

daitsu

REFRIGERANT
R32

USER MANUAL



MINICHILLER INVERTER

(WITHOUT DHW FUNCTION)

Serie

MINICHILLER INVERTER CRAD 3 KiAWP

Edition

07/22

Models

CRAD 3 KiAWP 15

CRAD 3 KiAWP 25

CRAD 3 KiAWP 35

CRAD 3 KiAWP 50

CRAD 3 KiAWP 55

CRAD 3 KiAWP 60

CRAD 3 KiAWP 50T

CRAD 3 KiAWP 55T

CRAD 3 KiAWP 60T

- This manual gives detailed description of the precautions that should be brought to your attention during operation.
- In order to ensure correct service of the wired controller, please read this manual carefully before using the unit.
- For convenience of future reference, keep this manual after reading it.

CONTENTS

1 GENERAL SAFETY PRECAUTIONS

- 1.1 About the documentation 01
- 1.2 For the user 02

2 A GLANCE OF THE USER INTERFACE

- 2.1 The appearance of the wired controller 05
- 2.2 Status icons 06

3 USING HOME PAGES

- 3.1 About home pages 07

4 MENU STRUCTURE

- 4.1 About the menu structure 13
- 4.2 To go to the menu structure 13

5 BASIC USAGE

- 5.1 Screen unlock 14
- 5.2 Turning ON/OFF controls 15
- 5.3 Adjusting the temperature 17
- 5.4 Adjusting the operation mode 19

6 OPERATION

- 6.1 PRESET TEMPERATUER 22
- 6.2 DOMESTIC HOT WATER(DHW) 33
- 6.3 SCHEDULE 38
- 6.4 OPTIONS 44
- 6.5 CHILD LOCK 50
- 6.6 SERVICE INFORMATION 51
- 6.7 OPERATION PARAMETER 54
- 6.8 FOR SERVICEMAN 55
- 6.9 SN VIEW 55

7 NETWORK CONFIGURATION GUIDELINES

- 7.1 Wired controller setting 56
- 7.2 Smart home appliances networking guidelines 59

1 GENERAL SAFETY PRECAUTIONS

1.1 About the documentation

- The original documentation is written in English. All other languages are translations.
- The precautions described in this document cover very important topics, follow them carefully.
- All activities described in the installation manual must be performed by an authorized installer.

1.1.1 Meaning of warnings and symbols

DANGER

Indicates a situation that results in death or serious injury.

DANGER: RISK OF ELECTROCUTION

Indicates a situation that could result in electrocution.

DANGER: RISK OF BURNING

Indicates a situation that could result in burning because of extreme hot or cold temperatures.



WARNING

Indicates a situation that could result in death or serious injury.



CAUTION

Indicates a situation that could result in minor or moderate injury.



NOTE

Indicates a situation that could result in equipment or property damage.



INFORMATION

Indicates useful tips or additional information.

1.2 For the user

If you are not sure how to operate the unit, contact your installer.

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

 **CAUTION**

Do NOT rinse the unit. This may cause electric shocks or fire.

 **NOTE**

- Do NOT place any objects or equipment on top of the unit.
- Do NOT sit, climb or stand on the unit.

- Units are marked with the following symbol:



This means that electrical and electronic products may not be mixed with unsorted household waste. Do not try to dismantle the system yourself: the dismantling of the system, treatment of the refrigerant, of oil and of other parts must be done by an authorized installer and must comply with applicable legislation. Units must be treated at a specialized treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. For more information, contact your installer or local authority.

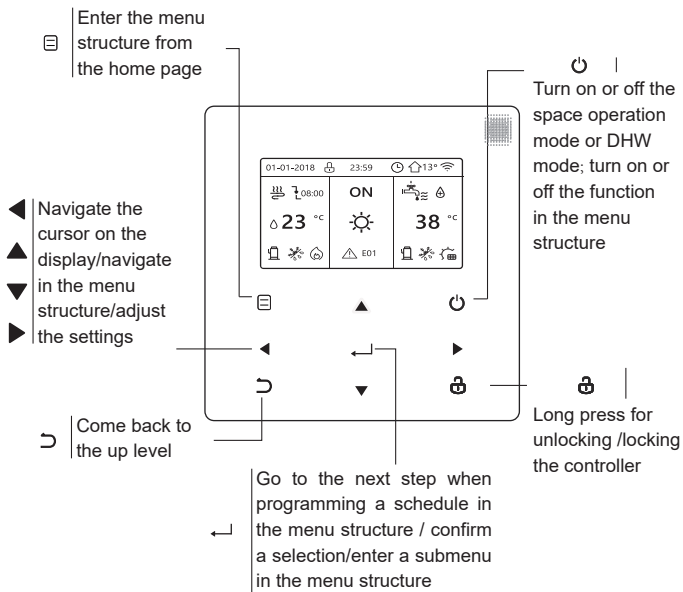
- Placed in a location away from radiation.
- Operating environment of the wired controller

Input Voltage	18V DC
Operating environment	-10°C~43°C
Humidity	≤RH90%

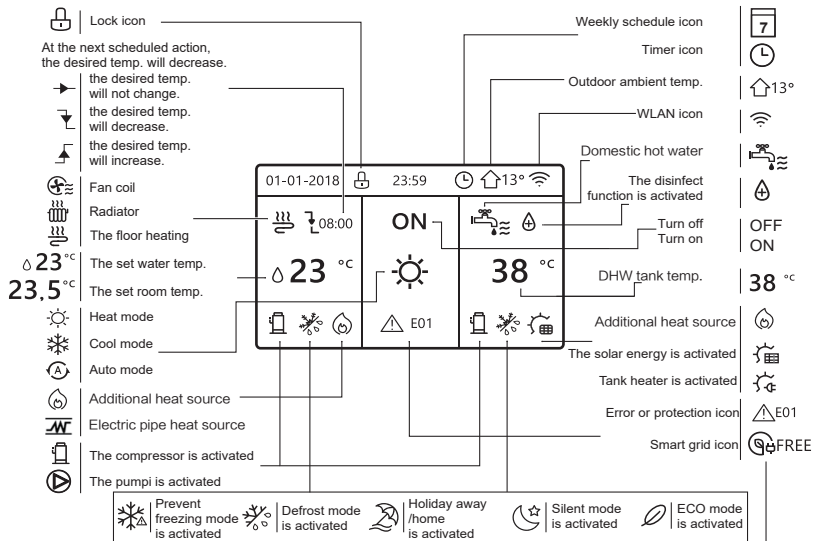
- The hardware and software after-sale service can be received from the authorized dealer. Software updates service will be available for 8 years from the manufacture date via the OTA (Over-The-Air) download technology. Please contact the authorized dealer in your region for detailed information.

2 A GLANCE OF THE USER INTERFACE

2.1 The appearance of the wired controller



2.2 Status icons



	Fan coil	Radiator	The floor heating	Domestic hot water
ON				
OFF				

	Free electricity	Valley electricity	Peak electricity
Smart grid			

3 USING HOME PAGES

3.1 About home pages

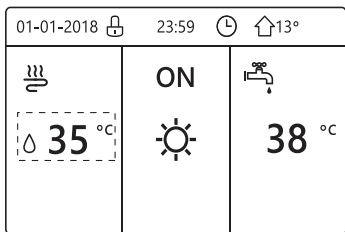
Select your preferred language, then press “↵” to enter the home pages. If you don't press “↵” in 60 seconds, the system will enter in the currently selected language.



