EN

USER'S MANUAL

SINCLAIR WATER HEATER

Wired controller XK64

sinclair
HEAT PUMPS

“Original instructions”

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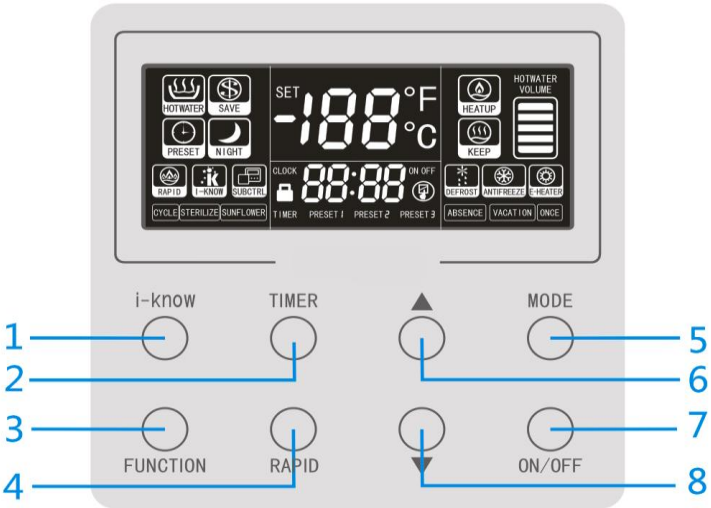

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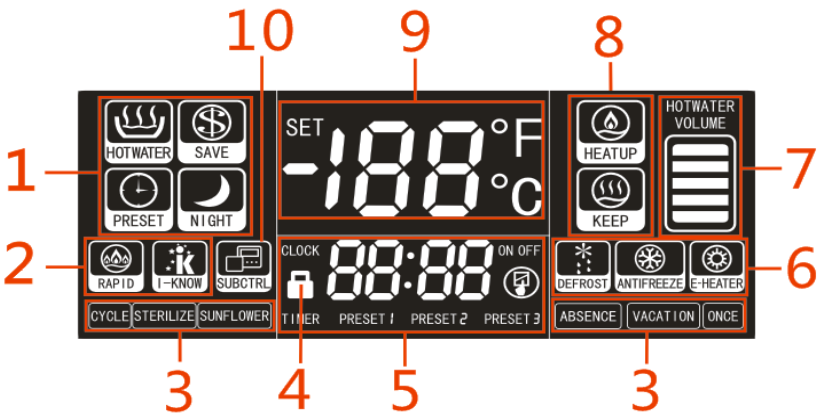

1	Display of Common Operation Modes: HOTWATER, SAVE, PRESET and NIGHT mode.	6	Display of defrost, antifreeze running, and e-heater running (or display of the Special E-HEATER Mode).
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4. Operation Modes

4.1 Common Modes

Mode Name	Description
HOTWATER	In the standard hot water mode, the uint will start or stop based on the difference between the temperature setpoint and the actual water temperature. If the temperature setpoint is higher than that can be achieved by the heat pump, only the electrical heater will be used for heating when the heat pump is unavailable.)
SAVE	This mode is similar to the HOTWATER mode. However, this mode allows only the heat pump but not the electrical heater for heating. Note: The SAVE mode requires proper temperature setpoint. It is recommended that this mode is adopted when the required water temperature is not higher than 50°C. If the temperature setpoint is too high or the ambient temperature is too low and when the capacity of the heat pump is insufficient, the error code L6 will be displayed and heating will be stopped. In this case, decrease the temperature setpoint to a value which is lower than the actual water temperature. Then, L6 will disappear automatically.
PRESET	This mode enables time presetting for using the hot water. The unit determines when to start based on the ambient temperature and the difference between the preset water temperature and the actual water temperature. When the preset period elapses, one hour later, the unit will stop. Once setup, this mode runs circularly every day.
NIGHT	The unit will start or stop at the fixed period from 00:00-06:00 based on the difference between the temperature setpoint and the actual water temperature. Beyond this period, the unit keeps off. Once setup, this mode runs circularly every day.

4.2 Special Modes

Mode Name	Description
E-HEATER	Only when the heat pump is faulty, this mode is recommended to be adopted.In this mode, only the electrical heater is used for heating and determines when to start and stop based on the difference between the temperature setpoint and the actual water temperature.

5. Functions

Function Name	Description
TIMER	The unit starts and stops as the timer setting. Once setup, this function works circularly every day.
RAPID	The electrical heater is started to prepare hot water rapidly to meet the urgent need for hot water.This function is available only when the water tank equipped with the auxiliary electrical heater.
I-KNOW	The unit simulates the user's habitual operation by collecting and analyzing water data in some period and then realizes the automatic operation. And it will remain medium water temperature when the user does not require large amount of hot water.
CYCLE	The water pipe is preheated duly to ensure that hot water is provided any time. Provision of hot water does not require exhausting of cold water in the water pipe, which is different from conventional water heaters.
STERILIZE	Water is heated to 70°C or higher (when the temperature can be set to be higher than 70°C), to sterilize the water tank.
SUNFLOWER	By detecting the ambient temperature around a day, the water heater enables the unit to run when the ambient temperature is relatively high, which enables higher efficiency of the unit. At a lower ambient temperature, the water temperature is kept at medium level to meet users' basic requirements.
ABSENCE	This function can be adopted when the user is absent for a short time. This prevents frequent start-up of the unit and saves heat and electricity.
VACATION	During the vacation set by the user, the unit keeps the water temperature at a relatively low level to save heat and electricity. The STERILIZE function is started one day before the vacation is over and hot water is prepared by advance.
ONCE	The unit stops automatically after heating a tank of water. This saves energy to the most extent when a tank of hot water is available to the user.

