GREE
Change for life

Owner's Manual

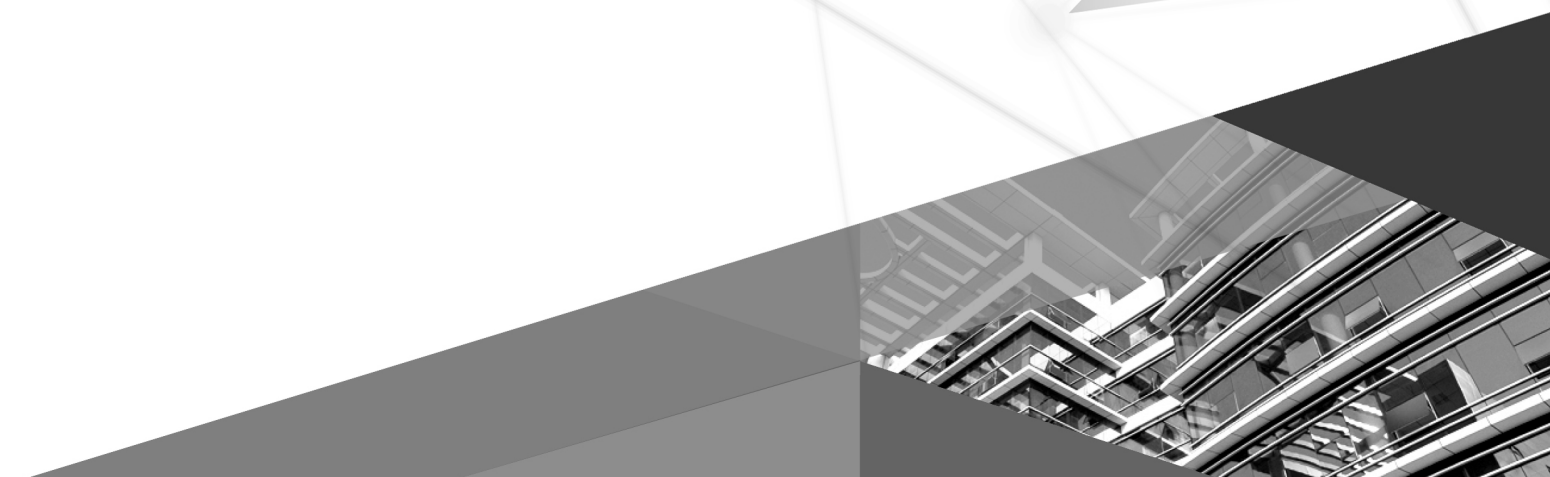
Original Instructions INVERTER
Air Conditioners

Control Panel for the Versati Air-to-water Heat Pump

Thank you for choosing air conditioners. Please read this Owner's Manual carefully before operation and retain it for future reference.

If you have lost the Owner's Manual, please contact the local agent or visit www.gree.com or send an emal to global@cn.gree.com for the electronic version.

GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI



To Users

Thank you for selecting Gree's product. Please read this instruction manual carefully before installing and using the product, so as to master and correctly use the product. In order to guide you to correctly install and use our product and achieve expected operating effect, we hereby instruct as below:

(1) This instruction manual is a universal manual, some functions are only applicable to particular product. All the illustrations and information in the instruction manual are only for reference.

(2) All the illustrations and information in the instruction manual are only for reference. In order to make the product better, we will continuously conduct improvement and innovation without further notice.

(3) For personal injury or property loss and damage caused by improper operation such as improper installation and debugging, unnecessary maintenance, violation of related national laws and rules and industrial standard, and violation of this instruction manual, etc., we will bear no liability.

Contents

Safety Notices (Please be sure to abide)

Do not install the control where it is damp or exposed to direct sunlight.

Once the air conditioning unit is installed where possibly subject to electromagnetic interference, shielded twisted pairs should be used as signal lines and other communication lines.

Be sure communication lines are wired to the correct ports, or normal communication would fail.

Do not beat, toss or frequently assemble and disassemble this control.

Do not operate the control with wet hands!

1. General

(This picture is just for reference)

This display panel uses the capacitor touch screen for input operation. The valid touching area indicates the black rectangle when the control panel lights off.

This control panel is of high sensitivity and will respond to unexpected click by the foreign matters on the display panel. Therefore, please keep it clean during operation.

This is a generous-purpose control panel, whose control functions might not be completely the same as those of the actually purchased. As the control program will update, the actual always prevails.

The unit is equipped with temperature sensors such as remote room temperature sensors, outlet water temperature sensors, etc., and pressure sensors. Among them, the temperature sensors are used to detect outdoor, indoor, outlet water temperature, etc. The pressure sensors are used to detect the pressure value at the discharge port which then will be converted into temperature values through their relationship. All of them are to detect the operating state of the unit itself, make the unit run stably, and display the operating state on the control panel in real time.

1.1 Home Page

Icon	Description	Icon	Description
	Space heating		Outdoor temperature
	Space cooling		Leaving water temperature of the main unit, leaving water temperature of the auxiliary electric heater, remote room temperature, water tank temperature
	Water heating		Error
	Menu		Card out/Failed disinfection
	Switchover between cooling and heating		ON/OFF
	Child lock	EVU	The main unit keeps the standby status under the SG control command.

[Notes]

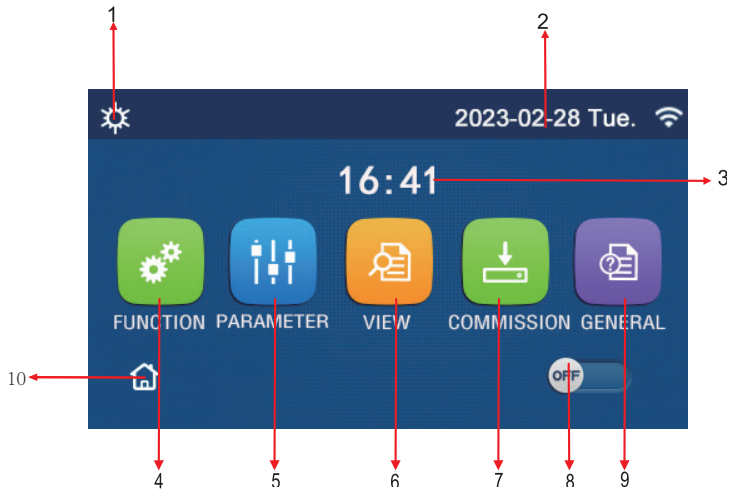
●The ON/OFF icon will turn to green when the control panel is turned on.

●Under the "**Water heating**" mode, what displayed at the upper corner of the control panel is the water temperature of the water tank. Under the "S**pace heating**" or "**Space cooling**" mode, what displayed depends on the setting of the control mode, that is, it will be the room temperature or leaving water temperature.

●Under the combined mode, the temperature set point is for space heating or cooling. Only under the water heating mode, it is for water heating.

●Homepage will always be activated after 10 minutes without user input.

1.2 Menu Page



Menu Page

Above the menu, the corresponding icon will be displayed based on the mode and status of the control panel.

No.	Item	Description
1	Control mode	Current mode
2	Date	Current date
3	Time	Current time
4	FUNCTION	Go to the user setting page.
5	PARAMETER	Go to the parameter setting page.
6	VIEW	Go to the parameter viewing page.
7	COMMISSIONING	Go to the commissioning parameter setting page.
8	ON/OFF	It is used to turn on or off the control panel. "**OFF**" indicates the control panel has been turned off and "**ON**" indicates the contorl panel has been turned on. When there is failure-level error, this button will turn to **OFF** once the control panel is automatically turned off.
9	GENERAL	Go to the general parameter setting page.
10	Homepage	Back to the home page.

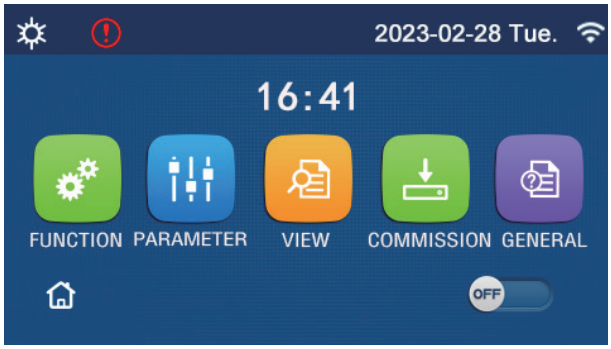
Icon	Description	Icon	Description
	Heating		Floor commissioning
	Cooling		Floor commissioning error
	Hot water		Card out

Icon	Description	Icon	Description
	Heating + Hot water		Defrosting
	Hot water + Heating		Holiday
	Cooling + Hot water		WiFi
	Hot water + Cooling		Back
	Quiet		Menu page
	Sanitation		Save
	Emergency		Error
	EVU		

[Notes]

●The “**Cooling**” mode is unavailable to the heating only unit.

●The “**Hot water**” mode is unavailable to the heating only unit.



Error Icon

1.3 Backlight

Among the general setting page, when “**Back light**” is set to “**Energy save**”, the display panel will light off when there is no operation in 5 minutes. However, it will light on again by touching any valid area.

When “**Back light**” is set to “**Lighted**”, the display panel will be kept lighting on.

It is suggested to set it to “**Energy save**” so as to extend its service life.

2. Operation Instructions

2.1 ON/OFF

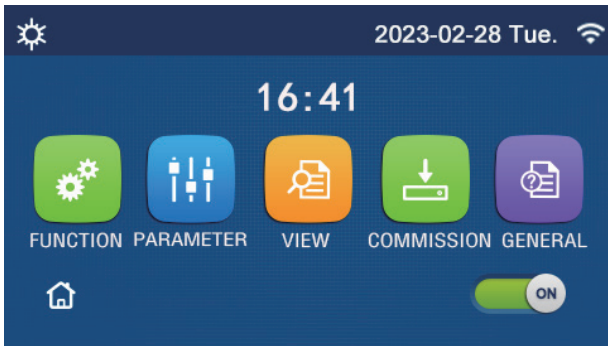
[Operation Instructions]

At the menu page, by touching ON/OFF, the control panel will be turned on/off.

[Notes]

●It is defaulted to be OFF upon first power-on.

●ON/OFF operation will be memorized by setting “**On/Off Memory**” to be “**On**” at the “**GENERAL**.” setting page. That is, in case of power failure the control panel will resume running upon power recovery. Once “**On/off Memory**” is set to be “**Off**”, in case of power failure the control panel will keep “**Off**” upon power recovery.

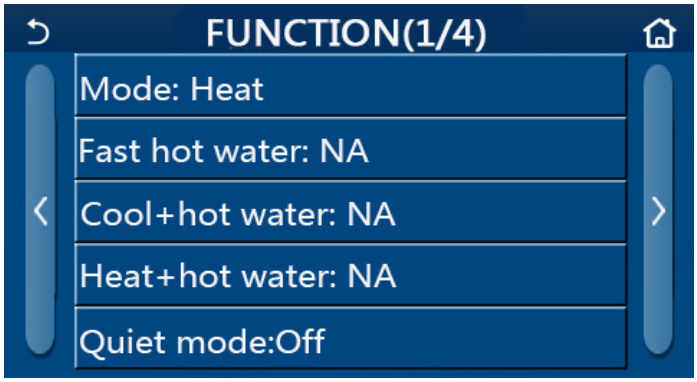


ON Page

2.2 Function Setting

[Operation Instructions]

1.At the menu page, by touching "**FUNCTION**", it will go to the function setting page as shown in the figure below.



FUNCTION Setting Page

2.At the function setting page, by touching the page turning key, it will go to the last or next page. When setting is finished, by touching the menu page icon, it will directly back to the menu page; by touching the back icon, it will back to the upper menu.

3.At the function setting page, by pressing the desired function, it will go to the corresponding setting page of this option.

4.At the function setting page of some function option, by touching "**OK**", this setting will be saved; by touching the "**CANCEL**" key, this setting will be canceled.

[Notes]

●At the function setting page with setting of any function changed, if the function is set to be memorized upon power failure, this setting will be saved automatically and memorized upon next power-on.

●When there is submenu for the selected function option, by pressing it the control will go directly the setting page of the submenu.

●The system is preconfigured by the installer. Some options may not be available or NA.

Function Setting

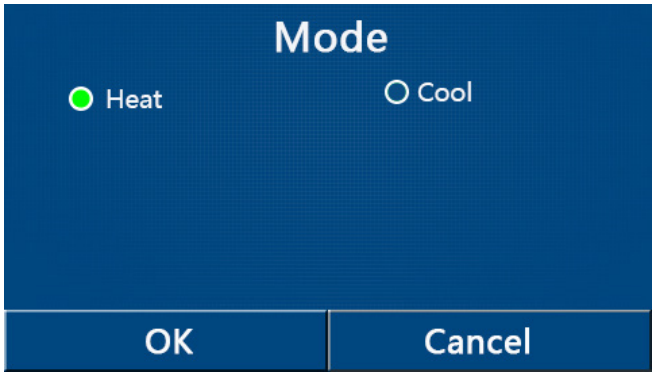
No.	Item	Range	Default	Remarks
1	Mode	Cool	Heat	1. When the water tank is unavailable, then only "**Cool**" and "**Heat**" are available. 2. For the heating only unit, only "**Heat**" mode, "Hot water", and "Heat + hot water" are available. 3. It is defaulted to be "**Heat**" for the heat pumps and heating only units and "**Cool**" for mini chillers.
		Heat		
		Hot water		
		Cool + Hot water		
		Heat + Hot water		
2	Fast hot water	On/Off	Off	When the water tank is unavailable, it will be reserved.

No.	Item	Range	Default	Remarks
3	Cool + hot water	Cool/Hot water	Hot water	When the water tank is available, it will be defaulted to be "**Hot water**"; when unavailable, it will be reserved.
4	Heat + hot water	Heat/Hot water	Hot water	When the water tank is available, it will be defaulted to be "**Hot water**"; when unavailable it will be reserved.
5	Quiet mode	Off/One time/ Always ON/ Timer	Off	/
6	Weather depend	On/Off	Off	/
7	Weekly timer	On/Off	Off	/
8	Holiday release	On/Off	Off	
9	Disinfection	On/Off	Off	When the water tank is unavailable, it will be reserved The disinfection date ranges from Monday to Sunday. Saturday is defaulted. 23:00. The disinfection time ranges from 00:00~23:00. 23:00 is defaulted.
10	Clock timer	On/Off	Off	/
11	Temp. timer	On/Off	Off	/
12	Emergen. mode	On/Off	Off	/
13	Holiday mode	On/Off	Off	/
14	Preset mode	On/Off	Off	/
15	Error reset	/	/	Some error can be cleared only when it has been reset manually.
16	WiFi reset			It is used to reset the WiFi.
17	Reset	/	/	It is used to reset all user parameter setting.
18	Child Lock	On/Off	Off	/
19	Daylight Saving Time	On/Off	Off	Time lag: 0.5~3h, 1 defaulted. Time lead: 0.5~3h, 1 defaulted. Transform time point: 0:00~3:00 Valid for the Monobloc SG.
20	Clear P.C.	/	/	/

2.2.1 Mode

[Operation Instructions]

At the function setting page with the control panel being turned off, by touching "**Mode**", it will go to the mode setting page, where desired mode can be selected. Then by touching "**OK**" this setting will be saved and the display panel will back to the function setting page.



[Notes]

●The default mode is “**Heat**” upon first power-on.

●Mode setting is allowed only when the control panel is turned off, otherwise a dialog box will pop up, saying “Please turn off the system first!”

●When the water tank is unavailable, only “**Heat**” and “**Cool**” mode are allowed.

●When the water tank is available, “**Cool**”, “**Heat**”, “**Hot water**”, “**Cool+ Hot water**”, and “**Heat+ Hot water**” are allowed.

●For the heat pump, the “**Cool**” mode is allowed; for the heating only unit, “**Cool+ Hot water**” and “**Cool**” are unallowable.

●This setting can be memorized upon power failure.

2.2.2 Fast hot water

[Operation Instructions]

At the function setting page with the control panel being turned off, by touching “**Fast hot water**”, the display panel will go to the corresponding setting page, where desired option can be selected. Then by pressing “**OK**” this setting will be saved and the display panel will back to the function setting page.

[Notes]

●This function can be set to “**On**” only when the water tank is available. When the water tank is unavailable, this function will be reserved.

●It will be memorized upon power failure.

2.2.3 Cool + hot water

[Operation Instructions]

At the function setting page with the control panel being turned off, by touching “**Cool + hot water**”, the display panel will go to the corresponding setting page, where desired option can be selected. Then by pressing “**OK**” this setting will be saved and the display panel will back to the function setting page.

