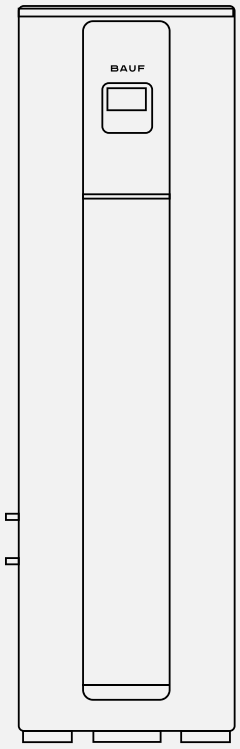
BAUF

USER MANUAL
AIR CONDITIONER MULTI-SPLIT
INDOOR WATER TANK

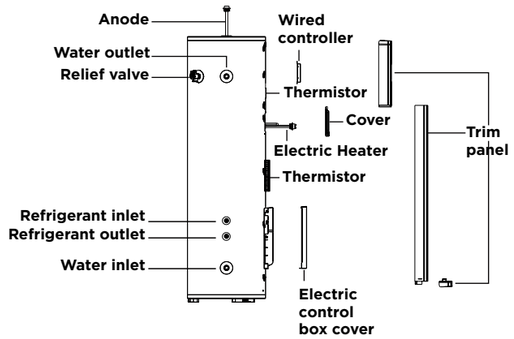


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YOUR SAFETY IS OUR TOP PRIORITY!

PARTS NAMES



When ordering repair parts please always give the following information:

1. Model, serial and product number.

2. Parts name.

NOTE

All the picture in this manual are for explanation purpose only.

They may be slightly different from the heat pump water heater you purchased (depends

on model). Please refer to the real sample instead of the picture of this manual.

1. SAFETY INFORMATION

Please read thoroughly all of the instructions before installing or operating the unit.

Following safety symbols are very important, always read and obey all safety symbols:

⚠ **CAUTION**	You may be injured if you don't obey instructions.
⚠ **WARNING**	You may be killed or seriously injured if you don't obey instructions.
⚠ **DANGER**	You may be killed or seriously injured immediately if you don't obey instructions.

⚠ **WARNING**

• The unit must be earthed effectively.

• A creepage breaker must be installed adjacent to the power supply.

• Do not remove, cover or deface any permanent instructions, labels, or the data label from either the outside of the unit or inside of unit panels.

• Ask qualified person to perform the installation of this unit in accordance with local national regulations and this manual. Improper installation may result in water leakage, electric shock or fire.

• Ask qualified person for relocating, repairing and maintaining the unit instead of doing by yourself. Improper installation may result in water leakage, electric shock or fire.

• Electric connection work should obey the instructions of local power company, local electric utility and this manual.

• Never use the wire and fuse with wrong rated current, otherwise unit may break down and cause fire furthermore.

• Never use a flammable spray such as hair spray, lacquer paint near the unit.

• It may cause a fire.

• If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person.

BATTERY WARNING

⚠ **WARNING**

Contains button or coin cell battery.

⚠ **WARNING**

The battery is hazards and KEEP OUT OF REACH OF CHILDREN (Whether the battery is new or used).\

If the battery compartment(if applicable) does not close securely, stop using the product and keep it away from children. For appliances which contain coin or lithium batteries:

BATTERY WARNING

KEEP OUT OF REACH OF CHILDREN.

Swallowing can lead to chemical burns, perforation of soft tissue, and death.Severe burns can occur within 2 hours of ingestion. Seek medical attention immediately.

For appliances which contain button or non-lithium batteries.- The battery can cause serious injuries if it is swallowed or placed inside any part of the body.- If you think batteries might have swallowed or placed inside any part of the body,seek immediate medical attention.

BATTERY PERFORMANCE

For more durable batteries, it is recommended to turn off the power when not in use for a period of time.

BATTERY DISPOSAL

• Dispose of used button/coin batteries immediately.

• Place sticky tape around both sides of the battery and dispose of it immediately in an outside bin, out of reach of children, or recycle safely.

• Do not dispose of batteries as unsorted municipal waste. Refer to local laws for proper disposal of batteries.

• Batteries may have a chemical symbol at the bottom of the disposal icon. This chemical

symbol means that the battery contains a heavy metal that exceeds a certain concentration.

An example is Pb: Lead (>0.004%).

• Appliances and used batteries must be treated in a specialized facility for reuse,recycling and recovery. By ensuring correct disposal, you will help avoid possible negative consequences for the environment and human health.



⚠ **CAUTION**

• The earthing pole of socket must be grounded well, make sure that power supply socket and plug are dry enough and connected tightly.

• How to check the power supply socket and plug are qualified? Turn on power supply and keep the unit running for a half hour, then turn off power supply and plug out, check whether the socket and plug is hot or not.

• Before cleaning, be sure to stop the operation and turn the breaker off or pull out the power plug. Otherwise, an electric shock and injury may be caused.

• Water temperature over 50°C can cause severe burns instantly or death from scalds.Children, disabled and elderly are at highest risk of being scalded. Feel water before bathing or showering.

Water temperature limiting valves are recommended.

• Do not operate the unit with a wet hand. An electric shock may be caused.

• The installation height of power supply should be over 1.8m, if there is any water spattered, separate the power supply from water.

• A one-way valve must be installed on the water inlet side.

• It's normal if some water drops from the hole of PT valve during operation. But, if there is a great amount of water, call your service agent for instructions.

• After a long term use, check the unit base and fittings.

• If damaged, the unit may sink and result in injury.

• Arrange the drain pipe to ensure smooth draining.

• Improper drainage work may cause wetting of the building, furniture etc.

• Do not touch the inner parts of the controller.

• Do not remove the front panel. Some parts inside are dangerous to touch, otherwise a machine malfunction may be caused.

• Do not turn off the power supply.

• System will stop or restart heating automatically. A continuous power supply for water heating is necessary, except service and maintenance.

• If the unit has not been used for a long period of time (2 weeks or more), hydrogen gas will be produced in the water piping system.

• Hydrogen gas is extremely flammable. To reduce the risk of injury under these condi tions, it is recommended that open the hot water tap for several minutes at the kitchen sink before using any electrical appliance connected to the hot water system. When hydrogen is present, there will probably be an unusual sound such as air escaping through the pipe as the water begins to flow. There should be no smoking or open flame near the tap at the time it is opening.

2. BEFORE INSTALLATION

2.1 UNPACKING

2.1.1 Accessories

Accessory Name	Qty.	Shape	Purpose
Owner's & Installation Manual	1		Installation and use instruction This manual
Technical Parameter Table	1		Introduction of technical parameters
PT Valve	1		Protecting the tank from pressure damage or even explosion.

2.1.2 How to transport

Protecting the tank from pressure damage or even explosion.

1. In order to avoid scratch or deformation of the unit surface, apply guard boards to the contacting surface. Don't incline the unit more than 15° in moving, and keep it vertical when installing.

2. This unit is heavy, It needs to be carried by two or more persons, othewise might cause injury and damage.

2.2 LOCATION REQUIREMENTS

1. Enough space for installation and maintenance shall be preserved.

2. The base surface should be flat, surface should be inclined no more than 2° and able to bear the weight of the unit and suitable for installing the unit without increasing noise or vibration.

3. No flammable gas is leaked nearby.

4. Recommending install the main unit at indoor ambient range of 5~43°C . The ambient temperature around the indoor unit must be ≥5°C to prevent water from freezing.

5. It is convenient for piping and wiring.

6. If the unit has to be installed on a metal part of building, make sure the well electric insulation which should meet the relevant local electric standard.

7. The floor at the place of installation must be waterproof and have a proper drainage ,in order to limit the extent of damage in case of water leakage. It is the responsibility of the installer to ensure that installation and draining works are compliant with regulations.

8. The unit shall not be installed in locations where it is exposed to oil, smoke,dust or particles, such as kitchens or factories.

⚠ CAUTION

• The ambient air temperature must also be considered when installing this unit, in heat pump mode the ambient air temperature must be Within operating temperature.If the ambient air temperature falls outside these upper and lower limits,the electrical elements will be activated to meet the hot water demand and the heat pump does not operate.

Electric heating replaces heat pump operation to heat hot water.

• Refer to the table on page 22.

• The unit should be located in an area not subject to freezing temperatures. The unit located in unconditioned spaces(i.e., garages, basements,etc.) may require the water piping, condensate piping, and drain piping to be insulated to shelter agianst freezing. Installing the unit in any of the following places may lead to malfunction(If it is inevitable, consult the supplier).

• The site contains mineral oils such as lubricant of cutting machines.

• Seaside where the air contains much salt.

• Hot spring area where corrosive gases exist, e.g., sulfide gas.

• Factories where the power voltage fluctuates seriously.

• Inside a car or cabin.

• The place with direct sunlight and other heat supplies. If there's no way to avoid these, please install a covering.

• Place like kitchen where oil permeates.

• Place where strong electromagnetic waves exist.

• Place where flammable gases or materials exist.

• Place where acid or alkali gases evaporate.

• Other special environments.

A discharge pipe connected to the pressure-relief device is to be installed in a continuously downward direction and in a frost-free environment.

⚠ WARNING

• The unit must be securely fixed, elsewise, noise and shaking may be resulted.