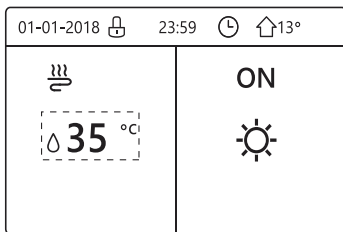
Based on the system layout, the following home pages may appear:

Home page 1:

If the WATER FLOW TEMP. is set YES and ROOM TEMP. is set NON, the system has the functions including space heating, space cooling and domestic hot water, home page 1 will appear:









DHW mode is set available








Without DHW function or
DHW mode is set unavailable

Home page 2:

If the WATER FLOW TEMP. is set NON and ROOM TEMP. is set YES, the system has the functions including space heating, space cooling and domestic hot water, home page 2 will appear:

01-01-2018  23:59   13°		
 23,5 °C	ON 	 38 °C

DHW mode is set available

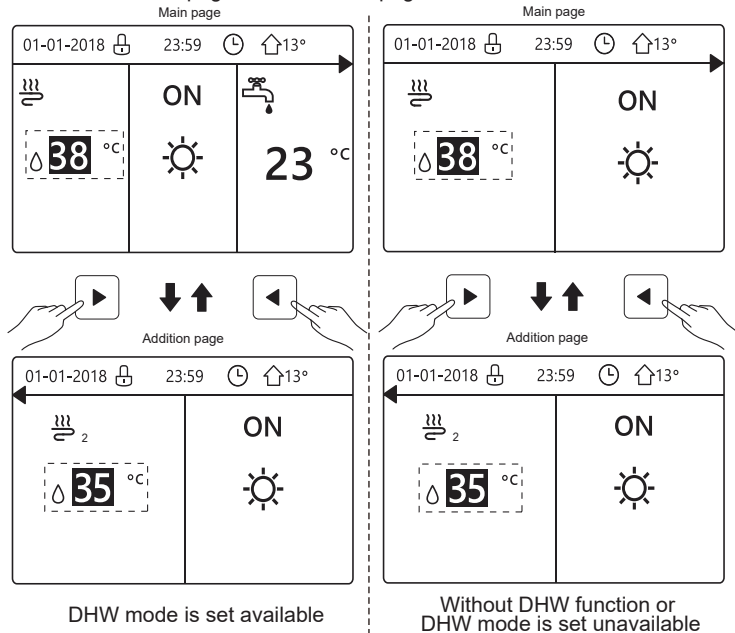
01-01-2018  23:59   13°	
 23,5 °C	ON 

Without DHW function or
DHW mode is set unavailable

The wired controller should be installed in the room to detect the room temperature.

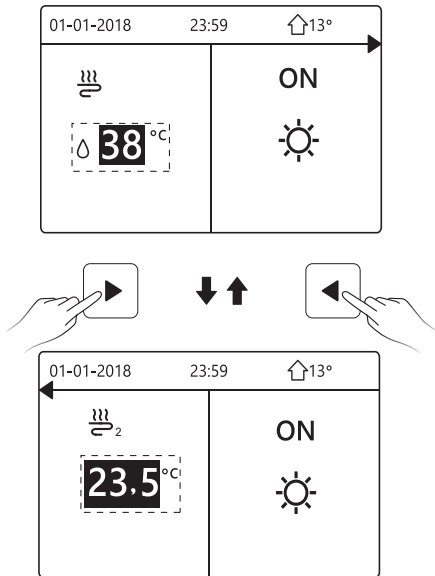
Home page 3 :

If the ROOM THERMOSTAT is set DOUBLE ZONE, the system has the functions including space heating, space cooling and domestic hot water, there will be main page and additional page:



Home page 4:

If the unit has no DHW function or DHW is set unavailable, WATER FLOW TEMP. and ROOM TEMP. are both set YES, the system has the functions including space heating and space cooling, there will be main page and additional page:





NOTE


- All the pictures in the manual are for explanation, the actual pages in the screen may have some difference.
- WATER FLOW TEMP., ROOM TEMP. and DOUBLE ZONE are set in FOR SERVICEMAN, it is not recommended for non-professionals to enter FOR SERVICEMAN.



4 MENU STRUCTURE



4.1 About the menu structure

You can use the menu structure to read out and configure settings that are NOT meant for daily usage, and you can find the detailed operation methods about the menu structure in this manual. If the unit has no DHW function or DHW mode is set unavailable , there is no DOMESTIC HOT WATER(DHW) menu in the interface.

4.2 To go to the menu structure

Press "  " on the homepage, the following pages will appear:

MENU	1/2
OPERATION MODE	
PRESET TEMPERATURE	
DOMESTIC HOT WATER(DHW)	
SCHEDULE	
OPTIONS	
CHILD LOCK	
 ENTER	

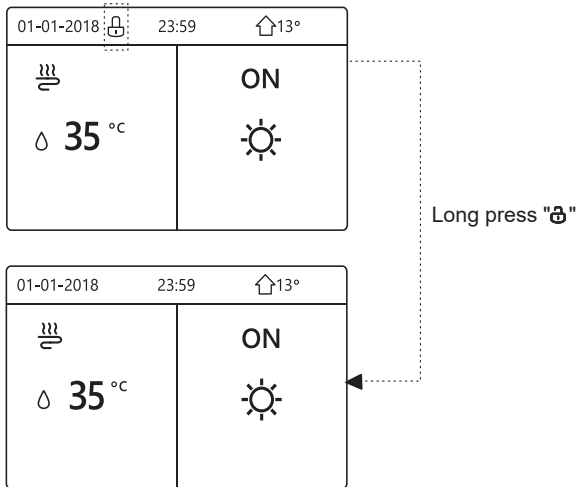
MENU	2/2
SERVICE INFORMATION	
OPERATION PARAMRTER	
FOR SERVICEMAN	
WLAN SETTING	
SN VIEW	
 ENTER	

Use "▼", "▲" to scroll and press "↵" to select the menu.

5 BASIC USAGE

5.1 Screen unlock

The icon "🔒" showing on the screen means the controller is locked. Long press "🔒", it will disappear, then the controller can be used.

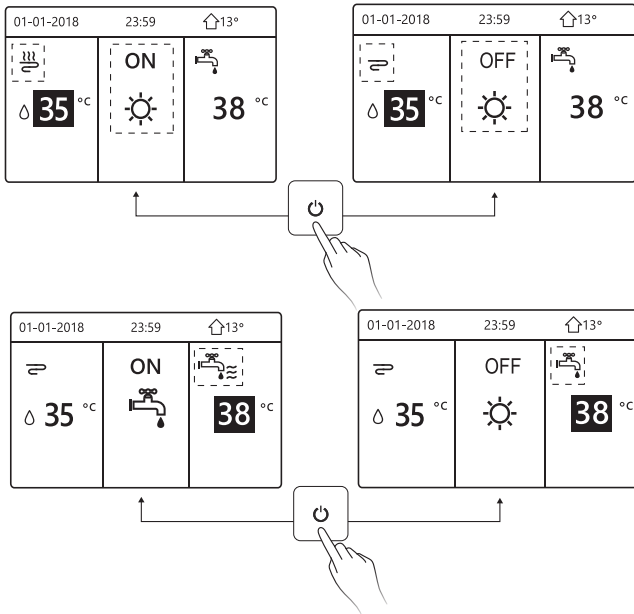


The controller will be locked if it has not been operated for a long time (about 120 seconds). If the controller is unlocked, long press "🔒", the controller will be locked.

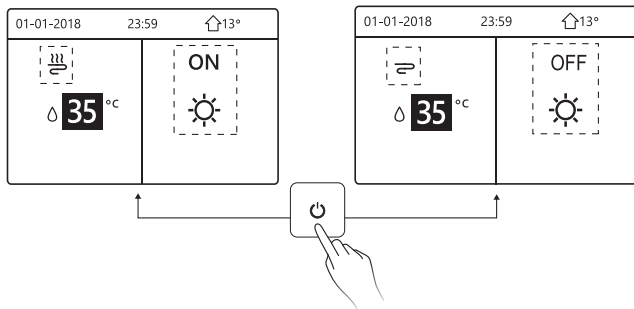
5.2 Turning ON/OFF controls

Use the controller to turn on or off the operation mode (heat mode ☀, cool mode ❄, auto mode ⏻, DHW mode 🚰) of the unit.