[Notes]

●When the water tank is unavailable, it will be reserved; when it is unavailable, the default priority will be given to “**How water**”.

●It will be memorized upon power failure.

●This function is unavailable to mini chillers.

2.2.4 Heat + hot water

[Operation Instructions]

At the function setting page with the control panel being turned off, by touching “**Heat + hot water**”, the display panel will go to the corresponding setting page, where desired option can be selected. Then by pressing “**OK**” this setting will be saved and the display panel will back to the function setting page.

[Notes]

●When the water tank is unavailable, it will be reserved; when it is unavailable, the default priority will be given to “**Hot water**”.

●It will be memorized upon power failure.

●This function is unavailable to the heating only unit and the mini chiller.

2.2.5 Quiet mode

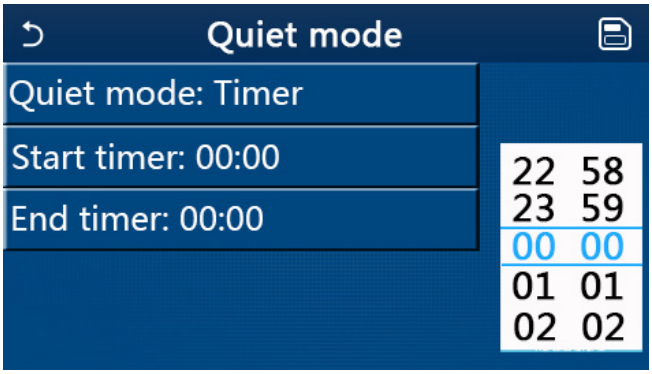
[Operation Instructions]

At the function setting page with the control panel being turned off, by touching “**Quiet mode**”, there will be a choice box, where “**Quiet mode**” can be set to “**Off**”, “**One time**”, “**Timer**” or “**Always ON**”.

When it is set to "**One time**", it will automatically back to "**Off**" when the main unit is turned off.

When it is set to "**Always ON**", this function can be deactivated only through changing its setting, and would not be deactivated as the main unit is turned off.

When it is set to "**Timer**", it is also required to set the "**Start timer**" and "**End timer**". Unless otherwise stated, otherwise time setting is all the same.



Timer for Quite Mode

This setting will be saved by touching the corner at the upper right corner.

[Notes]

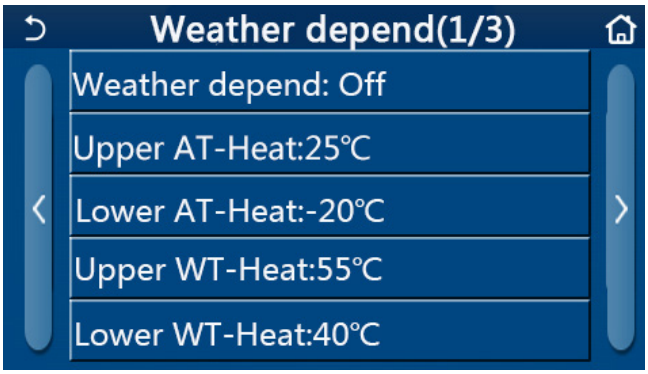
●It can be set under both ON and OFF statuses, but will work only when the main unit is turned on.

●It will be memorized upon power failure.

2.2.6 Weather depend

[Operation Instructions]

At the function setting page, by touching "**Weather depend**", there will be a choice box, where it is able to set it to "**On**" or "**Off**", and also it is able to set the weather-dependent temperature.



Page of the Weather Depend

[Notes]

●When "**Weather depend**" has been activated; it cannot be deactivated by ON/OFF operation but done manually.

●It is available to find the weather-dependent target temperature at that parameter viewing pages.

●When this function has been activated, it is still allowed to set the room temperature, however, this setting becomes valid only when "**Weather depend**" has been deactivated.

●This function can be set to "**On**" no matter the control panel is turned on or off, but works only when the main unit is turned on.

●It works under the "**Cool**" or "**Heat**" mode. Under the "**Cool +Hot water**" or "**Heat +Hot water**" modes, it works only when the current mode is "**Cool**" or "**Heat**". Under the "**Hot water**" mode, it doesn't work.

●Temperature setting relative to the cooling mode is unallowed to the heating only unit.

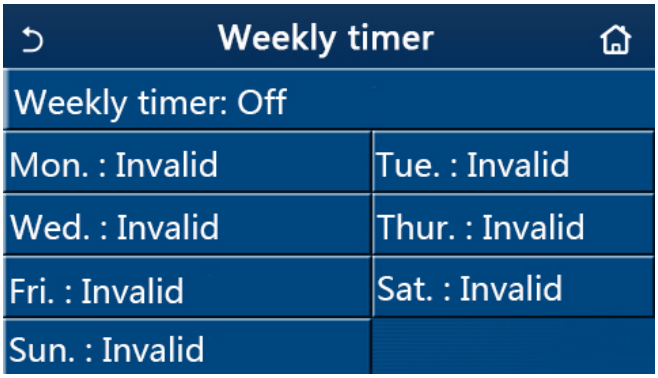
●It will be memorized upon power failure.

●When the set point of "**Upper WT-Heat**"/ "**Upper WT-Cool**" is lower than that of the "**Lower WT-Heat**"/ "**Lower WT-Cool**", or "**Lower WT-Heat**"/ "**Lower WT-Cool**" is higher than "**Upper WT-Heat**"/ "**Upper WT-Cool**", a window will pop up, saying "**Enter wrong!**", and then resetting is required.

2.2.7 Weekly timer

[Operation Instructions]

1.At the function setting page, by touching "**Weekly timer**", it will go to the setting page as shown below.



2.At the "**Weekly timer**" setting page, as shown in the figure below, the weekly timer can be set to "**On**" or "**Off**".

3.At the "**Weekly timer**" setting page, by touching the desired day (Monday~Sunday) it will go to the setting page of this option.

4.At the weekday setting page, it is able to set the timer to "**Valid**" or "**Invalid**". Also, it is able to set three timing periods, each of which can be set to "**Valid**" or "**Invalid**".

5.Then, by touching the "**Save**" icon, this setting will be saved.

[Notes]

●Three periods can be set for each day. The start time should be earlier than the end time for each period, otherwise this setting will be invalid. In the same way, the latter should be earlier than the former.

●When the weekly timer has been activated, the display panel will act based on the current mode and temperature setting.

●Timer setting for the weekday

"**Valid**" it indicates this setting works only when "**Weekly timer**" has been activated, unaffected by the holiday mode.

"**Invalid**" indicates this setting does not work even though the "**Weekly timer"** has been activated.

●When both "**Weekly timer**" and "**Holiday release**" have been activated, setting of "**Weekly timer**" is invalid. Only when "**Holiday release**" has been deactivated, setting of "**Weekly timer**" works.

●The priority sequence for timer setting from high to low is "**Temperature timer**", "**Clock timer**", "**Preset mode"** and "**Weekly timer**". Setting with lower priority sequence is allowed but does not work when setting with higher priority has been activated. However, it will work when the setting with higher priority has been deactivated.

●It will be memorized upon power failure.

2.2.8 Holiday release

[Operation Instructions]

At the function setting page, by touching "Holiday release", it will go to the corresponding setting page, where it can be set to "**On**" or "**Off**".

[Notes]

●When this function has been activated, at the '**Weekly timer**" setting page, some week day can be set to "**Holiday release**". In this case, the setting of the "**Weekly timer**" at this day is invalid unless it has been manually set to "**Valid**".

●It will be memorized upon power failure.

2.2.9 Disinfection

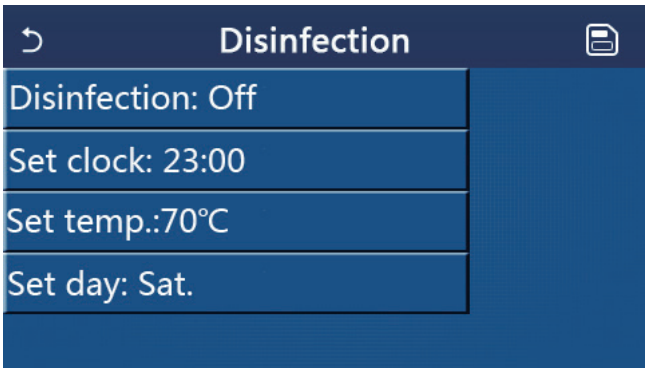
[Operation Instructions]

This function is intended to destroy bacteria inside the water tank through high temperature.

1.At the function setting page, go to "**Disinfection**" setting page.

2.At the "**Disinfection**" setting page, it can select the disinfection clock, disinfection temperature and disinfection week and the corresponding setting page will pop up at the right side.

3.Then, this setting will be saved by touching the "**Save**" icon.



[Notes]

●This setting can be activated only when "**Water tank**" is set to "**With**". When "Water tank" is set to "**Without**", this function will be deactivated.

●This setting can be done no matter if the control panel is turned on or off.

●When "**Emergen.mode**", "**Holiday mode**", "**Floor debug**", "**Manual defrost**", or "**Refri. recovery**" has been activated, this function cannot be activated at the same time. When "**Disinfection**" has been activated, "**Emergen. mode**", "**Holiday mode**", "**Floor debug**" "**Manual defrost**", or "**Refri. recovery"** setting will fail and a window will pop up, saying "**Please disable the disinfect mode!**"

●"**Disinfection**" can be activated no matter if the control panel is turned on or off. This mode will take priority over the "**Hot water**" mode.

●When disinfection operation fails, the display panel will tell "**Disinfection fail!**". Then, by pressing OK it will be cleared.

●When "**Disinfection**" has been activated, if communication error with the indoor unit or malfunction of the water tank heater occurs, it will automatically quit.

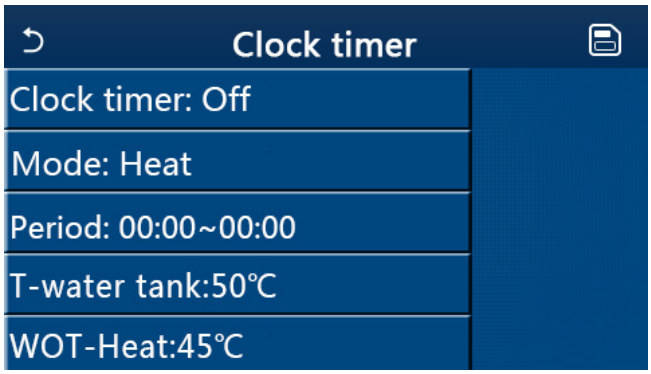
●It will be memorized upon power failure.

2.2.10 Clock timer

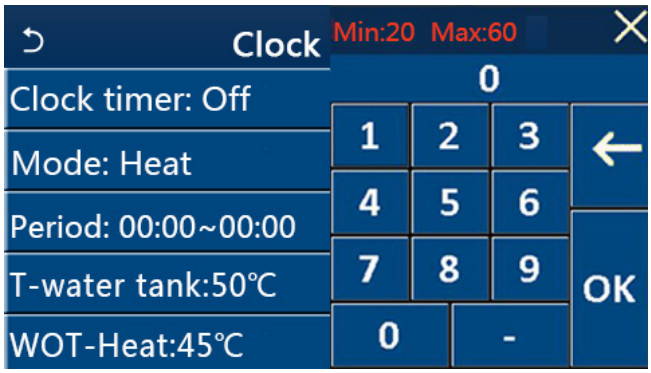
[Operation Instructions]

1.At the function setting page, go to the "**Clock timer**" setting page.

2.At the "**Clock timer**" setting page, it can be set to "**On**" or "**Off**".



3.The option "**Mode**" is used to time the desired mode; "**WOT-Heat**" and "**T-water tank**" is used to set the corresponding water temperature; "**Period**" is used to for time setting. After that, by touching the "**Save**" icon, all settings will be saved.



[Notes]

●When "**Clock timer**" has been set and "**Hot water**" mode is involved, in this case, if "**Water tank**" is changed to "**Without**", "**Hot water**" will be automatically switched to "**Heat**", and "**Cool/Heat + Hot water**" will be switched to "**Cool/Heat**".

●When "**Weekly timer**" and "**Clock timer**" have been set at the same time, the priority will be given to the former.

●When the water tank is available, "**Heat**", "**Cool**", "**Hot**", "**Heat + Hot water**", and "**Cool + Hot water**" are allowed; however, when the water tank is unavailable, only "**Heat**" and "**Cool**" are allowed.

●When the end time is earlier than the start time, this setting is invalid.

●Water tank temperature can be set only when "**Hot water**" is involved in the operation mode.

●The setting of "**Clock timer**" only works once. If this setting is needed again, it should be set again.

●It will be deactivated when the main unit is turned on manually.

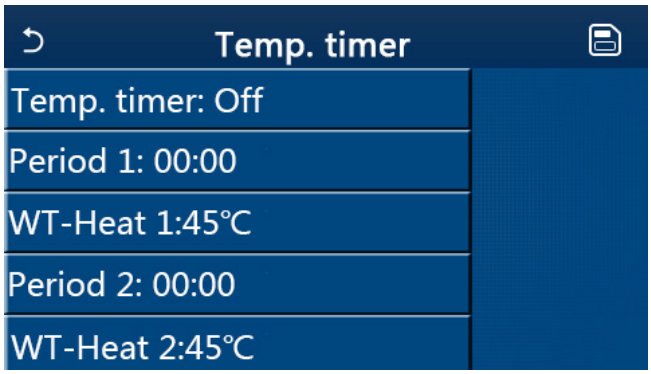
●When "**Weather depend**" has been activated and the mode for "**Clock timer**" is set to "**Hot water**", "**Weather depend**" will be deactivated when the setting mode has been switched.

●This function will be memorized upon power failure.

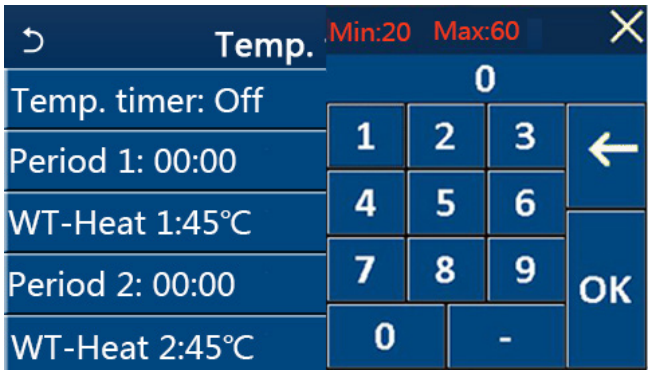
2.2.11 Temp. timer

At the function setting page, go to the "**Temp.timer**" setting page.

At the "**Temp.timer**" setting page, it can be set to "**On**" or "**Off**".



Select "**Period 1**"/"**Period 2**" and a window will pop up, where time period can be set. Then select "**WT-Heat1/ WT-Cool 1/2**" and also a window will pop up where temperature can be set.



[Notes]

●When "**Weekly timer**", "**Preset mode**","**Clock timer**" "**Temp. timer**" have been set at the same time, then the latter takes the priority.

●This setting is valid only when the control panel is turned on.

●Under the "**Cool**" or "**Cool+Hot water**" mode, the setting targets at "**WT-Coo**l"; while under the "**Heat**" or "**Heat+Hot water**" mode, the setting targets at "WT-Heat".

●When start time of period 2 is the same as that of period 1, then the former takes prevalence.

●"**Temp.timer**" is judged based on timer.

●During this setting, when temperature is set manually, then this setting will take prevalence.

●Under the "**Hot water**" mode, this function will be reserved.

●This function will be memorized upon power failure.

2.2.12 Emergen. mode

[Operation Instructions]

This function is intended to start other heat source to provided uninterrupted heating in case that the heat pump fails.

1.At the function setting page, set the mode to "**Heat**" or "**Hot water**".

2.At the function setting page, select "Emergen.mode" and set it to "**On**" or "**Off**".

3.When "**Emergen.mode**" has activated, the corresponding icon will appear at the upper side of the menu page.

4.When the mode is not set to "**Heat**" or "**Hot water**", the display panel will tell "**Wrong running mode!**"

[Notes]

●The emergency mode is allowed on conditions that there is some error or protection and the compressor has stopped at least for three minutes. If the error or protection has not been recovered, the main unit can go to the emergency mode through the wired controller (when the control panel is off).

●Under the emergency mode, "**Hot water**" or "**Heat**" cannot be performed at the same time.

●When the running mode is set to "**Heat**", if "**Other thermal**" or "**Optional E-Heater**" is set to "**Without**", the main unit will fail to go to the "**Emergen. mode**".

