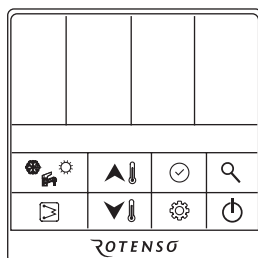


WINDMI S E R I E S

CONTROLLER



INSTRUKCJA OBSŁUGI USER MANUAL

MODELE/MODELS:
ORIS

WIRED CONTROLER - ORIS

User manual

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PRECAUTIONS



WARNING

Only qualified personnel should install and service the equipment. The installation, starting up, and servicing of heating, ventilating, and air-conditioning equipment can be hazardous and requires specific knowledge and training. Improperly installed, adjusted or altered equipment by an unqualified person could result in death or serious injury. When working on the equipment, observe all precautions in the literature and on the tags, stickers, and labels that are attached to the equipment.

Read the following if you use the device in European countries:

The device can not be operated by children over 7 years old, disabled people and oraz people without experience and knowledge. Instructions should include a description of the correct and safe handling of the device and oraz information about possible dangers. Children should not play with the device. Cleaning and servicing should be carried out by authorized persons.

UTILIZATION:

Do not dispose of this product together with unsorted municipal waste.

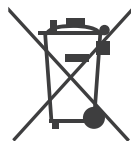
It's necessary to transfer this type of waste for special processing.

It's illegal to throw the device together with other household waste.

There are several ways to get rid of this type of equipment

- A. The city organizes electronic waste collection, you can pass the device without the cost.
- B. When you buy a new device the seller will accept the old device without any fees.
- C. Manufacturer will take the product from buyer product without charging it with costs.
- D. Products of this type, contains valuable elements, it can be sold on purchase of metals.

Throwing the device „on wild” exposes you to the risk of losing your health. Dangerous substances from the device can penetrate to groundwater screating a danger of getting through to people's food chain.



Acronyms	
IDU	Indoor unit
ODU	Outdoor unit
DHW	Domestic hot water
EH	Electrical heater
IAT	Indoor ambient temperature
OAT	Outdoor ambient temperature
LWT	Leaving water temperature
EWT	Entering water temperature
Tw-in	Entering water temperature of BPHE
Tw-out	Leaving water temperature of BPHE
BPHE	Brazed Plate Heat Exchanger

1. PRESENTATIONS

This wired controller is used to control the operation of unit and configuration of the system. It can also be used to check the system running parameter and display the status of system via the LCD screen.

The wired controller communicates with the IDU (Indoor unit) board with certain protocol, and detect the communication status at real time. IDU board will give communication fault alarm once it loses communication. But it will not give alarm if you did not connect the wired controller to the IDU board when power on the system. So please note that if the wired controller is not necessary, please do not connect it before power on the system.

The wired controller will off its screen for energy saving without pressing for 35s (except the technical parameter configuration), and will wake up once you press any button.



Application of wired controller:

19. Power supply: Take power supply from IDU board (12V power supply);
20. Working temperature range: -30°C~50°C;
21. Working humidity range: RH10%~95%

Wired controller can be installed inside your home or on the unit itself for split type. This manual provides guidelines on how to use this interface effectively.

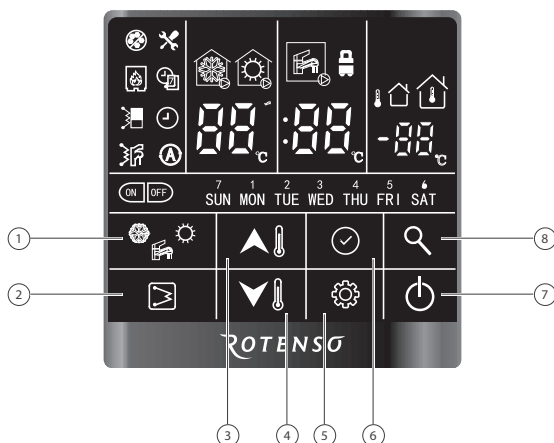
If you have any questions regarding the display and its configuration, please contact your installer for more information.

⚠ CAUTION

It can not press the button of wired controller within power on for 5s.