Functions supported by different operation modes:

Function / Mode	RAPID	STERILIZE	CYCLE	I-KNOW	SUNFLOWER	ABSENCE	VACATION	ONCE	TIMER
HOTWATER	√	√	√	√	√	√	√	√	√
SAVE	√	√	√	√	√	√	√	√	√
PRESET	√	√	√	×	×	×	√	×	×
NIGHT	√	√	√	×	×	×	√	×	×
E-HEATER	×	×	√	×	×	×	×	×	√

6. Operation Instructions

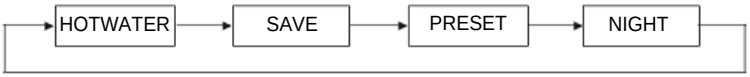
6.1 On/Off Setting

The unit will be started or stopped by pressing the “**On/Off**” button.

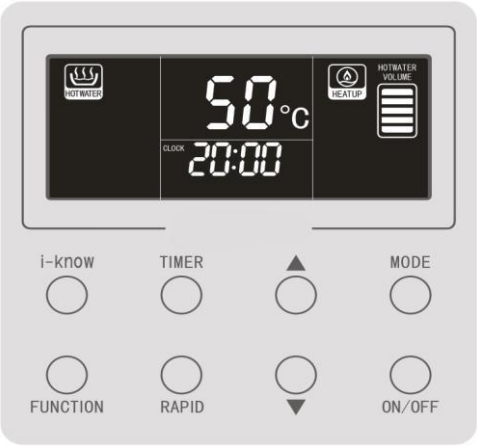
Note: After energization and under normal communication, the LCD will display the water temperature, time, and hot water volume (for models with dual temperature sensor) under both On and Off states of the unit. It means the Off state if the LCD does not display the running mode, as shown in the following figure.

6.2 Common Modes Setting

In the On state of the unit, press the **MODE** button to switch the operation modes in the following sequence:



The HOTWATER mode is shown in the following figure.

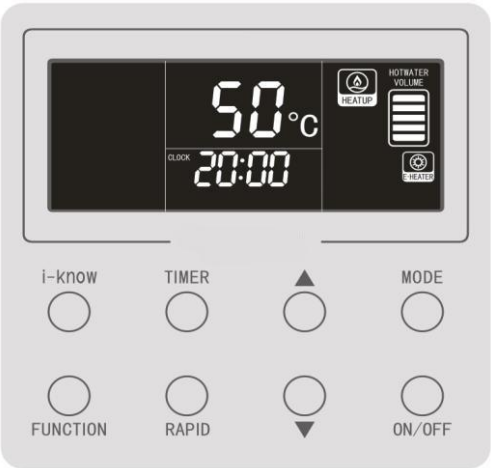


6.3 Special Modes Setting

If the heat pump of a water heater equipped with an electrical heater is faulty, users can press and hold **MODE+RAPID** for 5 seconds in any mode under the On state to enter the E-HEATER mode.

Note: The E-HEATER mode can be used only when the heat pump is faulty. In this case, contact the aftersales service immediately.

The E-HEATER mode is shown in the following figure.



In the E-HEATER mode, users can press the **MODE** button to switch to the HOTWATER mode. Note that the E-HEATER mode will be cancelled automatically and

the HOTWATER mode will be started upon restart of the water heater in the case of blackout.

6.4 Water Temperature Setting

In the On state, press ▲ to increase or press ▼ to decrease the temperature setpoint. The water temperature will increase or decrease continuously by 1°C when the button is pressed and held.

The minimum temperature setpoint for all models is 35°C. The maximum temperature setpoint can be set to 55°C, 58°C, or 70°C. For details, see the Integrated Unit User Manual.

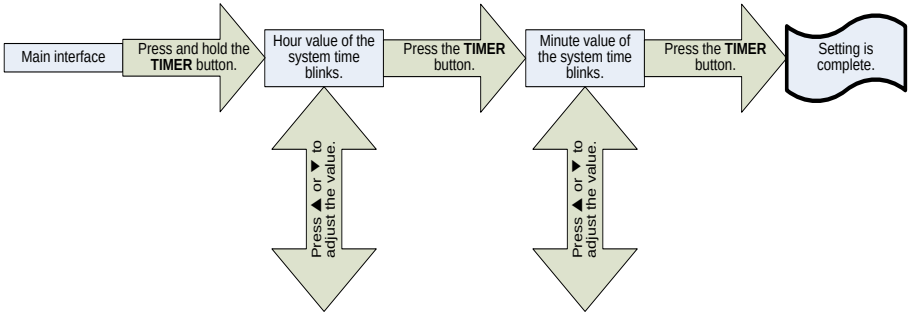
6.5 Time Setting

6.5.1 System Time Setting

In the main interface, press and hold the **TIMER** button for 5 seconds. The system time setting interface is displayed. The clock icon is on and the hour value blinks. Press ▲ **or** ▼ to adjust the hour value and press the **TIMER** button to confirm setting. Then the minute value flickers. Press ▲ **or** ▼ to adjust the minute value and press the **TIMER** button to confirm setting. After system time setting is saved, the main interface is displayed. In the setting process, if no button is pressed within 15 seconds, the main interface will be displayed and setting will not be saved.