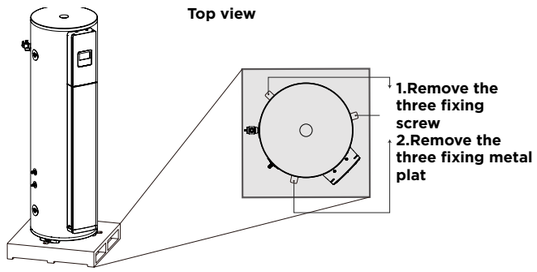
• Make sure that there's no obstacle around the unit.

2.3 BASE DISASSEMBLY

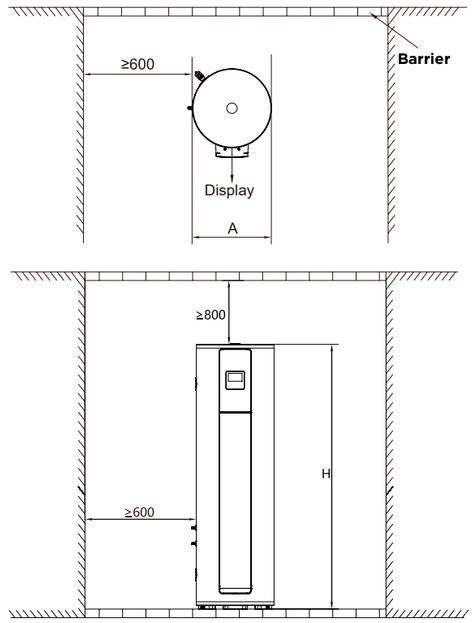
⚠ WARNING

Please remove the wooden base of the product before installation.

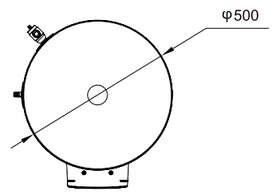
Wooden Base Disassembly Diagram

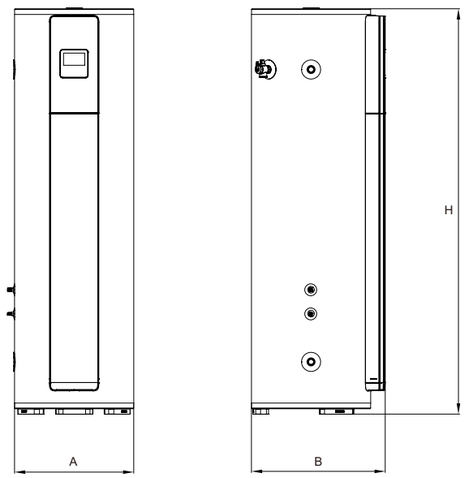


2.4 MAINTENANCE SPACE REQUIREMENTS (UNIT: MM)



2.5 UNIT OUTLINE DIMENSION (UNIT: MM)





	Overall dimensions		unit: mm
Dimension / Model	A	B	H
190L	500	561	1700

2.6 INSTALLATION GUIDELINES

⚠ CAUTION

• The tank is intended to be installed in an indoor environment with an ambient temperature range of 5~43°C. The ambient temperature around the indoor unit must be ≥5°C to prevent water form freezing.

• In order to effectively fix the water tank, please make sure that the water tank is placed on a flat and hard concrete floor.

• Please ensure that the water outlet at the bottom of the water tank has been filled with water before the water tank.

Handling and Installation of water tank

• The water tank is soft and heavy, so it requires at least three people to carry and install it safely. Attempting to move or install it with fewer people may cause it to tip over or become damaged, potentially resulting in equipment damage or personal injury.

• Please carry the water tank according to the factory state, do not disassemble it by yourself.

• In order to avoid surface abrasion and deformation, please put a guard on the surface of the body in contact with hard objects.

• Please ensure the vertical and reliable installation of the tank and the necessary space for installation and maintenance.

Fixing method

⚠ WARNING

• The appearance of the water tank and the orientation of the water tank orifice are for reference only and can be adjusted according to the actual installation.

• The position of the fixed strip up and down can be adjusted according to the actual situation. The length of the expansion bolt is not less than 90mm.

Water heater fixing steps are as follows:

• First place the water tank only against the wall and the ground hard and flat position, so that the tank vertical ground.

• Connect the connection pipes and water pipes of the internal and external units according to the installation instructions.

• Install the expansion bolts in the wall according to the drawing.

• Fix the end with less holes for mounting the fixing strip on the expansion bolt.

• Tighten the fixing strip to the appropriate hole position, and then fix it with a screw on another expansion bolt.

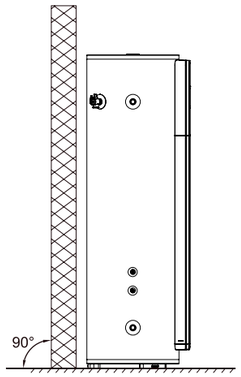
• If the fixed strip has extra please cut off.

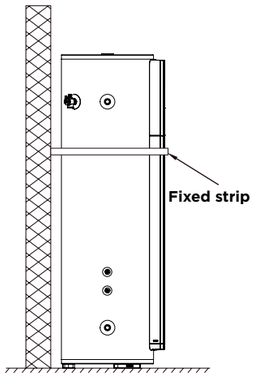
• After the installation is completed, check whether the water tank is safely and securely fixed.

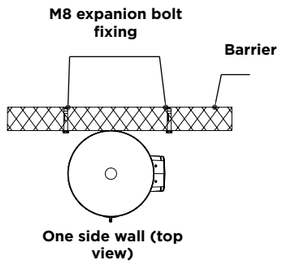
2.7 IF INSTALLED IN ENCLOSED SPACE

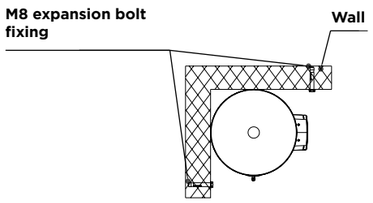
The water heater must be located in a space >15m³, and must have unrestricted air flow.

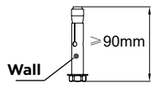
As an example, a room that has an 2.5 tall ceiling and is 3 meters long by 2 meters wide would contain 15m³









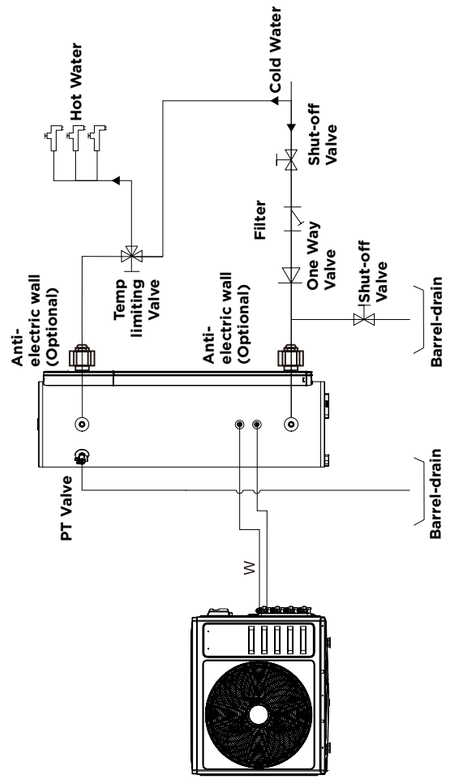


NOTE:

Installation of outdoor units or other packaged products can be found in the Installation and Maintenance Manual: Outdoor Unit.

3. INSTALLATION

3.1 WATER SYSTEM PIPING



Accessories	Function	Installation Requirements
Shut-off Valve	The switch acts to cut off the water path.	Must be installed, selected according to the water pipe diameter.
One Way Valve	One-way check to prevent backflow in the water line.	Must be installed.
Expansion tank	Maintains constant water supply pressure.	Recommended install, optional according to the specification of 5L.
Temp limiting valve	Outgoing water temperature is too high for mixing.	Must be installed, selected according to the water pipe diameter.

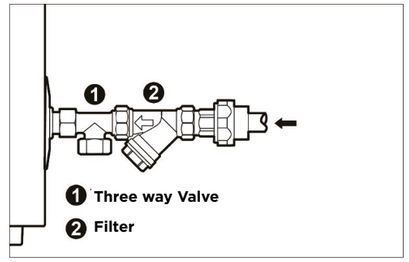
Water inlet or outlet pipes: The spec of the water inlet or outlet thread is G3/4"(internal thread). Pipes must be Well heat-insulated.

1. Installation of the pipe for PTR valve: The spec of the valve connecting thread is G3/4" (internal thread). After installation, it must be confirmed that the drainpipe outlet is exposed in the air.

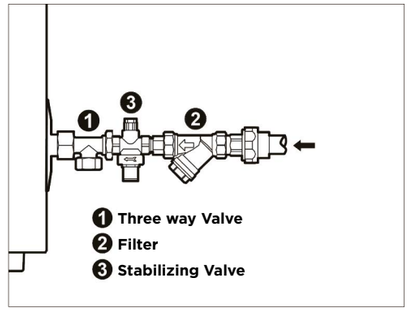
2. External static pressure at testing 0.1MPa.