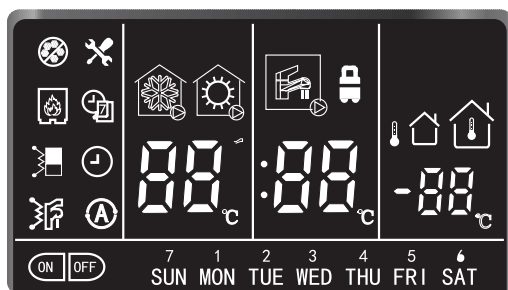
1.1. INTERFACE INTRODUCTION

1.1.1. Button Overview



Definition	Description
① Mode button	Used to change the running mode
② Electric heater button	Used to manual on/off the DHW EHs manually
③ Up button	Used to change the value of parameter or turn page during system configuration or commissioning
④ Down button	Used to change the value of parameter or turn page during system configuration or commissioning
⑤ Setting button	Used to set user parameter configuration or technical parameter configuration
⑥ Confirm butto	Used to confirm the current setting
⑦ ON/OFF button	Used to turn on/off the unit
⑧ Query button	Used to query the operation parameter or configuration parameter

1.1.2. Overview of Icons



Icon	Description
	Non-operating cooling mode
	Operating cooling mode
	Anti-frozen protection
	External heat source (boiler)
	Timer ON
	Air purge mode
	LWT/time display (hour)/alarm
	Days of week
	Non-operating heating mode
	Operating heating mode
	Main water loop EHs
	Weekly timer

Icon	Description
	Timer off
	OTA (water setpoint control)
	DHW temp./time display (minute)
	Constant light: Eco mode Flash: Away mode
	Non-operating DHW mode
	Operating DHW mode
	DHW EHs
	Clock
	Alarm
	IAT (air setpoint control)
	IAT/OAT (OAT is reserved)
	Always light: It can not achieve Anti-legionellasetting point

NOTE

1. The home screen display may vary depending on unit configuration and screen setting.
2. If anti-legionella can not achieve setting point, it needs to repower to reset.

1.2. BUTTON INTRODUCTION

This wired controller has 8 buttons for the setpoint control, configuration, parameter check, etc. Detail of each button is as below table:

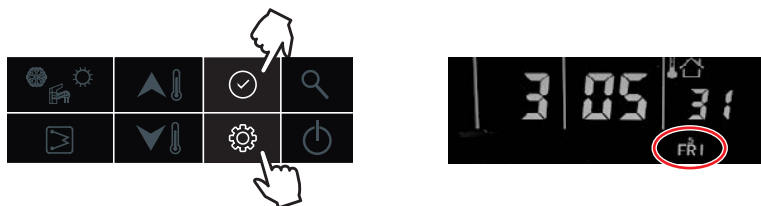
Button	Description
	ON/OFF Press this button to turn on and turn off the unit.
	CONFIRM Press this button to confirm the setting to exit interface of parameter setting or query.
	MODE 1. Press this button to change the mode: cooling-heating-cooling. 2. Press and hold this button to active the anti-legionella mode manually.
	QUERY 1. Press this button to check the configuration and running parameters. 2. Refer to the section 3, parameter and status check for details.
	EHS 1. While operating heating mode, press this button to activate/deactivate the main water loop EHs manually. 2. While operating the DHW mode, press this button to activate/deactivate the DHW EHs manually. 3. Press and hold this button to start the force-defrosting, and wired controller will display "dF" for 5s.
	UP/DOWN 1. Temperature setting - While in standby mode, first time press this button to change the setting value of LWT, press the confirm button or wait for 5s without pressing any button to DHW temperature setting. - While operating cooling/heating mode, first time press this button to change the setting value of LWT, press the confirm button or wait for 5s without pressing any button to DHW temperature setting. - While operating DHW mode, first time press this button to change the setting temperature of DHW, press the confirm button or wait for 5s without pressing any button to setting value of LWT. 2. Time correction and timer setting - Refer to details of configuration.
	
	SETTING 1. User parameter configuration, please refer to configuration section. 2. Technical parameter configuration, please refer to configuration section.

2. USER OPERATION

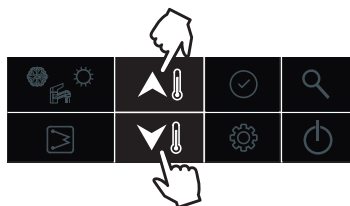
2.1. INTERFACE INTRODUCTION

Before using the wired controller, it is necessary to set the time and day of the controller. Please follow below steps to set the correct clock:

1. Press the "setting" button, then press "confirm" button to enter day setting; the day is flashing at this moment.



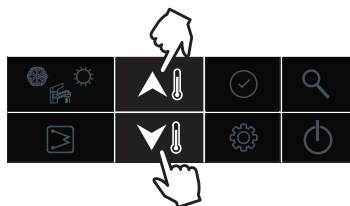
2. Then press "up" or "down" button to change the day if necessary;