1) The unit has DHW function and DHW mode is set available. Press " ⏻ " to turn on/off space heating/cooling or DHW mode.



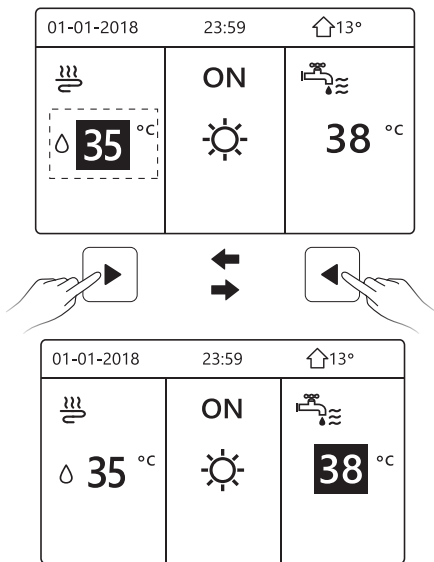
2) The unit has no DHW function or DHW mode is set unavailable.



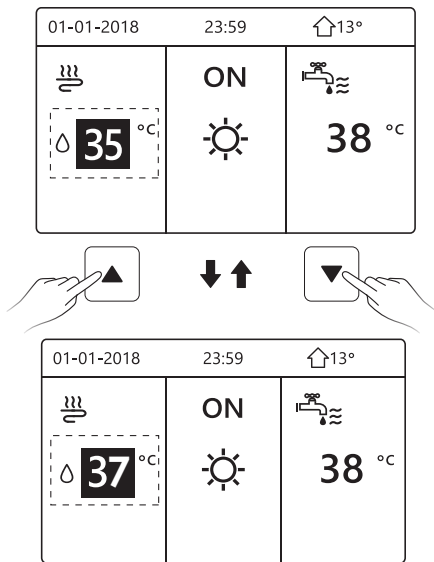
The operation methods of turning on or off the operation mode in other menus is similar.

5.3 Adjusting the temperature

Use "◀", "▶" to select the operating mode.





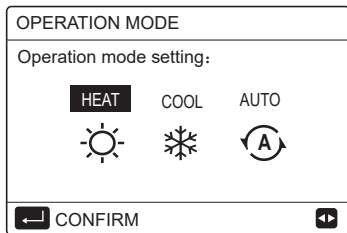
Use "▼", "▲" to adjust the temperature value.







The operation methods of adjusting the temperature in other menus (including that the unit has no DHW function or DHW mode is set unavailable) is similar.

5.4 Adjusting the operation mode

Go to "  " > "OPERATION MODE", then press "  ", the following page will appear:



There are three operation modes on the controller interface: HEAT mode, COOL mode and AUTO mode, Use "  ", "  " to select the mode and press "  ".



HEAT mode=space heating mode, COOL mode=space cooling mode. The mode selected will still be valid when exiting the interface by pressing "  " from the page above.



INFORMATION

About AUTO mode:



- The unit will select the operation mode automatically based on the outdoor temperature and some settings in "FOR SERVICEMAN".
- It is not recommended for non-professionals to enter "FOR SERVICEMAN".

If COOL(HEAT) mode is set to NON, only one mode can be selected on the controller interface, the following page will appear:

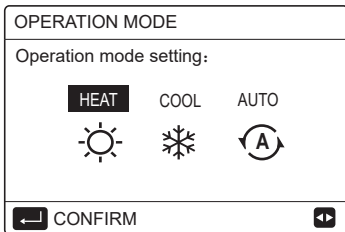
OPERATION MODE
Operation mode can only be set heat mode:
HEAT 
 CONFIRM

OPERATION MODE
Operation mode can only be set cool mode:
COOL 
 CONFIRM

The operation mode can also be switched by the room thermostat. When "ROOM THERMOSTAT" is set "MODE SET" in "FOR SERVICEMAN", the following page will appear if you want to select other operation modes:

01-01-2018	23:59	 13°
Cool/heat mode is controlled by the room thermostat.		
Please adjust the operation mode by the room thermostat.		
 CONFIRM		

When "ROOM THERMOSTAT" is set "ONE ZONE" or "DOUBLE ZONE" in "FOR SERVICEMAN", the "OPERATION MODE" page is as follows:



Under this circumstance, HEAT mode and COOL mode can be selected, but AUTO mode can not be selected.

i INFORMATION

It is not recommended for non-professionals to enter "FOR SERVICEMAN".

6 OPERATION

6.1 PRESET TEMPERATUER



PRESET TEMPERATUER has 3 items: PRESET TEMP., WEATHER TEMP. SET, ECO MODE.



6.1.1 PRESET TEMP.



PRESET TEMP. (PRESET TEMPERATUER) function is used to set different temperature on different time when the heat mode or cool mode is on.

The PRESET TEMP. function will be off in the following conditions:

- 1) AUTO mode is running.
- 2) Operation mode is switched between heat mode and cool mode.
- 3) TIMER or WEEKLY SCHEDULE is running.

Go to "  " > "PRESTE TEMPERATURE" > "PRESET TEMP.". Press "  ", the following page will appear:

PRESET TEMPERATURE			1/2
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE	
NO.	TIME	TEMP.	
1	<input type="checkbox"/>	00:00 25°C	
2	<input type="checkbox"/>	00:00 25°C	
3	<input type="checkbox"/>	00:00 25°C	
			 

PRESET TEMPERATURE			2/2
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE	
NO.	TIME	TEMP.	
4	<input type="checkbox"/>	00:00 25°C	
5	<input type="checkbox"/>	00:00 25°C	
6	<input type="checkbox"/>	00:00 25°C	
			 

Use "◀", "▶", "▼", "▲" to scroll and use "▼", "▲" to adjust the time and the temperature, press "↵" to select the timer.

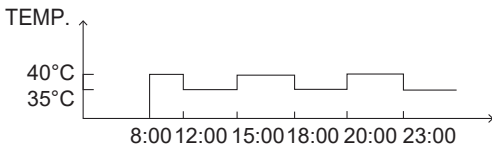
Six timers can be selected. (enable the timer. disable the timer.)

PRESET TEMPERATURE		1/2	
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE	
NO.	TIME	TEMP.	
1	<input checked="" type="checkbox"/> 08:00	35°C	
2	<input checked="" type="checkbox"/> 12:00	25°C	
3	<input checked="" type="checkbox"/> 15:00	35°C	
<input type="checkbox"/> CANCEL			

Example: Set timers according to the table below:

NO.	TIME	TEMP.
1	8:00	40°C
2	12:00	35°C
3	15:00	40°C
4	18:00	35°C
5	20:00	40°C
6	23:00	35°C

The temperature will change according to the figure below:







i INFORMATION


- When double zone is activated, the PERSET TEMP. function only works for zone 1.
- The PRESET TEMP. function can be used in heat mode or cool mode. But if the operation mode is switched between heat mode and cool mode, the PRESET TEMP. function needs to be reset again.
- If the timer in PRESET TEMP. is set, the PRESET TEMP. function is still valid when the unit restarts after power failure.



6.1.2 WEATHER TEMP. SET

WEATHER TEMP. SET (WEATHER TEMPERATURE SET) function is used to preset the desired water flow temperature depending on the outdoor temperature. Take heat mode as an example: the WEATHER TEMP. SET function can lower the desired water flow temperature when the outdoor temperature increases.