3. Water inlet pipe installation

Method 1: Cold water inlet pressure 0.15~0.65Mpa

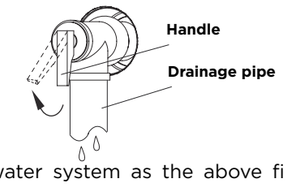


Method 2: Cold water inlet pressure greater than 0.65Mpa



Install a pressure stabilizing valve to ensure that the water tank inlet pressure is between 0.15~0.65MPa. The direction of the arrow on the stabilizing valve must be consistent with the direction of flow.

⚠ CAUTION



• Piping water system as the above figure. In case of installing it at a place where outside temperature below freezing point, insulation must be provided for all hydraulic components. The handle of PTR valve should be pulled out once per half a year to make sure that there is no jam of the valve.

• Please be aware of burn, be aware of the hot water from the valve.The drainage pipe should be well insulated in order to prevent water inside pipe from freezing in cold weather.

• There is a risk of freezing if the tank is located in an ambient temperature below 0°C. To avoid freezing the water tank, empty the tank without powering it up. (the unit stays energized to protect the tank to a certain extent).

⚠ WARNING

Do not dismantle the PTR Valve. Do not block off the drainage pipe.It will cause explosion and injury, if do not comply with the above instruction.

4. After water system piping work, turn on the cold water inlet valve and hot water outlet valve and start effusing the tank. When water flow smoothly out from water outlet pipe (tap water outlet), the tank is full, turn off all valves and check pipeline to make sure there is not any leakage.

5. If the inlet water pressure is less than 0.15MPa, a pump should be installed at the water inlet. For guarantee the safety usage of tank at the condition of water supply pressure higher than 0.65MPa, a reducing valve should be installed at the water inlet pipe.

3.2 REFRIGERANT CIRCUIT

3.2.1 General notes R32 refrigerant

This appliance is filled with R32, an odourless flammable refrigerant gas with low burning velocity (A2L class pursuant to ISO 817). If the refrigerant is leaked, there is a possibility of ignition if it enters in contact with an external ignition source.Make sure that unit installation and refrigerant piping installation comply with applicable legislation in each country. Also, in Europe, EN378 must be complied, as it is the applicable standard.

3.2.2 Refrigerant piping

Refrigerant piping length between indoor unit and outdoor unit.

NOTE:

For specific installation guidelines, please refer to the Outdoor unit <Owner's Manual & Installation Manual>.

Refrigerant piping size.

Piping connection size of outdoor and indoor units.

Outdoor unit			Indoor unit		
Model	Pipe size		Model	Pipe size	
	Gas pipe	Liquid pipe		Gas pipe	Liquid pipe
TFM4-27CHD/(I)(E)-t	Ø9.52 (3/8")	Ø 6.35 (1/4")	KFd80-S190-T3	Ø9.52 (3/8")	Ø 6.35 (1/4")

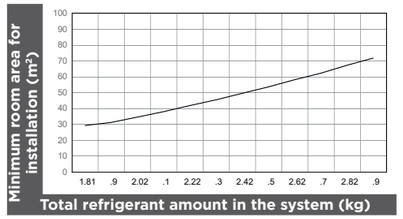
The unit installation and refrigerant piping should comply with the relevant local and national regulations for the designed refrigerant. Due to R32 refrigerant and depending on final refrigerant charge amount, a minimum floor area for installation must be considered.

If total refrigerant charge amount <1.84kg, there are no additional minimum floor area requirements.

Minimum area requirements

In case of total refrigerant amount ≥1.84 kg, the unit should be installed, operated and stored in a room with a floor area larger than the minimum criteria. Use following graphic and table to determine these minimum criteria:

Refrigerant Amount (kg)	Minimum Area (m^2) (H:0.6m)
1.84	28.81
1.90	30.72
2.00	34.04
2.10	37.53
2.20	41.19
2.30	45.02
2.40	49.02
2.50	53.19
2.60	57.53
2.70	62.04
2.80	66.72
2.90	71.58



NOTE:

In case of not achieving the minimum floor area, contact with your dealer.

3.2.3 Refrigerant charge

Refrigerant charge amount

Please refer to the installation and operation manual of the outdoor unit for the refrigerant filling quantity

3.3 Electric connection

⚠ CAUTION

• The power supply should be an independent circuit with rated voltage.

• Power supply circuit should be earthed effectively.

• The wiring must be performed by professional technicians in accordance with national wiring regulations and this circuit diagram.

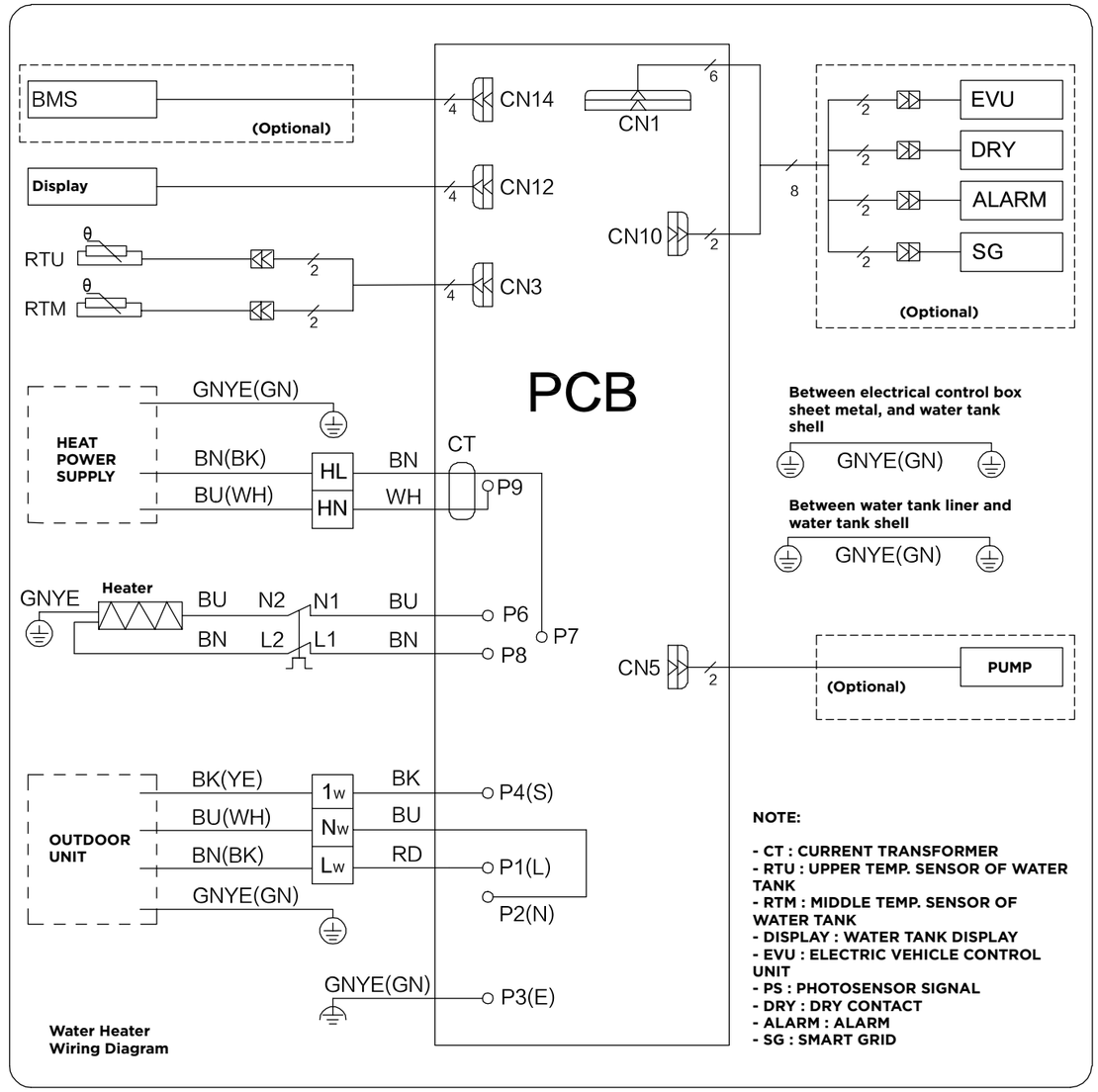
• An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device (RCD)with the rating of above 20mA shall be incorporated in the fixed wiring according to the national rule.

• Set the electric leakage protector according to the relevant electric technical standards of the state.

• The power cord and the signal cord shall be laid out neatly and properly without mutual interference or contacting the connection pipe or valve.

• After wire connection, check it again and make sure the correctness before power on.

3.3.1 ELECTRIC WIRING ILLUSTRATION



• When installing the prototype, pay attention to install the signal cable of the water tank to the place where the user can't touch it.

3.3.2 SPECIFICATIONS OF POWER SUPPLY

Model Name	KFd80-S190-T3
Power Supply	220-240V~ 50Hz
Min. cross-sectional area of Power Supply Cord (mm²)	1.5 (For water tank with electric heating)
Earth Cord (mm²)	1.5 (For water tank with electric heating)
Residual current device (RCD) rated current(A)	16
Residual current device (RCD) residual operating current(mA)	30

• Please choose the power cord according to above table, and it should comply with local electric standard.