3. After day setting, press the "confirm" button to enter hour setting, the hour is flashing at this moment.



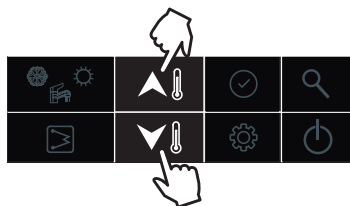
4. Then press "up" or "down" button to set the correct time in hour;



5. After hour setting, press the "confirm" button to enter minute setting, the minute is flashing at this moment.



6. Then press "up" or "down" button to set the correct time in minute;



7. Press "confirm" button to confirm and exit clock setting. You can also press "setting" button to go to next parameter. (Refer the user parameter configuration for the full parameters setting)

Example: Friday, 3:05:31



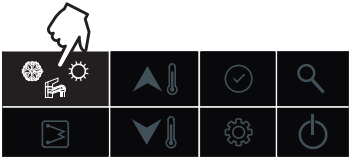
2.2. ON-OFF SETTING

Press this button to turn on and turn off the unit. And the mode icon is lighting at this moment.



2.3. MODE SETTING

Press this button to turn on and turn off the unit. And the mode icon is lighting at this moment.



Example:



Mode	Cooling
Occupancy	Home
Temp. control	Water setpoint control
Setpoint of LWT	17°C
Setpoint of DHW	25°C



Mode	Heating
Occupancy	Home
Temp. control	Water setpoint control
Setpoint of LWT	18°C
Setpoint of DHW	25°C

2.4. CURRENT SETPOINT SETTING

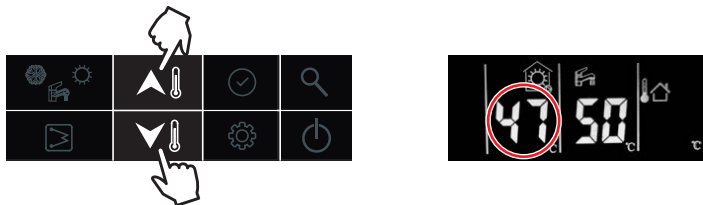
Here are two setpoint control: (Refer to the technical parameter configuration, item 1 for details setting)

8. Water setpoint control; the unit is controlled by water setpoint;
9. Air setpoint control: the unit is controlled by the air setpoint, and it requests to install the wired controller into the room.

There is an IAT sensor built inside the wired controller to detect the room temperature.

Here are the steps to change setting of water setpoint control:

1. While in standby mode or operating cooling/heating mode:
 - b. First time press "up" or "down" button to change the setting value of LWT;

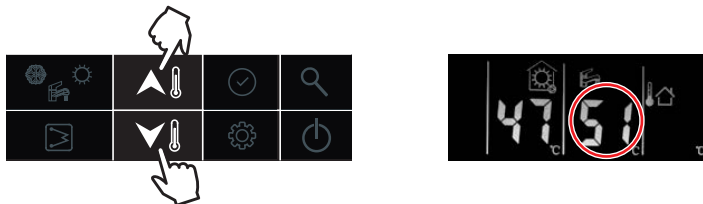


- c. Then press the confirm button or wait for 5s without pressing any button to DHW temperature setting. Then press "up" or "down" button to change the setting value of DHW.



2. While operating DHW mode:

- c. First time press "up" or "down" button to change the setting temperature of DHW;



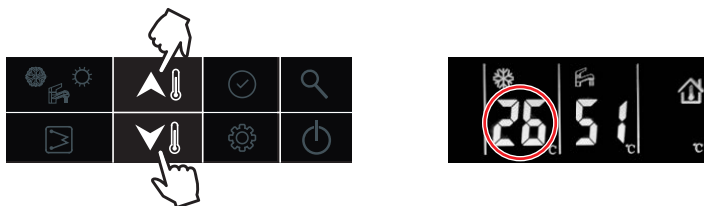
- d. Press the confirm button to setting value of LWT. Then press "up" or "down" button to change the setting value of LWT.



Here are the steps to change setting of air setpoint control:

5. While in standby mode or operating cooling/heating mode:

f. First time press "up" or "down" button to change the setting value of air setpoint;

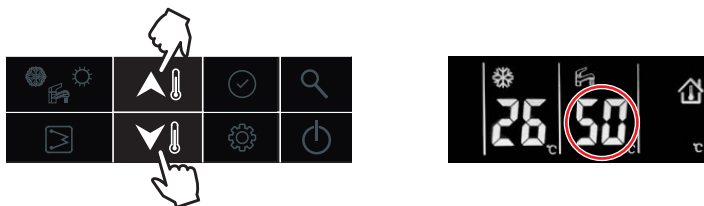


g. Then press the confirm button to DHW temperature setting. Then press "up" or "down" button to change the setting value of DHW.