●When the main unit performs "Heat" under "Emergen. mode" and the control panel detects "**HP-Water Switch**", "**Auxi. heater 1**", "**Auxi. heater 1**", and "**Temp-AHLW**", this mode will quit at once. In the same way, when errors mentioned above occur, "**Emergen. mode**" cannot be activated.

●When the main unit performs "**Hot water**" under "**Emergen. mode**" and the control panel detects "**Auxi.-WTH**", this mode will quit at once. In the same way, when errors mentioned above occur, "**Emergen. mode**" cannot be activated.

●When this function has been activated, "**Weekly timer**", "**Preset mode**", "**Clock timer**",and "**Temp timer**" will be deactivated. Beside "**On/Off**", "**Mode**", "**Quiet mode**", "**Weekly timer**", "**Preset mode**", "**Clock timer**",and "**Temp timer**" operation are unavailable.

●Under "**Emergen. mode**", the thermostat does not work.

●This function can be activated only when the control panel is turned off. If doing so with the control panel "**On**", a window will pop up, saying "**Please turn off the system first!**".

●“**Floor debug**”, “**Disinfection**”, and “**Holiday mode**” cannot be activated at the same with this function. When doing so, a window will pop up, saying “**Please disable the emergen. mode!**”.

●Upon power failure, “**Emergen. mode**” will back to “**Off**”.

2.2.13 Holiday mode

[Operation Instructions]

This function is intended to let the heat pump run under the energy conservation mode so as to keep the room temperature within a certain range, which then will prevent pipelines from suffering frostbites.

At the function setting page, select “**Holiday mode**” and set it to “**On**” or “**Off**”.

[Notes]

●This function can be activated only when the control panel has been turned off, otherwise a prompt dialog box will pop up, saying “**Please turn off the system frist!**”.

●When “**Holiday mode**” has been activated, the operation mode will automatically switch to “**Heat**”. Mode setting and “**On/Off**" operation through the control panel will be unavailable.

●When “**Holiday mode**” has been activated, the control panel will automatically deactivate the “**Weekly timer**” and “**Preset mode**”and “**Clock timer**” and “**Temp.timer**”.

●Under the “**Holiday mode**”, when the main unit is under the control of room temperature, the set point (room temperature for heating) should be set to 10°C; when it is under the control of leaving water temperature, the set point (leaving water temperature for heating) should be 30°C.

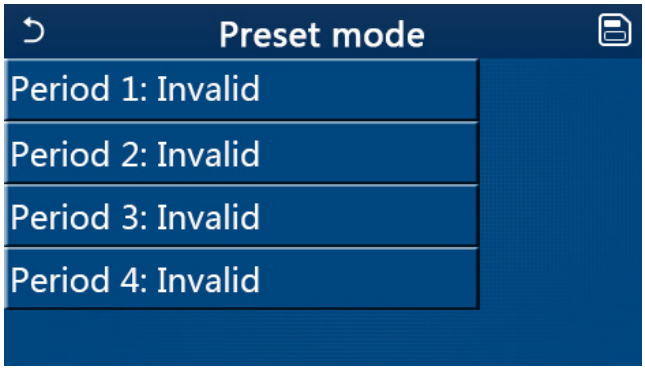
●When this function has been activated, “**Floor debug**”, “**Emergen.mode**”, “**Disinfection**”, “**Manual defrost**”, “**Preset mode**”, “**Weekly timer**”, “**Clock timer**”, and “**Temp.timer**” cannot be activated at the same time, meanwhile a window will pop up, saying “**Please disable the holiday mode!**”.

●This function will be memorized upon power failure.

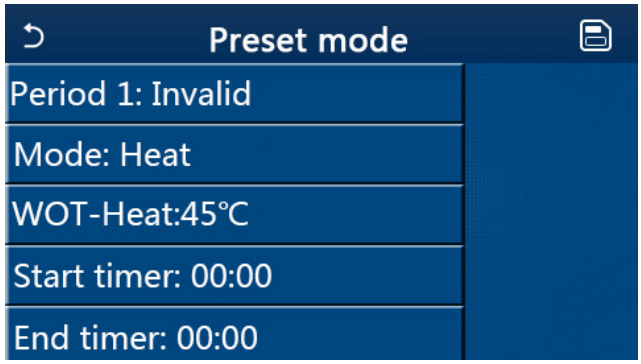
2.2.14 Preset mode

[Operation Instructions]

At the function setting page, select “**Preset mode**” and go to the corresponding setting page.



At the time period setting page, each time period can be set to “**Valid**” or “**Invalid**”.



The option “**Mode**” is used to preset the mode; “**WOT-Heat**” is used to set the leaving cold/hot water temperature; “**Start timer**”/“**End timer**” is used to for time setting. After that, by touching the “**Save**” icon, all settings will be saved.

[Notes]

●When “**Preset mode**” has been set to “**Hot water**” and “**Water tank**” is to set to “**Without**”, the preset “**Hot water**” mode will be automatically switched to “**Heat**”.

●When “**Weekly timer**” and “**Preset mode**” both have been set, priority will be given to the latter.

●When the water tank is available, the preset mode can be “**Heat**”, “**Cool**”, or “**Hot water**”; however, when the water tank is unavailable, the preset mode can only be “**Heat**” or “**Cool**”.

●“**Start timer**” should be earlier than “**End timer**”, otherwise a dialog will pop up, saying “**time setting wrong**”.

●The setting for “**Preset mode**” will works until it has been canceled manually.

●When “**Start timer**” is reached, the main unit will perform the preset mode. In this case, mode and temperature setting are still allowed but will not be saved to the preset mode. When “**End timer**” is reached, the control panel will perform OFF operation.

●This function will be memorized upon power failure.

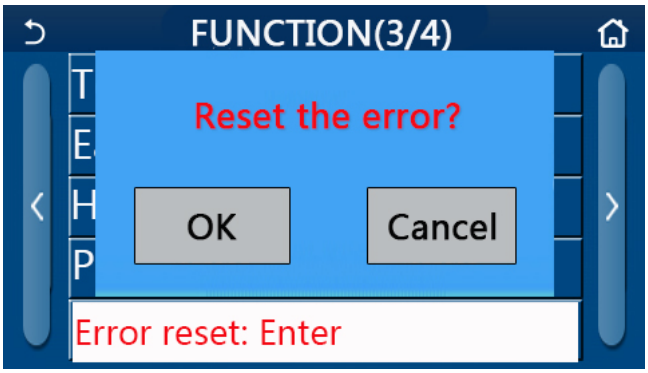
●When “**Weather depend**” has been activated and the mode for “**Preset mode**” is set to “**Hot water**”, “**Weather depend**” will be deactivated when the setting mode has been switched.

2.2.15 Error reset

[Operation Instructions]

This function is intended to manually clear errors, which then will enable the heat pump to execute the startup command.

At the function setting page, by touching “**Error reset**”, a choice box will pop up, where by touching “**OK**” the error will be reset and by touching “**Cancel**” the error will not be reset.



[Notes]

●It can be performed only when the control panel is turned off.

2.2.16 WiFi reset

[Operation Instructions]

At the function setting page, by touching “**WiFi reset**”, a choice box will pop up, where by touching “**OK**” , the WiFi setting will be reset, and by touching “**Cancel**” the choice box will quit and WiFi will not be reset.

2.2.17 Reset

[Operation Instructions]

At the function setting page, by touching “**Reset**”, a choice box will pop up, where by touching “**OK**” all user parameter settings will be reset and by touching “**Cancel**” it will back to the function setting page.

[Notes]

●This function is allowed only when the control panel has been turned off.

●This function is valid for “**Temp. timer**”, “**Clock timer**”, “**Preset mode**”, “**Weekly timer**”, and “**Weather depend**”.

2.2.18 Child lock

[Operation Instructions]

At the function setting page, by touching “**Child Lock**”, it can be set to “**On**” or “**Off**”.

When it is set to “**On**”, the control panel will go back to the home page and a lock icon will be diplayed, as shown in the figure below.

In this case, the control panel is locked and any touch operation does not work. By touching for six seconds, the control panel will be unlocked and touch operation will work. However, the setting of "**Child Lock**" will remain to be "**On**", and if there is no any operation in 30 seconds, the control panel will be locked again.

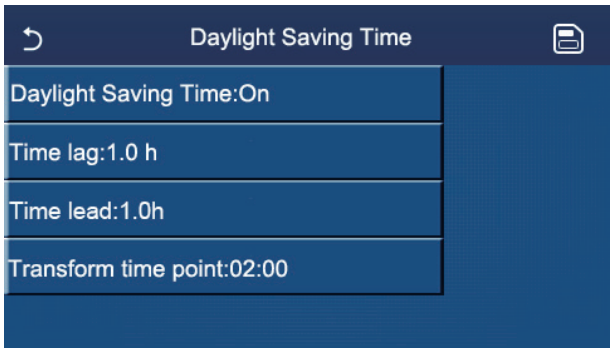
Only when it is set to “**Off**”, this function will be really disenabled.

2.2.19 Daylight Saving Time

[Operation Instructions]

When it has been activated, it allows to set “Time lag”, “Time lead” and “Transform time”. The system clock of the control panel will be delayed for some time at the “Transform time” of last Sunday in March, and will be advanced for some time at the “Transform time” of last Sunday in October.

“Time lag” is used for March and “Time lead” is for October.



For example, if March 30 is the last Sunday of this month, when the system clock goes to March 30, 2:00, the system clock will be lagged automatically for one hour. That is, the displayed system time will become to be March 30, 3:00.

For example, if October 30 is the last Sunday of this month, when the system clock goes to October 30, 2:00, the system clock will be advanced automatically for one hour. That is, the displayed system time will become to be October 30, 1:00.

When there is a timer setting at the “Time lag” period, then this timer setting goes invalid in this period.

2.2.20 Clear P .C.

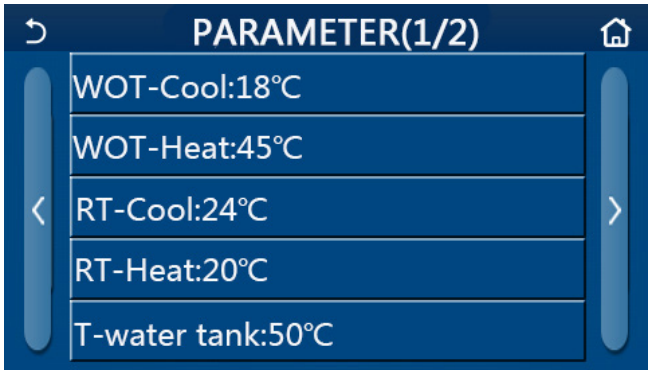
[Operation Instructions]

At the function setting page, by touching "**Clear P .C.**", a choice box will pop up, where by touching "OK" , power consumption data will be cleared, and by touching "**Cancel**" power consumption data will be kept.

2.3 User Parameter Setting

[Operation Instructions]

1.At the menu page, by touching "**PARAMETER**", it will back to the parameter setting page, as shown in the figure below.



Parameter Setting Page

2.At the menu setting page, by touching the page turning keys, it is able to switch to the page where the desired parameter is.

3.After that, this setting will be saved by touching "**OK**" and then the main unit will run based on this setting. While this setting will give up by touching "**Cancel**".

[Notes]

For parameters with different defaults under different conditions, when conditions changes, the default value also will change as the corresponding condition changes.

All parameters will be memorized upon power failure.

Parameter Setting

No.	Full Name	Displayed Name	Range (℃)	Range (°F)	Default	Remarks
1	Leaving water temperature for cooling	WOT-Cool	7~25°C	45~77°F	18℃ /64°F	Unavailable to heating only units
			5~25°C	41~77°F	18℃ /64°F	Applicable to Versati IV Monobloc series units
2	Leaving water temperature for heating	WOT-Heat	20~60°C	68~140°F	45℃ /113°F	High-temp series units
			20~55°C	68~131°F	45°C/113°F	Normal-temp series units
			20~65°C	68~149°F	45°C/113°F	Applicable to Versati IV Monobloc series units
3	Room temperature for cooling	RT-Cool	18~30°C	64~86°F	24°C/75°F	Unavailable to heating only units
4	Room temperature for heating	RT-Heat	18~30°C	64~86°F	20°C/68°F	/
5	Water tank temperature	T-water tank	40~80°C	104~176°F	50°C/122°F	/

No.	Full Name	Displayed Name	Range (℃)	Range (°F)	Default	Remarks
6	Leaving water temperature difference for cooling	ΔT-Cool	2~10°C	36~50°F	5°C/41°F	/
7	Leaving water temperature difference for heating	ΔT-Heat	2~10°C	36~50°F	10°C/50°F	/
8	Leaving water temperature difference for water heating	ΔT-hot water	2~25°C	36~77°F	5°C/41°F	/
9	Room temperature control difference	ΔT-Room temp	1~5°C	34~41°F	2°C/36°F	/
10	Temperature difference between actual and target water for cooling	ΔWT-Cool AT	-10~0°C	14~32°F	-5°C/23°F	Valid for the Monobloc SG.
11	Temperature difference between actual and target water for heating	ΔWT-Heat AT	0~15°C	32~59°F	5°C/41°F	Valid for the Monobloc SG.
12	Temperature difference between actual and target water for water heating	ΔWT-hot water AT	0~15°C	32~59°F	5°C/41°F	Valid for the Monobloc SG.
13	Minimal allowable water temperature by users	WT min	5~25°C	41~77°F	5°C/41°F	Valid for the Monobloc SG.
14	Maximal allowable water temperature by users for heating	WT-Heat max	20~65°C	68~149°F	65°C/149°F	Valid for the Monobloc SG.
15	Maximal allowable water temperature by users for water heating	WT-Hot water max	40~80°C	104~176°F	80°C/176°F	Valid for the Monobloc SG.
16	Leaving water temperature setting range for cooling	WOT-Cool Range	5~25°C	41~77°F	10°C/50°F	Valid for the Monobloc SG.
17	Leaving water temperature setting range for heating	WOT-Heat Range	20~65°C	68~149°F	55°C/131°F	Valid for the Monobloc SG.
19	Leaving water temperature setting range for water heating	T-water tank Range	40~80°C	104~176°F	60°C/140°F	Valid for the Monobloc SG.

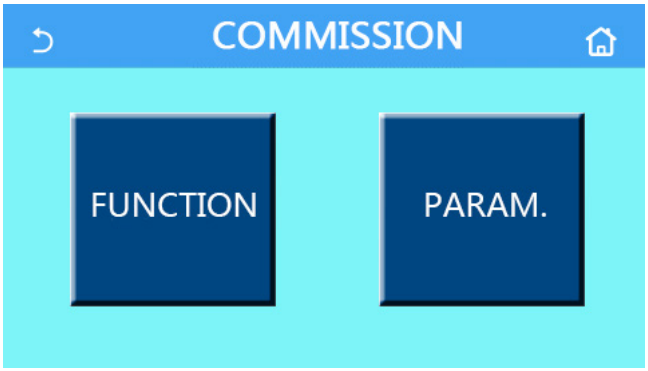
Parameters from No.10 to No.19 are for setting target water temperature under the SG function. When SG (smart grid) has been activated, the unit after receiving the grid signal will go under the control as stated below.

Running mode	Target water temperature			
	Switch-on signal	Switch-on command	Standard operation	Switch-off command
Cool	Take the larger between (WOT-Cool+ΔdeWT-Cool AT) and WT min.	Take the larger between WOT-Cool Range and WT min.	WOT-Cool	/
Heat	Take the smaller between (WOT-Heat+ΔWT-Heat AT) and WT-Heat max.	When the electric heater works, take the smaller between WOT-Heat Range and WT-Heat max.	WOT-Heat	/
		When the electric heater does not work, take the smaller between WOT-Heat Range and Tmax.Tmax is the highest leaving water temperature corresponding to the current ambient temperature.		/
Hot water	Take the smaller between (T-water tank+ΔWT-hot water AT) and WT-hot water max.	When the electric heater works, take the smaller between T-water tank Range and WT-hot water max.	T-water tank	/
		When the electric heater does not work, take the smaller between T-water tank Range and T-HP max.		/

2.4 Commissioning Parameter Setting

[Operation Instructions]

1.At the menu page, by touching "**Commission**" and then entering the correct password in the pop-up window, the commissioning parameter page will be accessed, where the left side is for the function setting and the right side is for the parameter setting, as shown in the figure below. Commissioning parameters are allowed to be set only by qualified commissioning personnel.



[Notes]

●At the commissioning parameter setting page, when the state of any function changes, the system will automatically save this change and this change will remain upon power failure.

●Do not modify any commissioning parameter except the approved qualified servicemen, as it would give birth to adverse effects to the main unit.

