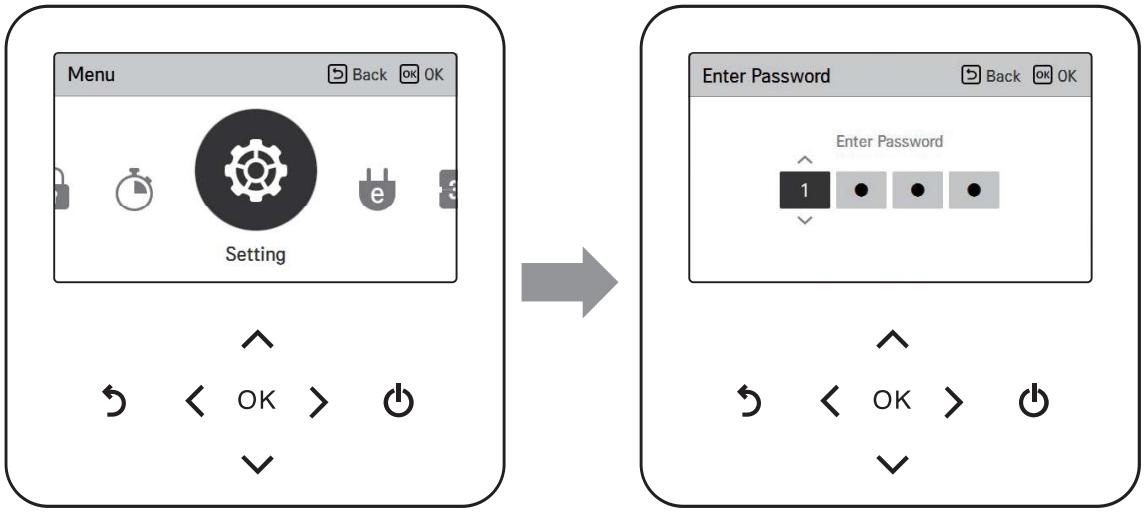
# INSTALLER SETTING

## How to enter installer setting

**CAUTION**

The installer setting mode is the mode to set the remote controller's detail function. If the installer setting mode is incorrectly set, it may cause product failure, user's injury, or property damage. It must be set by the installation specialist with the installation license, and if it is installed or changed without installation license, all problems caused will be the responsibility of the installer, and may void the LG warrenty.

- In the menu screen, press [<,>(left/right)] button to select the setting category, and press [∧(up)] button for 3 seconds to enter the password input screen for the installer setting.
- Input the password and press [OK] button to move to the installer setting list.




※ Installer setting password

Main screen ⟶ menu ⟶ setting ⟶ service ⟶ RMC version information ⟶ SW Version

Example) SW version : 1.00.1 a

In the above case, the password is 1001.

**NOTE**

Some categories of the installer setting menu may not be available depending on the product function or the menu name may be different.

# Installer setting

- You can set the product user functions.
- Some functions may not be displayed/operated in some product types.

| Function | Description |
|---|---|
| 3 Minutes Delay | Factory use only |
| Select Temperature Sensor | Selection for setting temperature as air temperature or leaving water temperature or air+leaving water temperature |
| Dry Contact Mode setting | Dry contact function is the function that can be used only when the dry contact devices is separately purchased and installed. |
| Central Control address | When connecting the central control, set the central control address of the unit. |
| Pump Test run | Water pump test run |
| Air cooling set temp. setting | Adjusting range of 'Setting Air Temperature' in cooling mode |
| Water cooling set temp. setting | Adjusting range of 'Setting Leaving Water Temperature' in cooling mode |
| Air heating set temp. setting | Adjusting range of 'Setting Air Temperature' in heating mode |
| Water heating set temp. setting | Adjusting range of 'Setting Heating Flow Temperature' in heating mode |
| DHW Set Temp.setting | Setting DHW set temperature |
| Screed drying setting | Setting for using Step 1 or 2 capacity of electric |
| Heater on temperature | Setting outdoor air temperature where half capacity of electric heater starts operation. |
| Water supply off temp. during cooling setting | Determine leaving water temperature when the unit is turned off. This function is used for preventing condensation on the floor in cooling mode |
| Tank disinfection setting 1 | Setting start/maintain time for pasteurisation |
| Tank disinfection setting 2 | Setting pasteurisation temperature |
| Tank setting 1 | Setting start temperature for operation |
| Tank setting 2 | Setting maintain temperature for operation |
| Heater priority | Determine electric heater and water heater on and off |
| DHW time setting | Determine follow time duration : operation time of domestic hot water tank heating, stop time of domestic hot water tank heating, and delay time of DHW tank heater operating |
| TH on/off Variable, heating air setting | Heating air temperature TH On / Off Type setting |
| TH on/off Variable, heating Water setting | Heating Water Outlet Temperature TH On / Off Type |