The system time ranges from 00:00 to 23:59. Each time you press ▲ or ▼, the time increases or decreases by 1 hour or 1 minute. When the button is pressed and held, the time increases or decreases continuously by 1 hour or 1 minute.

The setting process is shown in the following figure.



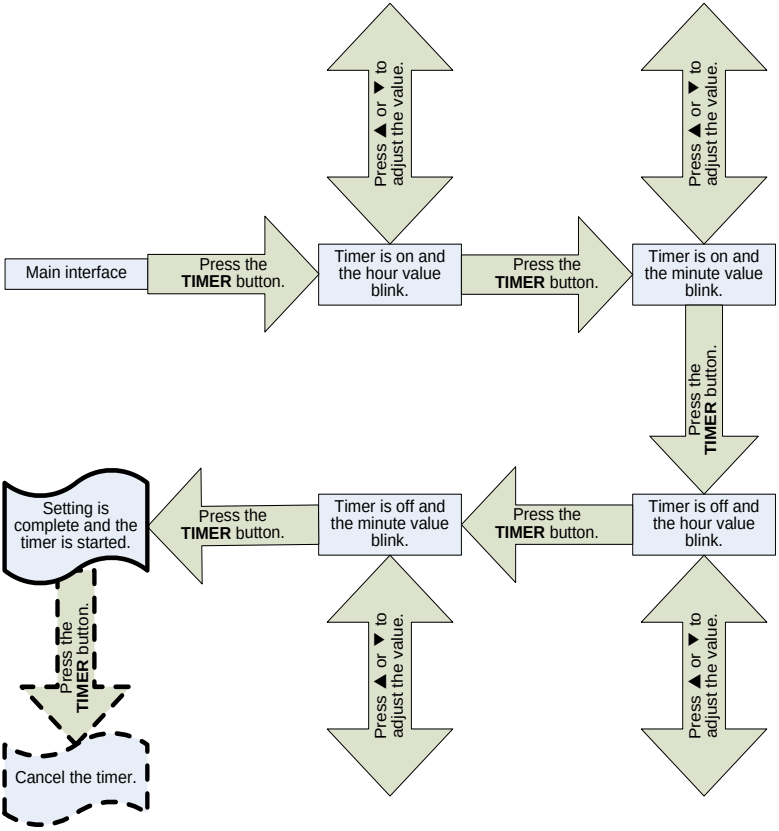
6.5.2 Timer Setting

Timer setting: Under the HOTWATER or SAVE mode or under the Off state,

press the **TIMER** button to enter the timer setting interface. The TIMER and ON icons are on and the hour value blinks. Press ▲ **or** ▼ to adjust the hour value and press the TIMER button to confirm setting. Then the minute value flickers. Press ▲ **or** ▼ to adjust the minute value and press the **TIMER** button to confirm setting. Then the OFF icon is on and ON icon is off. The hour value blinks. Press ▲ **or** ▼ to adjust the hour value and press the **TIMER** button to confirm setting. Then the minute value flickers. Press ▲ **or** ▼ to adjust the minute value and press the **TIMER** button to confirm setting. After the scheduled on/off time setting is saved, the main interface is displayed. In the setting process, if no button is pressed within 15 seconds, the main interface will be displayed and setting will not be saved.

Timer cancelling: After the scheduled on/off time is set, press the **TIMER** button to cancel it.

Note: The scheduled on time and off time cannot be the same; otherwise, the LCD switches to the interface for resetting the timer.



6.5.3 Preset Time Setting

In the PRESET mode, hot water is prepared in advance by the preset time.

In the main interface of the PRESET mode, press the **TIMER** button to enter the selection interface. PRESET 1 blinks while PRESET 2 and PRESET 3 are not displayed. Press ▲ **or** ▼ and the LCD blinks circularly in the flowing sequence: PRESET 1 – PRESET 2 – PRESET 3 – PRESET 1.

Preset time setting: Press the **TIMER** button to select PRESET 1. Then the PRESET 1 icon is on and the hour value blinks. Press ▲ **or** ▼ to adjust the hour value and press the **TIMER** button to confirm setting. Then the minute value flickers. Press ▲ **or** ▼ to adjust the minute value and press the **TIMER** button to confirm setting. After time setting for PRESET 1 is saved, the main interface is displayed.

PRESET 2 or PRESET 3 setting: Press the **TIMER** button to select PRESET 2 and then the ON icon blinks. Press ▲ **or** ▼ to switch the ON and OFF icons. When the ON icon blinks, press the **TIMER** button. Then the PRESET 2 icon is on and the ON icon is off. The hour value blinks. Press ▲ **or** ▼ to adjust the hour value and press the **TIMER** button to confirm setting. Then the minute value flickers. Press ▲ **or** ▼ to adjust the minute value and press the **TIMER** button to confirm setting. After time setting for PRESET 2 is saved, the main interface is displayed. The method for setting PRESET 3 is the same as that for PRESET 2. (After setting is saved, the ON and OFF icons are not displayed in the main interface as these icons are available in the setting process.)