Commissioning Function Setting

No.	Item	Range	Default	Description
1	Ctrl. state	T-water out/T-room	T-water out	When “**Remote sensor**” is set to “**With**”, it can be set to “**T-room**”.
2	2-Way valve	Cool 2-Way valve, On/Off	Off	It will decide the status of the 2-way valve under the “**Cool**” and “**Cool + Hot water**” modes. Under “Cool” or “Cool + Hot water” mode, the status of the 2-way valve depends on this setting. This setting is unavailable to heating only units.
		Heat 2-Way valve, On/Off	On	It will decide the status of the 2-way valve under the “**Heat**” and “**Heat + Hot water**” modes
3	Solar setting	With/Without	Without	When the water tank is unavailable, this setting will be reserved. When it is set to “**With**”, the solar kitting will work on its own. When it is set to “**Without**”, hot water by the solar kitting is unavailable.
4	Water tank	With/Without	Without	Unavailable to mini chillers.
5	Thermostat	Without/Air/Air+ hot water/ Air+ hot water2	Without	This setting cannot be interchanged among “**Air**” , “**Air+ hot water**” and "**Air+ hot water2**" directly but via “**Without**” this option.
		On/Off	Off	This setting is available to mini chillers.
6	Other thermal	With/Without	Without	/
7	Optional E-Heater	Off/1/2	Off	/
8	Remote sensor	With/Without	Without	When it set to “Without”, and the “Ctrl. state” will be defaulted to be “T-water out”.
9	Air removal	On/Off	Off	/
10	Floor debug	On/Off	Off	/
11	Manual defrost	On/Off	Off	/
12	Force mode	Off/Force-cool/Force-heat	Off	“Force-cool” is unavailable to heating only units.
13	Tank heater	Logic 1/Logic 2	Logic 1	This setting is allowed when the water tank is available and the control panel is OFF.
14	Gate-Ctrl.	On/Off	Off	/

No.	Item	Range	Default	Description
15	C/P limit	Off/Current limit/Power limit	Off	When it is set to "**Current limit"** or "**Power limit**", sub-parameters stated as below can be set. • "**Value**": power or current limit value, which varies for different main units. • "**ΔValue min**": 1~15%, 5% defaulted, valid for the Monobloc SG units. • "**Electric heater**": it can be set to "**With**" or "**Without**", which determines if the power of electric heater should be taken into account for current/power limit. When other thermal source or the optional electric heater of the water tank is equipped, the corresponding electric heater can be set to "**Standard**" or "**Field-supplied**". Once it is set to "**Field-supplied**", power value can be adjusted. See Section 2.4.14 for more details. It is valid for the Monobloc SG units.
16	Address	[1-125] [127-253]	1	/
17	Refri. recovery	On/Off	Off	/
18	Gate-Ctrl memory	On/Off	Off	/
19	3-Way valve1	Without/DHW/AIR	Without	/
20	Hot water control mode	On/Off	Off	It can be set only when the control panel is turned off.
21	SG	On/Off	Off	Valid for the Monobloc SG. It can be set only when the control panel is turned off.
22	Cool control mode	On/Off	Off	Valid for the Monobloc SG. It can be set only when the control panel is turned off.
23	Heat control mode	On/Off	Off	Valid for the Monobloc SG. It can be set only when the control panel is turned off.
24	HWPS Limit Function	On/Off	Off	Valid for the Monobloc SG. There are five limits for highest speeds of the water pump: high, medium, low, superlow, minimum. It can be set only when the control panel is turned off.
25	Water pump antistall	On/Off	Off	Water pump antistall interval: 1~12h, 2h defaulted; Water pump antistall duration: 10~100s, 30s defaulted; Valid for the Monobloc SG.

Commissioning Parameters Setting

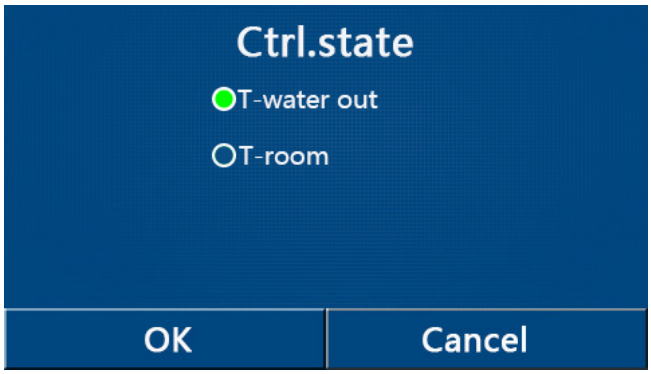
No.	Full Name	Display Name	Range		Default	Remark
1	T-HP max	T-HP max	40~55°C	104~131°F	50°C/122°F	

2.4.1 Ctrl. state

[Operation Instructions]

The user is allowed to control the operation of the heat pump through taking either the leaving water temperature or the room temperature as the control target.

At the commissioning parameter setting page, by touching "**Ctrl. state**", it can be set to "**T-water out**" or "**T-room**".



[Notes]

●When "**Remote sensor**" is set to "**With**", this setting can be set to "**T-water out**" or "**T-room**". When "**Remote sensor**" is set to "**Without**", this setting can only be set to "**T-water out**".

● This setting will be memorized upon power failure.

2.4.2 2-Way valve

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Cool 2-Way valve**" or "**Heat 2-Way valve**", the control panel will go to the corresponding setting page.

It is optional. When the under-floor heating coils and radiators are used, it can be used to control the watercourse.

[Notes]

●This setting is unavailable to heating only units.

●Under "**Cool**", or "**Cool + Hot water**" mode, "**Cool 2-Way valve**" will decide the status of the 2-way valve; while under "**Heat**" or "**Heat + Hot water**", "**Heat 2-Way valve**" will decide the status of the 2-way valve.

●It will be memorized upon power failure.

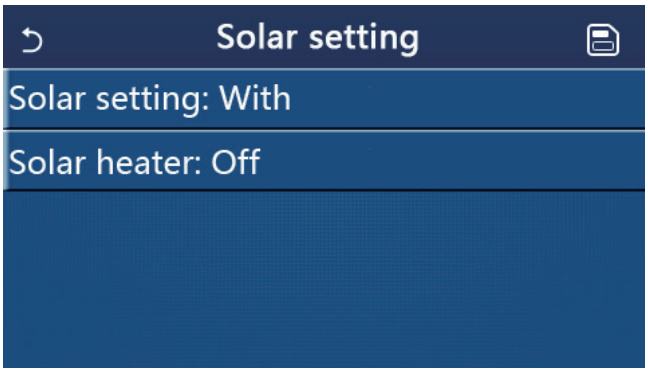
2.4.3 Solar setting (reserved)

[Operation Instructions]

1.At the commissioning parameter setting page, by touching "**Solar setting**", the control panel will go to its submenu page.

2.At the submenu page, "**Solar setting**" can be set to "**With**" or "**Without**".

3.At the submenu page, the "**Solar heater**" can be set to "**On**" or "**Off**".



Solar Setting

[Notes]

●This setting can be done no matter if the control panel is turned on or off.

●This setting is allowed only when the water tank is available. When the water tank is unavailable, this setting will be reserved.

●It will be memorized upon power failure.

2.4.4 Water tank

[Operation Instructions]

At the commissioning parameter setting page, by touching “**Water tank**”, the control panel will go to the corresponding setting page, where “**Water tank**” can be set to “**With**" or "**Without**".

When domestic hot water is required, “Water tank” shall be set to “With”.

[Notes]

●This setting will be memorized upon power failure.

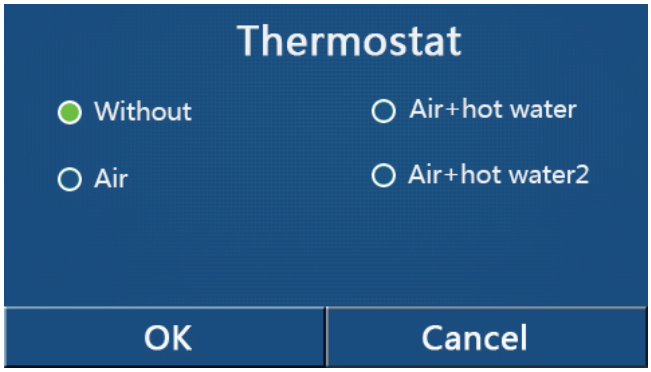
●This setting will become valid only when the control panel is turned off.

2.4.5 Thermostat

[Operation Instructions]

1.At the commissioning parameter setting page, by touching “**Thermostat**”, the control panel will go to the corresponding setting page.

2.At the “**Thermostat**” setting page, it can be set to “**Air**”, “**Without**”, “**Air + hot water**” and "**Air + hot water2**". When it is set to “**Air**”, “**Air + hot water**” or "**Air + hot water2**", the main unit will run based on the mode set by the thermostat; when it is set to “**Without**”, the main unit will run based on the mode set by the control panel.



[Notes]

●When “**Water tank**” is set to “**Without**”, the “**Air + hot water**” or "**Air + hot water2**" mode is unavailable.

●When “**Floor debug**” and “**Emergen.mode**” have activated, function of the thermostat will be invalid.

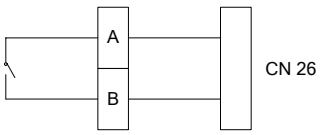
●When “**Thermostat**” is set to “**Air**”, “**Air + hot water**” or "**Air + hot water2**”, “**Temp.timer**” will be deactivated automatically and the main unit will run based on the mode set by the thermostat. Meanwhile, mode setting and On/Off operation by the control panel will be ineffective.

●When “**Thermostat**” is set to “**Air**”, the main unit will run based on the setting of the thermostat.

●When “**Thermostat**” is set to “**Air + hot water**”, when the thermostat is turned off, the main unit can still perform the “**Hot water**” mode. In this case, the ON/OFF icon at the homepage does not indicate the running status of the main unit. Running parameters are available at the parameter viewing pages.

●When “**Thermostat**” is set to “**Air + hot water**”, operation priority can be set by the control panel (see Section 2.2.3 and 2.2.4 for more details.)

●When the “**Thermostat**” is set to “**Air + hot water2**”, there are two kinds of responses for the main units. For one, if CN26 receives the “**OFF**” signal (dry contact, 0Vac), the main unit will take the priority to “**Hot water**”. Once operation conditions for “**Hot water**” are ready, the main unit will run for “**Hot water**”. Then, when “**Hot water**” is satisfied, the main unit will run on the demands of the thermostat. For the other, if CN26 has not received the “**OFF**” signal, the main unit will run on the demands of the thermostat.



●The status of the thermostat can be changed only when the control panel is turned off.

●When it has been activated, “**Floor debug**”, “**Air removal**”, and “**Emergen.mode**” are not allowed to be activated.

●This setting will be memorized upon power failure.

Note: when the main unit is under the control of the thermostat, the operation mode set at the control panel varies with the thermostat, that is, the actual operation status of the main unit, as shown in the table below. Once the thermostat is disabled, restart the main unit after check if the operation mode set at the control panel is expected or not.

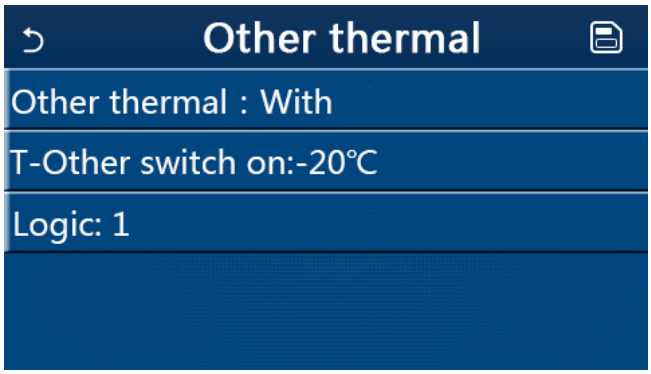
Thermostat setting	Thermostat status	Priority	Control panel	Main unit
Off	Off	/	/	/
Air	Heating	/	Heat	On for heating
	Cooling	/	Cool	On for cooling
	Off	/	Last operation mode	Off
Air+Hot water	Heating	Hot water	Hot water + heat	Frist water heating and then heating
		Heat/cool	Heat + hot water	On for heating; water heated by the water heater electric heater
	Cooling	Hot water	Hot water + cool	Frist water heating and then cooling
			Cool + Hot water	On for cooling; water heated by the water heater electric heater
	Off	/	Hot water	On for water heating
Air+Hot water2	Heating	/	Heat	On for heating
	Cooling	/	Cool	On for cooling
	Water heating	/	Hot water	On for water heating
	Heating + Water heating	Hot water	Hot water + heat	Frist water heating and then heating
		Heat/cool	Heat + hot water	On for heating; water heated by the water heater electric heater
	Cooling + water heating	Hot water	Hot water + cool	First water heating and then cooling
		Heat/cool	Cool + hot water	On for cooling; water heated by the water heater electric heater
	Off	/	Last operation mode	Off

2.4.6 Other thermal

[Operation Instructions]

1.At the commissioning parameter setting page, by touching "**Other thermal**", the control panel will go to the corresponding setting page.

2.At the "**Other thermal**" setting page, "**Other thermal**" can be set to "**With**" or "**Without**", "**T-Other switch on**" can be set to the desired value. When "**Other thermal**" is set to "**With**", it is allowed to set the operating mode for the backup thermal source.



[Notes]

●This setting will be memorized upon power failure.

●There are three working logics for it.

Logic 1

1.The set point of other thermal should be equal to that of “**WOT-Heat**” in “**Heat**” mode and “**Heat + hot water**” mode; The set point should be the smaller one between “**T-Water tank**” +5°C and 60°C in “**Hot water**” mode.

2.The water pump for other thermal must be always active under the “Heat” mode.

3.Under the “**Heat**” mode, the 2-way valve will be controlled based on the setting of the control panel. During heating operation, the water pump of the heat pump unit will be stopped; however, during standby status, the water pump will start but the other thermal will stop.

Under the “**Hot water**” mode, the 3-way valve will switch to the water tank, the water pump of the heat pump will always stop but the other thermal will start.

Under the “**Heat + Hot water**” mode, the other thermal only works for space heating, and the electric heater of the water tank works for water heating. In this case, the 2-way valve is controlled base d on the setting of the control panel, and the 3-way valve will always stop. During heating operation, the water pump of the heat pump unit will be stopped; however, during standby status, the water pump will start.

Logic 2

1.The set point of other thermal should be equal to that of “**WOT-Heat”**and both are or lower than 60℃ in “**Heat**” mode and “**Heat + hot water**”mode; The set point should be the smaller one between “**T-Water tank**” +5°C and 60°C in “**Hot water**” mode.

2.The water pump for other thermal must be always active under the “**Heat**” mode.

3.Under the “**Heat**” mode, the 2-way valve will be controlled based on the setting of the control panel. During heating operation, the water pump of the heat pump unit will be stopped; however, during standby status, the water pump will start but the other thermal will stop.

Under the “**Hot water**” mode, the 3-way valve will switch to the water tank, the water pump of the heat pump will always stop but the other thermal will start.

Under the “**Heat + Hot water**” mode (“**Heat**” takes the priority), the other thermal only works for space heating, and the electric heater of the water tank works for water heating. In this case, the 2-way valve is controlled base d on the setting of the control panel, and the 3-way valve will always stop. During heating operation, the water pump of the heat pump unit will be stopped; however, during standby status, the water pump will start.

Under the “**Heat + Hot water**” mode (“**Hot water**” takes the priority), the other thermal works for space heating and water heating. The other thermal will work for water heating firstly, after reached “**T-water tank**”, other thermal turns to space heagting.

Logic 3

The heat pump will only send a signal to other thermal, but all the logic of control must be “**stand alone**”.

