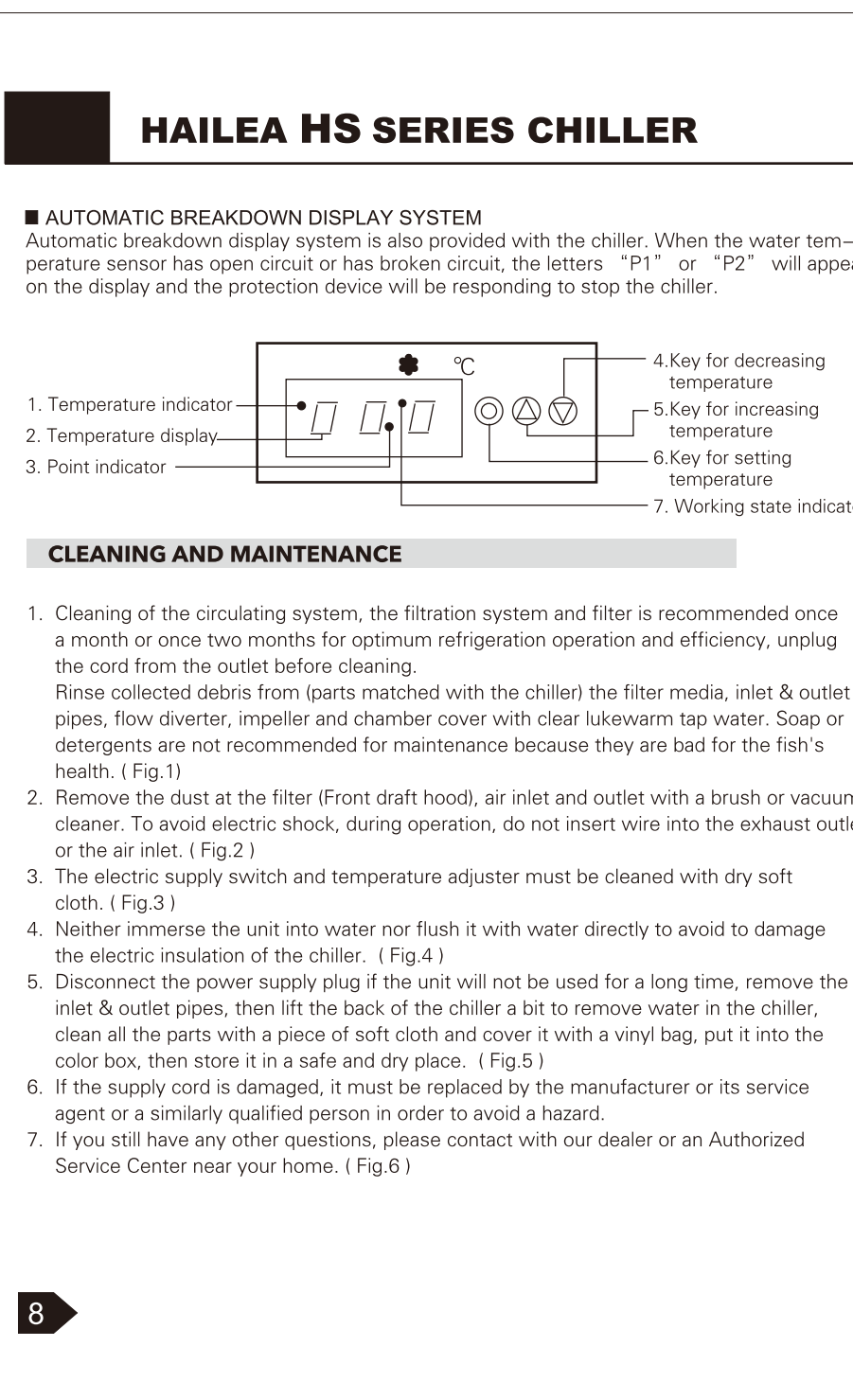
The common setting is "□□", when the aquarium water temperature is different from the temperature value appear on the display of the chiller, you can adjust the error as following: Press "Δ" and "▽" buttons at the same time for 5 seconds till the display twinkles, then press "Δ" or "▽" button separately for temperature error adjustment ranging from -1.5°C~+1.5°C. (Do not use this function frequently if it is not necessary.)

THE CHILLER PROTECTION DEVICE TO BE RESPONDING

Protection device is provided with the chiller. The refrigeration compressor needs three minutes after resetting and for the first time, it needs about one minute.

REFRIGERATION COMPRESSOR ON & OFF AUTOMATICALLY

When the refrigeration compressor stops working for over three minutes & the water temperature is 1°C above the set temperature, the compressor will start working again automatically. The compressor will stop working automatically when the aquarium water temperature reaches or falls below the set temperature. The indicator light "1" shows that the chiller is working. The light turns off when the aquarium water temperature reaches the set temperature & the chiller stops working; the light twinkles to show that the protection device to be responding for three minutes.