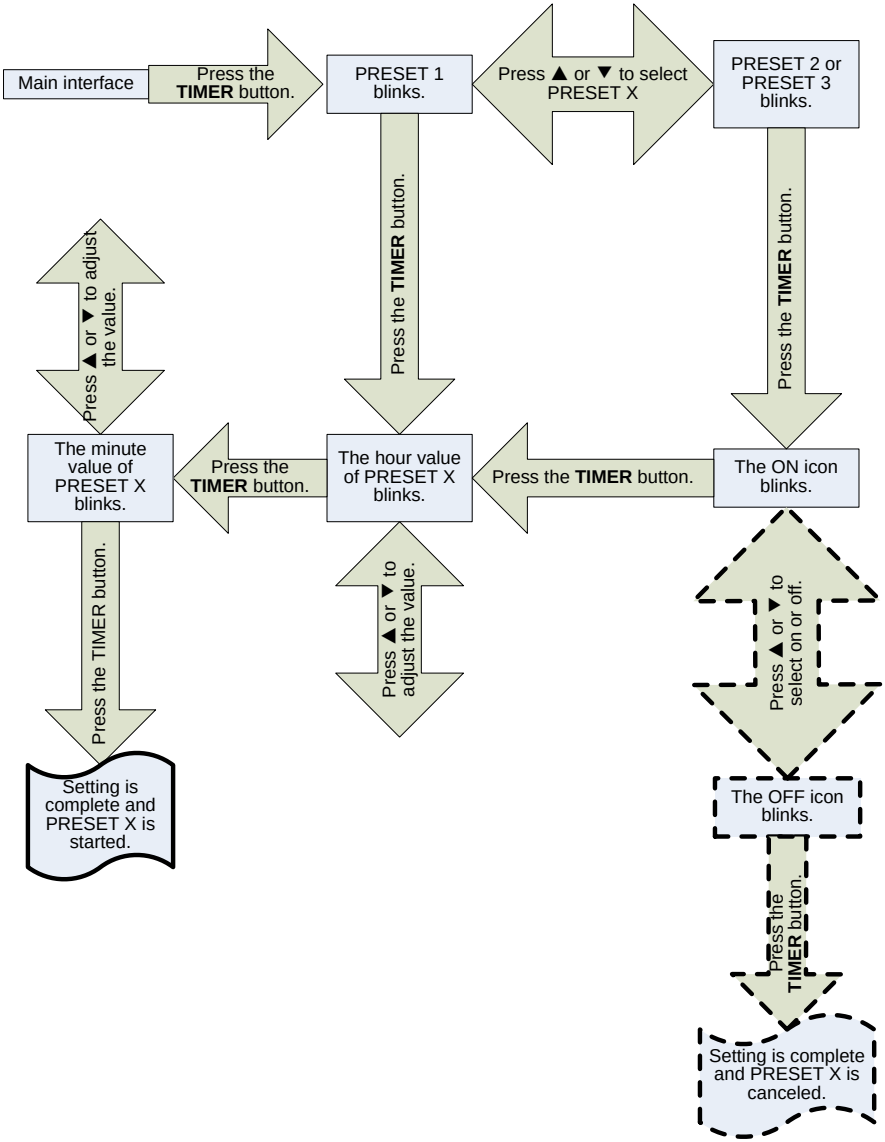
In the time presetting process, if no button is pressed within 15 seconds the preset interface will switch to the main interface automatically and setting will not be saved.

If the time preset for PRESET 1, PRESET 2, and PRESET 3 is the same, it is regarded as one timer.

The preset time can be memorized. If the preset time does not need to be reset, users only need to select on or off.

Preset time cancelling: After time is preset for PRESET 2 or PRESET 3, users can press the **TIMER** button to display the selection interface. The icon of PRESET 2 blinks. Press ▲ **or** ▼ and the LCD blinks circularly in the flowing sequence: PRESET 2 – PRESET 3 – PRESET 1 – PRESET 2. Select PRESET 2 and press the **TIMER** button. Select to cancel PRESET 2. Then the PRESET 2 icon is on and the ON icon blinks. Press ▲ **or** ▼ to select OFF. Press the **TIMER** button to confirm cancelling and return to the main interface. The method for cancelling preset time for PRESET 3 is the same

as that for PRESET 2. Preset time for PRESET 1 cannot be cancelled. If users select PRESET 1, the time setting interface will be displayed.



The PRESET mode runs circularly. The water heater starts to heat up water based on the preset time and ambient temperature and stops one hour after the preset time.

6.6 Function Setting

6.6.1 I-KNOW

In the On state, press the i-know button to select the I-KNOW function. To cancel this function, press the i-know button again.

6.6.2 RAPID

In the On state, press the **RAPID** button to select the RAPID function. The electrical heater is started for heat up. To cancel this function, press the **RAPID** button again. Then electrical heater is stopped.

Under the E-HEATER mode, users can press the RAPID button to switch to the HOTWATER mode. To return to the E-HEATER mode, press the RAPID button again.

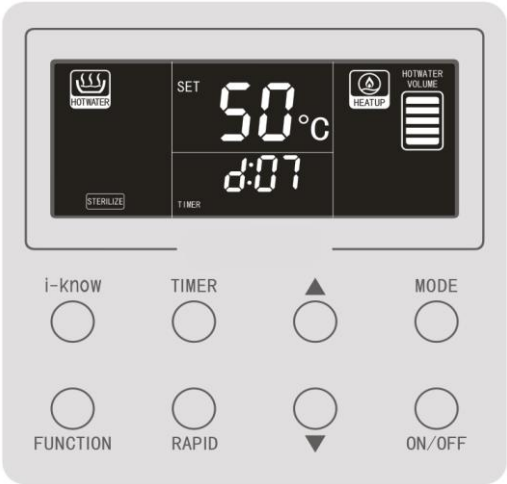
6.6.3 CYCLE, SUNFLOWER, ABSENCE, and ONCE

In the On state, press the **FUNCTION** button to enter the interface for selecting among the CYCLE, SUNFLOWER, ABSENCE, and ONCE functions. When a function is selected, the corresponding icon blinks. Then users can press ▲ **or** ▼ to start or cancel this function. If no operation is performed within 5 seconds, it will be regarded that this function is not required. If this function is started, the function icon is displayed without blinking. If this function is cancelled, the function icon will not be displayed. If no function is selected in setting interface for 5 seconds, the interface switches back to the original status.