2. While operating DHW mode:

c. First time press "up" or "down" button to change the setting temperature of DHW;



d. Press the confirm button to setting value of LWT. Then press "up" or "down" button to change the setting value of air setpoint.



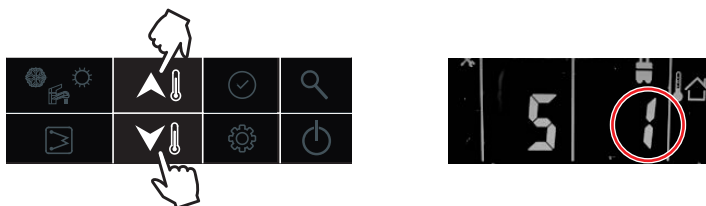
2.5. HOME/AWAY/ECO SETTING

To optimize energy efficiency of the building, you can select the occupancy mode manually according to following steps. Each occupancy mode is associated with a pre-defined temperature range.

5. Press the “setting” button to item 5: Occupancy mode select



6. Press “up” or “down” button to change the value. (0-Home; 1-Eco; 2-Away)



7. Then press “confirm” button to confirm and exit user setting or you can also press “setting” button to go to next item. (Refer to the user parameter configuration for the full parameters setting)

Example: Eco mode:

 This coin is lighting after set the eco mode.



2.6. DHW SCHEDULE SETTING

This schedule is used to set the operating of DHW mode automatically according to time schedule. Please follow below steps to set the DHW schedule:

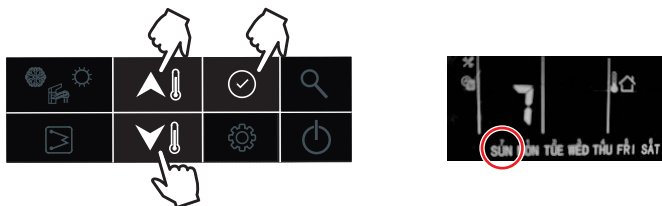
- Press the “setting” button to item 1: DHW schedule setting



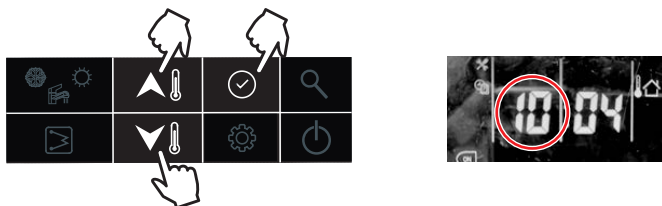
- Press and hold the “confirm” button, the icon “on” will be flashing, then press the “confirm” button to confirm, the icon “on” will be constant lighting;



- Press and hold the “down” button to enter day setting, then press “up” or “down” button to select the day, press the “confirm” button to confirm day setting, after that, the icon of that day will be constant lighting;



- Press and hold the “down” button to enter hour setting, then press “up” or “down” button to select the time in hour, press the “confirm” button to confirm;



12. Press and hold “down” button to enter minute setting, then press “up” or “down” button to select the time in minute, press the “confirm” button to confirm;



13. Press and hold “down” button to set the timer off, then press the “down” button to enter hour setting, then press “up” or “down” button to select the time in hour, press the “confirm” button to confirm;



14. Press and hold “down” button to enter minute setting, then press “up” or “down” button to select the time in minute, press the “confirm” button to confirm;



15. Press and hold “confirm” button to confirm and exit user setting. You can also press “setting” button to go to next item. (Refer to the user parameter configuration for the full parameters setting)

Example:

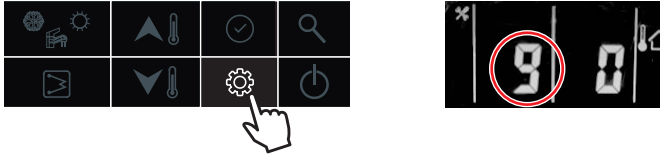
The unit will operate the DHW mode at 22:00 from Monday to Friday, and will exit DHW mode automatically at 6:00 from Tuesday to Saturday.

Schedule of DHW mode							
Day	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	√	√	√	√	√	×	×
Time on	22:00	22:00	22:00	22:00	22:00	22:00	22:00
Time off	6:00	6:00	6:00	6:00	6:00	6:00	6:00

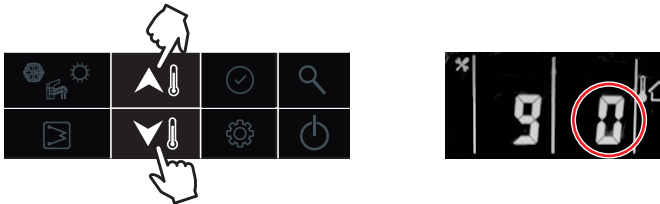
2.7. BUTTON LOCK SETTING

Used to lock the button of wired controller in case of touching by mistake; and double press "setting" button to unlock.