Go to "  " > "PRESTE TEMPERATURE" > " WEATHER TEMP. SET". Press "  ", the following page will appear:

PRESET TEMPERATURE		
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE
ZONE1 C-MODE LOW TEMP.		OFF
ZONE1 H-MODE LOW TEMP.		OFF
ZONE2 C-MODE LOW TEMP.		OFF
ZONE2 H-MODE LOW TEMP.		OFF
 ON/OFF		

Use "  " to turn on/off the temperature curve. If "ZONE1 C-MODE LOW TEMP." is turned on, cool mode in zone 1 is activated, the following page will appear:

WEATHER TEMP. SET								
WEATHER TEMP. SET TYPE:								
1	2	3	4	5	6	7	8	9
 CONFIRM 								

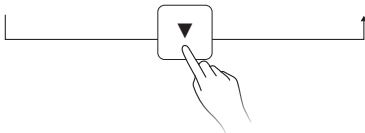
The operation method of other temperature curves is similar. If the WEATHER TEMP. SET is activated, the desired temperature can not be adjusted on the interface.

INFORMATION

- WEATHER TEMP. SET includes four kinds of curves:
 1. Heating mode-low water temperature
 2. Heating mode-high water temperature
 3. Cooling mode-low water temperature
 4. Cooling mode-high water temperature
- Whether the temperature curve is LOW TEMP or HIGH TEMP is determined by the terminal type (floor heating loop, fan coil unit or radiator) and operation mode. The terminal type can be set in "FOR SERVICEMAN".

PRESET TEMPERATURE		1/2
PRESET TEMP.	WEATHER TEMP. SET	ECO MODE
ZONE 1 C-MODE LOW TEMP.		OFF
ZONE 1 H-MODE LOW TEMP.		OFF
ZONE 2 C-MODE LOW TEMP.		OFF
ZONE 2 H-MODE LOW TEMP.		OFF
ON/OFF		

PRESET TEMPERATURE		2/2
PRESET TEMP.	WEATHER TEMP. SET	ECO MODE
ZONE 1 C-MODE CURVE OFFSET		0°C
ZONE 1 H-MODE CURVE OFFSET		0°C
ZONE 2 C-MODE CURVE OFFSET		0°C
ZONE 2 H-MODE CURVE OFFSET		0°C
ADJUST		



INFORMATION

The OFFSET value can be adjusted by using "▼", "▲", the factory default OFFSET value is 0°C.

When the temperature curve is activated, the desired water temperature is equal to the water temperature corresponding to T4 in the following table plus the OFFSET value.

• Heating mode-low water temperature

(T4 is the ambient temperature, T1S is the desired water temperature.)

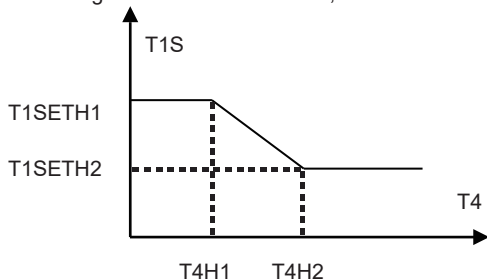
T4	≤ -20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
1-T1S	38	38	38	38	38	37	37	37	37	37	37	36	36	36	36	36	36	35	35	35	35
2-T1S	37	37	37	37	37	36	36	36	36	36	36	35	35	35	35	35	35	34	34	34	34
3-T1S	36	36	36	35	35	35	35	35	35	34	34	34	34	34	34	33	33	33	33	33	33
4-T1S	35	35	35	34	34	34	34	34	34	33	33	33	33	33	33	32	32	32	32	32	32
5-T1S	34	34	34	33	33	33	33	33	33	32	32	32	32	32	32	31	31	31	31	31	31
6-T1S	32	32	32	32	31	31	31	31	31	31	31	31	30	30	30	30	30	30	30	30	29
7-T1S	31	31	31	31	30	30	30	30	30	30	30	29	29	29	29	29	29	29	29	29	28
8-T1S	29	29	29	29	28	28	28	28	28	28	28	28	27	27	27	27	27	27	27	27	26
T4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	≥ 20	
1-T1S	35	35	34	34	34	34	34	34	33	33	33	33	33	32	32	32	32	32	32	32	32
2-T1S	34	34	33	33	33	33	33	33	32	32	32	32	32	31	31	31	31	31	31	31	31
3-T1S	32	32	32	32	32	32	31	31	31	31	31	31	30	30	30	30	30	30	29	29	29
4-T1S	31	31	31	31	31	31	30	30	30	30	30	30	29	29	29	29	29	29	28	28	28
5-T1S	30	30	30	30	30	30	29	29	29	29	29	28	28	28	28	28	28	28	27	27	27
6-T1S	29	29	29	29	29	29	28	28	28	28	28	27	27	27	27	27	27	27	26	26	26
7-T1S	28	28	28	28	28	28	27	27	27	27	27	27	26	26	26	26	26	26	25	25	25
8-T1S	26	26	26	26	26	26	25	25	25	25	25	25	25	25	25	24	24	24	24	24	24

• Heating mode-high water temperature

T4	≤ -20	-19	-18	-17	-16	-15	-14	-13	-12	-11	-10	-9	-8	-7	-6	-5	-4	-3	-2	-1	0
1-T1S	55	55	55	55	54	54	54	54	54	54	54	54	53	53	53	53	53	53	53	53	52
2-T1S	53	53	53	53	52	52	52	52	52	52	52	52	51	51	51	51	51	51	51	51	50
3-T1S	52	52	52	52	51	51	51	51	51	51	51	51	50	50	50	50	50	50	50	50	49
4-T1S	50	50	50	50	49	49	49	49	49	49	49	49	48	48	48	48	48	48	48	48	47
5-T1S	48	48	48	48	47	47	47	47	47	47	47	47	46	46	46	46	46	46	46	46	45
6-T1S	45	45	45	45	44	44	44	44	44	44	44	44	43	43	43	43	43	43	43	43	42
7-T1S	43	43	43	43	42	42	42	42	42	42	42	42	41	41	41	41	41	41	41	41	40
8-T1S	40	40	40	40	39	39	39	39	39	39	39	39	38	38	38	38	38	38	38	38	37
T4	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	≥ 20	
1-T1S	52	52	52	52	52	52	51	51	51	51	51	51	51	51	51	50	50	50	50	50	50
2-T1S	50	50	50	50	50	50	50	49	49	49	49	49	49	49	49	48	48	48	48	48	48
3-T1S	49	49	49	49	49	49	49	48	48	48	48	48	48	48	48	47	47	47	47	47	47
4-T1S	47	47	47	47	47	47	47	46	46	46	46	46	46	46	46	45	45	45	45	45	45
5-T1S	45	45	45	45	45	45	45	44	44	44	44	44	44	44	44	43	43	43	43	43	43
6-T1S	42	42	42	42	42	42	42	41	41	41	41	41	41	41	41	40	40	40	40	40	40
7-T1S	40	40	40	40	40	40	40	39	39	39	39	39	39	39	39	38	38	38	38	38	38
8-T1S	37	37	37	37	37	37	37	36	36	36	36	36	36	36	36	35	35	35	35	35	35

The automatic setting curve

The automatic setting curve is the ninth curve, this is the calculation method:



State: In the setting of the wired controller, if $T4H2 < T4H1$, then exchange their value; if $T1SETH1 < T1SETH2$, then exchange their value.

($T1SETH1, T1SETH2, T4H1, T4H2$ can be set in "FOR SERVICEMAN" .)