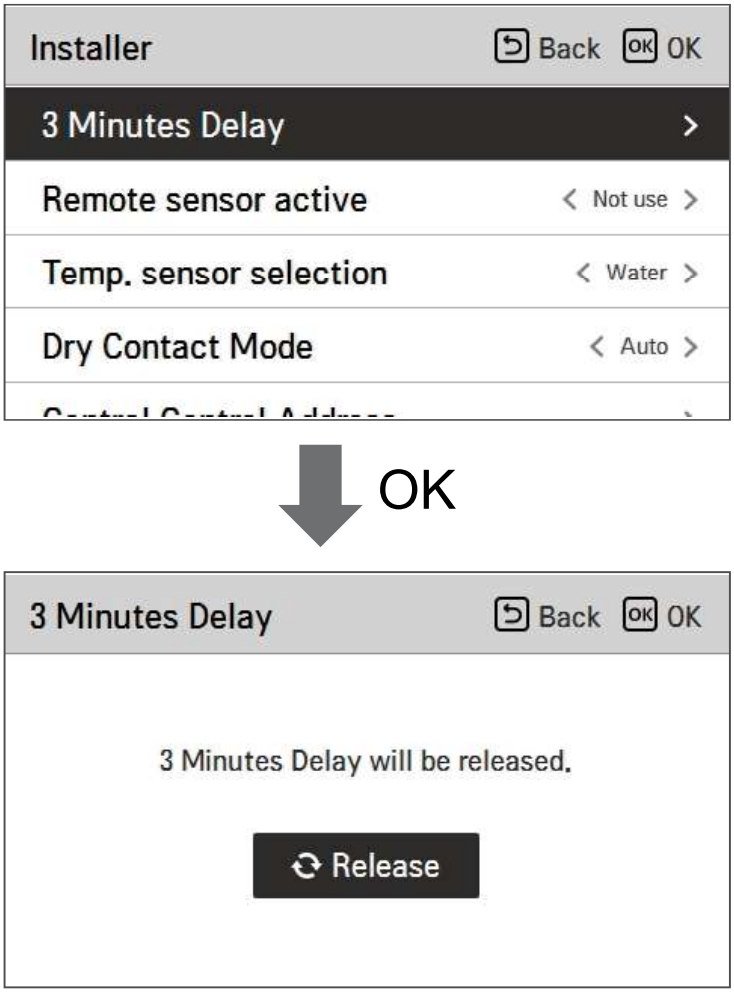
| Function | Description |
|---|---|
| TH on/off Variable, cooling air setting | Cooling air temperature TH On / Off Type setting |
| TH on/off Variable, cooling Water setting | Cooling Water Outlet Temperature TH On / Off Type |
| Heating temp. setting | At the leaving water control in heating mode, the control reference water temperature position setting |
| Cooling temp. setting | At the leaving water control in cooling mode, the control reference water temperature position setting |
| Pump setting in heating | Set water pump on / off delay option in heating mode |
| Pump setting in cooling | Set water pump on / off delay option in cooling mode |
| Forced operation | Water pump off After 20 consecutive hours, disable / enable the logic that drives the water pump by itself |
| CN_CC setting | It is the function to set whether to install (use) Dry Contact. (It is not a function for Dry Contact installation, but it is a function to set the usage of the unit's CN_CC port.) |
| Pump Capacity | Function to change Water Pump Capacity |
| Smart Grid(SG) setting | Select whether to use or not use the SG Mode function of the product, set the operation option value in SG1 step. |
| Seasonal auto temp setting | Set the operating temperature in Seasonal Auto mode |
| Modbus Address | It is function to set the address of the Modbus device that is externally linked to the product. Modbus address setting function is available from indoor unit. |
| CN_EXT | Function to set external input and output control according to DI / DO set by customer using dry contact port of indoor unit. Determine the use of the contact port (CN_EXT) mounted on the indoor unit PCB |
| Anti-freezing Temperature | This function prevents the product from freezing. |
| Add Zone | Install additional valve in product to control additional operation area |
| Use External Pump | Set up to control an external water pump |
| 3rd Party Boiler | Configuration to control 3rd party boiler |
| Meter Interface | When installing the meter interface to measure energy / calorie in the product, set unit spec for each port |
| Pump Prerun/Overrun | Set to reach the optimum flow rate by circulating the heating water with the water pump before heat exchange. After the operation stop, additional water pump is activated to circulate the heating water. |
| Data logging setting | Display error history of connected unit |
| Password Initialization setting | It is the function to initialize (0000) the password when you forgot the password set in the remote controller. |