6.6.4 STERILIZE

The STERILIZE function is available under four common modes. However, after this function is set, the unit runs as under the HOTWATER mode. The water heater controls startup and shutdown of the unit based on the difference between the actual water temperature and that required for sterilization.

In the On state and in a common mode, press the **FUNCTION** button to enter the function selection interface. When the STERILIZE function is selected, the corresponding icon blinks. At the same time, the preset circular sterilization duration is displayed as d:XX, as shown in the following figure.



During this period, the following operations can be performed:

1) Press ▲ **or** ▼ to start or cancel the STERILIZE function. If this function is started, the STERILIZE icon is displayed without blinking. Sterilization will be performed circularly by the preset d and h value; If this function is canceled, the STERILIZE icon is not displayed. If no operation is performed within 5 seconds, it will be regarded that this function is not required. After this function is started and when sterilization is being performed, the function icon blinks.

2) Press the **TIMER** button to enter the sterilization parameter setting interface. Press ▲ **or** ▼ to select the d value and then press the **TIMER** button to confirm the value. When the confirmed d value is not 0, the h value setting interface is displayed. Press ▲ **or** ▼ to select the h value and then press the **TIMER** button to confirm the value. When the STERILIZE icon is displayed, the STERILIZE function is started. If the STERILIZE icon blinks, the preset h value (time point for sterilization) is achieved and sterilization is being performed.

Sterilization Parameter	Meaning	Range
d value	Day interval for circular sterilization	0-10 days; 0 indicates sterilization for once only and the sterilization function will be canceled after being performed.
h value	Time point for circular sterilization	00:00-23:00

Circular sterilization:

Sterilization is performed circularly by the d value. Once the circular sterilization conditions are met, sterilization is performed regardless of on/off status of the controller and beyond limit of common modes and functions except VACATION. However, users can stop sterilization under process by pressing the **ON/OFF** button to shut it down. (But it can only stop sterilization for this time without affecting circular sterilization, the preset circular sterilization function still works.)

OFF reminder for sterilization failure:

If the OFF icon is displayed at the clock position after the STERILIZATION function is started, sterilization fails and the water temperature required for sterilization cannot be reached. The OFF reminder can be canceled when any button is pressed.

The OFF reminder only indicates that sterilization fails for this time without affecting circular sterilization.

The OFF reminder is shown in the following figure.

Note:

① When time goes from 23:59 to 00:00, the system enters a new day, which is the basis for increasing the number of days.

② Every time after the STERILIZE function is started or sterilization parameters are adjusted in the sterilize function setting interface, sterilization will be performed for once immediately and the day interval for sterilization will be recalculated accumulatively. Even when sterilization is being performed, operations such as sterilize function resetting and day interval adjusting for sterilization will also cause recalculation of the day interval.

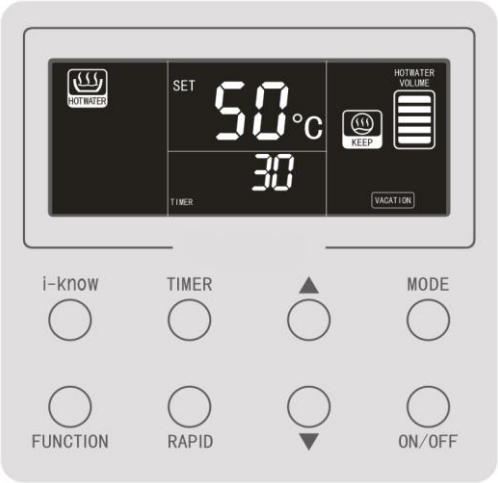
③ After the circular sterilization function is set, the water heater can still precisely calculate the day interval for sterilization accumulatively and the circular sterilization function can still work in the case of short-term power failure. If the time point for sterilization is within the power failure duration, sterilization will be made up once power is provided again. In addition, the day interval for sterilization will be recalculated accumulatively based on this sterilization and next sterilization will be calculated accordingly.

④ Ensure that there is no long-term power failure; otherwise, the clock of the water heater will malfunction and the STERILIZE function will not work properly.

⑤ Under the E-HEATER mode, the STERILIZE function is unavailable.

6.6.5 VACATION

In the On state, press the **FUNCTION** button to enter the function selection interface. When the VACATION function is selected, the corresponding icon blinks. At the same time, the preset number of vacation days is displayed at the clock position, as shown in the following figure.



During this period, the following operations can be performed:

1) Press ▲ **or** ▼ to start or cancel the VACATION function. After this function is started, the VACATION icon will be displayed without blinking and the water heater runs based on the preset number of vacation days; If this function is canceled, the VACATION icon will not be displayed. If no operation is performed within 5 seconds, it will be regarded that this function is not required.