- Cooling mode-low water temperature

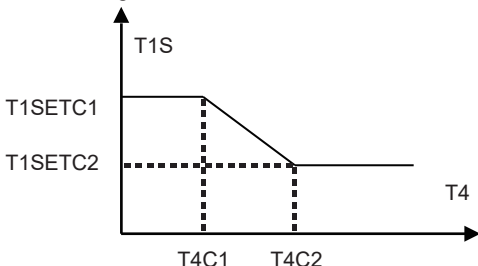
T4	$-10 \leq T4 < 15$	$15 \leq T4 < 22$	$22 \leq T4 < 30$	$30 \leq T4$
1- T1S	16	11	8	5
2- T1S	17	12	9	6
3- T1S	18	13	10	7
4- T1S	19	14	11	8
5- T1S	20	15	12	9
6- T1S	21	16	13	10
7- T1S	22	17	14	11
8- T1S	23	18	15	12

- Cooling mode-high water temperature

T4	$-10 \leq T4 < 15$	$15 \leq T4 < 22$	$22 \leq T4 < 30$	$30 \leq T4$
1- T1S	20	18	18	18
2- T1S	21	19	18	18
3- T1S	22	20	19	18
4- T1S	23	21	19	18
5- T1S	24	21	20	18
6- T1S	24	22	20	19
7- T1S	25	22	21	19
8- T1S	25	23	21	20

The automatic setting curve



The automatic setting curve is the ninth curve, this is the calculation method:





State: In the setting of the wired controller, if $T4C2 < T4C1$, then exchange their value; if $T1SETC1 < T1SETC2$, then exchange their value. (T1SETC1, T1SETC2, T4C1, T4C2 can be set in "FOR SERVICEMAN" .)



6.1.3 ECO MODE




ECO MODE is used to save energy.



Go to "  "> "PRESTE TEMPERATURE" >"ECO MODE". Press "  ", the following page will appear:

PRESET TEMPERATURE		
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE
CURRENT STATE		OFF
ECO TIMER		OFF
START		08:00
END		19:00
 ON/OFF		

Press "  ", the following page will appear:

ECO MODE SET									
ECO MODE SET TYPE:									
1	2	3	4	5	6	7	8	9	
 CONFIRM									

Use "  " to turn on/off "CURRENT STATE" or "ECO TIMER" , and use "  ", "  " to adjust the start time and end time.

PRESET TEMPERATURE		
PRESET TEMP.	WEATHER TEMP.SET	ECO MODE
CURRENT STATE		ON
ECO TIMER		OFF
START		08:00
END		19:00
 ADJUST		

INFORMATION

- ECO MODE is valid only in heat mode (one zone).
- If the ECO MODE is activated, the desired temperature can not be adjusted on the interface.
- If CURRENT STATE is ON and ECO TIMER is OFF, the unit will run in ECO mode all the time; If CURRENT STATE is ON and ECO TIMER is ON, the unit will run in ECO mode according to the start time and end time.

6.2 DOMESTIC HOT WATER(DHW)



The parameters in "DOMESTIC HOT WATER(DHW)" can be set only when the unit has DHW function and DHW is set available. If the unit has no DHW function or DHW is set unavailable, "DOMESTIC HOT WATER(DHW)" will not be displayed on the interface.



DOMESTIC HOT WATER(DHW) contains the following menu:

- 1) DISINFECT
- 2) FAST DHW
- 3) TANK HEATER
- 4) DHW PUMP

6.2.1 DISINFECT

The DISINFECT function is used to kill the legionella. The tank temperature will reach 60~70°C forcibly if the disinfect function is activated(The disinfect temperature can be set in "FOR SERVICEMAN").

Go to "  " > " DOMESTIC HOT WATER(DHW)" > "DISINFECT". Press "  ", the following page will appear:

DOMESTIC HOT WATER (DHW)			
DIS- INFECT	FAST DHW	TANK HEATER	DHW PUMP
CURRENT STATE			OFF
OPERATE	DAY		FRI
START	23:00		
 ON/OFF 			

Use " ⏻ " to turn on/off "CURRENT STATE", and use "▼", "▲" to adjust the operate date and start time of disinfect function.

Example: If "OPERATE DAY" is set FRIDAY and "START" is set 23:00, the disinfect function will be activated at 23:00 on Friday.

6.2.2 FAST DHW

The FAST DHW function is used to force the system to operate in DHW mode.

Once the FAST DHW function is activated, the heat pump and the booster heater (or auxiliary heater) will run together or the pump runs itself.

Go to " ⏻ " > "DOMESTIC HOT WATER(DHW)" > "FAST DHW". Press " ⏻ ", the following page will appear:

DOMESTIC HOT WATER (DHW)			
DIS- INFECT	FAST DHW	TANK HEATER	DHW PUMP
CURRENT STATE			OFF
⏻ ON/OFF			

Use " ⏻ " to turn on/off "CURRENT STATE" of FAST DHW function.



i INFORMATION


- The FAST DHW function is valid only when "CURRENT STATE" is set ON.
- The FAST DHW function is valid only for once after it's settled.

6.2.3 TANK HEATER







The TANK HEATER function is used to force the tank heater to heat the water in tank. Even if the heat pump system fails, the TANK HEATER function can still be used to heat the water in tank.

The TANK HEATER function can be used only when "TBH FUNCTION" is set valid ("TBH FUNCTION" can be set in "FOR SERVICEMAN").

Go to "  " > " DOMESTIC HOT WATER(DHW)" >"TANK HEATER". Press "  ", the following page will appear:

DOMESTIC HOT WATER (DHW)			
DIS- INFECT	FAST DHW	TANK HEATER	DHW PUMP
CURRENT STATE			OFF
 ON/OFF			

Use "  " to turn on/off " CURRENT STATE" of TANK HEATER function. If TANK HEATER is activated, the following page will appear:

01-01-2018			23:59	 13°
	ON			
 35 °C		38 °C		
				



i INFORMATION



- If "CURRENT STATE" is OFF, TANK HEATER is invalid.
- If the T5 (temperature sensor of tank) fails, TANK HEATER is invalid.
- The TANK HEATER function is valid only for once after it's settled.

6.2.4 DHW PUMP

The DHW PUMP function is used to return water from the water net.

The DHW PUMP function can be used only when PUMP_D is set valid (PUMP_D can be set in "FOR SERVICEMAN").

Go to "  " > " DOMESTIC HOT WATER(DHW)" > "DHW PUMP". Press "  ", the following page will appear:

DOMESTIC HOT WATER (DHW) 1/2			
DIS- INFECT	FAST DHW	TANK HEATER	DHW PUMP
NO.	START	NO.	START
T1 <input type="checkbox"/>	00:00	T4 <input type="checkbox"/>	00:00
T2 <input type="checkbox"/>	00:00	T5 <input type="checkbox"/>	00:00
T3 <input type="checkbox"/>	00:00	T6 <input type="checkbox"/>	00:00
 			

Use "◀", "▶", "▼", "▲" to scroll and use "▼", "▲" to adjust the start time, press "↵" to select the timer.

Twelve timers can be set. (enable the timer. disable the timer.)

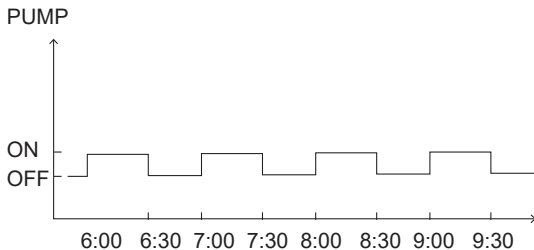
DOMESTIC HOT WATER (DHW) 1/2			
DIS-INFECT	FAST DHW	TANK HEATER	DHW PUMP
NO.	START	NO.	START
T1 <input checked="" type="checkbox"/>	00:00	T4 <input type="checkbox"/>	00:00
T2 <input type="checkbox"/>	00:00	T5 <input type="checkbox"/>	00:00
T3 <input type="checkbox"/>	00:00	T6 <input type="checkbox"/>	00:00
<input type="left"/> <input type="right"/>			

Example: Set timers according to the table below:

NO.	START
T1	6:00
T2	7:00
T3	8:00
T4	9:00

PUMP_D RUNNING TIME is set 30 minutes (PUMP_D RUNNING TIME can be set in "DHW MODE SETTING" in "FOR SERVICEMAN").