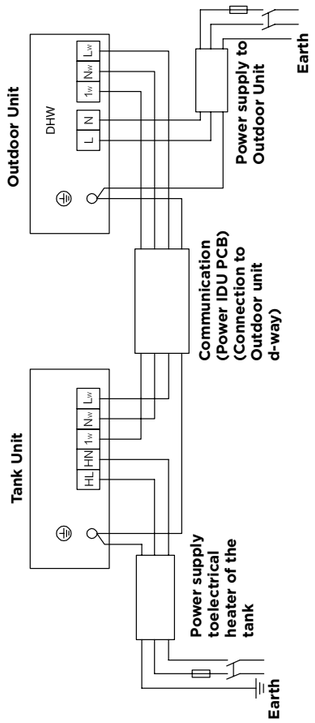
• The power cord model, recommended power cord mode is H05RN-F.

⚠ WARNING

The unit must be installed with a residual current device (RCD) near the power supply and must be effectively earthed.

3.3.3 System wiring diagram

The units of water tank can only be connected to the system of DHW. The units shall be connected according to the following electric diagrams, depending on the applicable powering scheme and according to the local regulations: In the case of independent supply to the tank and to the outdoor unit: (The electric heating power supply line must be connected.)



3.4 INSTALLATION CHECKLIST

3.4.1 Location

• The flooring beneath the water heater must be able to support the weight of the unit when filled with water.

• Located indoors (such as a basement or garage) and in a vertical position. Sheltered from freezing temperatures.

• Provisions made to shelter the area from water damage.Metal drain pan installed and piped to an adequate drain.

• Sufficient space to service the water heater.

• The unit cannot be placed into any type of closet or small enclosure.

• The site location must be free from any corrosive elements in the atmosphere such as sulfur, fluorine, and chlorine. These elements are found in aerosol sprays, detergents, bleaches,cleaning solvents, air fresheners, paint, and varnish removers, refrigerants, and many other commercial and household products. In addition excessive dust and lint may affect the operation of the unit and require more frequent cleaning.

• The ambient air temperature must be above 5ºC and below 43ºC.If the ambient air temperature falls outside these upper and lower limits the electrical elements will be activated to meet the hot water demand.

3.4.2 Water system piping

• PTR valve (Temperature and pressure relief valve) properly installed with a discharge pipe run to an adequate drain and sheltered from freezing.

• All piping properly installed and free of leaks.

• Unit completely filled with water.

• Water temperature limit valve or mixer tap (recommended) installed per manufacturer's instructions.

3.4.3 Electrical Connections

• The water heater requires 230V AC for proper operation.

• Wiring size and connections comply with all local applicable codes and the requirements of this manual.

• Water heater and electrical supply are properly grounded.

• Proper overload fuse or circuit breaker protection installed.

3.4.4 Post Installation Review

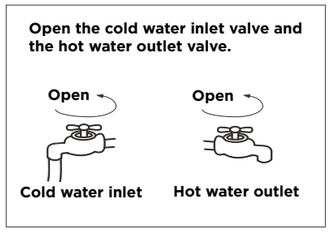
• Understand how to use the User Interface Module to set the various parameters and functions.

4. TRIAL-RUNNING

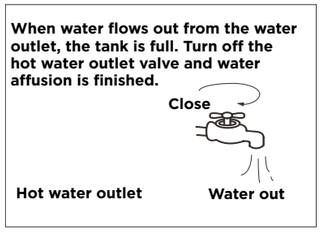
4.1 WATER AFFUSION BEFORE OPERATION

Before using this unit, please follow the steps below:

Water Affusion: If the unit is used for the first time or used again after emptying the tank, please make sure that the tank is full of water before turning on the power.



Water Affusion

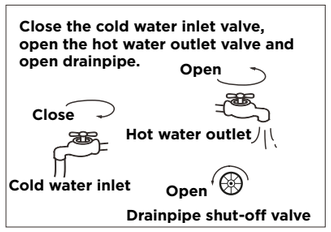


⚠ CAUTION

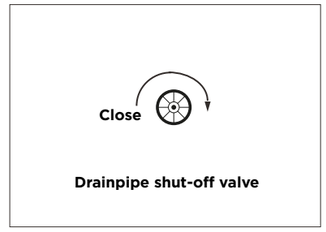
• Operation without water in water tank may result in the damage of auxiliary electric heater. Due to such damage, manufacturer will not be liable for any damages caused by this issue.

• After powered on, the display lights up. Users can operate the unit through the buttons under the display.

• Emptying: If the unit needs cleaning, moving etc, the tank should be emptied.



Emptying



4.2 TRIAL- RUNNING

4.2.1 Checking list before commisionning

1. Checking list before trial-running.

2. Correct installation of the system.

3. Correct connection of water/air piping and wiring.

4. Condensate draining smoothly well insulation work for all

5. Hydraulic part.

6. Correct power supply.

7. No air in the water pipeline and all valves opened.

8. Effective electric leakage protector installation.

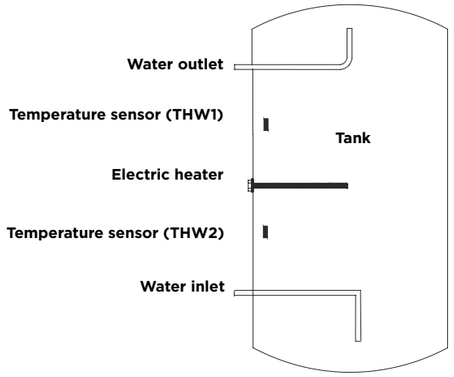
9. Sufficient inlet water pressure (between0.15MPa and 0.65MPa).

4.2.2 About running

1. System Structure Figure

Unit has two kinds of heat sources: heat pump(compressor) and electric heater.

Unit will automatically select heat sources to heat water to the target temperature.



2. Water Temperature Display

The temperature shown on the display depends on the upper sensor.

3. Heat source will be automatically selected by unit.

• Running temperature range

Setting water temperature target range: 30~75ºC:

Model	TFM4-27CHD/(I)(E)-t + KFd80-S190-T3 (unit:ºC)					
Ambient Temp.(T4)	T4 < -15	-15 < T4 ≤ -11	-11 < T4 ≤ -6 40	-6 < T4 ≤ 0	0 < T4 ≤ 5	5 < T4 ≤ 10
DHW	40	40	45	45	50	55
Ambient Temp.(T4)	10 < T4 ≤ 15	15 < T4 ≤ 20	20 < T4 ≤ 25	25 < T4 ≤ 30	30 < T4 ≤ 35	T4 > 35
DHW	55	52	52	52	50	50

4. Heat Source Shift

• If the target setting water temperature is higher than Max.temp(Heat pump), the unit will activate heat pump firstly to the Max. temperature, then stop heat pump, activate electric heater to continually heat water to the target temperature.

• If you switch to the Hybrid mode while the heat pump is operating, the electric heater and the heat pump will work together until the water temperature reaches the target level. Therefore, if you wish to heat the water quickly, please manually switch to the Hybrid mode.

4.2.3 Basic function

1. Disinfection Function

The system can perform the disinfection function automatically or manually. When the accumulated time exceeds 7 days, the system will automatically initiate the disinfection process by heating the water to 61°C to eliminate potential Legionella bacteria in the tank water. During disinfection, the corresponding icon on the display will illuminate. If the water temperature exceeds 61°C, the device will stop the disinfection process and the icon will turn off. Additionally, you can set a single disinfection or scheduled disinfection via the remote controller, with the disinfection temperature adjustable between 60°C and 75°C.

2. Holiday home function

The system allows users to configure the device status for both “Holiday away” and “Holiday home” scenarios via the remote controller. Users can set the system to start heating water one day before the end of the holiday period, based on the pre-set heating time and desired temperature, ensuring energy efficiency.

3. Remote shutdown function: Users can connect a switch. If the switch is closed, the unit will be stopped forcibly. If switch breaks, the unit can run normally according to settings.

5. WIRE CONTROLLER OPERATION

5.1 WIRE CONTROLLER DISPLAY DESCRIPTION



Key Name	Icon		
[MENU]	MENU	[UP]	
[ON/OFF]		[DOWN]	
[BACK]	BACK	[LEFT]	
[MODE]	MODE	[RIHGT]	
		[OK]	OK

5.1.1 ICON EXPLANATION

SN	Content		Function description
1	20-12-2022	Date	Day-Month-Year, displayed by default
2	23:58	Time	24-hour time, displayed by default
3		Daily timer	When the daily timer is effective, the icon displays
4	7	Weekly timer	When the weekly timer is effective, the icon displays
5		Ambient temperature	Room temperature,displayed by default
6		Child Lock	When the CHILD LOCK function is enabled, the icon displays
7		Wi-Fi	This icon will be displayed after WiFi networking is successful
8	100% 75% 50% 25% 0%	Water volume	Display the water volume of the target water temperature
9		STANDARD Mode	Heat pump operates at standard power
10		ECO Mode	Heat pump operates at energy-saving power
11		HYBRID Mode	Electric heating and heat pump on
12	OFF	Turn of	Unit turns of
13	ON	Turn on	Unit turns on
14	T.SET 45℃	Setting temperature	The icon indicates the target water tank temperature
15	45℃	Water Tank temperature	Water Tank current water temperature(THW1 TEMP)
16		Sterilization	Indicates that the hot water tank is being sterilized
17		Error	Display when there is error, and display the error code at the same time
18		Compressor	When the compressor is on, the icon displays
19		Water Pump	When the water pump is turned on, the icon displays
20		E-heater	When the electric heating is turned on, the icon displays
21		Anti-freeze protection	When the whole unit enters anti-freeze protection , the icon displays
22		Defrost	When the unit enters defrost state, the icon displays
23		HOLIDAY AWAY	When holiday away from home mode is on, the icon displays
24		HOLIDAY HOME	When holiday at home mode is on, the icon displays
25		FREE ELEC. I	Smart Grid function to indicate different states of electricity usage
26		FREE ELEC.II	
27		OFF-PEAK ELEC	
28		PEAK ELEC	

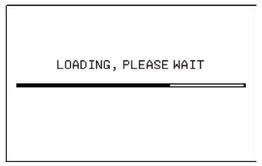
Remarks:

When an icon is displayed, it means that the corresponding function/system/device is switched on and vice versa. Some functions may vary on different devices, please refer to the actual prototype for accuracy.