## 3 Minutes Delay

Temporarily eliminates the 3-minute delay function of the outdoor unit Comp

- Factory use only

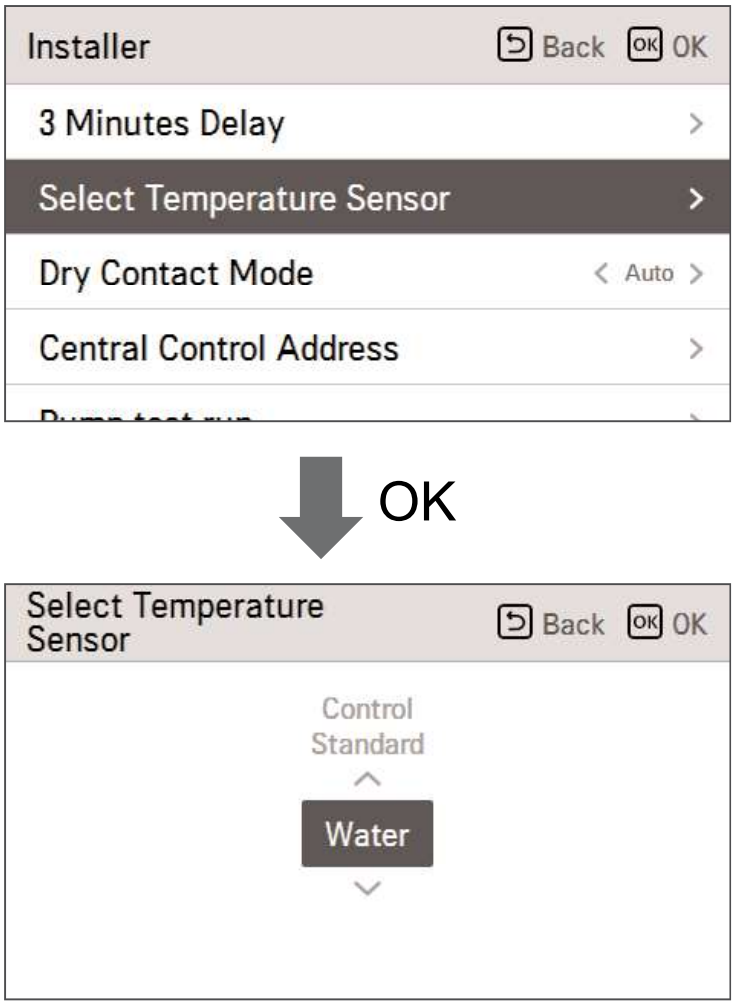
• In the installer setting list, select 3 Minutes Delay category, and press [OK] button to move to the detail screen.



## Select Temperature Sensor

The product can be operated according to air temperature or leaving water temperature. The selection for setting temperature as air temperature or leaving water temperature is determined.

- In the installer setting list, Select Temperature Sensor category, and press [OK] button to move to the detail screen.




| Value | | |
|---|---|---|
| Water | Air | Air+Water |

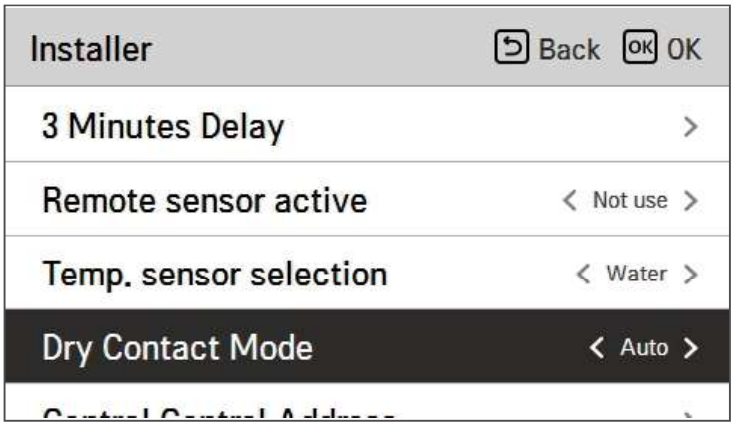
**NOTE**

Air temperature as setting temperature is ONLY available when Remote Air Sensor Connection is enabled and Remote Air Sensor Connection is set as 02.

## Dry Contact Mode

Dry contact function is the function that can be used only when the dry contact devices is separately purchased and installed.

• Change setting values using [<,>(left/right)] button.




| Value |
|---|
| Auto |
| manual |

**NOTE**

For dry contact mode related detail functions, refer to the individual dry contact manual.

What is dry contact?