The pump will run according to the figure below:



6.3 SCHEDULE



SCHEDULE contains the following menu:

- 1) TIMER
- 2) WEEKLY SCHEDULE
- 3) SCHEDULE CHECK
- 4) CANCEL TIMER




6.3.1 TIMER




The TIMER function is used to set different operation mode and temperature in different time periods. If the TIMER is activated, ☺ is displayed on home page.

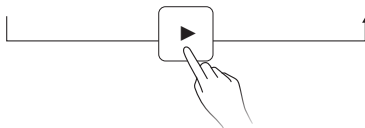
If "WEEKLY SCHEDULE" and "TIMER" are both set, and "WEEKLY SCHEDULE" is set later than "TIMER", then the "WEEKLY SCHEDULE" setting is valid, the "TIMER" is invalid.

SCHEDULE					1/2
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER		
NO.	START	END	MODE	TEMP	
1	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
2	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
3	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
					 

ONE ZONE is valid

ZONE1 SCHEDULE					
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER		
NO.	START	END	MODE	TEMP	
1	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
2	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
3	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
 ENTER					 



ZONE2 SCHEDULE					
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER		
NO.	START	END	MODE	TEMP	
1	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
2	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
3	<input type="checkbox"/>	00:00	00:00	HEAT	30°C
 ENTER					 



DOUBLE ZONE is valid

The setting method of TIMER for ONE ZONE is the same as DOUBLE ZONE, the following content takes ONE ZONE as an example.

Go to "☰" > "SCHEDULE">"TIMER". Press "←", the following page will appear:

SCHEDULE				1/2
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER	
NO.	START	END	MODE	TEMP
1	<input type="checkbox"/> 00:00	00:00	HEAT	40°C
2	<input type="checkbox"/> 00:00	00:00	HEAT	40°C
3	<input type="checkbox"/> 00:00	00:00	HEAT	40°C
				 

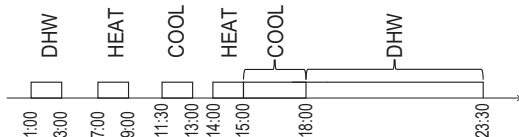
Use "◀", "▶", "▼", "▲" to scroll and use "▼", "▲" to adjust the start/end time, operation mode and temperature, press "↵" to select the timer.

Six timers can be set. (: enable the timer. : disable the timer). If the start time is the same as the end time in one timer, the timer setting is invalid.

Example: Set timers according to the table below:

NO.	START	END	MODE	TEMP
1	1: 00	3: 00	DHW	50°C
2	7: 00	9: 00	HEAT	28°C
3	11: 30	13: 00	COOL	20°C
4	14: 00	15: 00	HEAT	28°C
5	15: 00	18: 00	COOL	20°C
6	18: 00	23: 30	DHW	50°C

The unit will run according to the figure below:



6.3.2 WEEKLY SCHEDULE (Take ONE ZONE as an example)

The WEEKLY SCHEDULE function is used to set different operation mode and temperature within one week (One day or more).

If "WEEKLY SCHEDULE" and "TIMER" are both set, and "TIMER" is set later than "WEEKLY SCHEDULE", then the "TIMER" setting is valid, the "WEEKLY SCHEDULE" is invalid.

If WEEKLY SCHEDULE is activated, 7 is displayed on home page.

Go to " "> "SCHEDULE" > "WEEKLY SCHEDULE". Press "", the following page will appear:

SCHEDULE			
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER
MON. TUE. WED. THU. FRI. SAT. SUN.			
■	□	□	□ □ □ □ □ □
ENTER		CANCEL	
MON SELECT			

Press "↵" again, "MON" is selected as shown below. It means Monday has been selected.

SCHEDULE						
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER			
MON.	TUE.	WED.	THU.	FRI.	SAT.	SUN.
■	□	□	□	□	□	□
ENTER			CANCEL			
↵	MON SELECT				⬆	⬇

Then use "▼" to move cursor to "ENTER", press "↵", operation mode and temperature of Monday can be set.

The following page will appear:

SCHEDULE						1/2
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER			
NO.	START	END	MODE	TEMP		
1	□ 00:00	00:00	HEAT	0°C		
2	□ 00:00	00:00	HEAT	0°C		
3	□ 00:00	00:00	HEAT	0°C		
						⬆ ⬇

The parameter setting method is the same as that of "TIMER". (Please refer to 6.3.1 TIMER)

The parameter setting method for other days of one week is the same.

The setting method of WEEKLY SCHEDULE for DOUBLE ZONE is the same as ONE ZONE.(To know how to switch from ZONE1 to ZONE2, please refer to 6.3.1 TIMER)

6.3.3 SCHEDULE CHECK (Take ONE ZONE as an example)

The SCHEDULE CHECK function is used to check the weekly schedule.

Go to "  " > " SCHEDULE " > " SCHEDULE CHECK ". Press "  ", the following page will appear:




WEEKLY SCHEDULE CHECK					
DAY	NO	MODE	SET	START	END
MON <input type="checkbox"/>	T1	<input type="checkbox"/> HEAT	30°C	00:00	00:00
	T2	<input type="checkbox"/> HEAT	30°C	00:00	00:00
	T3	<input type="checkbox"/> HEAT	30°C	00:00	00:00
	T4	<input type="checkbox"/> HEAT	30°C	00:00	00:00
	T5	<input type="checkbox"/> HEAT	30°C	00:00	00:00
	T6	<input type="checkbox"/> HEAT	30°C	00:00	00:00



Use "  ", "  " to check the detailed weekly schedule.

6.3.4 CANCEL TIMER (Take ONE ZONE as an example)

The CANCEL TIMER function is used to cancel the timer and weekly schedule.

Go to "  " > " SCHEDULE " > " CANCEL TIMER ". Press "  ", the following page will appear:

SCHEDULE			
TIMER	WEEKLY SCHEDULE	SCHEDULE CHECK	CANCEL TIMER
Do you want to cancel the			
timer and weekly schedule?			
NO		YES	
 ENTER		 	

Use "  " to move cursor to "YES", then press "  ", the "TIMER" and "WEEKLY SCHEDULE" settings will be canceled.

The operation method of CANCEL TIMER for DOUBLE ZONE is the same as ONE ZONE.

6.4 OPTIONS

OPTIONS contains the following menu:



- 1) SILENT MODE
- 2) HOLIDAY AWAY
- 3) HOLIDAY HOME
- 4) BACKUP HEATER

6.4.1 SILENT MODE

The SILENT MODE function is used to reduce the running sound of the unit. However, it also reduces the heating or cooling capacity of the system. There are two silent mode levels, level 2 is more silent than level 1.

If the silent mode is activated, "☾" will be displayed on the home page.

Go to "☐" > "OPTIONS" > "SILENT MODE". Press "←", the following page will appear:

OPTIONS		1/2	
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER
CURRENT STATE	OFF		
SILENT LEVEL	LEVEL 1		
TIMER1 START	12:00		
TIMER1 END	15:00		
 ON/OFF			

Use "☺" to turn on/off current state of SILENT MODE, Timer1 and Timer2, use "▼", "▲" to select the silent level and adjust the start/end time of the timer.

There are two methods to use the silent mode:

- 1) Silent mode all the time.
- 2) Silent mode related to timers.