2) Press the **TIMER** button to set the number of vacation days. Press ▲ **or** ▼ to select the number of vacation days from 3 to 120 days and press the **TIMER** button to confirm setting. Then press ▲ **or** ▼ to start or cancel the VACATION function.

When the VACATION function is started under the On state, the water heater calculates the number of vacation days accumulatively. And the STERILIZE function will be started to sterilize the water tank one day before the vacation is over. In addition, hot water is prepared by advance in the HOTWATER before the vacation is over.

Note:

① When time goes from 23:59 to 00:00, the system enters a new day, which is the basis for increasing the number of days.

② Every time after the VACATION function is started or the number of vacation days is adjusted in the vacation function setting interface, the number of vacation days will be recalculated accumulatively. Even when the VACATION function is being performed, operations such as vacation function resetting and vacation day adjusting will also cause recalculation of the number of vacation days.

③ After the VACATION function is set, the water heater can still precisely calculate the number of vacation days accumulatively in the case of short-term power failure. But ensure that there is no long-term power failure; otherwise, the clock of the water heater will malfunction and the VACATION function will not work properly.

6.6.6 CYCLE

The water pipe between the water tank and the water acquisition position is preheated duly when hot water is available in the water tank. This enables immediate provision of hot water without requiring exhausting of cold water in the water pipe, which is different from conventional water heaters. This function requires installation of the water return system during unit installation. The water returning system consists of the water return pump, water return pipe, check valve for the water return pipe, and cycle temperature sensor for the water return pipe.

The CYCLE function enables both automatic and manual control. The later one is adopted by default. For details on the setting method, see description on manual and automatic switchover of the water return pump in section 6.7.3.

Manual control: After the water return system is installed and manual control is set on the wired controller, press the **FUNCTION** button on the wired controlled before

hot water is needed by the user. The CYCLE icon blinks. Press ▲ or ▼,the CYCLE icon keeps on and then blinks if the manual return function is started.The unit preheats the water pipe with hot water in the water tank. This method requires manual operation but minimizes energy consumption.

Automatic control: Within the scheduled duration for automatic water return, the unit preheats the water pipe based on the pipe temperature. This method does not require manual operation but consumes more energy.

Steps of setting scheduled time for automatic water return are as follows: (The automatic control mode needs to be set. For details on the setting method, see description on manual and automatic switchover of the water return pump in section 6.7.3.)

Step 1: Press the **FUNCTION** mode to select the CYCLE function. The CYCLE icon blinks.

Step 2: Press the **TIMER** button to enter the scheduled time setting interface for water return. The TIMER character, time value, and ON character are displayed at the time position, which together indicate the scheduled start-up time. When the hour value for scheduled start-up blinks, it can be set by pressing **▲ or ▼.**

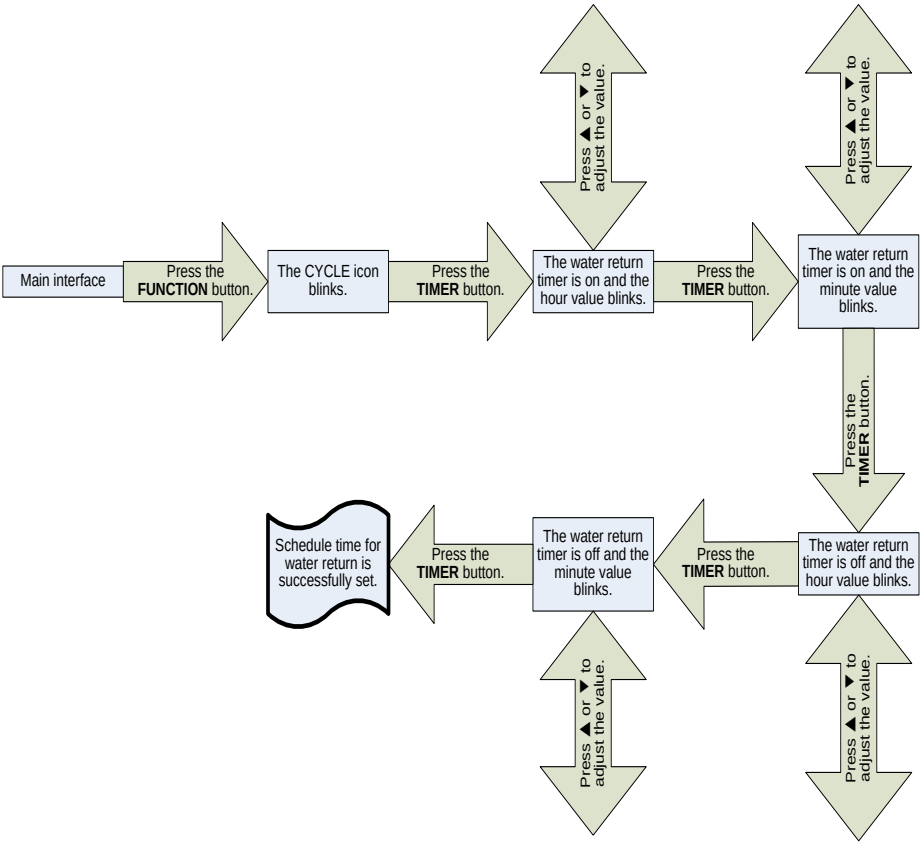
Step 3: After the hour value is set, press the **TIMER** button to switch to the minute value for scheduled start-up. When the minute value blinks, it can be set by pressing **▲ or ▼**.