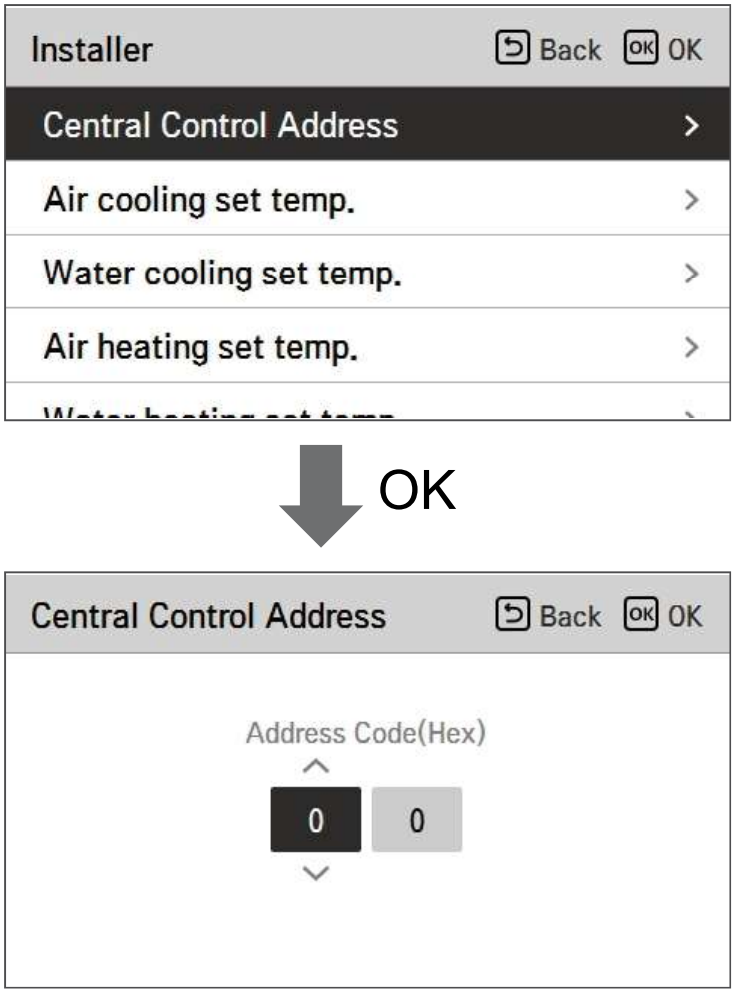
It means the contact point signal input when the hotel card key, human body detection sensor, etc. are interfacing with the air conditioner.

Added system functionality by using external inputs (dry contacts and wet contacts).

## Central Control Address

When connecting the central control, set the central control address of the unit.

- In the installer setting list, select Central Control Address category, and press [OK] button to move to the detail screen.




**NOTE**

Enter address code as hexadecimal value
Front: Central Control Gr. No.
Back side: Central control indoor the number

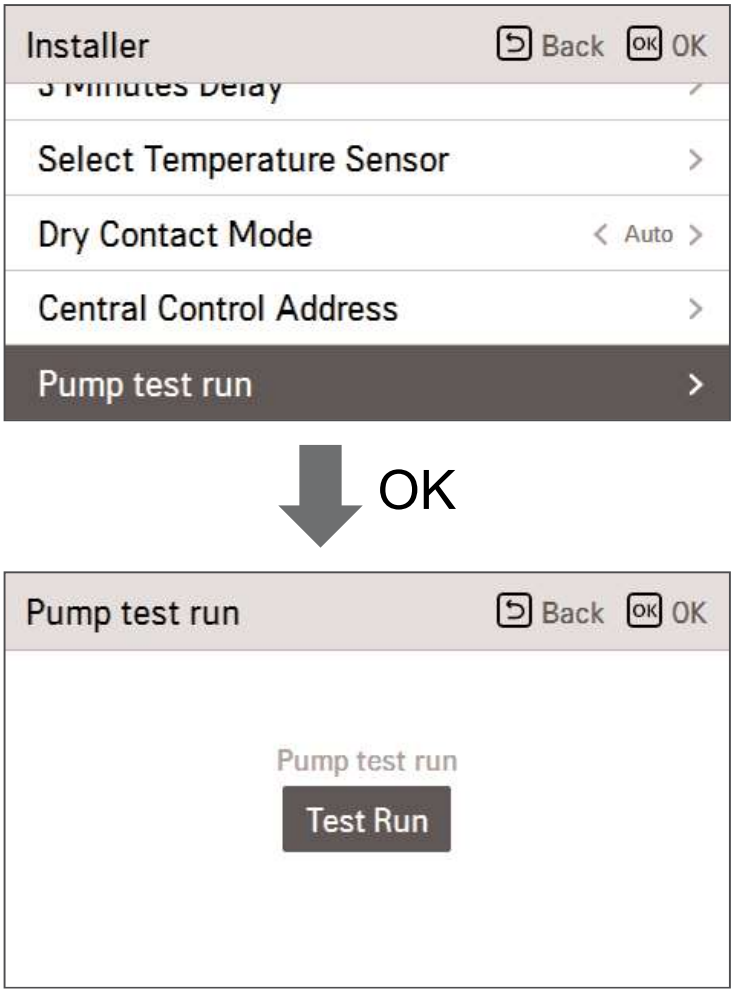
**NOTE**

This function is not available for monobloc

## Pump test run

The pump test run is the function to test run by operating the water pump. This function can be used for air vents / flow sensors and others.