16. Press the "setting" button to item 9: wired controller button lock



17. Press the "up" or "down" button to set the value (0-unlock; 1-lock)



18. Then press "confirm" button to confirm and exit user setting or you can also press "setting" button to go to next item. (Refer to the user parameter configuration for the full parameters setting)



3. CONFIGURATION

This wired controller can be used to configure the system setting during the installation and operation. Here enclosed two configuration sections: user parameter configuration and technical parameter configuration, please check the details in 3.1 & 3.2.

3.1. USER PARAMETER CONFIGURATION

Press the "setting" button to go into the user parameter configuration interface, and press this button to page down the setting item from 0-9 as circuit. Used the "up" or "down" button to change the value of each item. Details of the user parameter configuration table is as below: (The No. in below table will be displayed in the left LED tube except "0")

No.	Item	Description
0	Clock setting	1. Press the "setting" button, then press "confirm" button to enter day setting, then press "up" or "down" button to change the day if necessary; 2. After day setting, press the "confirm" button to enter hour setting, press "up" or "down" button to set the correct time in hour; 3. After hour setting, press the "confirm" button to enter minute setting, press "up" or "down" button to set the correct time in minute; 4. Press "confirm" button to confirm and exit clock setting. You can also press "setting" button to go to next parameter.
1	Schedule of DHW	1. Press and hold the "confirm" button, the icon "on" will be flashing, then press the "confirm" button to confirm, the icon "on" will be constant lighting; 2. Press and hold the "down" button to enter day setting, then press "up" or "down" button to select the day, press the "confirm" button to confirm day setting, after that, the icon of that day will be constant lighting; 3. Press and hold the "down" button to enter hour setting, then press "up" or "down" button to select the time in hour, press the "confirm" button to confirm; 4. Press and hold "down" button to enter minute setting, then press "up" or "down" button to select the time in minute, press the "confirm" button to confirm; 5. Press and hold "down" button to set the timer off, then press the "down" button to enter hour setting, then press "up" or "down" button to select the time in hour, press the "confirm" button to confirm; 6. Press and hold "down" button to enter minute setting, then press "up" or "down" button to select the time in minute, press the "confirm" button to confirm; 7. Press and hold "confirm" button to confirm and exit user setting. You can also press "setting" button to go to next item.
2	Power memory setting	This is used to record the setting once power is shutdown, and system will recovery the previous status once power come back. Press "up" or "down" button to set the value; 0 - With power memory (default); 1 - Without power memory
3	WIFI statue	Reserved
4	Air purge mode	Press the "up" or "down" button to set the value; 0 - Not start air purge mode 1 - Start air purge mode If choose 0, then press the "setting" button to go to next item; If choose 1, then press the "confirm" button to exit the setting and unit will start the air purge mode; during the air purge mode, wired controller will be displayed "P" only the "ON/OFF" button are valid to exit this mode.
5	Occupancy mode setting	1. Press "up" or "down" button to set the value; 2. Then press "confirm" button to confirm and exit user setting or you can also press "setting" button to go to next item. 0 - Home; 1 - Eco; 2 - Away

No.	Item	Description
6	Night mode setting	This is used to setting the night mode for low noise during night-time. Press "up" or "down" button to set the value; 0 - Without night mode 1 - With night mode If choose 0, press "confirm" button to confirm and exit user setting or you can also press "setting" button to go to next item; If choose 1, then follow as below: 1. Press "confirm" button to set the start timer setting, then press "up" or "down" button to set time in hour; 2. Press "confirm" button to enter minute setting, then press "up" or "down" button to set time in minute; 3. Press the "confirm" button to enter the stop timer setting, then press "up" or "down" button to set time in hour; 4. Press "confirm" button to enter minute setting, then press "up" or "down" button to set time in minute; 5. Then press "confirm" button to confirm and exit user setting or you can also press "setting" button to go to next item.
7	Anti-legionella temperature setting	Press the "up" or "down" button to set the value; Temperature range: 60-70°C, default as 60°C.
8	Anti-legionella timer start	1. Press and hold "confirm" button to enter day setting, press "down" button to set the day, then press the "confirm" button to confirm, after that, the icon of the day will be constant lighting; 2. Press and hold the "down" button to enter hour setting, then press "up" or "down" button to select the time in hour, press the "confirm" button to confirm; 3. Press and hold "down" button to enter minute setting, then press "up" or "down" button to select the time in minute, press the "confirm" button to confirm; 4. Press and hold "confirm" button to confirm and exit user setting or you can also press "setting" button to go to next item.
9	Lock of wired controller	Used to lock the button of wired controller in order to child touch for mistake; double press the "setting" button to unlock. 1. Press the "up" or "down" button to set the value; 2. Then press "confirm" button to confirm and exit user setting or you can also press "setting" button to go to next item. 0 - Without lock 1 - With lock