5.1.2 Explanation of display items

1. Initial state

After the wire controller is powered on, its display screen will display “loading,please wait”; after the loading process is completed, it will automatically enter the general page.



2. Buzzer state

In the default state: when the key is pressed, the buzzer will give a short beep. The sound of buzzer can be turned off in the setting.

3. Backlight display (10-level gradual change in backlight)

• When the backlight goes out, if any key is pressed, the backlight will change from the state of going out to the state of maximum luminance and system will not respond to this operation.

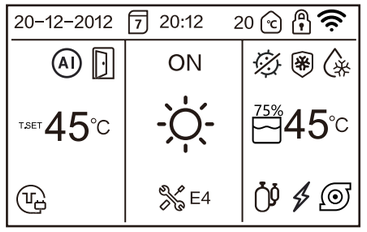
• When the last key pressing starts timing, if the key is not pressed for 15 seconds, the backlight will gradually change from the state of maximum luminance to the state of half maximum luminance.

• The timer starts from the backlight changes to the state of half maximum luminance; if

the key is not pressed for 105 seconds, the backlight will gradually change from the state of half maximum luminance to the state of going out; however, if the key is pressed during this period,the backlight will immediately change to the state of maximum luminance and the timing will restart.

• When the backlight is in the state of maximum luminance or half maximum luminance, the key is in the state of being awakened and it will respond to any operation.

4. Home page display



5.1.3 Explanation of keys

1. [MODE] key

T.SET

When the wire controller is powered on for the first time, the standard mode is switched off by default. On the home page, when you quickly press the [MODE] key, the mode icon zone will switch to next mode. switching sequence.

2. [UP] , [DOWN] , [LEFT] , [RIGHT] keys

On the main interface, you can press the [∨] or [>] key to decrease the target water temperature or lower the target fan speed. To increase the water temperature or raise the target fan speed, press the [∧] or [<] key.

For quick adjustments, you can long-press the aforementioned keys for more than 0.6 seconds to complete the rapid setting.

NOTE:

Setting temperature values of Standard, HYBRID, ECO modes.mode are backed up independently; when the unit enters the same modes next time, it will display the last set temperature values of the corresponding modes.

Water temperature adjusting range:

Mode	°C		°F		Note setting
	Setting range	Initial Value	Setting range	Initial Value	
STANDARD	30-75	50	86-166	122	
HYBRID	30-75	55	86-166	130	
ECO	30-60	45	86-140	112	

3. [ON/OFF] key

• In the main interface, short press the ⏻ key to turn the unit on or off.

• When the device is powered off, short press the ⏻ key to power on the unit.

• When the device is powered on, short press the ⏻ key to shut down the unit.

4. [BACK] key

If you quickly press the [BACK] key, it will go back to the previous menu.

5. [MENU] key

On the home page, if you quickly press the [MENU] key, it will enter the main menu page.

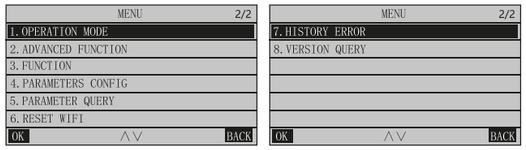
6. [OK] key

On the home screen, press and hold the [OK] button for 3 seconds to activate the child lock. Press and hold the [OK] button again for 3 seconds to deactivate the child lock.

In the menu interface, briefly press the [OK] button to confirm and save.

5.1.4 Explanation of menus

1. Main menu display



Menu operation interface operation instructions:

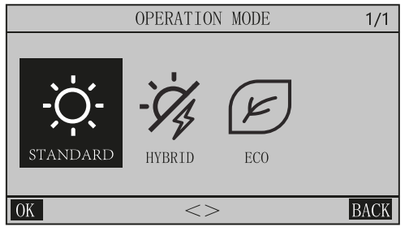
• When the Menu is selected, You can choose the relevant menus by pressing the [∧] or [∨]

[ ] key and then confirm by pressing the [OK] key.

• If the current item has more than two options, the left option is the title and the right option is the setting item. You can press [>] or [<] to select an object. After selecting the setting item, you can press [∧] or [∨] to change the setting value. After the setting is completed, press [OK] to save and return.

• In the menu interface, press [Back] to return to the previous menu. Press ⏻ to return to the main interface without saving.

2. Operation mode display



There are three modes, namely “STANDARD”, “HYBRID”, “ECO”. You can choose the modes by pressing the [<] or [>] key, keep the setting results by pressing the [OK] key or the [MENU] key then go back to the main page by pressing the [BACK] key or the [⏻] key.

STANDARD: When operating in Standard Mode, if the ambient temperature is extremely low or the heat pump has been running for an extended period without reaching the set temperature, both the electric heater and the heat pump will work together to provide heating. It is recommended to set this mode to operate during heat recovery (COOL+DHW).

ECO: In accordance with the heat pump mode of operation the heat pump external unit heats up to the maximum water temperature before turning on the electric auxiliary heater for heating, the heat pump and the electric auxiliary heater will not be turned on at the same time.

It is recommended to use this mode of operation when making hot water alone, which is more energy-saving

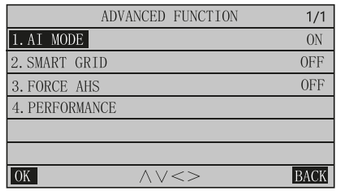
NOTE:

Energy-saving mode to limit the start ofelectric heating, running more energy saving, but donot recommend COOL+ DHW use this mode, easy to affect the effect of hot water heating effect.

HYBRID: Operate in accordance with the heat pump mode, the heat pump outdoor unit and the electric heater running at the same time.

5.2 ADVANCED FUNCTIONS SETTING

Press [MENU] at the home page then Select [2.ADVANCED FUNCTION]

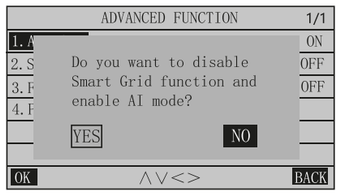


5.2.1 Ai mode

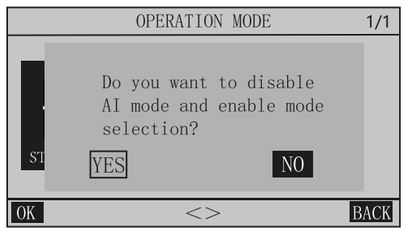
The AI function can be turned on or off. After turning on AI energy-saving, the unit will execute the AI energy-saving algorithm, the mode will switch to ECO mode, and the main interface will display the AI icon.

Notes:

1. The AI function and the smart grid function are mutually exclusive and cannot be turned on at the same time. A prompt window will pop up.



2. When manually switching to other modes, the AI function exit.



3. When the holiday mode function is turned on and you are away from home or at home during the holiday, the Holiday Away/Home mode function will be executed first and AI mode will not be executed.

4. After AI function is turned on,If the weekly timer/ daily timer function is set, the power on time will be based on the weekly timer/daily timer, and the mode will be executed according to ECO. AI function will be executed. The ventilation mode set by the timer setting will not be affected.

5.2.2 Smart grid

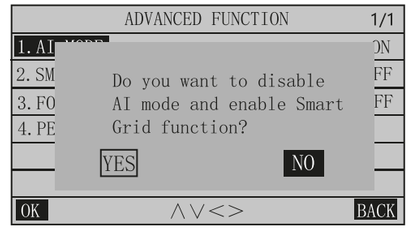
The [SMART GRID] can be set to on or off. After the smart grid is turned on, the unit will detect the smart grid power consumption signal and control the unit on/off or set the unit’s operating mode according to the four electricity price states of free electricity I, free electricity II, peak electricity, and valley electricity. The main interface will display the corresponding electricity price icon.

Unit operation under different signals

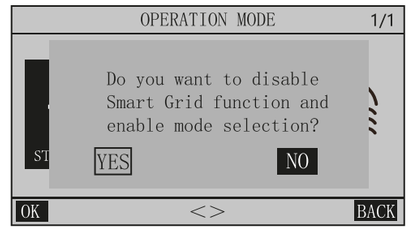
EVU signal	SG signal	Operation
OFF	ON	Detected as a free electricity usage state, operating in HYBRID mode, heating at the set temperature.
ON	ON	Detected a free electricity usage state, operating in HYBRID mode at a set temperature of 70°C.
OFF	OFF	During off-peak electricity usage, the operation mode is switched to Standard mode.
ON	OFF	During peak electricity usage, after switching to ECO mode and operating for a period of time, the system will automatically shut down.