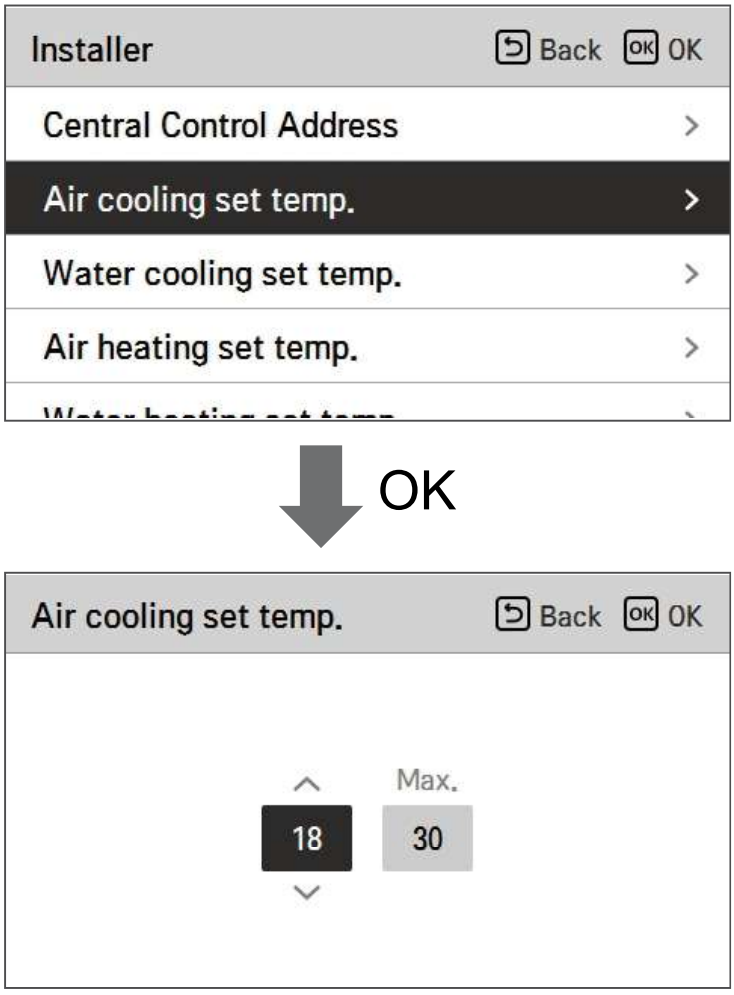
- In the installer setting list, Pump Test run category, and press [OK] button to move to the detail screen.



## Air cooling set temp.

Determine cooling setting temperature range when  air temperature is selected as setting temperature.

- In the installer setting list, select Air cooling set temp category, and press [OK] button to move to the detail screen.




| Value | Default | Range |
|---|---|---|
| Max. | 30 | 30~24 |
| Min. | 18 | 22~16 |

* Upper / lower limit / default value is in ˚C

**NOTE**

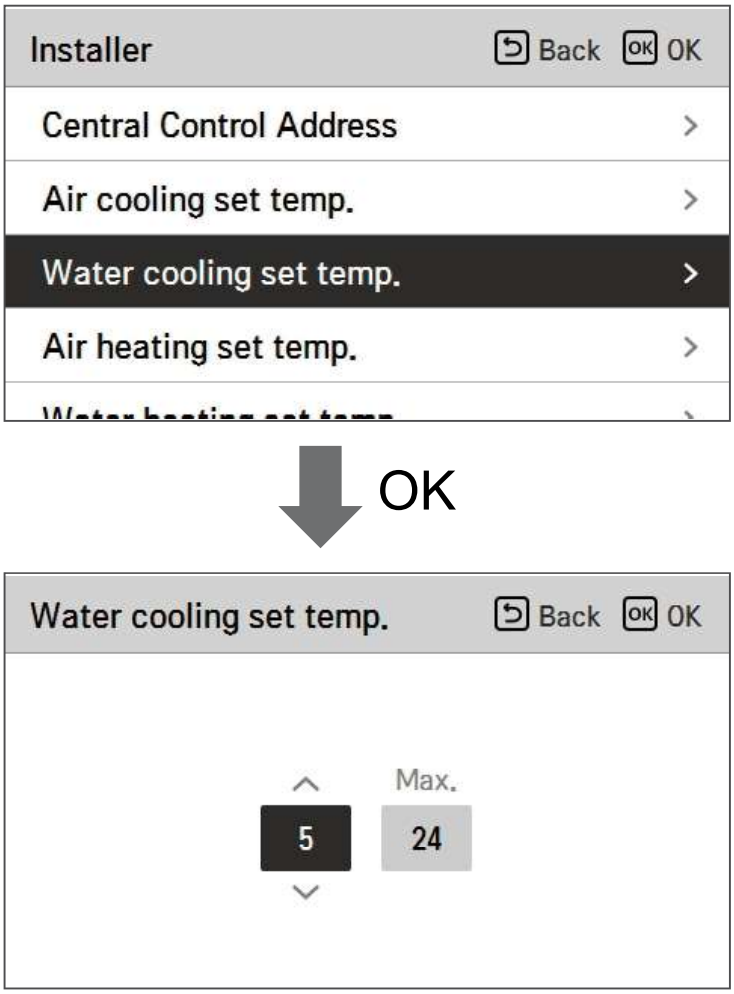
Only available when remote air temperature sensor is connected.