Step 4: After the minute value is set, press the **TIMER** button. The ON character disappears and the OFF character is displayed. Meanwhile, the hour value blinks, indicating that the scheduled shutdown time can be set by pressing ▲ or ▼.

Step 5: After the hour value is set, press the **TIMER** button to switch to the minute value for scheduled shutdown. When the minute value blinks, it can be set by pressing **▲ or ▼**.

Step 6: Press the **TIMER** button to switch back to the CYCLE function selection interface. If the CYCLE character blinks, the scheduled time for water return is successfully set to a new value.

Step 7: When users press any button except the TIMER, FUNCTION, ON/OFF, and ▲/▼ buttons shortly or stay in the selection interface for 5 seconds, the current interface exits automatically and whether the CYCLE character is displayed is determined based on the scheduled time for water return.



6.7 Special Function

6.7.1 Keypad Lock

In normal status of the unit, press and hold ▲+▼ for 5 seconds. The LOCK icon is displayed on the controller and all buttons become unavailable. The LOCK icon blinks when any button is pressed. To cancel the Keypad lock function, press and hold ▲+▼ for 5 seconds again. Then the LOCK icon disappears.

If the unit is faulty, the lock function becomes invalid and all buttons are available again. The Keypad lock function will resume after the error is rectified. In addition, the lock status before power failure is memorized.

6.7.2 Cleaning (available to circular models only)

In the Off state of a normal unit, press and hold **MODE+▼** for 5 seconds. The unit starts the cleaning function and HOTWATER, SAVE, PRESET, and NIGHT icons are displayed on the LCD. To cancel the cleaning function, press and hold **MODE+▼** for 5 seconds again.

The cleaning process lasts for 30 minutes at the most and it will stop automatically 30 minutes after the cleaning function is started. When the cleaning function is started, the ON and OFF buttons become unavailable.

If the unit is faulty, the cleaning function is canceled automatically.

This function is used for cleaning circular air source water heaters and for exhausting air in the water system during debugging.

6.7.3 Manual/Automatic switchover for the water return pump

In the Off state of the wired controller, press and hold **MODE+▲** on the main interface for 5 seconds to enter the query interface. Then the query code 00 is displayed, press and hold **MODE+▲** for 5 seconds to display the configurable parameter codes and values. Press **▲ or ▼** to select P0 and press the **MODE** button. Then item value 00 blinks under the parameter code P0. Press **▲ or ▼** to select the item value and press the **MODE** button to confirm setting (00 indicates manual control and 01 indicates automatic control). After that, press the **FUNCTION** button to return to the main interface. If no operation is performed with 15 seconds, it will switch back to the main interface automatically.

Note: Other parameters cannot be modified; otherwise, operation exception will be caused.

6.7.4 Temperature unit setting (℃/℉)

In the Off state of the wired controller, press and hold **MODE+▲** on the main interface for 5 seconds to enter the query interface. Then the query code 00 is displayed, press and hold **MODE+▲** for 5 seconds to display the configurable parameter codes and values. Press **▲ or ▼** to select P5 and press the **MODE** button. Then item value 00 or 01 blinks under the parameter code P5. Press **▲ or ▼** to select the item value and press the **MODE** button to confirm setting (00: ℃ and 01: ℉). After that, press the **FUNCTION** button to return to the main interface. If no operation is performed with 15 seconds, it will switch back to the main interface automatically.

Note: Other parameters cannot be modified; otherwise, operation exception will be

caused.

6.7.5 Temperature sensor setting for ON/OFF control

In the Off state of the wired controller, press and hold MODE+▲ on the main interface for 5 seconds to enter the query interface. Then the query code 00 is displayed, press and hold MODE+▲ for 5 seconds to display the configurable parameter codes and values. Press ▲ or ▼ to select PJ and press the MODE button. Then item value 00、01 or 02 blinks under the parameter code PJ. Press ▲ or ▼ to select the item value and press the MODE button to confirm setting. After that, press the FUNCTION button to return to the main interface. If no operation is performed with 15 seconds, it will switch back to the main interface automatically.

Value instruction：

Value	0	01	02
instruction	Bottom temperature sensor controls the ON/OFF of unit	Top temperature sensor control the ON/OFF of unit	Top temperature sensor controls the startup of unit; the bottom temperature sensor control the stop of unit
Effect	Can improve the hot water volume appropriately	Can save power	The hot water volume and the electricity is between 00 and 01

Note: Other parameters cannot be modified; otherwise, operation exception will be caused.

6.8 Errors Display

When some errors occur during operation, the error codes will be displayed on the controller.

Meanwhile, the unit is in the Off state and the controller supports only the on/off and query functions.

If multiple errors occur to the water heater simultaneously, the corresponding error codes will be displayed circularly.

If the controller displays a error, shut down the water heater and contact qualified personnel for maintenance. The following figure shows a communication error.

For details on error codes, see the table attached at the end of this manual.

7. Precautions

(1) Do not perform operations to the controller with wet hands.

(2) Do not install the wired controller at a wet place.

(3) Do not beat, throw, or frequently disassemble and assemble the wired controller.

(4) The water outlet temperature of the water tank is set to 50°C before delivery. Users can adjust the temperature as required when the unit is running. However, if the temperature is too high, the coefficient of performance (COP) decreases.

(5) When the temperature setpoint is achieved, the unit stops automatically and the wired controller displays the KEEP icon. If the water temperature at the water acquisition position or at the bottom of the water tank decreases by 5°C to 10°C, the unit will start to heat up water again.