Other Thermal Control					
No.	**Product**	**Mode**	**Remark**		**Required accessories**
Logic 1	Monobloc	Heat	/	Available	RT5 temperature sensor
		Hot water	/	Available	Extra 3-way valve, water tank sensor
		Heat+Hot water	/	Available	RT5 temperature sensor, water tank sensor
	Split	Heat	/	Available	RT5 temperature sensor
		Hot water	/	Available	Extra 3-way valve, water tank sensor
		Heat+Hot water	/	Available	RT5 temperature sensor, water tank sensor
	All in One	Heat	/	Available	RT5 temperature sensor
		Hot water	/	Not available	/
		Heat+Hot water	/	Available	RT5 temperature sensor, water tank sensor

Other Thermal Control					
No.	**Product**	**Mode**	**Remark**		**Required accessories**
Logic 2	Monobloc	Heat	/	Available	RT5 temperature sensor
		Hot water	/	Available	Extra 3-way valve, water tank sensor
		Heat+Hot water	/	Available	Extra 3-way vlave,RT5 temperature sensor, Water tank sensor
	Split	Heat	/	Available	RT5 temperature sensor
		Hot water	/	Available	Extra 3-way valve, water tank sensor
		Heat+Hot water	/	Available	Extra 3-way vlave,RT5 temperature sensor, water tank sensor
	All in One	Heat	/	Available	RT5 temperature sensor
		Hot water	/	Not available	/
		Heat+Hot water	Priority=Heat	Available	RT5 temperature sensor
			Priority=Hot water	Not available	/
Logic 3	Monobloc	Heat	/	Available	/
		Hot water	/	Available	/
		Heat+Hot water	/	Available	/
	Split	Heat	/	Available	/
		Hot water	/	Available	/
		Heat+Hot water	/	Available	/
	All in One	Heat	/	Available	/
		Hot water	/	Available	/
		Heat+Hot water	/	Available	/

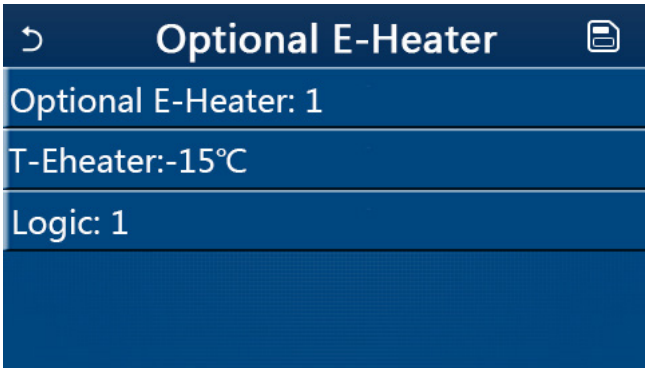
2.4.7 Optional E-Heater

[Operation Instructions]

1.At the commissioning parameter setting page, by touching "**Optional E-Heater**", the control panel will go to the corresponding setting page.

2.At the "**Optional E-Heater**" setting page, it can be set to "**1**", "**2**" or "**Off**".

3.This setting is used to compare with the ambient temperature. Different comparison results are for different status of the optional electric heater.



[Notes]

●This setting will be memorized upon power failure.

●Neither "**Other thermal**" or "**Optional E-Heater**" can be activated at the same time.

●There are two working logics for "**Optional E-heater**".

Logic 1: the heat pump and the optional electric heater cannot be started at the same time.

Logic 2: the heat pump and the optional electric heater can be started at the same time when the ambient temperature is lower than T-Eheater.

●Optional E-Heater and water tank heater won't be started together.

2.4.8 Remote sensor

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Remote sensor**", the control panel will go to the corresponding setting page, where it can be set to "**With**" or "**Without**".

[Notes]

●This setting will be memorized upon power failure.

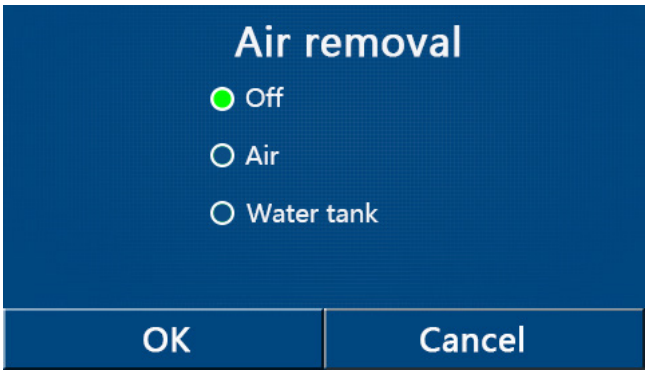
●Only when "**Remote sensor**" is set to "**With**", the "**Ctrl. State**" can be set to "**T-room**".

2.4.9 Air removal

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Air removal**", the control panel will go to the corresponding setting page, where it can be set to "**On**" or "**Off**".

For field water makeup, activate this function to dispel air trapped inside the water system out.



[Notes]

●This setting will be memorized upon power failure.

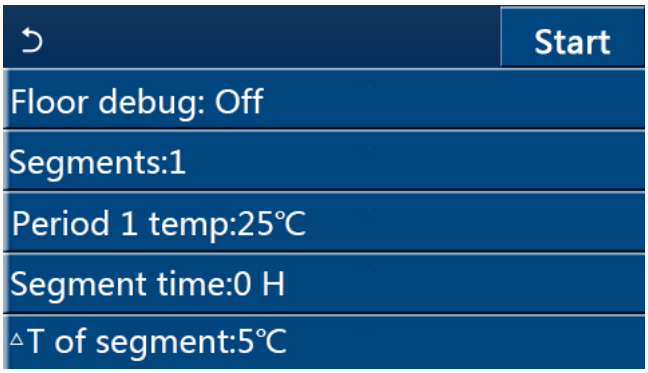
●This setting can be done only when the control panel is turned off. And when it is set to "**On**", the main unit is not allowed to be turned on.

2.4.10 Floor debug

[Operation Instructions]

For initial commissioning, if floor heating is required, based on the ramped target temperature, this function will mildly evaporate water inside the floor which then would not be deformed and damaged.

1.At the commissioning parameter setting page, by touching "**Floor debug**", the control panel will go to the corresponding setting page.



2.At the setting page, "**Floor debug**", "**Segments**", "**Period 1 temp**", "**Segment time**", and "**ΔT of segment**" can be set.

No.	Full Name	Displayed Name	Range	Default	Accuracy
1	Floor debug switch	Floor debug	On/Off	Off	/
2	Quantity of segments	Segments	1~10	1	1
3	Temperature of the first segment	Period 1 temp	25~35°C/ 77~95°F	25°C/ 77°F	1°C
4	Duration of each segment	Segment time	12~72 hours	0	12 hours
5	Temperature difference of each segment	ΔT of segment	2~10°C/ 36~50°F	5°C/ 41°F	1°C

3.When this setting is finished, by pressing "**Start**" this setting will be saved and start working, and by pressing "**Stop**" the function will halt.

[Notes]

●This function can be activated only when the control panel is turned off. When it is done with the control panel keeping "**On**", a window will pop up, saying "**Please turn off the system first!**".

●When this function has been activated, "**On/Off**" operation will be deactivated. By pressing On/Off , a window will pop up, saying "**Please disable the floor debug!**".

●When "**Floor debug**" has been activated; "**Weekly timer**", "**Clock Timer**", "**Temp timer**" and "**Preset mode**" will be deactivated.

●"**Emergen. mode**", "**Disinfection**", "**Holiday mode**", "**Manual defrost**", "**Forced mode**" and "**Refri. recovery**" cannot be activated at the same time with "**Floor debug**". If doing so, a window will pop up, saying "**Please disable the floor debug**!".

●Upon power failure, "**Floor debug**" will back to "**Off**" and the runtime will be zeroed.

●When "**Floor debug**" has been activated, "T-floor debug" and "Debug time" can be viewed.

●When "**Floor debug**" has been activated and works normally; the corresponding icon will be displayed at the upper side of the menu page.

●Before activating "**Floor debug**", make sure "**Segment time**" of each segment is not zero. If so, a window will pop up, saying "**Segment time wrong!**" In this case, "**Floor debug**" is allowed to be activated only when "**Segment time**" has changed.

2.4.11 Manual defrost

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Manual defrost**", the control panel will go to the corresponding setting page.

This function will let the heat pump directly go to the defrosting mode.

[Notes]

●This setting will not be memorized upon power failure.

●This setting can be set only when the control panel has turned off. When this function has been activated, ON operation is un-allowed.

●Defrosting will quit when the defrosting temperature goes to 20°C or the defrosting duration is equal to 10 minutes.

2.4.12 Force mode

[Operation Instructions]

1.At the commissioning parameter setting page, by touching "**Force mode**", the control panel will go to the corresponding setting page.

2.This function will force the heat pump to operate for troubleshooting.

3.At the "**Force mode**" setting page, it can be set to "**Force-cool**", '**Force-heat**", and "**Off**". When it is set to "**Force-cool**" or "**Force-heat**", the control panel will directly go back to the menu page and response to any touching operation except the ON/OFF operation, with a window popping up, saying "**The force-mode is running!**". In this case, by touching ON/OFF, "**Force mode**" will quit.

[Notes]

●This function is allowed only when the control panel has just repowered and not turned on. For the main unit which once has been put into operation, this function is unavailable, alerting "**Wrong operation!**".

●It will not be memorized upon power failure.

2.4.13 Gate-Ctrl.

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Gate-Ctrl.**", the control panel will go to the corresponding setting page.

[Notes]

●When "**Gate-Ctrl.**" has been activated; the display panel will detect the card state. When the card has inserted, the main unit will run normally. When the card is drawn out, the control panel will turn off the main unit at once and back to the homepage. In this case, all touching operation become ineffective, and a prompt dialog box will pop up. The main unit will resume normal operation until the card has inserted back and the ON/OFF status of the control panel will resume to that before the card is drawn out.

●This setting will be memorized upon power failure.

2.4.14 C/P limit (Current Limit/ Power Limit)

[Operation Instructions]

1. This functions targets for user's electric circuits with poor carrying capacity and unable to let the main unit operates under full load. When it has been activated, the user is allowed to set the current limit value based on the carrying capacity of their electric circuits. However, this value should be higher than 80% of the current for the maximum nominal input power for heating, which is necessary for normal functions (like oil return, defrosting, freeze protection etc.), otherwise it would lead to overcurrent, trip-off and other adverse consequences. If the electric circuit fails to meet this condition, its carrying capacity must be improved. During operation, when the current exceeds this value, the electric heater will first stop working and then frequency of the heat pump will be dropped until the current is less than the limit value. As there is a deviation for the detected current, it can be corrected through "**ΔValue min**".

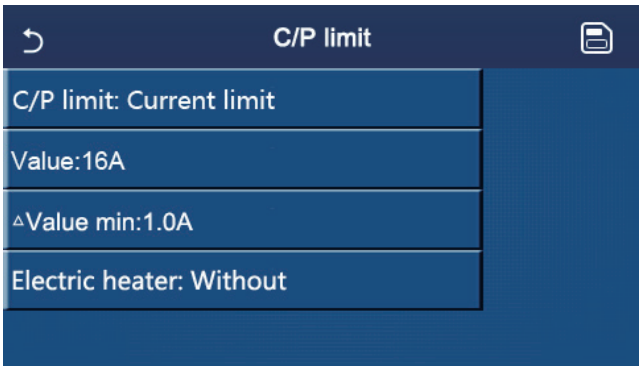
2. Current limit function will limit the action of the load, make heating/cooling/water heating slower, make output capacity much lower, and even limit some functions. Do not activate this function unless necessary. Once it has been activated, do not set it too low, otherwise the main unit's capacity would be degraded and some functions would be limited.

Parameter	Description
C/P limit	There are three options available, "**Off**", "**Current limit**" and "**Power limit**".
Value	Power or current limit
ΔValue min	As there is a deviation for the detected current, it can be corrected through "ΔValue min". When "**ΔValue min**" goes larger/smaller, it is more likely/hardly to trigger the current limit function. For example, when the current limit value is 32A, but the current limit function fails when the actual current exceeds (a clip-style ammeter can be used for current detection), raise "ΔValue min" as so to trigger the current limit function more likely.
Electric heater	There are two options available for the electric heater, "**With**" and "**Without**", which determines if the electric heater should be taken into account for current/ power limit. Two power supplies are required, one for the main unit, and the other for the electric heater. (1) when they are separate, it can be set to "Without". In this case, current/power limit works only for the heat pump. (2) when they are supplied together through an air switch, current/power limit works on both the heat pump and the electric heater.
AUX E-heater	(1) when a standard auxiliary electric heater is supplied by the manufacturer, the power is not required to be input but is automatically identified by the main board. (2) when an auxiliary electric heater is field supplied, the user needs to set "**EH Power 1**" and "**EH Power 2**".
Tank heater	

Parameter	Description
Tank heater power	(1) when a water tank with a standard electric heater is supplied by the manufacturer, the power of the electric heater is not required to be input but is automatically identified by the main board. (2) when a water tank's electric heater is field supplied, the user needs to set its power and meanwhile shall make sure the correctness of the power setting.
EH Power 1	When "**AUX E-heater**" is set to "**Field-supplied**", the user needs to set "**EH Power 1**" and "**EH Power 2**". Then, once the electric heater works, the main unit is able to calculate the current value. In this case, the user shall make sure the correctness of the power settings.
EH Power 2	

2. When it is set it "**Off**", current limit and power limit both cannot be set. When it is set to "**Current limit**" or "**Power limit**", they can be set.

3. After that, this setting will be saved by touching the "**Save**" icon.



[Notes]

●This setting will be memorized upon power failure.

2.4.15 Address

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Address**", it can be set the address.

It shall be set when the heat pump is required to be Modbus controlled.

[Notes]

●It is used to set the address of the control panel for being integrated to the centralized control system.

●This setting will be memorized upon power failure.

●The setting range is 1~125 and 127~253.

●The defaulted address is 1 upon first power-on.

2.4.16 Refri. recovery (Refrigerant Recovery)

[Operation Instructions]

At the commissioning parameter setting page, by touching "**Refri. recovery**", it will go to the refrigerant recovery page.

This function can be used for maintaining the heat pump.

When "**Refri. recovery**" is set to "**On**", the control panel will go back to the home page. At this time, any touch operation except ON/OFF will get no response, with a prompt dialog box popping up, saying "**The refrigerant recovery is running!**" By touching ON/OFF, refrigerant recovery will quit.

[Notes]

●This function is allowed only when the main unit has just repowered and not turned on. For the main unit which once has been put into operation, this function is unavailable, alerting "**Wrong operation**".

●This function will not be memorized upon power failure.

2.4.17 Tank heater

[Operation Instructions]

At the commissioning parameter setting page, by touching “**Tank heater**”, it will go to the setting page of control logic for the water tank heater.

[Notes]

●“Reserved” will be displayed when the water tank is unavailable.

●This setting can be done only when the control panel is off.

●This function can be memorized upon power failure.

●Logic 1: NEVER allowed the Unit’s Compressor and the Water Tank Electric Heater or the Optional Electric Heater to work at the same time.

●Logic 2: While Heating/ Cooling + Hot water mode (Hot Water priority) Tset ≥ THPmax + ΔThot water +2, when water tank temperature reach THPmax, the water tank EH will be ON and start to do hot water, at the same time, the compressor wil turn to heating/cooling mode, water tank EH and Compressor will be ON together.

2.4.18 Gate-Ctrl memory

[Operation Instructions]

At the commissioning parameter setting page, by touching **"Gate-Ctrl Memory**”, it will go to the setting page.

[Notes]

●When it is enabled, "**Gate-Ctrl**" will be memorized upon power failure.

●When it is disabled, "**Gate-Ctrl**" will not be memorized upon power failure.

2.4.19 3-Way valve1

[Operation Instructions]

At the commissioning parameter setting page, by touching **"3-Way valve1**”, it will go to the setting page.

[Notes]

●It will be memorized upon power failure.

●Three options are available, "**Without**", "**DHW**", and "**AIR**".When it is set to “**AIR**”, it will be closed (230VAC) under the cooling/heating mode and opened under the DHW(Hot water) mode; when it is set to “**DHW**”, it will be closed (230VAC) under the DHW(Hot water) mode and opened under the cooling/heating mode.

●This setting is allowed only when the control panel has been turned off.

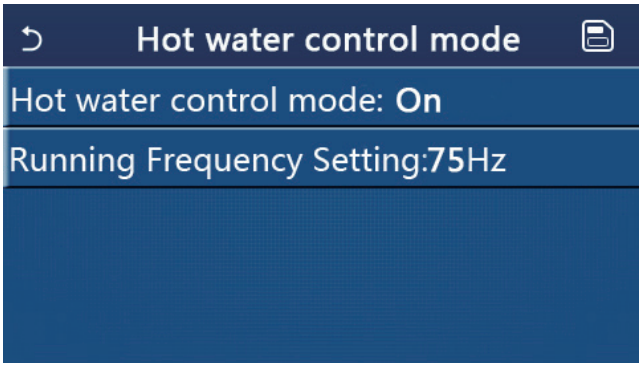
2.4.20 Hot water control mode

[Operation Instructions]

At the commissioning parameter setting page, by touching “**Hot water control mode**”, it can be set to “**Off**” or “**On**”.

When it is set to “**On**”,"**Running Frequency Setting**" can be set, and the user could change the parameter to fix the frequency of the compressor in the "**Hot water**" mode, otherwise, the main unit will automatically run based on the original logic.

After that, this setting will be saved by touching the “**Save**” icon.



[Notes]

●This setting will be memorized upon power failure.

2.4.21 SG (Smart grid)

[Operation Instructions]

It is allowed to be activated only when the control panel is turned off.