- Accessory PQRSTA0 should be installed.
- Also, Remote air sensor connection should be set properly.

## Water cooling set temp

Determine cooling setting temperature range when leaving water temperature is selected as setting temperature.

- In the installer setting list, select water cooling set temp category, and press [OK] button to move to the detail screen.




| Value | Default | Range |
|---|---|---|
| Max. | 24 | 27~22 |
| Min. | 18 | 20~5 |

* Upper / lower limit / default value is in ˚C

**NOTE**

Water condensation on the floor

- While cooling operation, it is very important to keep leaving water temperature higher than 16 °C. Otherwise, dew condensation can be occurred on the floor.
- If floor is in humid environment, do not set leaving water temperature below 18 °C.

**NOTE**

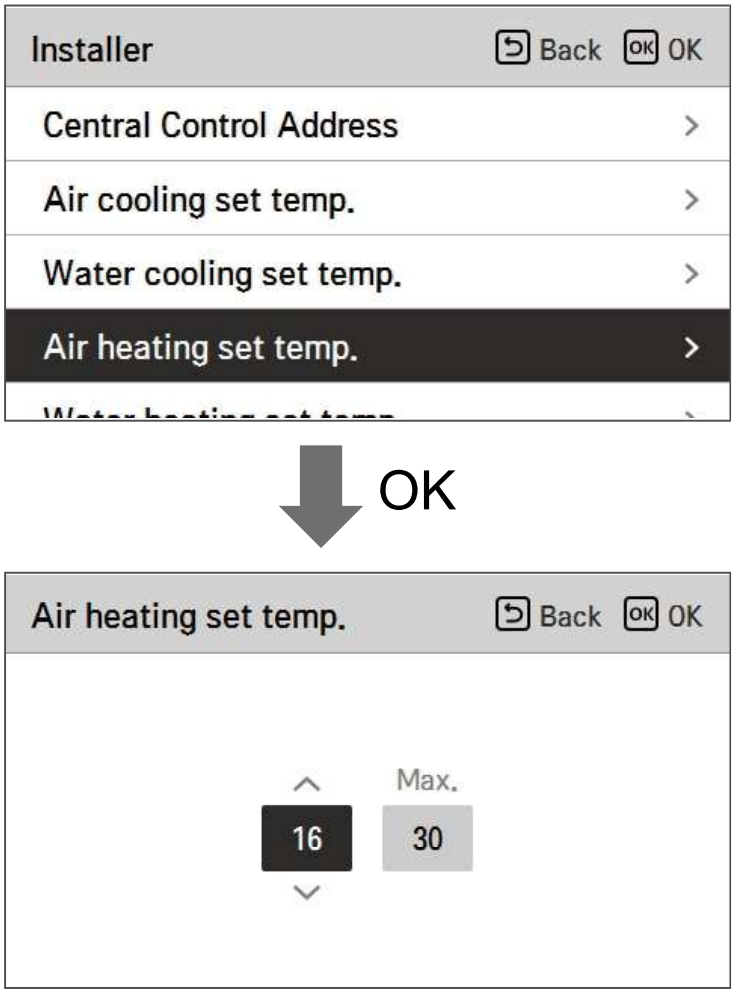
Water condensation on the radiator

- While cooling operation, cold water may not flow to the radiator. If cold water enters to the radiator, dew generation on the surface of the radiator can be occurred.

## Air heating set temp.

Determine heating setting temperature range when air temperature is selected as setting temperature

- In the installer setting list, select Air heating set temp. category, and press [OK] button to move to the detail screen.




| Value | Default | Range |
|---|---|---|
| Max. | 30 | 30~24 |
| Min. | 16 | 22~16 |

* Upper / lower limit / default value is in ˚C

### CAUTION

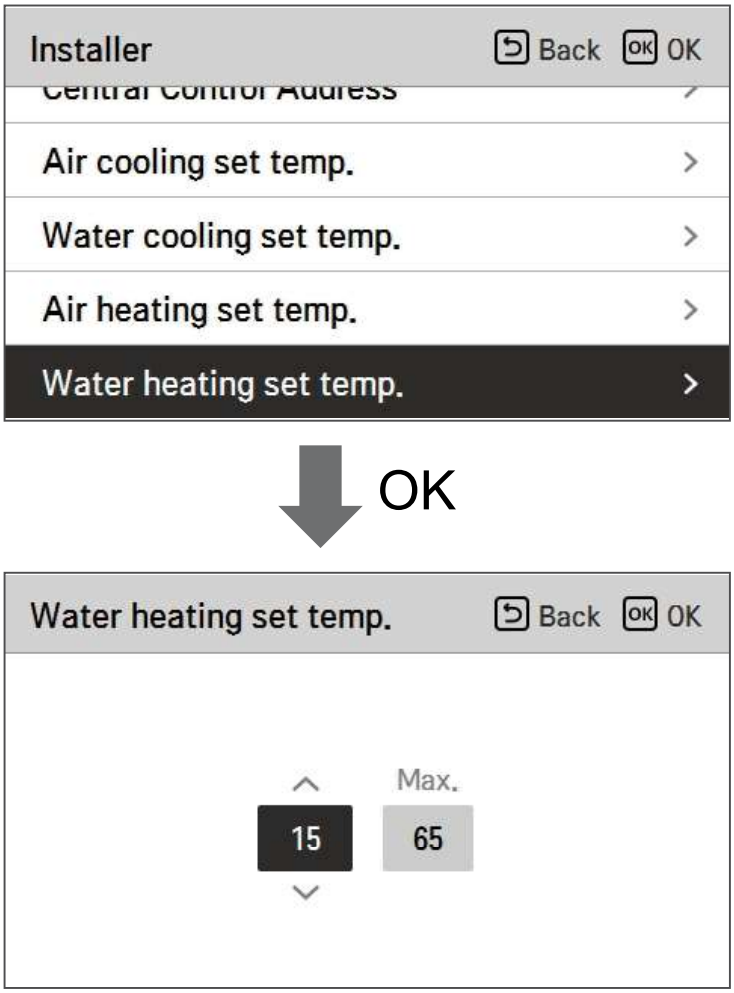
Only available when remote air temperature sensor is connected.