NOTES:

1. Smart grid and AI functions are mutually exclusive and cannot be turned on at the same time.



2. When manually switching to other modes, the smart grid function will be exited.



When SMART GRID is enabled and the unit is in free electricity status, the unit cannot be powered off without disabling the SMART GRID function.

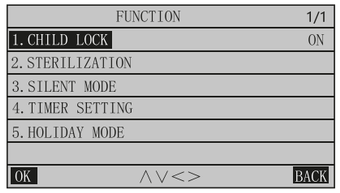
3. When the holiday mode function is turned on and you are away from home or at home during the holiday, the Holiday Away/Home mode function will be executed first and the smart grid function will not be executed.

4. After the smart grid function is turned on, if the weekly/daily timer function is set, the smart grid function will be executed first and the weekly/daily timer function will not be executed.

5.3 BASIC FUNCTION SETTINGS

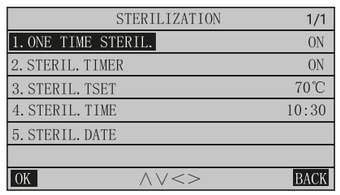
5.3.1 Child lock

The child lock is used to prevent children from wrongly operating. The mode setting and temperature adjustment can be locked or unlocked by the child lock function. Go to “[MENU]-[3.FUNCTION]-[1. CHILD LOCK]” ,or press and hold the [OK] button for 3 seconds to activate the child lock,the following interface will be displayed. After setting the child lock,pressing any key will prompt that the unit is in the child lock state. Need to press and hold the [OK] button for 3 seconds if you want to cancel the child lock function.



5.3.2 Sterilization

Select STERILIZATION option, press [OK] to enter the STERILIZATION setting.



If [1.ONE TIME STERIL.] select ON and the unit will be sterilized once immediately. [STERIL. TIMER] is used to set the sterilization regularly.You can select the dates and press OK to continue setting the time. When sterilization is executed, the main interface of the wired controller will display the sterilization icon.

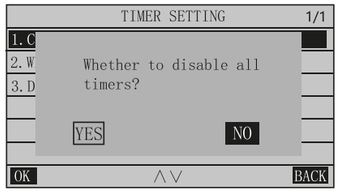
5.3.3 Timer setting

Select [TIMER SETTING] option, press [OK] to enter the timer function submenu



1. Clear all timing settings

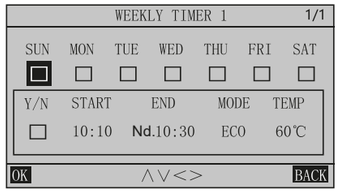
Select [CLEAT ALL SETTINGS] and press [OK], a prompt message will pop up to let you to confirm disable all timers.



2. Weekly timer

Select [WEEKLY TIMER SETTING] and press [OK] to enter the weekly timer submenu.

You can set up to 6 weekly timers. Select the corresponding setting option and press [OK] again to enter the specific weekly timer setting options.

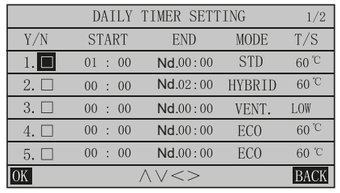


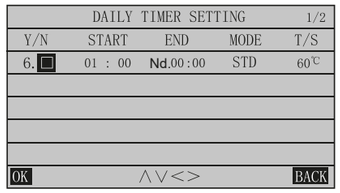
You can choose the weekly timer function enabling option by pressing the [<] [>][∧] [∨] key and then confirm the enabling on or off by pressing the [OK] key.If enabled, it displays ☑.

When the Y(N)/START/END/MODE/TEMP setting option is selected, press [<] [>] to switch options, and press [∧] [∨] to set the value.Finally, press [BACK] to save and return.

“Nd.” stands for “Next Day.”

3. Daily timer





NOTES:

3. After the weekly/daily timer function is on, the wire controller interface will display the icon 7 / ◷.

4. Weekly timer and daily timer are mutually exclusive. You cannot set weekly timing and daily timing at the same time.

5. If the holiday mode function is set and the system is in the holiday away/home state, the holiday away/home function will be executed first,and the weekly/daily timer function will be invalid.

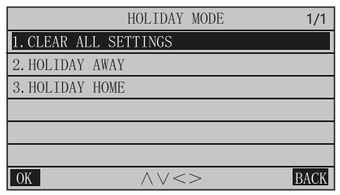
6. After setting the smart grid function, the smart grid function will be executed first, and the weekly/daily timer function will be invalid.

7. After setting the AI function, when executing the weekly/daily timer startup, AI will be executed in ECO mode, the VENT. mode set by the timing will not be affected.

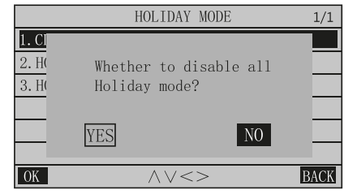
8. “Nd.” stands for “Next Day.”

5.3.4 Holiday mode

Select [HOLIDAY MODE] option, press [OK] to enter the submenu.



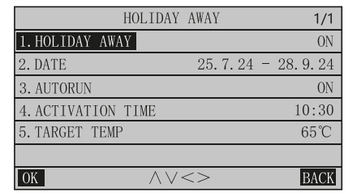
Clear all settings



Select [CLEAR ALL SETTINGS].After pressing the OK button, a pop-up window will be shown as the figure, Select YES and press [OK] confirmthat all holiday mode functions wil be disabled.

1. Holiday away

Select [HOLIDAY AWAY] and press [OK] to enter the submenu.



If you’re planning a holiday away from home, you can use the holiday away mode to realize energy conservation and freeze prevention.You can set the following content: Holiday away on/off, holiday start date and end date, whether to prepare hot water in advance after the holiday, the hot water preparation time, the hot water target temperature.

NOTES:

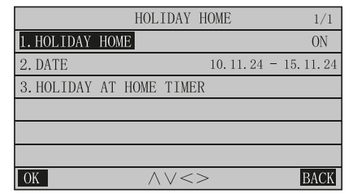
1. The functions of “Holiday away and Holiday home” are mutually exclusive.One is set, another one will be turned off.

2. After the holiday away function is turned on, the wire controller will display the icon 🏠 when the unit executes the holiday away function on the date.

3. When in holiday away mode, any button operation on the wire controller will trigger a prompt, reminding that you’re in holiday mode. You can choose [OK] to disable the holiday mode and manually adjust the setting.

2. Holiday home

Select [HOLIDAY HOME] and press [OK] to enter the submenu.



If you're planning a holiday at home, you can use the Holiday at Home Mode to realize energy saving and freeze prevention; To avoid modifying existing schedules, the daily timer for Holiday at Home Mode can be configured independently from previous daily/weekly timers.You can set the following content:Holiday at home on/off, holiday start date and end date, Daily timer of holiday home.

HOLIDAY AT HOME TIMER				1/2
Y/N	START	END	MODE	T/S
1. ☐	01 : 00	Nd.00 : 00	STD	60℃
2. ☐	00 : 00	Nd.02 : 00	HYBRID	60℃
3. ☐	00 : 00	Nd.00 : 00	VENT.	LOW
4. ☐	00 : 00	Nd.00 : 00	ECO	60℃
5. ☐	00 : 00	Nd.00 : 00	ECO	60℃
OK	∧∨<>			BACK

Notes:

1. The functions of "Holiday away and Holiday home" are mutually exclusive.One is set, another one will be turned off.

2. After the holiday home function is turned on, the wire controller will display the icon when the unit executes the holiday home function.

3. When in holiday home mode, any button operation on the wire controller will trigger a prompt, reminding that you're in holiday mode. You can choose [OK] to disable the holiday mode and manually adjust the setting.

4. "Nd." stands for "Next Day."

5.4 PARAMETER SETTINGS

5.4.1 Basic settings of wire controller

Select [4. PARAMETERS CONFIG] from the main menu and press [OK] to enter the settings.

PARAMETERS CONFIG	1/1
1. SETTINGS	
2. SPECIAL FUNCTION	
3. INSTALLER SETTING	
4. PROCUDER SETTING	
5. PASSWORD SET	
6. RESET	
OK ∧∨<>	BACK

Select [1.SETTINGS] and press [OK] to enter the follow interfaces.

SETTINGS	1/2
1. SCREEN BRIGHT	10
2. KEY BUZZER	ON
3. CHILD LOCK	OFF
4. LANGUAGE	EN
5. TEMP DISPLAY TYPE	OUTDOOR
6. UNIT	℃
OK ∧∨<>	BACK

5.4.1.1 Current date and time settings

Select [TIME AND DATE], press [>] and the setting items on the right correspond to the current date, month, year, hour and minute respectively,then press [∧] [∨] to set the current correct time, and press [OK] to save after setting.

NOTE:

When you power on for the first time , please set the time parameters of the wire controller according to the correct time. After that, the wire controller will record the time normally. If you do not set the correct time, the weekly timer/daily timer, holiday away/ home, sterilization timer and other functions will not be executed correctly.

5.4.1.2 Other options of wire controller

• The SCREEN BRIGHT: It can be set wire controller brightness level from 1 to 10 and OFF.

• The KEY BUZZER: sets the wire controller button buzzer switch. You can set the wire controller buzzer on or off.

• LANGUAGE: set the display language, display English as default.