When it has been activated, the operating main unit will receive and execute control commands from the smart grid, except when the control panel has been turned off. See the table below for the SG control commands.

SG smart grid	EVU Photovoltaic signal	Command	Remarks
1	0	Switch-off command	Switch-off command
0	0	Standard operation	Switch-on command
0	1	Switch-on signal	Switch-on signal
1	1	Switch-on command	Switch-on signal

2.4.22 Cool control mode

When it has been activated, it will limit the highest frequency of the compressor for cooling operation.

2.4.23 Heat control mode

When it has been activated, it will limit the highest frequency of the compressor for heating operation.

2.4.24 Highest water pump speed limit function

When it has been activated, there are five options for the highest speed of the water pump, "High", "Medium", "Low", "SuperLow" and "Minimum". "High" is for the speed level 10, "Medium" for level 9, "low" for level 8, "SuperLow" for level 7 and "Minimum" for level 6. Once it has been set, the operating speed of the water pump is not allowed to exceed this set value.

Option	Actual speed level	Remarks
Minimum	Level 6	/
SuperLow	Level 7	/
Low	Level 8	/
Medium	Level 8 or Level 9	See related sections about control to the water pump in the operation instructions for the main unit.
High	Level 8, Level 9 or Level 10	

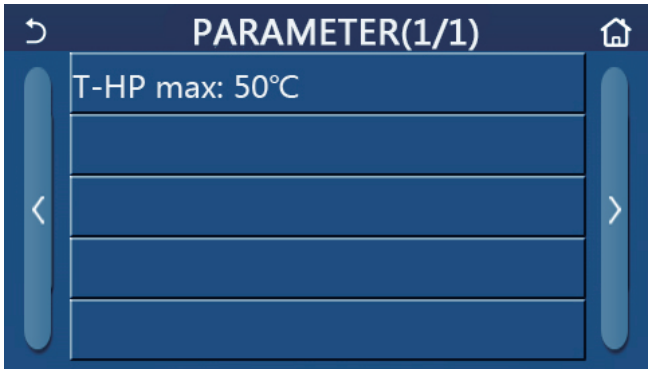
2.4.25 Water pump antistall

When it has been activated, it allows to set the antistall interval and antistall duration for the water pump. Once the main unit has been turned off, the water pump will run at the highest speed for antistall duration every antistall interval so as to prevent the water pump from being damaged.

2.4.26 Parameter setting

[Operation Instructions]

At the commissioning parameter setting page, by touching "**PARAM.**", it will go to the pages as shown below.



Page of Commissioning Parameters

At this page, select the desired option and then go to the corresponding page.

After that, by pressing "**OK**", this setting will be saved and then the main unit will run based on this setting; or by pressing "**Cancel**", this setting will not be saved and quit.

No.	Full Name	Display Name	Range		Default	Remark
1	T-HP max	T-HP max	40~55°C	104~131°F	50°C/122°F	/

[Notes]

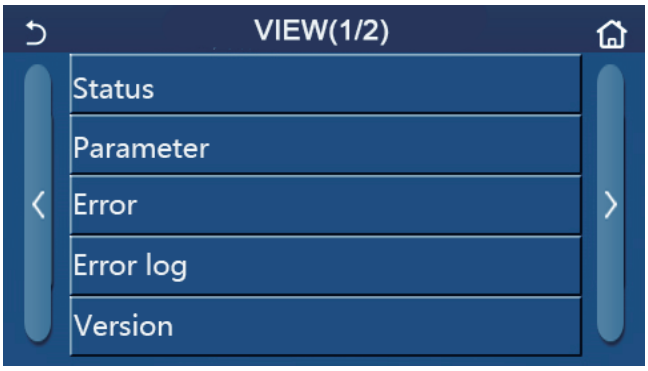
●For parameters with different defaults at different conditions, once the current condition changes, the corresponding default also will change.

●All parameters at this page will be memorized upon power failure.

2.5 Viewing

[Operation Instructions]

1.At the menu page, by touching "**VIEW**", the control panel will go to the sub-menu page as shown in the figure below.

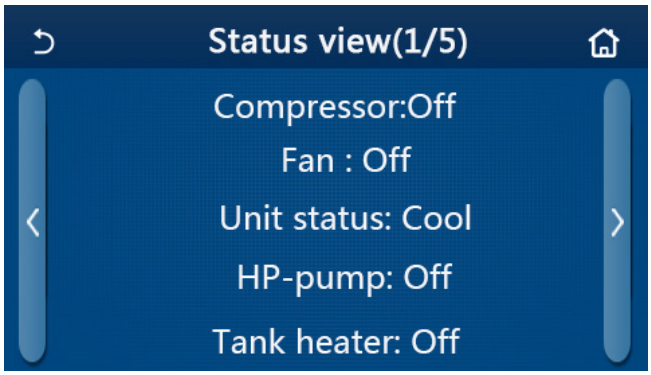


VIEW Page

2.5.1 Status

[Operation Instructions]

1.At the "**VIEW**" page, by touching "**Status**", it is able to view status of the main unit, as shown in the figure below.



Status View Page

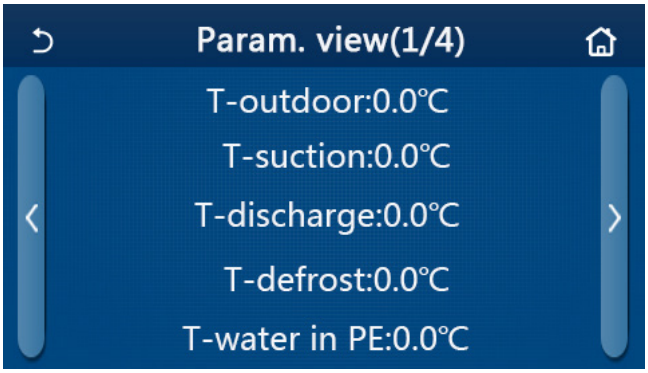
Viewable Status

No.	Full Name	Displayed Name	Status	Remarks
1	Status of the compressor	Compressor	On/Off	/
2	Status of the fan	Fan	On/Off	/
3	Status of the main unit	Unit status	Cool/Heat/Hot water/ Off	“Cool” is unavailable to the heating only unit.
4	Status of the water pump	HP-pump	On/Off	/
5	Status of the water tank heater	Tank heater	On/Off	“NA” for mini chillers
6	Status of the 3-way valve 1	3-way valve 1	NA	/
7	Status of the 3-way valve 2	3-way valve 2	On/Off	“NA” for mini chillers
8	Status of the compressor crankcase heater	Crankc. heater	On/Off	/
9	Status of the heater 1 for the main unit	HP-heater 1	On/Off	/
10	Status of the heater 2 for the main unit	HP-heater 2	On/Off	/
11	Status of the Chassis heater	Chassis heater	On/Off	/
12	Status of the heat exchanger heater	Plate heater	On/Off	/
13	Status for the system defrosting	Defrost	On/Off	/
14	Status of the system oil return	Oil return	On/Off	/
15	Status of the thermostat	Thermostat	Off/Cool/Heat/Hot water/Cool+hot water/ Heat+hot water	“Cool” is unavailable to the heating only unit.
16	Status of other thermal source	Other thermal	On/Off	/
17	Status of the 2-way valve	2-way valve	On/Off	/
18	Status of antifreeze	HP-Antifree	On/Off	/
19	Status of the door guard	Gate-Ctrl.	Card in/Card out	/
20	Status of the 4-way valve	4-way valve	On/Off	/
21	Status of disinfection	Disinfection	Off/Running/Done/ Fail	/
22	Status of the flow switch	Flow switch	On/Off	/
23	Status of the tank pump	Tank pump	On/Off	/
24	SG signal	SG signal	On/Off	Valid for the Monobloc SG.
25	EVU signal	EVU signal	On/Off	Valid for the Monobloc SG.
26	SG control command	SG	Switch-off command/ Standard operation/ Switch-on signal/ Switch-on command	Valid for the Monobloc SG.

2.5.2 Parameter

[Operation Instructions]

1.At the “**VIEW**” page, by touching “**Parameter**”, it is able to view each parameter of the main unit, as shown in the figure below.



Parameter View Page

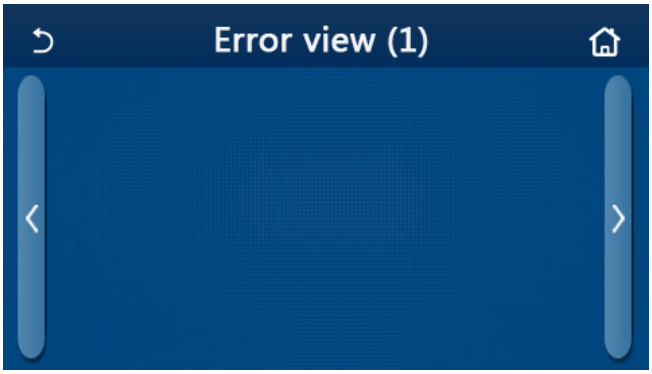
Viewable Parameters

No.	Full Name	Displayed Name	Remarks
1	Environmental temperature	T-outdoor	/
2	Suction temperature	T-suction	/
3	Discharge temperature	T-discharge	/
4	Defrosting temperature	T-defrost	/
5	Entering water temperature of the plate type heat exchanger	T-water in PE	/
6	Leaving water temperature of the plate type heat exchanger	T-water out PE	/
7	Leaving water temperature of the auxiliary heater	T-optional water Sen.	/
8	Water tank temperature	T-tank ctrl.	/
9	Floor debug target temperature	T-floor debug	/
10	Floor debug runtime	Debug time	/
11	Liquid line temperature	T-liquid pipe	/
12	Vapor line temperature	T-gas pipe	/
13	Economizer inlet temperature	T-economizer in	/
14	Economizer outlet temperature	T-economizer out	/
15	Remote room temperature	T-remote room	“NA” for mini chillers
16	Discharge pressure	Dis. pressure	/
17	Weather-dependent target temperature	T-weather depend	/

2.5.3 Error

[Operation Instructions]

At the “**VIEW**” page, by touching “**Error**”, it is able to view errors of the main unit, as shown in the figure below.



Error View Page

[Notes]

●The control panel can display real-time errors. And at these pages, all errors will be listed here.

●Each page displays at most 5 pieces of errors. Others can be viewed by touching the page turning keys.

Error List

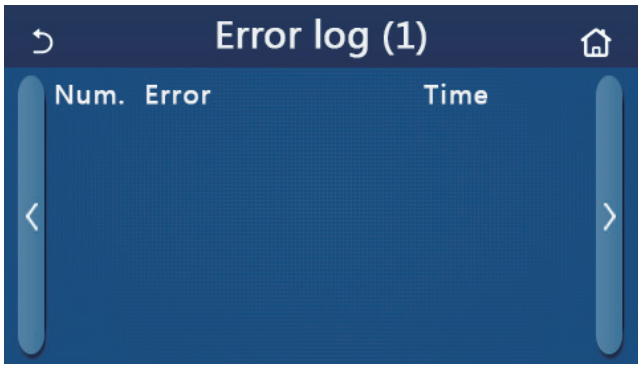
No.	Full Name	Displayed Name
1	Ambient temperature sensor error	Ambient sensor
2	Defrosting temperature sensor error	Defrost sensor
3	Discharge temperature sensor error	Discharge sensor
4	Suction temperature sensor error	Suction sensor
5	Economizer inlet temperature sensor	Econ. in sens.
6	Economizer outlet temperature sensor	Econ. out sens.
7	Fan error	Outdoor fan
8	High pressure protection	High pressure
9	Low pressure protection	Low pressure
10	High discharge protection	Hi-discharge
11	Capacity DIP switch error	Capacity DIP
12	Communication error between the outdoor and indoor main boards	ODU-IDU Com.
13	Communication error between the outdoor main board and the drive board	Drive-main com.
14	Communication error between the display panel and indoor main board	IDU Com.
15	High pressure sensor error	HI-pre. sens.
16	Leaving water temperature sensor error for the plate type heat exchanger of the heat pump	Temp-HELW
17	Leaving water temperature sensor error for the auxiliary electric heat of the heat pump	Temp-AHLW
18	Entering water temperature sensor error of the plate type heat exchanger of the heat pump	Temp-HEEW
19	Water tank temperature sensor error ("NA" for mini chillers)	Tank sens.
20	Remote room temperature sensor error	T-Remote Air
21	Protection for the flow switch of the heat pump	HP-Water Switch
22	Welding protection to the auxiliary electric heater 1 of the heat pump	Auxi. heater 1
23	Welding protection to the auxiliary electric heater 2 of the heat pump	Auxi. heater 2
24	Welding protection to the water tank electric heater	Auxi. -WTH
25	DC bus under-voltage or voltage drop error	DC under-vol.
26	DC bus over-voltage	DC over-vol.
27	AC current protection (input side)	AC curr. pro.
28	IPM defective	IPM defective
29	PFC defective	PFC defective
30	Start failure	Start failure
31	Phase loss	Phase loss
32	Jumper cap error	Jumper cap error
33	Driver resetting	Driver reset
34	Compressor overcurrent	Com. over-cur.
35	Overspeed	Overspeed
36	Current sensing circuit error or current sensor error	Current sen.

No.	Full Name	Displayed Name
37	Desynchronization	Desynchronize
38	Compressor stalling	Comp. stalling
39	Radiator or IPM or PFC over-temperature	Overtemp.-mod.
40	Radiator or IPM or PFC temperature sensor error	T-mod. sensor
41	Charging circuit error	Charge circuit
42	AC input voltage error	AC voltage
43	Ambient temperature sensor error at the drive board	Temp-driver
44	AC contactor protection or input over-zero error	AC contactor
45	Temperature drift protection	Temp. drift
46	Sensor connection protection (the current sensor fails to be connected with the corresponding phase U and or phase V)	Sensor con.
47	Communication error between the display panel and the outdoor unit	ODU Com.
48	Refrigerant vapor line temperature sensor error	Temp RGL
49	Refrigerant liquid line temperature sensor error	Temp RLL
50	4-way valve error	4-way valve

2.5.4 Error log

[Operation Instructions]

At the "**VIEW**" page, by touching "**Error log**", the control panel will go to the error log page, where it is able to view error records.



[Notes]:

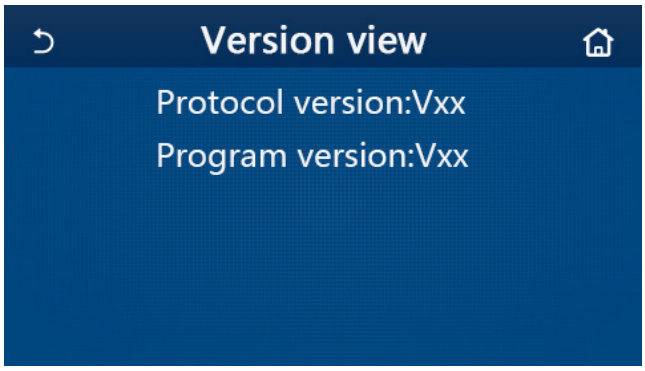
●The error log can accommodate up to 20 pieces of error. Name and occurrence time are available for each error.

●When error log exceeds 20, the latest will supersede the earliest.

2.5.5 Version

[Operation Instructions]

At the "**VIEW**" page, by touching "**Version**", the control panel will go to the version view page, where it is able to view both the program version and protocol version.



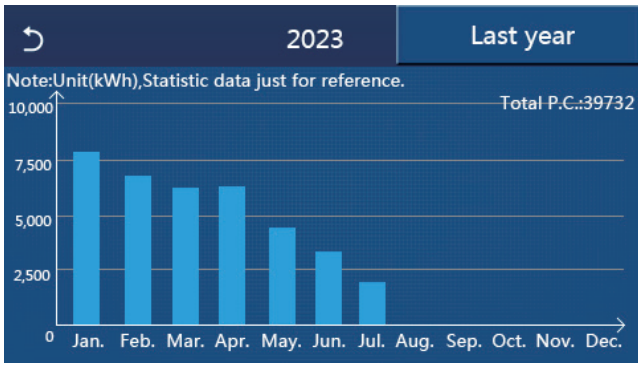
2.5.6 Power consumption

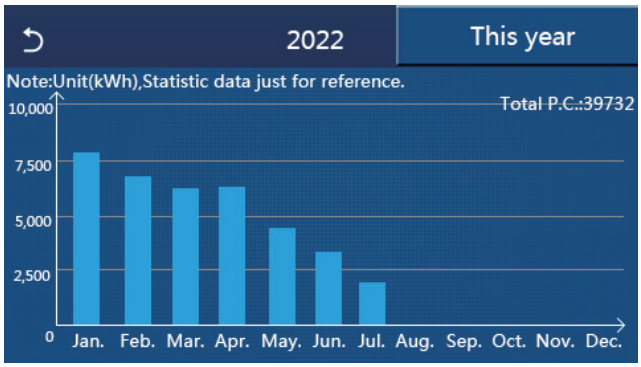
[Operation Instructions]

Power data is stored locally, not on the server. The power data can be cleared by "**FUNCTION**" → "**Clear P.C.**".