- Accessory PQRSTA0 should be installed.
- Also, Remote air sensor connection should be set properly.

## Water heating set temp

Determine heating setting temperature range when leaving water temperature is selected as setting temperature

- In the installer setting list, select Water heating set temp. category, and press [OK] button to move to the detail screen.




| Value | Default | Range |
|---|---|---|
| Max. | 65 | 65~35 |
| Min. | 15 | 34~15 |

* Upper / lower limit / default value is in ˚C

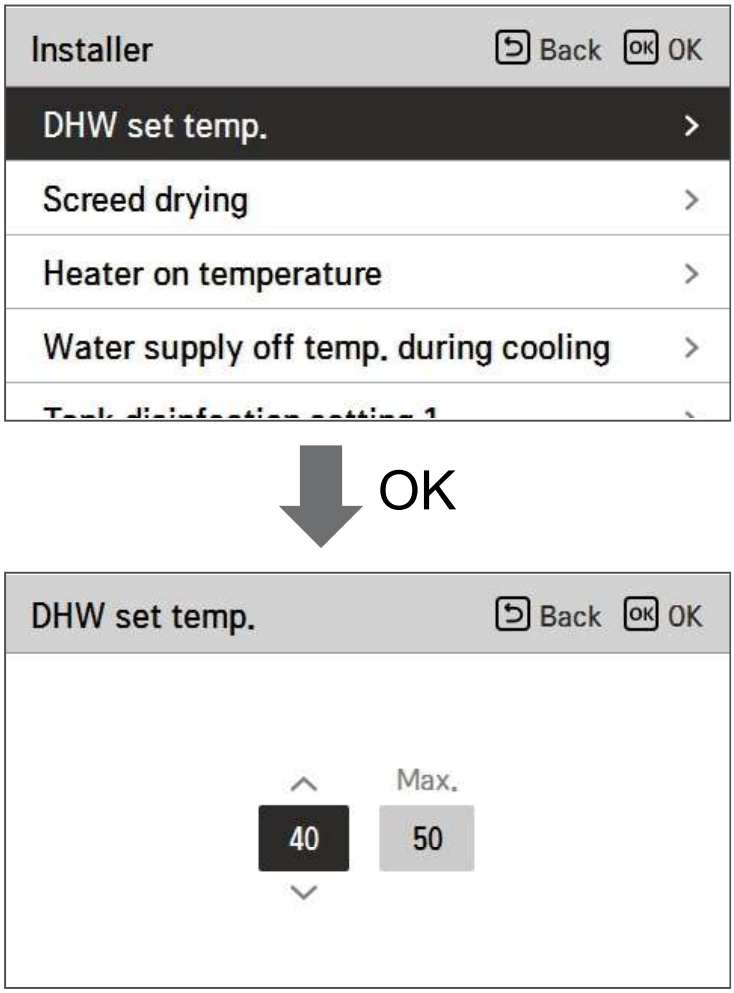
**NOTE**

- When the E/heater is not used, the minimum temperature of the water temperature can be set from 34 ˚C to 20 ˚C

## DHW set temp

Determine heating setting temperature range when DHW temperature is selected as setting temperature

- In the installer setting list, select DHW set temp. category, and press [OK] button to move to the detail screen.