• TEMP DISPLAY TYPE: Ambient temperature display type, can be set to INDOOR/OUTDOOR, which respectively represents the indoor.temperature of the wire controller surface or the outdoor ambient temperature of the whole machine. The current model is an indoor integrated model, so there is no difference.

• UNIT: can set the wire controller temperature unit to display ºC or ºF.

• RETURN TO HOMEPAGE TIME:You can set the time for the menu option to return to the home page after the timeout.

5.4.2 Force defrost

Select [4.PARAMETERS CONFIG] on the main menu and press [OK] to enter.

Then select [2.SPECIAL FUNCTION] and press [OK] to enter the submenu.

SPECIAL FUNCTION	1/1
1. FORCE DEFROST	OFF
2. RECYCLE REFRIG	OFF
OK ∧∨<>	BACK

Set [1. FORCE DEFROST] to on to turn on the function.

Notes:

1. When the Unit is started and in the "HEAT" mode, if the frost on the heat exchanger of the outdoor unit is thick, the heating effect will be affected; the function of "FORCE DEFROST" can be enabled only in the " HEAT" mode. On the "SPECIAL FUNCTION" page of the Wire Controller, if you select "FORCE DEFROST" and set it to [ON], the whole machine system will be forced to enter the "FORCE DEFROST"operation.

2. During normal operation of the unit, be careful in setting the temperature. Forced defrosting will affect the efficiency of hot water production.

5.5 PARAMETER QUERY

Go to [MENU]-[5. PARAMETER QUERY] and press [OK] to enter the parameter query interface.

This interface will display the current operating status of the unit.

PARAMETER QUERY	1/4
1. AHS TEMP	-30.0℃
2. AHS	OFF
3. DHW PUMP	OFF
4. AUX FAN	OFF
5. EVU	OFF
6. SG	OFF
OK ∧∨	BACK

5.6 RESET WI-FI

Wi-fi setting

For Wi-fi operation instructions, please refer to the APP Function Manual.

5.7 PRIORITY SCHEDULE

NOTE:

If the booster heater always takes over the DHW heat load due to setting Priority schedule to AC, electricity consumption will be considerably higher. For the months where space heating/cooling is less important,it is recommended to set the Priority schedule to DHW.

If DHW is set as priority and frequent DHW operation is expected, there is risk for comfort problem due to interruption of AC operation.For the months where space heating/cooling is more important, it is recommended to set the Priority schedule to AC.

Air Conditioning or domestic hot water priority.

When multiple indoor units are connected to the outdoor unit (refer to Installer Reference

Guide for details), the user can set on the userinterface whether to put DHW or Air Conditioning (A/C) as priority.

This will determine how the outdoor unit will react in case multiple indoor units requested operation at the same time:

• If DHW is set as priority, outdoor unit can decide to operate only for DHW, while A/C operation is put on hold. In this case, once DHW operation is finished, outdoor unit can switch to A/C operation.

• If A/C is set as priority, outdoor unit can decide to operate only A/C, in which case booster heater can start for DHW production. Once A/C operation is finished, outdoor unit can switch to DHW.

6. TROUBLE SHOOTING

6.1 NON-ERROR TIPS

Q: Why compressor can't start immediately after setting?

A: Unit will wait for 3 minutes to balance the pressure of system before starting compressor again, it's a self protection logic of unit.

Q: Why sometimes the temperature shown on the display panel decreased while unit is running?

A: When the upper tank temperature is much higher than the bottom part,upper part hot water will be mixed by the bottom cold water which is continually flow from inlet tap water so that will decrease the upper part temperature.

Q:Why sometimes the temperature shown on the display decreased but unit still keep closed?

A: To avoid unit ON/OFF frequently, unit will activate heat source only when top tank temperature is lower than setting temperature or max. temperature for at least 6 ºC.

Q:Why sometimes the temperature shown on the display will decreased dramatically?

A: Because tank is pressure-bearable type, if there is massive hot demand, hot water will quickly tapped out from upper part of tank as well as cold water will quickly tapped into bottom part of bank if the cold water surface emerge the upper temperature sensor, temperature shown on the display will decreased dramatically.

Q: Why sometimes the temperature shown on the display is decreased a lot, but there is still a mount of hot water can be tapped?

A: Because the upper water sensor is located on the upper 1/4 tank,when display temperature starts falling down quickly, it means there is at least 1/4 tank of hot water available.

Q: Why sometimes there is some water flowed from drainage pipe of PTR valve?

A: Because the tank is pressure-bearable one, when water is heated inside the tank, water will expand, so the pressure inside of tank will increase, if pressure goes up more than 0.85MPa, PTR valve will activate to relief the pressure and hot water drop

will be discharged correspondingly. If water drop is continually discharged from PTR valve drainage pipe, it is abnormal, please contact qualified stuff to repair.

6.2 SOMETHING ABOUT SELF-PROTECTION OF UNIT

1. When the self-protection happens, the system will be stopped and start self-check, and restart when the protection resolved.

2. When the self-protection happens, the will flash and error code will be shown at water temperature indicator. But the and error code does not disappear until protection resolved. In the following circumstance, self-protection may happen:Air inlet or outlet is blocked;

3. The evaporator is covered with too much dust;Incorrect power supply(exceeding the range of 220-240V).

6.3 WHEN ERROR HAPPENED

4. If some normal errors happen, unit will automatically shift toE-heater for emergent SHW supply, please contact qualified staff to repair.

5. If some sever errors happen, unit will not start, please contact qualified staff to repair.

6.4 ERROR PHENOMENON SHOOTING

Error phenomenon	Possible reason & Solution
Display does not light up/water is cold	Check that the air switch is closed/set the temperature high.
No hot water coming out.	Check that the tap line is clear; check that the tap water pressure is not too low.
Water in safety valve relief port flow out of the pressure relief port of the safety valve.	If there is only a small amount of water flow out, for the water thermal expansion caused by the normal phenomenon, do not block; if a large amount of water flow out, please replace the safety valve.
It takes a long time to heat a tank of water.	• When the ambient temperature is low, the heating speed of the unit is reduced, which is a normal phenomenon, please heat up in advance. • Check whether the electric heating is running normally, check whether the set mode is air conditioning + hot water production at the same time on mode, at the same time on mode under the slower rate of warming.
Automatic operation or shutdown	Is it because the reservation/timer function is set.
It doesn't work.	Is the air switch not closed. Is the fuse blown. Whether the reservation/timer function is set. • Whether it is caused by the protection of the unit (the corresponding protection code will be displayed) • Whether the water temperature is high and has not reached the conditions for the unit to turn on.
The heating effect is not obvious	• There is hot water in the tank and it can be used. • When the power switch is turned on, the hot water dispenser will not run for about 3 minutes after the operation stops, because the compressor cannot be started within 3 minutes of stopping. • The water heater cannot run for about 3 minutes after running stops when the power switch is turned on.
Compressor does not run after being powered on.	• There is hot water in the tank and it can be used. • When the power switch is turned on, the hot water dispenser will not run for about 3 minutes after the operation stops, because the compressor cannot be started within 3 minutes of stopping. • The water heater cannot run for about 3 minutes after running stops when the power switch is turned on.
Display of water temperature Slow rise.	Because the upper part of the tank water temperature is higher, the middle and lower part of the water temperature is lower, need to wait until the whole tank water temperature is basically the same, show the water temperature will rise faster. When the temperature of the water in the whole tank is basically the same, the temperature of the water will rise faster.
Shows that the water temperature is heating decreases during the heating process.	When the temperature of the upper part of the tank is much higher than the lower part of the water temperature,due to the natural convection of hot and cold water in the heating process, it will make the Hot and cold water stirred and mixed to a certain extent, and the temperature of the upper hot water will be slightly reduced,or the unit may slightly reduce the temperature when the defrosting action is performed. The temperature of the upper hot water will be slightly reduced, or when the unit is defrosting, the display temperature may also be slightly reduced.
The water temperature is displayed as dropping. Low and no heating.	To avoid the host from turning on and off too frequently, a condition has been set for the host to start up and use water temperature. When not using water, the host will only start heating when the displayed water temperature drops below the set return temperature. (The return temperature value can be set via the wired remote controller.)
The display shows that the water temperature will Suddenly, drop a lot.	Since the unit is built-in pressurized water tank, when using hot water, cold water needs to enter the tank to top off the hot water, and there will be obvious stratification between the hot and cold water. There will be obvious stratification between the hot and cold water, when the cold water overflows the temperature sensor on the upper part of the tank, the water temperature will be suddenly reduced. When the cold water overflows the temperature sensor on the upper part of the tank, the water temperature will be suddenly lowered, which is a natural phenomenon of the high utilization rate of the unit's water tank.
It shows that the temperature of the water is lowered a lot. But it's still hot water.	The upper part of the water tank temperature sensor is placed in the upper 1/4 of the water tank, and the display of the water temperature is the temperature of the upper part of the water tank temperature sensor.When the water is being used and the displayed water temperature is suddenly lowered, there is still almost 1/5 of the tank's hot water available for use. When the water is being used, there is still almost 1/5 tank of hotwater in the tank after the display water temperature drops suddenly.
Displayed water temperature and set water temperature difference.	• Whether to set the reservation function, the unit will be heated up in advance when reservation is made, and the display temperature will be slightly decreased due to natural heat dissipation, which is a normal phenomenon. Due to natural heat dissipation, the display temperature will drop slightly, which is a normal phenomenon. • Whether the unit is protected.
During the heating process thecompressor will not stop running and the fan machine stops.	When the ambient temperature is low, the evaporator may be frosted resulting in poor heat transfer, at this time the host will be defrosting operation. The compressor will be running when defrosting, and the fan will stop running.
Safety valve running water.	As the water tank itself is a closed pressurized container, when heated, the water is subjected to thermal expansion. When the pressure inside the tank is greater than 0.8MPa, the pressure relief port of the safety valve will act to flow out hot water, thus protecting the tank from pressure damage or even explosion..
Deviation of display from set temperature.	When the unit reaches the temperature and stops, there may be a small deviation between the display temperature and the set temperature, which is a normal phenomenon.
The unit heats up for a period of time and shows that the temperature has not risen.	• If the user continues to use hot water, resulting in the lower part of the tank into the more cold water, the unit mainly heats the lower part of the water temperature, the priority of the temperature under the tank rises while the upper part of the tank does not rise significantly is a normal phenomenon. • Check whether the host is working properly and the tank setting operation mode, the tank energy-saving mode host heating hot water to the maximum water temperature will stop working, using electric heating heating, check whether the electric heating is working properly
Safety valve running water	• Sterilization is completed after a period of time, the current display temperature and the user set temperature is not consistent with the normal phenomenon. It takes a long time for the water tank temperature to decrease from 70°C to the user setting temperature; • Turn on the forced sterilization or automatic sterilization, the set temperature of the unit becomes 70 °C (once effective). The sterilization symbol of the heating process lights up. After the water tank temperature reaches 70 °C to complete the sterilization, the sterilization icon goes out.