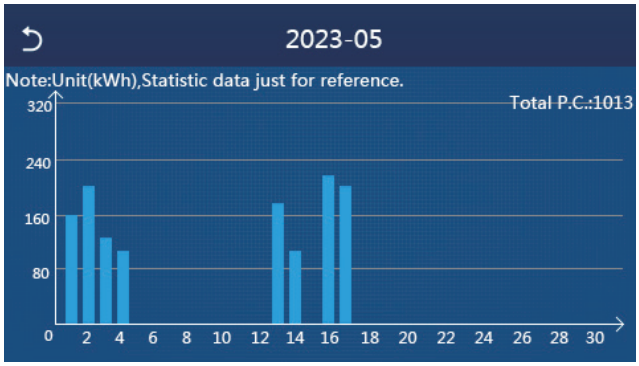
This function is available for the Monobloc SG units.

Monthly and yearly power consumption (based on the system date of the control panel) can be recorded and displayed through a bar chart.

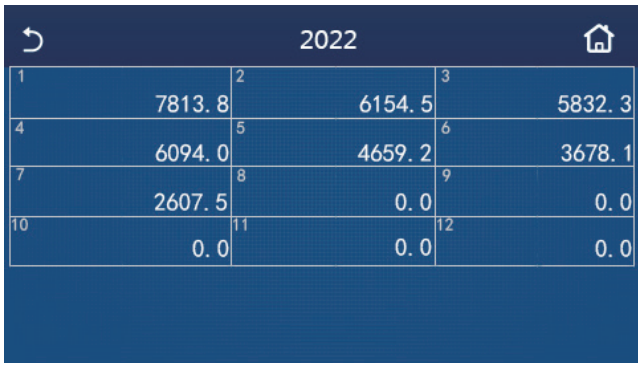




Click the current month and then the control panel will go to the daily power consumption page, as shown in the figure below. Click anywhere at this page and then the control panel will go to the monthly power consumption page, as shown in the figure below.

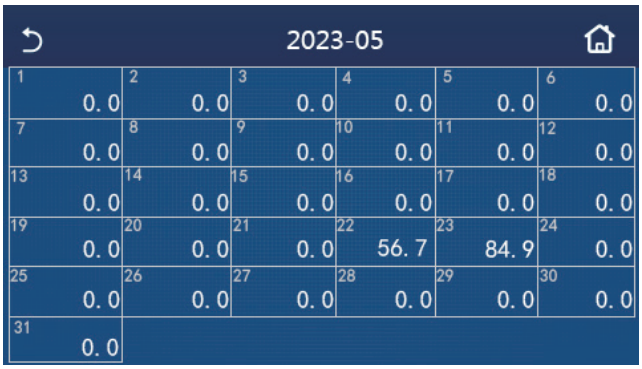


Daily Power Consumption Page



Monthly Power Consumption Page

Click some day and then the control panel go to the power consumption value page, as shown in the figure below.

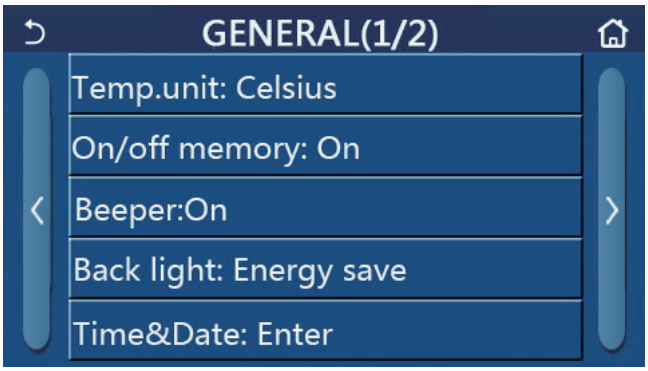


Note: as the power consumption statistics is calculated and may differ with the actual, therefore it is just for reference. Power consumption values listed at figures above are just simulated data for the illustrative example.

2.6 General Setting

[Operation Instructions]

1.At the menu page, by touching "**GENERAL**", the control panel will go to the setting page, as shown in the figure below, where it is able to set "**Temp.unit**", "**On/off memory**", "**Beeper**", "**Back light**", "**Time & Date**" and "**Language**".



General Setting Page

General Settings

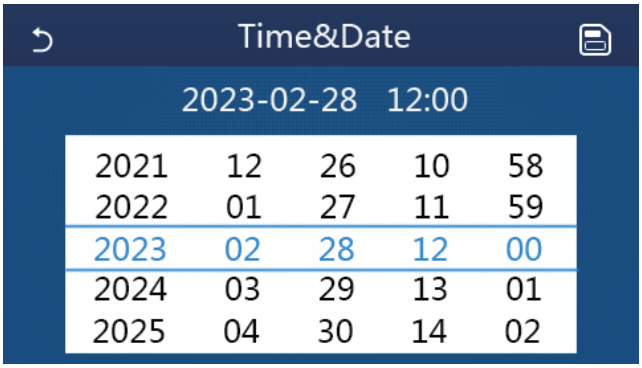
No.	Item	Range	Default	Remarks
1	Temp. unit	°C/°F	°C	/
2	On/Off memory	On/Off	On	/
3	Beeper	Enter	On	/

No.	Item	Range	Default	Remarks
4	Back light	Lighted/Energy save	Energy save	"**Lighted**": the control panel will always light on. "**Energy save**": When there is no touching operation in 5 minutes, the control panel will be lighted off automatically, but will light on again once there is any touching operation.
5	Time&Data	Enter	/	/
6	Language	Italiano/English/Español/ Nederlands/Français/Deutsch/ Български/Polski/Suomi/Svenska/ Türkçe/Magyar/Lietuvių/Hrvatski/ Čeština/Srpski/Slovenski/...	English	/
7	WiFi	On/Off	On	/

2.6.1 Time and clock

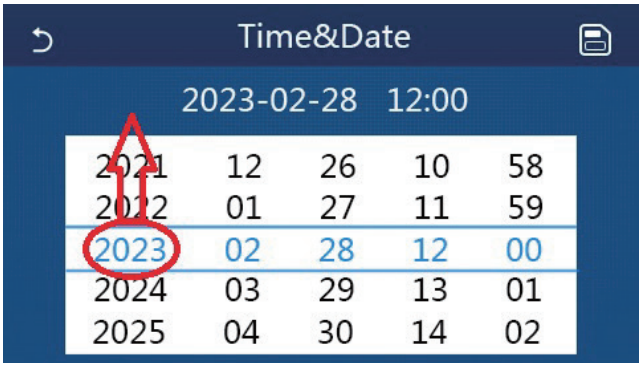
[Operation Instructions]

1.At the "**GENERAL**" setting page, by touching "**Time&Data**", it will go to the setting page as shown in the figure below.



Time & Date Page

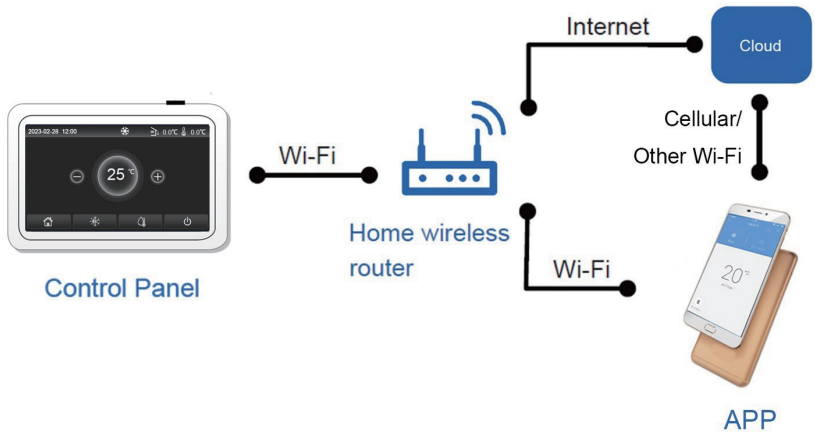
2.The roller indicated by the red circle as shown in the figure below can change the date and time value. After it, by touching the **"Save**" icon, this setting will be saved and directly displayed; while by touching the "**Back**" icon, this setting will give up and the control panel will directly go back to the "**GENERAL**" setting page.



Time & Date Page

3. Intelligent Control

As shown in the figure below, remote control via a smart phone is available for the control panel.



[Notes]:

●Make sure the smart phone or tablet computer adopts standard Android or Ios operation system. For detailed version, please refer to the APP.

●The Wi-Fi function doesn't support Chinese Wi-Fi network name.

●The devices can be connected and controlled only in Wi-Fi and 4G hotspot modes.

●Software operation interface is universal and its control functions may not be completely corresponding to the main unit. Software operation interface may vary along with APP upgrading or different operation system. Please refer to the actual program.

● Technical data for the WIFI module

WIFI frequency range: 2.4- 2.4835GHz

WIFI frequency modulation mode: CCK, OFDM

WIFI rate:

802.11b: 1/2/5.5/11 Mbps

802.11g: 6/9/12/18/24/36/48/54 Mbps

802.11n(HT20): 6.5/13/19.5/26/39/52/58.5/65 Mbps

WIFI bandwidth: ≤20MHz

BLE frequency range: 2402-2480MHz

BLE frequency modulation mode: GFSK

BLE rate: 1 Mbps

BLE bandwidth:≤2MHz

Antenna type: PCB ANT

Antenna gain: 1.5dBi

Label location:paste in the shield

Transmission power:

11b:18dBm

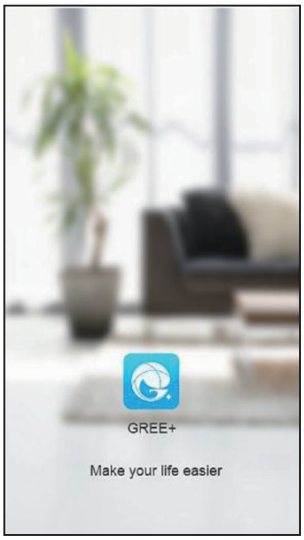
11g:14dBm

11n:13dBm

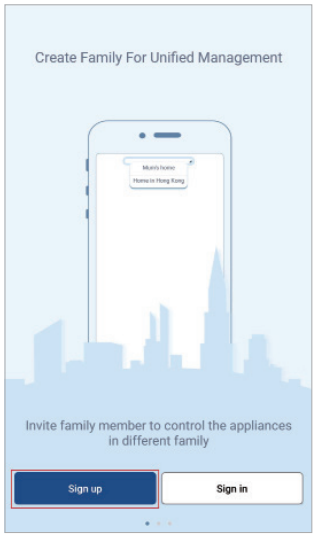
3.1 Install GREE+ APP

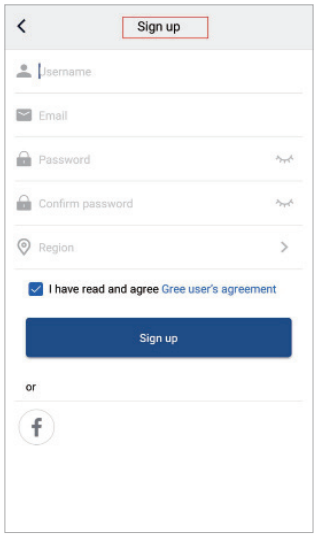
[Operation Instructions]

1. Scan the following QR code with your smart phone to download and install GREE+ APP directly.

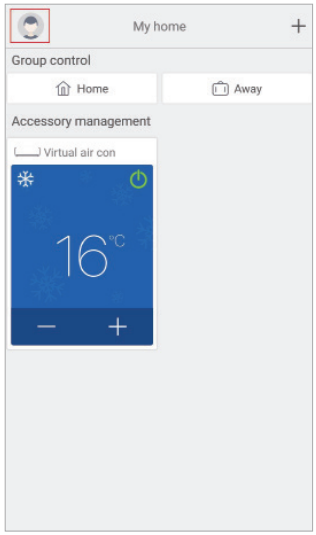


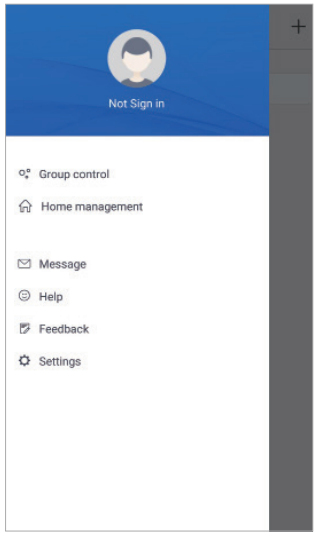
2. Open GREE+ APP and click “Sign up” for registration.

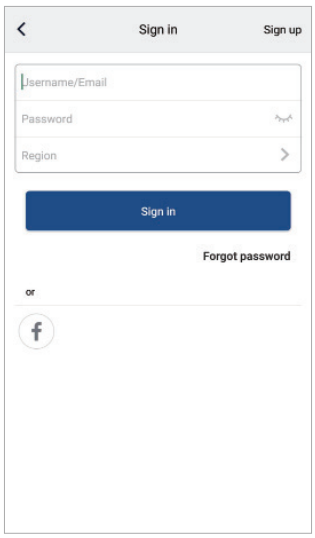




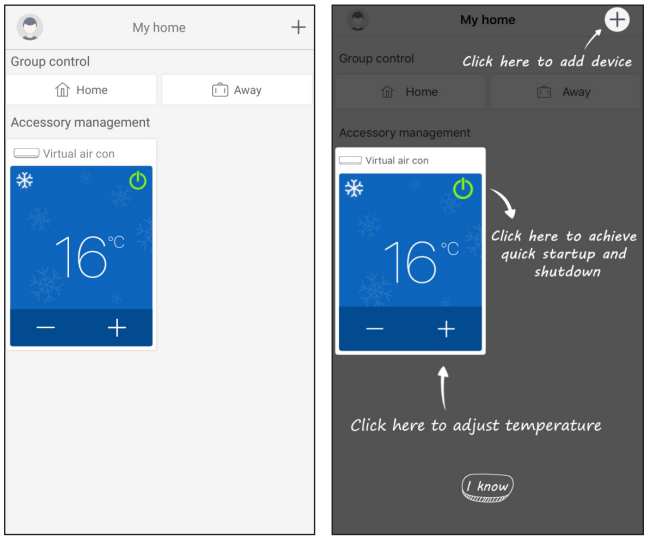
3.Except signing at in the prompt interface, you can also enter the homepage and click the profile picture at the left upper corner to sign in.







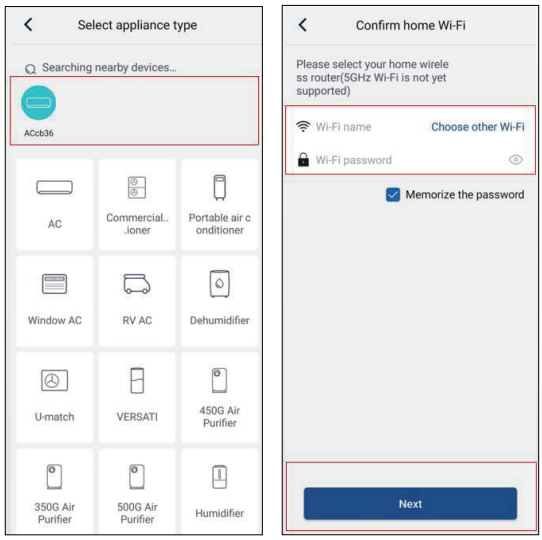
4. Click "**+**" at the right upper corner of homepage to add device.

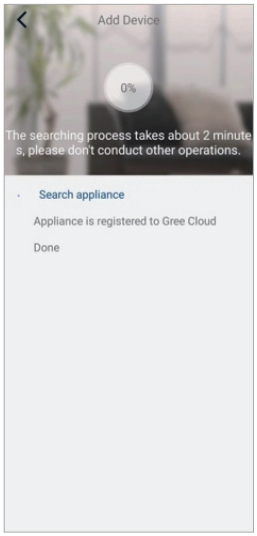


(1) Automatically search the nearby devices

When a device that can be connected to the network is found nearby, the icon of the device that can be connected to the network will be displayed at the top of the page. Click the icon of the discovered device, and then follow the instructions on the page to confirm the home WiFi (enter the home WiFi and password), click The next step is to wait for the network configuration to complete.