3.2. TECHNICAL PARAMETER CONFIGURATION

Press and hold the “setting” button to go into the technical parameter configuration interface, and press “setting” button to turn down the setting item from 0-25. You can use “up” or “down” button to change the value of each item.

Details of the user parameter configuration table as below:

No.	Item	Description
0	Control setpoint type	0 - Water setpoint control 1 - Air setpoint control
1	Controller selection	0 - Wired controller 1 - Dry contact
2	Back up function	0 - Main water loop EHs + DHW EHs + boiler 1 - Main water loop EHs + DHW EHs 2 - DHW EHs + boiler 3 - Main water loop EHs + boiler 4 - DHW EHs only 5 - Boiler only 6 - Main water loop EHs only 7 - Non back up
3	Back up function	0 - Non climate curve 1 - Climate curve After set the 1 with climate curve, please follow the below steps: 1. After choose 1, enter heating climate setting, press “up” or “down” button to choose the climate curve 1-13, if choose 1-12, press “confirm” button, then go to step 3; if choose 13, press “confirm” button, then go to step 2; 2. Customized heating curve value input: a. Press “up” or “down” to set the value of MinOAT; b. Then press “confirm” button to set MaxOAT, press “up” or “down” to set the value of MaxOAT; c. Then press “confirm” button to set MinWSP, press “up” or “down” to set the value of MinWSP; d. Then press “confirm” button to set MaxWSP, press “up” or “down” to set the value of MaxWSP; e. Press the “confirm” button to step 3; 3. Press “up” or “down” button to set the heating climate offset from -5~5°C, default as 0°C; then press “confirm” button to go to step 4; 4. Enter cooling climate setting, press “up” or “down” button to choose the climate curve 1-3, if choose 1-2, press “confirm” button, then go to step 6; if choose 3, press “confirm” button to go to step 5; 5. Customized heating curve value input: a. Press “up” or “down” to set the value of MinOAT; b. Then press “confirm” button to set MaxOAT, press “up” or “down” to set the value of MaxOAT; c. Then press “confirm” button to set MinWSP, press “up” or “down” to set the value of MinWSP;

No.	Item	Description
		d. Then press "confirm" button to set MaxWSP, press "up" or "down" to set the value of MaxWSP; e. Press the "confirm" button to go to step 6; 6. Press the "up" or "down" button to set the heating climate offset from -5~5°C, default as 0°C; then press "confirm" button to confirm and exit or "setting" button to go to next item.
4	Capacity test setting	Reserved
5	3-way valve type select	0 - Normal open 1 - Normal closed
6	DI1	0 - Disable
7	DI2	1 - Power limitation (night mode)
8	DI3	2 - Load-shed
9	DI4	3 - DHW request
		4 - Anti-legionella request
		5 - DHW priority
10	DO1	0 - Disable
		1 - Unit in alarm
		2 - Unit in standby
11	DO2	3 - Unit running
		4 - Unit in cooling
		5 - Unit in heating
12	DO3	6 - Unit in DHW
		7 - Unit in defrost
		8 - Unit controlled by Modbus
13	Eco mode cooling setpoint offset	If choose air setpoint, it is air setpoint offset, otherwise is water setpoint offset 0~10°C, default as 2°C
14	Away mode cooling setpoint offset	If choose air setpoint, it is air setpoint offset, otherwise is water setpoint offset 0~10°C, default as 4°C
15	Eco mode heating setpoint offset	If choose air setpoint, it is air setpoint offset, otherwise is water setpoint offset -20~0°C, default as -2°C
16	Away mode heating setpoint offset	If choose air setpoint, it is air setpoint offset, otherwise is water setpoint offset -20~0°C, default as -4°C
17	Eco mode DHW setpoint offset	-10~0°C, default as -5°C
18	Minimum OAT for heating	-26~10°C, default as -26°C
19	Booster OAT Threshold	-10~0°C, default as -5°C
20	Heat pump warmup time	0~120min, default 60min

No.	Item	Description
21	Booster Delta temperature	1~20°C, default 10°C
22	Second zone setting	0 - No bi-zone function 1 - Bi-zone function for heating mode only 2 - Bi zone function for both cooling and heating mode
23	Water pump ΔT control setting	ΔT default as 5°C, can be adjust from 3.5°C~8°C, with precision 0.5°C
24	Water pump control type setting	0 - ΔT control 1 - Force to on 2 - Force to off
25	Water pump speed setting	It is only available when "item 24" set to 1- force to on, then set the speed from 1%~100% speed 0 - 1% speed 1 - 2% speed ... 99 - 100% speed

Note:

DI: Customized input, dry contact;

DO: Customized output, 230V contact;

All the setting will only be changed by reset, never be cleaned by repower.