6.5 ERROR CODE SHOOTING TABLE

Fault Code	Fault Content	Fault and Protection Definition
db	- Hot Water Temperature Sensor Thw2 Fault	Hardware Fault
dd	- Hot Water Temperature Sensor Thw1 Fault	Hardware Fault
E0	- Indoor - Outdoor Unit Communication Fault	Hardware Fault
E03	- Coil Temperature Sensor Fault	Hardware Fault
E4	- System Abnormal Fault (Refrigerant Deficiency)	Hardware Fault
E7	- Ambient Temperature Sensor Fault	Hardware Fault
E8	- Exhaust Temperature Sensor Fault	Hardware Fault
E9	- Outdoor IPM Module Fault/ Compressor Drive Fault	Hardware Fault
Eb	- Main Controller and Wired Controller Communication Fault	Hardware Fault
EC	- Inter - Module Communication Fault	Hardware Fault
EE	- Outdoor EEPROM Fault	Hardware Fault
EF	- Outdoor DC Fan Fault	Hardware Fault
EH	- Suction Sensor Fault	Hardware Fault
En	- Outdoor Gas Pipe Temperature Sensor Fault	Hardware Fault
Ey	- Outdoor Liquid Pipe Temperature Sensor Fault	Hardware Fault
F5	- PFC Protection	Other Faults
F6	- Compressor Phase Loss/ Reverse Phase Protection	Other Faults
F7	- Module Temperature Protection	Other Faults
F8	- Four Way Valve Reversing Failure	Other Faults
FA	- Compressor Phase Current Detection Fault	Hardware Fault
Fb	- Overload Protection for Cooling and Heating	Other Faults
FE	- Module Current (Compressor Phase Current)	Other Faults
FF	- Module Temperature Protection	Other Faults
FH	- Drive Protection	Other Faults
Fj	- Exhaust Protection	Other Faults
Fn	- AC Current Protection	Other Faults
H1	- High Pressure Switch Protection	Hardware Fault
H2	- Low Pressure Switch Protection	Hardware Fault
P0	- IPM Module Protection	Other Faults
P1	- Over-voltage and Under-voltage Protection	Other Faults
P2	- Over current Protection	Other Faults
P4	- Exhaust Temperature Over high Protection	Other Faults
P5	- Cooling Anti - Overcooling Protection	Other Faults
P6	- Cooling Anti - Overheating Protection	Other Faults
P7	- Heating Anti Overheat Protection	Other Faults
P8	- Outdoor Temperature Over high and Under low Protection	Other Faults
P9	- Compressor Drive Protection (Abnormal Load)	Other Faults
Pd	- Electric Heating Over-current Protection	Hardware Fault
PE	- Electric Heating Leakage Protection	Hardware Fault

NOTE:

• The diagnostic codes listed above are the most common. If a diagnostic code not listed above is displayed, contact residential technical assistance referenceing the number on the front of this manual.

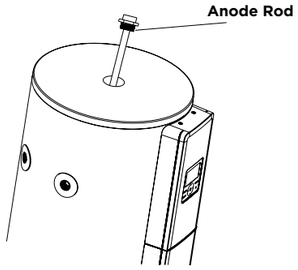
• Open the drainage valve, and drain out the water, until there is no water flow out.

• Get off the anode rod.

• Replace with a new one, and make sure effective sealed.

• Open cold water inlet tap untill water flows out from outlet tap,then turn of water outlet tap.

• Power on then restart the unit.



NOTE:

• As the Anode Rod needs to be replaced from the top,a minimum height of 800mm needs to be left at the top of the installation to allow for the replacement of the Anode Rod.

• Replacement of Anode Rods should be carried out by a professional service technician, do not replace Anode Rods without authorization as this may damage the tank.

7. MAINTENANCE

⚠ **CAUTION**

The maintenance of the unit requires professional after-sales personnel responsible for overhauling the unit. Please contact professional technical after-sales service if the battery needs to be replaced.

7.1 MAINTENANCE

1. Check the connection between power supply plug and socket and ground wiring regularly;

2. In some cold area (below 0 °C), if the system will be stopped for a long time, all the water should be released in case of freezing of inner tank and damage of E-heater.

3. It is recommended to clean the inner tank and E-heater every half year to keep an efficient performance.

4. Check the anode rod every half year and change it, if it has been used out. For more details, please contact the supplier or the after-sale service.

5. It is recommended to set a lower temperature to decrease the heat release, prevent scale and save energy if the outlet water volume is sufficient.

6. Clean the air filter every month in case of any inefficiency on the heating performance. In terms of the filter set in air inlet directly (namely, air inlet without connect with duct), the method of dismantle the filter is:anti-clockwise unscrew the air inlet ring, take out the filter and clean it completely, finally, remount it to the unit.

7. Before shutting the system off for a long time, please:Shut off the power supply;Release all the water in water tank and the pipeline and close all the valves;Check the inner components regularly.

8. How to change the anode rod

• Turn off the power, and turn off the water inlet valve.

• Open hot water tap, and decrease the pressure of the inner container.

7.2 RECOMMENDED REGULAR MAINTENANCE TABLE

Checking Item	Checking content	Checking frequency	Action
1	Air filter (inlet/ outlet)	Every month	Clean the filter
2	Anode rod	Every half year	Replace it if it has been used out
3	Inner tank	Every half year	Clean the tank
4	E-heater	Every half year	Clean E-heater
5	PTR valve	Every half year	Operate the handle of PTR valve to ensure that waterways are clear.
	If water doesn't flow freely when operating the handle, replace PTR valve with a new one.		

⚠ **WARNING**



This unit is required reliable earthing before usage, otherwise might cause death or injury.

If you can't make sure that your house power supply is well earthed, please don't install the unit. Please have a qualified person perform the reliable earthing connection and the installation of the unit. Examples of a qualified person include: licensed plumbers, authorized electric company personnel, and authorized service personnel.

⚠ **CAUTION**

• Children should be supervised to ensure that they do not play with the appliance.

• If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similarly qualified person.

• DISPOSAL: Do not dispose this product as unsorted municipal waste. Collection of such waste separately for special treatment is necessary.

Do not dispose of electrical appliances as unsorted municipal waste, use separate collection facilities.

Contact your local government for information regarding the collection systems available.

If electrical appliances are disposed of in landfills or dumps, hazardous substances can leak into the groundwater and get into the food chain, damaging your health and well-being.

• The wiring must be performed by professional technicians in accordance with national wiring regulations and this circuit diagram.

• An all-pole disconnection device which has at least 3mm separation distance in all pole and a residual current device (RCD)with the rating of above 20mA shall be incorporated in the fixed wiring according to the national rule.

• The handle of PTR valve should be pulled out once per half a year to make sure that there is no jam of the valve.

• The drainage pipe should be well insulated in order to prevent water inside pipe from freezing in cold weather.

• This appliance can be used by children aged from 3 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance.

Cleaning and user maintenance shall not be made by children without supervision

Children aged from 3 to 8 years are only allowed to operate the tap connected to the water

heater. (FOR EN STANDARD)

• This appliance is not intended for use by persons (including children) with reduced physical,sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.Children should be supervised to ensure that they do not play with the appliance.

• The discharge pipe connected to PTR is to be installed in a continuously downward direction.

• The water may drip from the discharge pipe of the pressure-relief device and that this pipe must be left open to the atmosphere.

• Regarding how the water heater can be drained, thanks to refer to the below paragraphs of the manual.

• The pressure-relief device is to be operated regularly to remove lime deposits and to verify that it is not blocked.



FOR NOTES

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USER MANUAL

AIR CONDITIONER MULTI-SPLIT

INDOOR WATER TANK