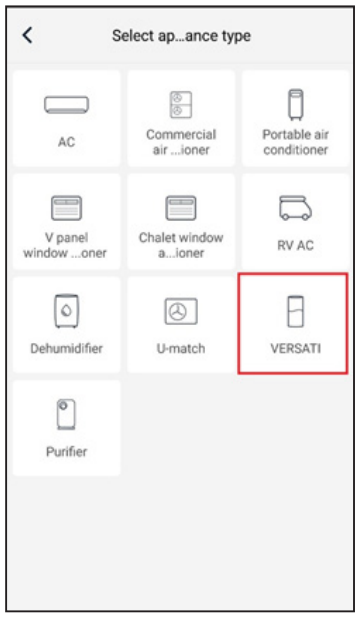
(Note: Only devices that support Bluetooth flash matching can be connected to the network by automatically discovering nearby devices. For devices that do not support Bluetooth flash matching, please refer to [(2) Select devices by category])



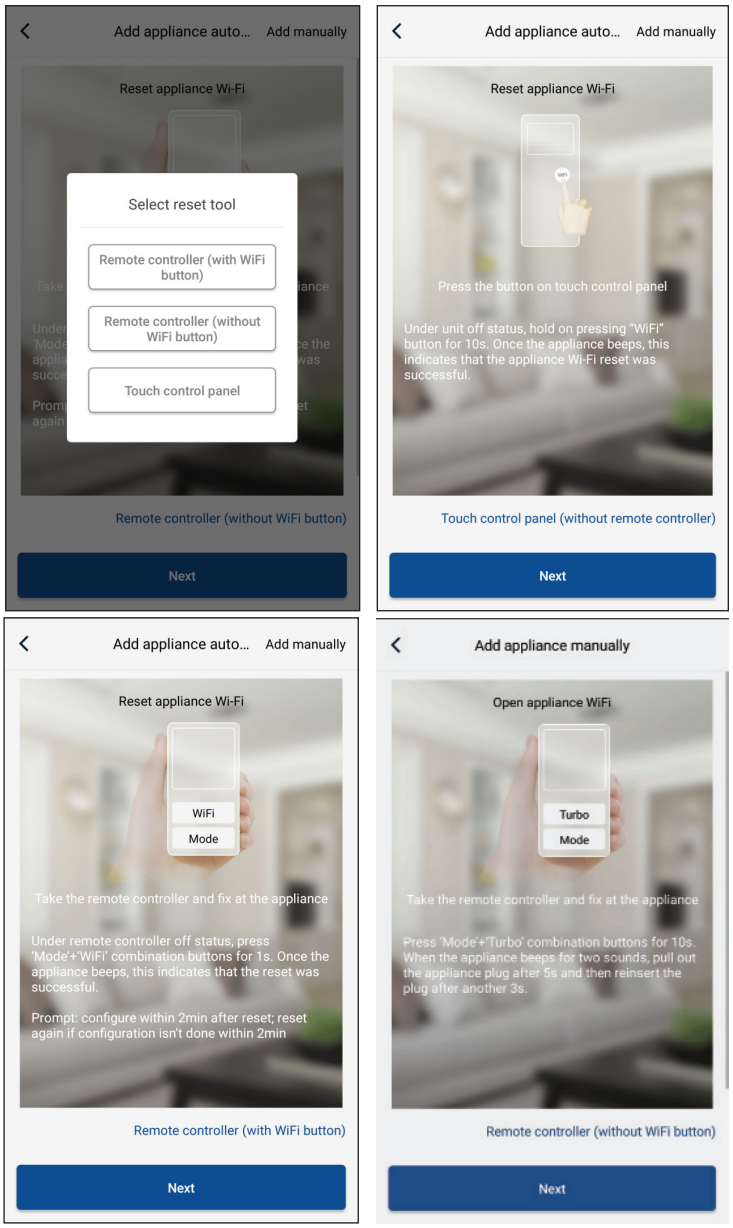


(2) Add devices by selecting the appliance type

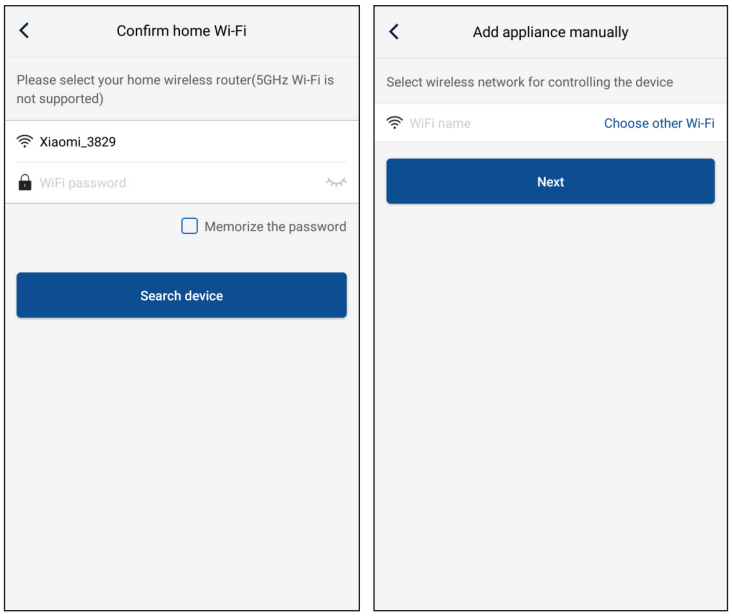
If automatically search fails to find the nearby devices, please choose to add devices by selecting the appliance type, and click the type of the device to be added.



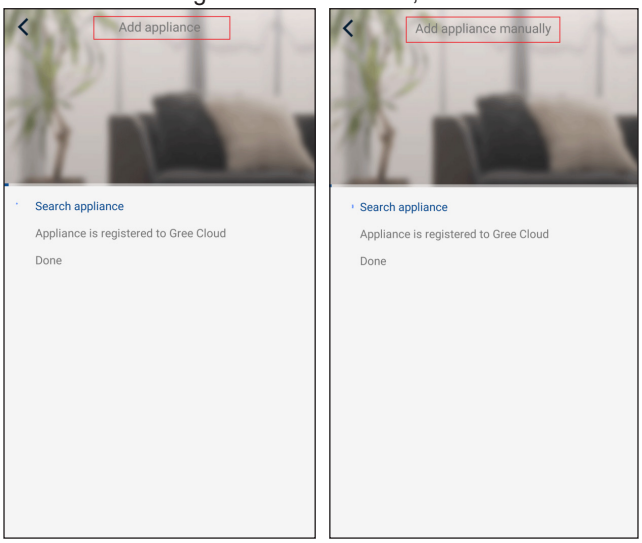
After selecting“VERSATI”, the APP interface will provide relevant operation instructions.

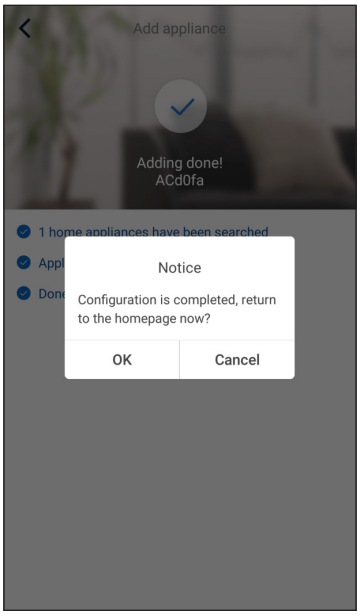


Reset the air conditioner (refer to the operation instructions in APP interface) and click “**Next**” to add home appliance automatically (Wi-Fi password shall be input). Or after setting and energizing the air conditioner, click “**Add appliance manually**” at the right upper corner to select the wireless network for controlling the device. Then confirm family Wi-Fi and arrange configuration.



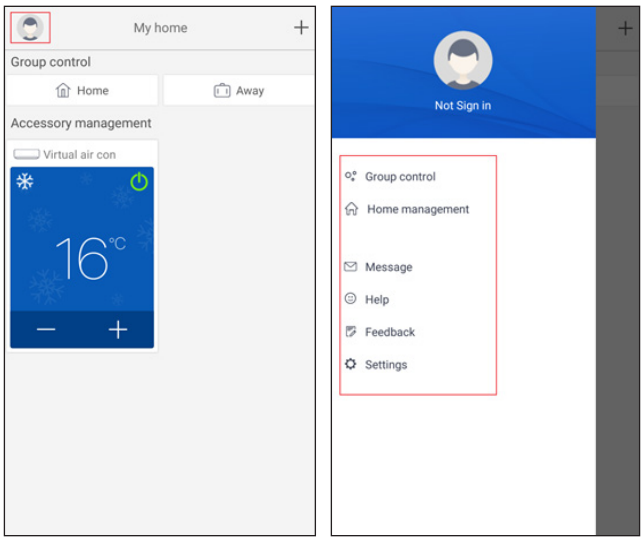
After accomplishing device reset and filling correct information, search device and arrange configuration.





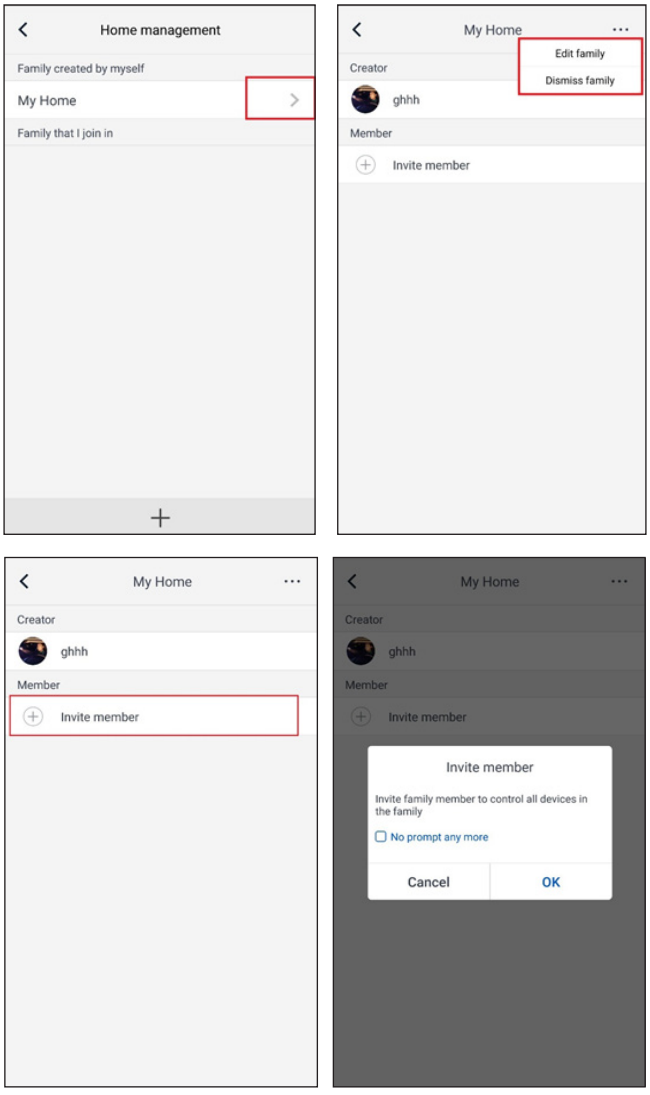
3.2 Setting Other Functions

Click the profile picture at the left upper corner of homepage and set each function in the following menu.



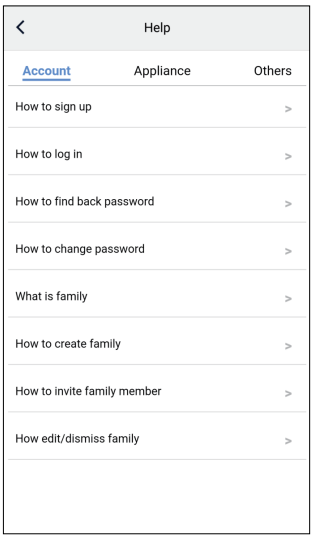
3.2.1 Home management

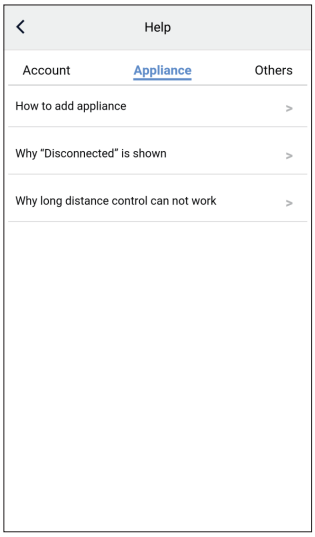
Click “**Home management**” to create or manage family. You can also add family members according to the registered account.

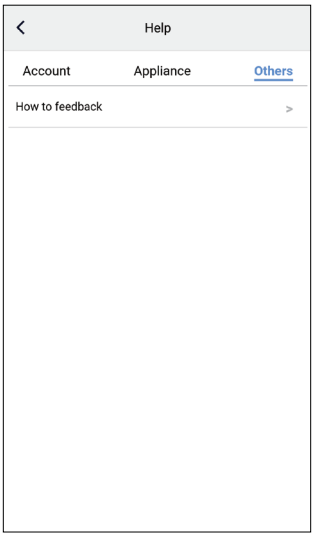


3.2.2 Help

Click “Help” and view the operation instructions of the APP.

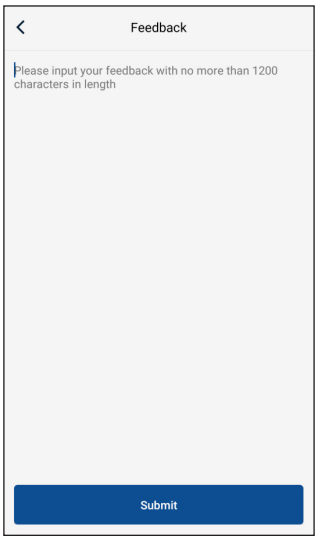


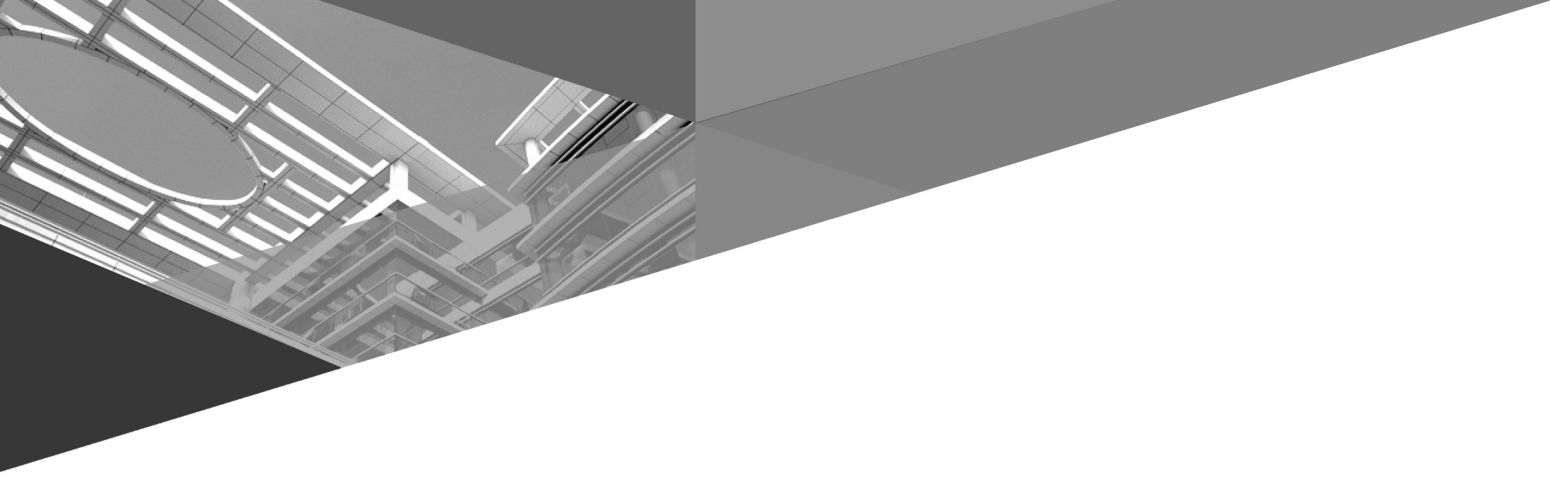




3.2.3 Feedback

Click “**Feedback**” to submit feedback.





GREE ELECTRIC APPLIANCES, INC. OF ZHUHAI

Add: West Jinji Rd, Qianshan, Zhuhai,Guangdong, China, 519070
Tel: (+86-756) 8522218
Fax: (+86-756) 8669426
E-mail: global@cn.gree.com www.gree.com

600005067601