If the CURRENT STATE is ON, TIMER1 and TIMER2 are both OFF, the unit will run in silent mode all the time.

If the CURRENT STATE is ON, TIMER1 (or TIMER2) is ON and the start/end time are set, the unit will run according to the timer.



TIMER1 and TIMER2 can be set valid together.


OPTIONS			2/2
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER
TIMER1			ON
TIMER2 START			22:00
TIMER2 END			07:00
TIMER2			ON
⏮ ADJUST			⏭

6.4.2 HOLIDAY AWAY

The HOLIDAY AWAY function is used to avoid freeze in winter during the holiday when outside.

Go to "☰" > "OPTIONS" > "HOLIDAY AWAY". Press "←", the following page will appear:

OPTIONS			1/2
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER
CURRENT STATE			OFF
DHW MODE			ON
DISINFECT			ON
HEAT MODE			ON
 ON/OFF			

Use "  " to turn on/off current state of HOLIDAY AWAY, HEAT mode(DHW mode) and DISINFECT mode, use"▼", "▲" to adjust the start and end time of the holiday.

DHW=Domestic hot water.

Example: You are going away for holiday on 2018-02-02 and coming back in two weeks. If you want to save energy and prevent your house from freezing, you can do as follows:

CURRENT STATE	ON
DHW MODE	OFF
DISINFECT	OFF
HEAT MODE	ON
FROM	02-02-2018
UNTIL	16-02-2018

INFORMATION

- If CURRENT STATE is ON, at least one of HEAT mode and DHW mode is ON.
- DISINFECT can be adjusted only when DHW mode is ON.

6.4.3 HOLIDAY HOME

The HOLIDAY HOME function is used to set different operation mode and temperature during the holiday at home.

Go to "☰" > "OPTIONS" > "HOLIDAY HOME". Press "↵", the following page will appear:

OPTIONS			
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER
CURRENT STATE			OFF
FROM		00-00-2000	
UNTIL		00-00-2000	
TIMER		ENTER	
🔌 ON/OFF		⏪	

ONE ZONE is valid



OPTIONS			
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER
CURRENT STATE			OFF
FROM		00-00-2000	
UNTIL		00-00-2000	
ZONE1 TIMER		ENTER	
🔌 ON/OFF		⏪	

DOUBLE ZONE is valid

Use"▼" to scroll to the next interface on the above interface(DOUBLE ZONE is valid), which can display ZONE2 TIMER.

Use "🔌" to turn on/off current state of HOLIDAY HOME, use "▼", "▲" to adjust the start and end time of the holiday.

Once the start and end date of the holiday is set, use "◀", "▶" to move cursor to "ENTER", press "↵", then the operation mode, temperature and corresponding time period can be set, the following page will appear:

SCHEDULE					1/2
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER		
NO.	START	END	MODE	TEMP	
1 <input checked="" type="checkbox"/>	00:00	00:00	HEAT	30°C	
2 <input type="checkbox"/>	00:00	00:00	HEAT	30°C	
3 <input type="checkbox"/>	00:00	00:00	HEAT	30°C	
					 

INFORMATION

- If "HOLIDAY AWAY" and "HOLIDAY HOME" are both set, and "HOLIDAY HOME" is set later than "HOLIDAY AWAY", then the "HOLIDAY HOME" setting is valid, the "HOLIDAY AWAY" is invalid.
- If "HOLIDAY AWAY" and "HOLIDAY HOME" are both set, and "HOLIDAY AWAY" is set later than "HOLIDAY HOME", then the "HOLIDAY AWAY" setting is valid, the "HOLIDAY HOME" is invalid.
- If "HOLIDAY HOME" is set, "TIMER" and "WEEKLY SCHEDULE" are both invalid within the time period set in "HOLIDAY HOME".
- Start/end date of ZONE1 TIMER is the same as ZONE2 TIMER.

6.4.4 BACKUP HEATER

The BACKUP HEATER function is used to turn on the backup heater forcibly, it can be used only when IBH (Backup heater) is set valid by DIP switch on the main control board of hydraulic module or AHS (Auxiliary heating source)FUNCTION is set valid in "OTHER HEATING SOURCE" of "FOR SERVICEMAN" on the interface.

Go to "☰" > "OPTIONS" > "BACKUP HEATER". Press "←", the following page will appear:

OPTIONS			
SILENT MODE	HOLIDAY AWAY	HOLIDAY HOME	BACKUP HEATER
BACKUP HEATER			OFF
⏻ ON/OFF			↔

Use "⏻" to turn on/off BACKUP HEATER.



i INFORMATION



The BACKUP HEATER function is valid only for once after it's settled.

6.5 CHILD LOCK

The CHILD LOCK function is used to avoid children's misoperation.

If the unit has no DHW function or DHW is set unavailable, "DHW TEMP. ADJUST" and "DHW MODE ON/OFF" will not be displayed on the interface.

Go to "  ">"CHILD LOCK", then input the password "123", press "", the following page will appear:

CHILD LOCK	
COOL/HEAT TEMP. ADJUST	UNLOCK
COOL/HEAT MODE ON/OFF	UNLOCK
DHW TEMP. ADJUST	UNLOCK
DHW MODE ON/OFF	UNLOCK
 LOCK/UNLOCK	

Use "  " to lock/unlock.

Once "COOL/HEAT TEMP. ADJUST" ("DHW TEMP. ADJUST") is set "LOCK", the temperature in cool/heat mode (DHW mode) can not be adjusted.

Once "COOL/HEAT MODE ON/OFF" ("DHW MODE ON/OFF") is set "LOCK", the cool/heat mode (DHW mode) can not be turned on/off.

6.6 SERVICE INFORMATION

SERVICE INFORMATION contains the following menu:

- 1) SERVICE CALL
- 2) ERROR CODE
- 3) PARAMETER
- 4) DISPLAY

6.6.1 SERVICE CALL

The SERVICE CALL function is used to show the service phone or mobile number. The installer can input the number in "FOR SERVICEMAN".

Go to "☰">"SERVICE INFORMATION" >"SERVICE CALL", the following page will appear:



SERVICE INFORMATION			
SERVICE CALL	ERROR CODE	PARAMETER	DISPLAY
PHONE NO. 000000000000			
MOBILE NO. 000000000000			

6.6.2 ERROR CODE

The ERROR CODE function is used to show when the fault or protection happened and show the meaning of the error code.

Go to "  ">"SERVICE INFORMATION">"ERROR CODE", press " ", the following page will appear:

SERVICE INFORMATION		1/2	
SERVICE CALL	ERROR CODE	PARAMETER	DISPLAY
E2	#00	14:10	01-01-2018
E2	#00	14:00	01-01-2018
E2	#00	13:50	01-01-2018
E2	#00	13:20	01-01-2018


 ENTER 



Press "" again to check the meaning of the error code:



01-01-2018	23:59	 13°
E2 communication fault between controller and indoor unit		
Please contact your dealer.		
 COMFIRM	#00	

6.6.3 PARAMETER

The PARAMETER function is used to display the main parameters.


Go to "  ">"SERVICE INFORMATION" >"PARAMETER", the following page will appear:



SERVICE INFORMATION		1/2	
SERVICE CALL	ERROR CODE	PARAMETER	DISPLAY
		ROOM SET TEMP.	26°C
		MAIN SET TEMP.	55°C
		TANK SET TEMP.	55°C
		ROOM ACTUAL TEMP.	24°C
 ENTER			



SERVICE INFORMATION		2/2	
SERVICE CALL	ERROR CODE	PARAMETER	DISPLAY
		MAIN ACTUAL TEMP.	26°C
		TANK ACTUAL TEMP.	55°C
 ENTER			

6.6.4 DISPLAY

The DISPLAY function is used to set the interface.