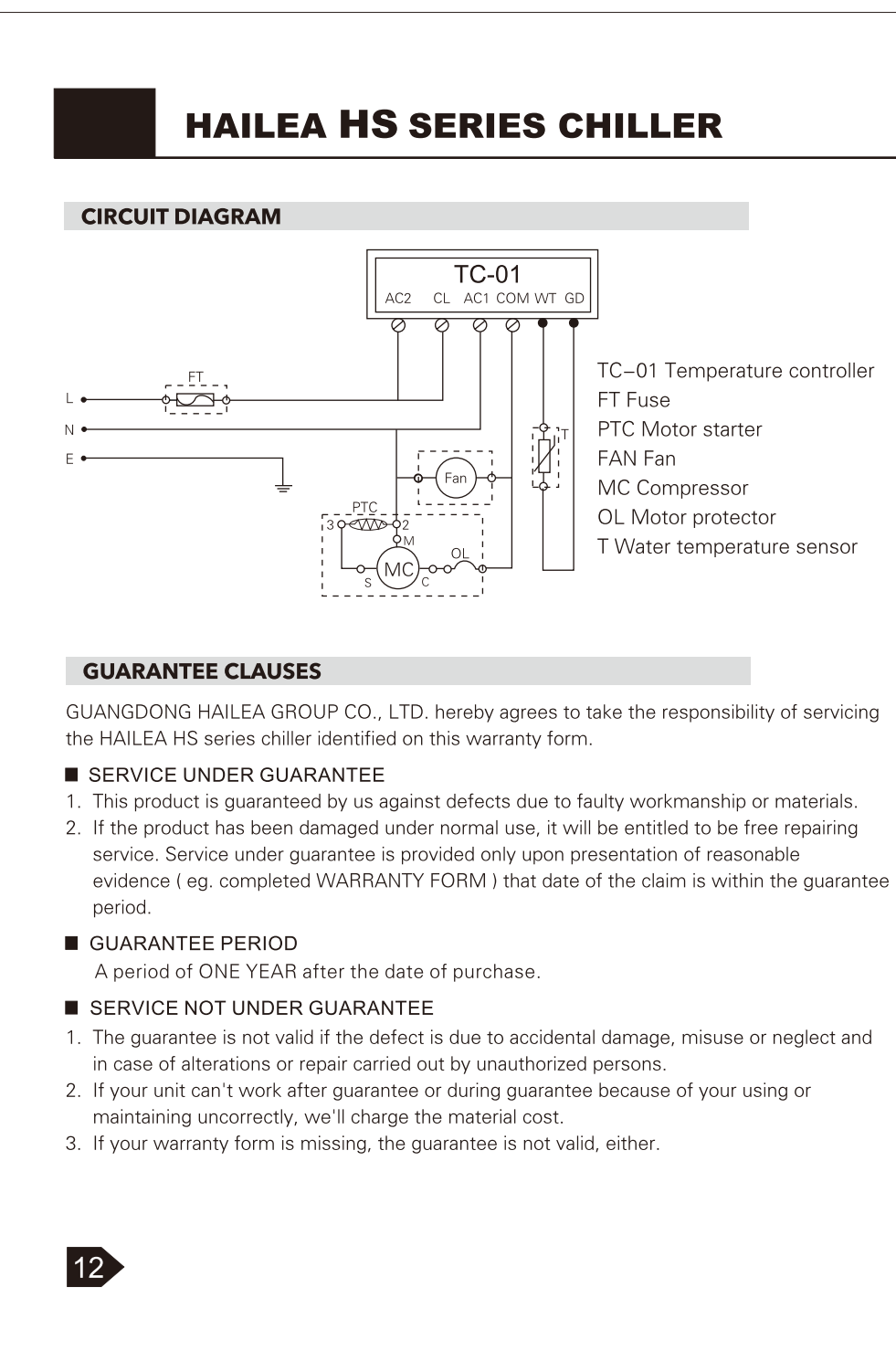
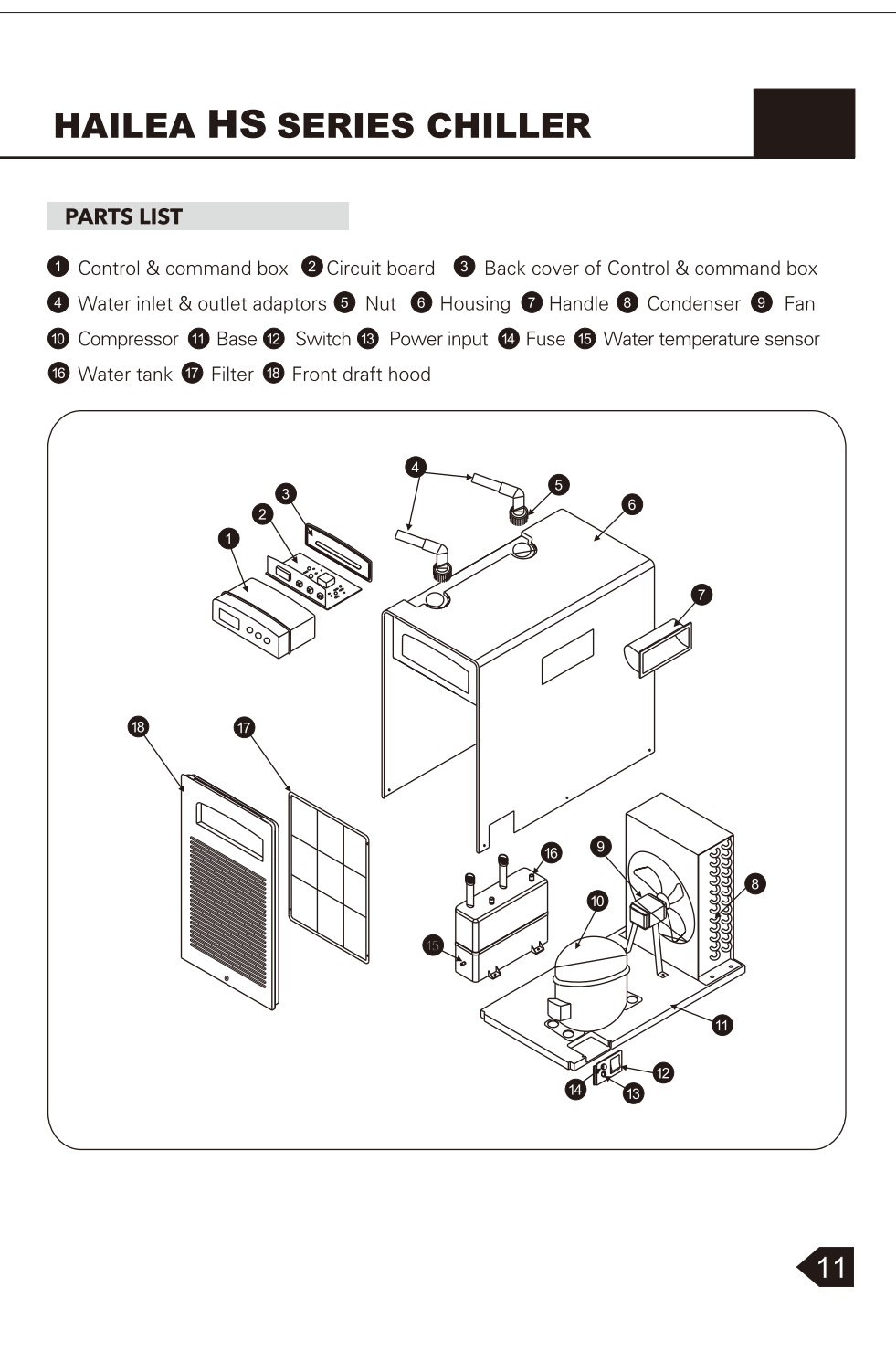