Appendix: Errors and Symptoms

Please contact the SINCLAIR appointed service center in case of any of following conditions.

Symptom	Errors
The unit is shut down and E1 is displayed on the controller.	High pressure protection
The unit is shut down and E4 is displayed on the controller.	Discharge protection
The unit is shut down and E5 is displayed on the controller.	Compressor overload protection
The unit is shut down and E6 is displayed on the controller.	Communication error
The unit is shut down and C5 is displayed on the controller.	Outdoor jumper error
The unit is shut down and F3 is displayed on the controller.	Outdoor temperature sensor error
The unit is shut down and F4 is displayed on the controller.	Discharge temperature sensor error
The unit is shut down and F6 is displayed on the controller.	Outdoor heat exchanger coil temperature sensor e rror
The unit is shut down and Fd is displayed on the controller.	Suction temperature sensor error
The unit is shut down and FE is displayed on the controller.	Upper Water temperature sensor error
The unit is shut down and FL is displayed on the controller.	Middle Water temperature sensor error
The unit is shut down and L6 is displayed on the controller.	Insufficient unit capability
The unit is shut down and PL is displayed on the controller.	Compressor DC busbar under voltage protection
The unit is shut down and PH is displayed on the controller.	Compressor DC busbar over voltage protection
The unit is shut down and PA is displayed on the controller.	Compressor AC current protection (input side)
The unit is shut down and H5 is displayed on the controller.	Compressor IPM module protection
The unit is shut down and HC is displayed on the controller.	Compressor PFC abnormality
The unit is shut down and Lc is displayed on the controller.	Compressor startup failure
The unit is shut down and Ld is displayed on the controller.	Compressor Missing phase
The unit is shut down and P0 is displayed on the controller.	Compressor Drive module resetting

The unit is shut down and P5 is displayed on the controller.	Compressor current protection
The unit is shut down and LF is displayed on the controller.	compressor power protection
The unit is shut down and Pc is displayed on the controller.	Compressor Current sensor malfunction
The unit is shut down and H7 is displayed on the controller.	The compressor motor in loss of synchronization
The unit is shut down and P6 is displayed on the controller.	Malfunction from Compressor driving part to main-control communication
The unit is shut down and P8 is displayed on the controller.	Overheat protection of Compressor radiator
The unit is shut down and P7 is displayed on the controller.	Compressor radiator sensor malfunction
The unit is shut down and ee is displayed on the controller.	Compressor Drive Memory chip malfunction
The unit is shut down and PU is displayed on the controller.	Compressor Charge circuit malfunction
The unit is shut down and PP is displayed on the controller.	Compressor AC input voltage abnormality
The unit is shut down and PF is displayed on the controller.	Compressor driver board environment temperature sensor malfunction
The unit is shut down and P9 is displayed on the controller.	Compressor AC contactor protection or input zero crossing error
The unit is shut down and AL is displayed on the controller.	Fan DC busbar under voltage protection
The unit is shut down and AH is displayed on the controller.	Fan DC busbar over voltage protection
The unit is shut down and AA is displayed on the controller.	Fan AC current protection (input side)
The unit is shut down and A1 is displayed on the controller.	Fan IPM module protection
The unit is shut down and AF is displayed on the controller.	Fan PFC abnormality
The unit is shut down and AC is displayed on the controller.	Fan startup failure
The unit is shut down and Ad is displayed on the controller.	Fan Missing phase
The unit is shut down and A0 is displayed on the controller.	Fan Drive module resetting
The unit is shut down and UL is displayed on the controller.	Fan current protection
The unit is shut down and UP is displayed on the controller.	Fan power protection
The unit is shut down and AE is displayed on the controller.	Fan Current sensor malfunction
The unit is shut down and AJ is displayed on the controller.	The Fan motor in loss of synchronization

The unit is shut down and A6 is displayed on the controller.	Malfunction from Fan driving part to main-control communication
The unit is shut down and A8 is displayed on the controller.	Overheat protection of Fan radiator
The unit is shut down and A9 is displayed on the controller.	Fan radiator sensor malfunction
The unit is shut down and An is displayed on the controller.	Fan Drive Storage chip malfunction
The unit is shut down and AU is displayed on the controller.	Fan Charge circuit malfunction
The unit is shut down and AP is displayed on the controller.	Fan AC input voltage abnormality
The unit is shut down and Ar is displayed on the controller.	Fan driver board environment temperature sensor malfunction
The unit is shut down and U9 is displayed on the controller.	Fan AC contactor protection or input zero crossing error
The unit is shut down and EE is displayed on the controller.	Main-control Memory chip malfunction
Harsh voice; Disagreeable smell; Air switch or circuit breaker tripping frequently	There is probably the potential security hazard and it is high recommended to stop and unplug the unit.
After-sales Service	
If the air source water heater you purchase from SINCLAIR encounters quality problems or other problems, contact your local maintenance centers authorized by SINCLAIR.	

NOTE CONCERNING PROTECTION OF ENVIRONMENT

This product must not be disposed of via normal household waste after its service life, but must be taken to a collection station for the recycling of electrical and electronic devices. The symbol on the product, the operating instructions or the packaging indicate such disposal procedures. The materials are recyclable in accordance with their respective symbols. By means of re-use, material recycling or any other form of recycling old appliances you are making an important contribution to the protection of our environment. Please ask your local council where your nearest disposal station is located.

In case of quality problem or other please contact your local supplier or authorized service center.
Emergency number: 112

PRODUCER

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