Go to "  ">"SERVICE INFORMATION" >"DISPLAY", the following page will appear:

SERVICE INFORMATION		1/2	
SERVICE CALL	ERROR CODE	PARAMETER	DISPLAY
		TIME	12:30
		DATE	08-08-2018
		LANGUAGE	EN
		BACKLIGHT	ON
 ENTER			

SERVICE INFORMATION		2/2	
SERVICE CALL	ERROR CODE	PARAMETER	DISPLAY
		BUZZER	ON
		SCREEN LOCK TIME	120SEC
 ON/OFF			

6.7 OPERATION PARAMETER

The OPERATION PARAMETER function is for installer or service engineer to review the operation parameter.

You can check the water temperature, water flow, pressure and other parameters by using "OPERATION PARAMETER".

INFORMATION


1. POWER CONSUM is for reference only, not used to judge the actual power consumption. Keep pressing "▼" and "►" at the same time for 8 seconds, then POWER CONSUM can be reset to zero.
2. HEAT PUMP CAPACITY is for reference only, not used to judge the actual capacity of the unit.
3. If some parameter is not activated in the system, the parameter will be displayed "--".
4. The accuracy of sensor is ± 1 C.
5. The flow rate is calculated according to the pump running parameters, the deviation is different at different flow rates, the deviation is about 15%.
6. The flow rate is displayed "0" when the voltage is less than 198V.


6.8 FOR SERVICEMAN

The FOR SERVICEMAN function is for the installer to set the parameters. Go to "☰" > "FOR SERVICEMAN", the password is "234". It is not recommended for non-professionals to enter "FOR SERVICEMAN".



6.9 SN VIEW

The SN VIEW function is used to view the SN code.

SN VIEW
HMI NO. *****




SN VIEW	#1
IDU NO. -----	
ODU NO. -----	
	


7 NETWORK CONFIGURATION GUIDELINES

- The wired controller realizes intelligent control with a built-in module, which receives control signal from the APP.
- Before connecting the WLAN, please check for it if the router in your environment is active and make sure that the wired controller is well-connected to the wireless signal.
- During the Wireless distribution process, the LCD icon “” flashes to indicate that the network is being deployed. After the process is completed, the icon “” will be constantly on.

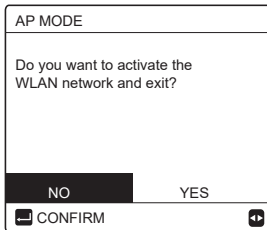
7.1 Wired controller setting




The wired controller settings include AP MODE and RESTORE WLAN SETTING.

WLAN SETTING
AP MODE
RESTORE WLAN SETTING
 ENTER 

- Activate the WLAN by interface. Go to "  "> "WLAN SETTING"> "AP MODE".


Press "  " the following page will appear:





Use "  ", "  " to move to "YES", press "  " to select AP mode. Select AP Mode correspondingly on the mobile device and continue the follow-up settings according to the APP prompts.



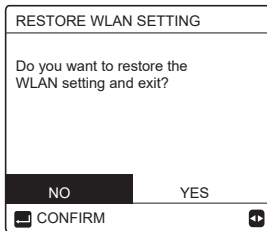
CAUTION




After enter Ap mode, if it's not connected with mobile phone, the LCD icon "  " will flash 10 minutes then disappear.

If it's connected with the mobile phone, the icon "  " will be constantly display.

- Restore WLAN setting by interface. Go to “  ”> “WLAN SETTING” > “RESTORE WLAN SETTING” .

Press “  ”, the following page will appear:



Use “”, “” to move to "YES", press “  ” to restore WLAN setting. Complete the above operation and wireless configuration is reset.

7.2 Mobile Device Setting

AP Mode is available for wireless distribution on mobile device side.

AP Mode connecting WLAN:

7.2.1 Install APP

① Scan the following QR code to install the Comfort Home APP.



Android



IOS

② When it is installed for the first time, an access code must be entered, or a QR code must be scanned. This code is the word "EUROFRED".

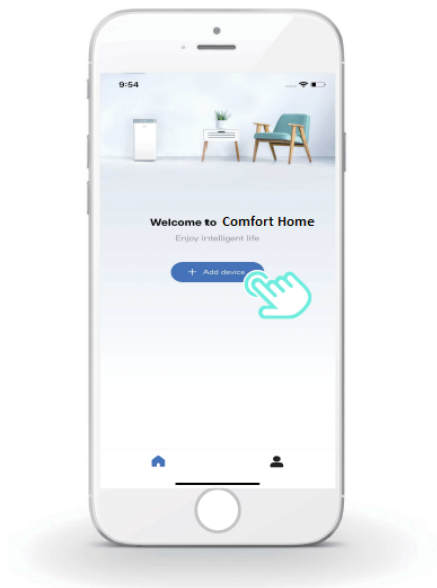
This application is only applicable to Android 7.0 and IOS7, or updated version operating systems..



EUROFRED

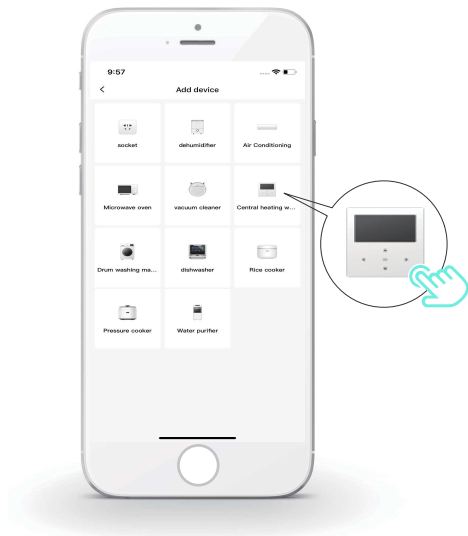
7.2.2 Sign in/Sign up

Click the "+" button on the right side of the home page ,register account according to the guide.

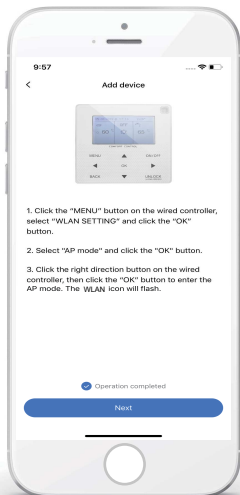


7.2.3 Add Home Appliances:

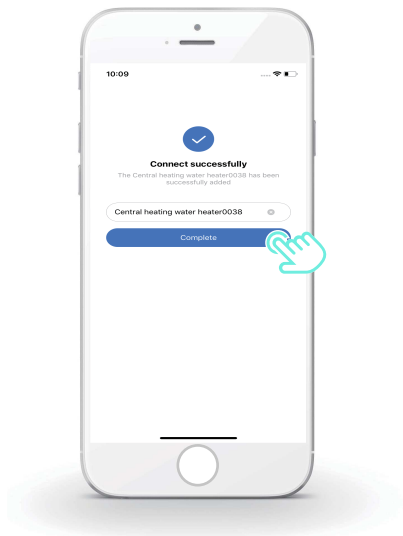
- 1) Choose the wired controller model, then go to add the device.




2) Operate the wired controller according to APP prompts.



3) Wait for the home appliance to connect, and click “Finish”.



- 4) After the appliance is successfully connected, the LCD icon“



Warning and troubleshooting for networking failures

When the product is connected to the network, please make sure that the phone is as close as possible to the product.

We only support 2.4GHz band routers at present.

Special characters (punctuation, spaces, etc.) are not recommended as part of the WLAN name.

It is recommended that you connect no more than 10 devices to a single router lest home appliances are affected by weak or unstable network signal.

If the password of the router or WLAN is changed, clear all settings and reset the appliance.

The contents of APP might change in version updates and actual operation shall prevail.

dzitsu

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