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A GUIDE TO SIMPLE PROBLEM SOLVING

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

SYMPTOM	CAUSE	COUNTERMEASURE
No power source: The unit doesn't run & the display appears nothing	Power is not turned on Plugged in insufficiently The fuse has broken	Turn on the power Be sure the power cord is fully plugged in Change a new one
The unit repeats on and off	Apply to wrong voltage and frequency	Apply to correct power source according to the nameplate
Water refrigerated reduces or even no refrigeration	The compressor runs normally, the fan stops running, the unit can't dissipate heat	A. Check if the water circulation is normal. B. If the fan and the chiller dissipate heat normally, wait for 3 minutes & the unit will turn on again automatically
	The set temperature is higher than the aquarium water temperature	Reset refrigerate temperature (Fig.3)
	The air inlet and outlet are clogged with dirt	Remove the dust at the air inlet/outlet with a brush or a vacuum cleaner
Refrigerant is not enough	Refrigerant is not enough	⚠ Look at page 13, fill the unit with the same type of refrigerant by a qualified electrician
	Too much water in aquarium	Reduce the water
Running with shock & loud noise	The base is not flat	Mount it on a flat base



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ONE YEAR WARRANTY WARRANTY FORM DATE :

PURCHASER'S NAME	TELEPHONE NUMBER
POST CODE	PRODUCT
ADDRESS	
MODEL	PRODUCT NUMBER
TO BE SIGNED AND SEALED BY THE RETAILER WITH EFFECTIVE FROM (DATE OF PURCHASE)	
REPAIRING SUMMARY RECORD	