3.3. WI-FI CONFIGURATION

- Press setting button  four times,  four times, icon will appear on the controller. Long press setting button  until the third parameter shows 0, which means the controller is in configuration mode.
- Add the heat pump in TUYA APP according to pictures below.
- Download TUYA Smart APP → add a device (choose "Large Home Appliances" → „Heat Pump“) → press „Confirm the indicator is blinking “ → choose „Blink quickly“ → input the Wi Fi password → connecting → the heat pump has been connected to the app.

ATTENTION

ROTENSO products are designed to work with commonly available applications provided by external entities. Their developers are responsible for the proper functioning of these applications. If you find any errors, please contact the developer directly.

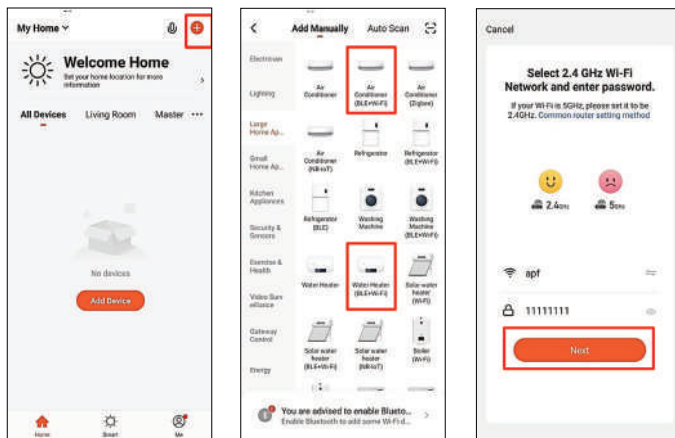
ATTENTION

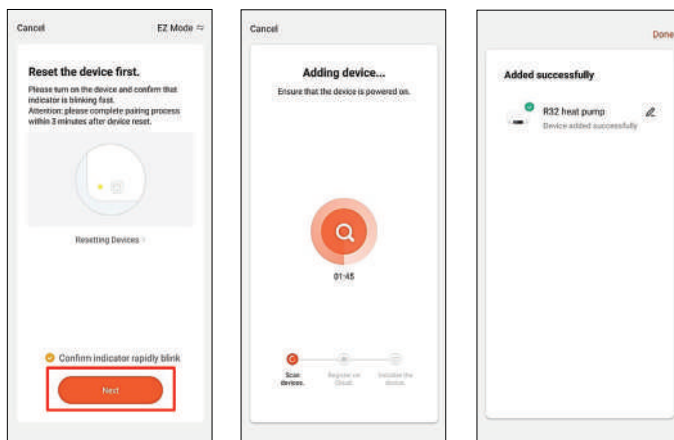
The controller returns to the main interface very quickly, in order to check the connection status of the device as listed below it is worth to re enter the Wi Fi configuration settings (press the  button four times).

NOTE

Different numbers indicate different state s

- 0: configuration status
- 1: AP status (reserved)
- 2: no WiFi connection
- 3: connect ed to Wi Fi but no connect ion to the server
- 4: connect ed to Wi Fi and server successfully
- 5: low power consumption mode





4. PARAMETER AND STATUS CHECKING

This wired controller can be used to check the system status and running parameter. Press the “query” button to go into the parameter query interface, and press “confirm” button or without pressing any button for more than 10s to exit the parameter query interface.

After going into query interface, press “u” or “down” button to check the parameters or status as follow table

No.	Definition	Description
1	Setting temp.: Ts1	Display Ts1 during standby/cool/heat mode
2	Setting temp.: Ts2	Display Ts2 during DHW mode
3	Setting temp.: Ts3	Display Ts3 when it chooses the air setpoint control
4	Capacity of unit	HP*10, example: 10 means that unit is 1HP capacity
5	Target frequency	Target compressor frequency
6	Running frequency	Running compressor frequency
7	Water flow rate	m ³ /h, feedback from inverter water pump
8	Capacity output	$= 1.163 * (\text{water flow rate}) * [T_{w_out} - T_{w_in}]$ (kW)

No.		Definition	Description
9		T3 value	ODU coil temp.
10		T4 value	OAT
11		TP value	Discharged temp.
12		T7 value	Temp. of refrigerant for PCB cool
13		EVX opening degree	Actually value
14		ODU fan motor speed	-
15		AC current	-
16		AC voltage	-
17		IPM temp. (T9)	Compressor module temp.
18		Limitation reason of compressor frequency	0: no limitation; 1: T3B temp. limitation (reserved); 2: OAT limitation; 4: Discharged temp. limitation; 8: Voltage limitation 16: Current limitation 32: IPM temp' limitation 64: Night mode limitation 128: LWT limitation If occur multi limitation, display value=sum of all limitation value
19		Limitation reason of compressor frequency	0: no limitation; 1: Limitation of different value between EWT&LWT
20		Tw_in value	EWT
21		Tw_out value	LWT of BPHE
22		T1 value	LWT of unit (after the EHs inside the unit)
23		T6 value	IAT, the sensor built inside the wired controller
24		T5 value	DHW value
25		Tw-2 value	Second zone EWT value when set this function (reserved)
26		T1B value	External heat source (boiler) LWT value
27		Capacity demand	-
28		Inv. Pump speed	-
29		Last alarm	-
30		Penult alarm	-

No.	Definition	Description
31	Antepenultimate alarm	-
32	Current protection	P0-P3: check the detail in alarm table
33	Detail of P6 alarm in function board	L-: no alarm; L0: IPM or IGBT over current; L1: lack of phase L2: Compressor losing speed fault; L3: DC voltage is too low to protect L4: Fan motor over current protection L5: Fan motor lack of phase; L6: Fan motor zero speed fault L7: PFC fault L8: DC voltage is too high to protect L9: Compressor zero speed fault LA: PWM synchronization fault Lb: MCE fault Lc: Compressor over current protection Ld: EEPROM data is wrong LE: Compressor fail to start; LF: fan motor losing speed fault
34	SV2 statue of water loop	2-way valve which is used to change the cool/heat water between fan coil and radiator (OFF-0; ON-1)
35	SV3 statue of water loop	DHW 3-way valve
36	Main water loop EHs statue	Standard equip with one EH, another two are field supply (OFF-0; ON-1)
37	DHW EHs	OFF-0; ON-1
38	External heat source statue	OFF-0; ON-1
39	P_m	External main water loop pump (OFF-0; ON-1)
40	P_p	Second zone water loop pump (OFF-0; ON-1)
41	P_o	First zone water loop pump (OFF-0; ON-1)
42	Anti-frozen heater statue	OFF-0; ON-1
43	Chassis heater statue	OFF-0; ON-1
44	Crank heater statue	OFF-0; ON-1
45	SV2 statue of refrigerant syste	FCU water loop valve, to cut off water supply to radiator/space heater coil in cool mode (OFF-0; ON-1)

5. ERROR CODE

This wired controller is also worked as the detector to display the alarm of the unit as follow table:

Example: E1



 This wired controller is also worked as the detector to display the alarm of the unit as follow table:

Alarm code	Description
E0	Water flow switch fault
E1	Communication fault between IDU board and ODU board
E2	LWT of unit sensor (T1 sensor) fault
E3	Gas refrigerant temp sensor (T2 sensor) fault (reserved)
E4	Liquid refrigerant temp sensor (T2B sensor) fault (reserved)
E5	ODU (module part) alarm
E6	DHW sensor (T5 sensor) fault
E7	EWI sensor (T_in sensor) fault
E8	LWT of BPHE sensor (T_out sensor) fault
E9	Communication fault between wired controller and function board
EA	Second zone LWT sensor (Tw_2 sensor) fault (Only valid after setting second zone function, reserved)
Eb	External heat source LWT sensor (T1B sensor) fault (Only valid after set the external heat source – boiler)
Ec	Water pump fault

Alarm code	Description
Ed	Reserved
EE	Reserved
EF	Mode conflict (reserved)
P0	EEPROM fault
P1	Protection of huge different values between EWT and LWT
P2	Protection of lack of water
P3	Protection of abnormal different value between EWT and LWT
P6	Protection of standard electrical heater over heat

Note:

1. When it is displayed the E5-ODU alarm, that needs to check the alarm on the IDU PCB for more detail.
2. P0-P3 will only be displayed after it occurs 3 times in 1h, and can't resume unless repower the system.

[illegible]

NOTES

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

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INSTALLER STAMP

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