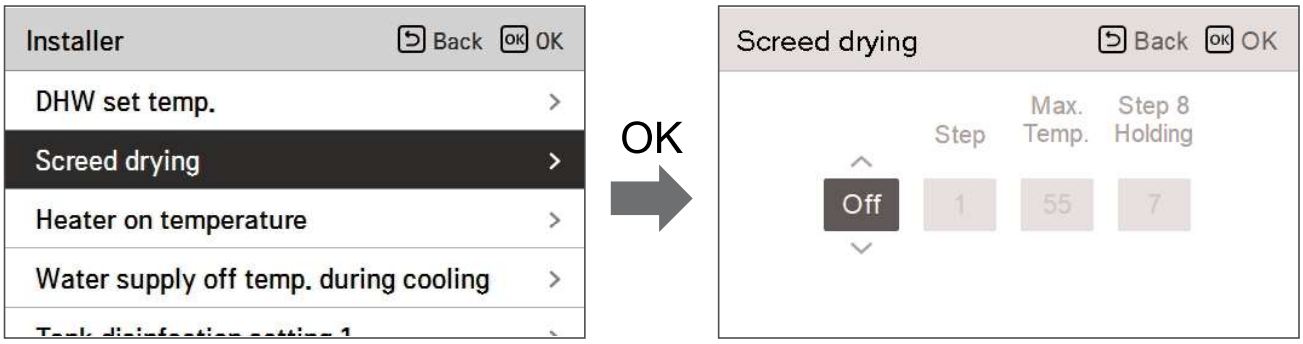

| Value | Range |
|---|---|
| Max. | 80~50 |
| Min. | 40~30 |

* Upper / lower limit / default value is in ˚C

## Screed drying

This function is a unique feature of AWHP that, when AWHP is installed in a new concrete structure, controls the specific temperature floor heating out temperature for a certain period of time to cure the floor cement.

- In the installer setting list, select Screed drying category, and press [OK] button to move to the detail screen.




### How to display

Main Screen - Displays 'Screed drying' on the desired temperature display. The step in progress at the bottom of the display is displayed.

Setting value

- Start-up step: 1 ~ 11
- Maximum temperature : 35 ˚C ~ 55 ˚C
- Step 8 Holding time : 1 days ~ 30 days

Function operation

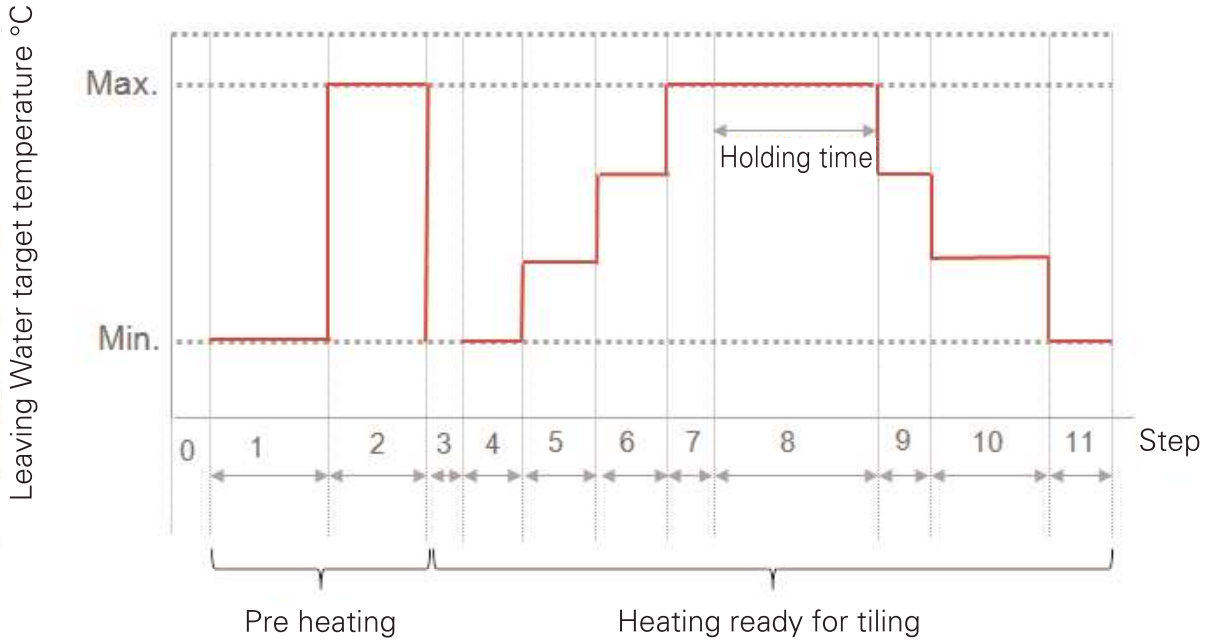
- It is performed by the following procedure from the selected starting step.
- After all steps are completed, turn off the cement curing operation.

| Step | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Leaving Water target temperature[˚C] | 25 | Max.T | Off | 25 | 35 | 45 | Max.T | Max.T | 45 | 35 | 25 |
| Duration [hours] | 72 | 96 | 72 | 24 | 24 | 24 | 24 | Holding time | 72 | 72 | 72 |

※ If the upper limit setting value of the heating LW temperature is 55 ˚C or lower, it is set to 55 ˚C forcibly.
If the lower limit setting value of the heating LW temperature is 25 ˚C or higher, it is set to 25 ˚C forcibly.

## NOTE

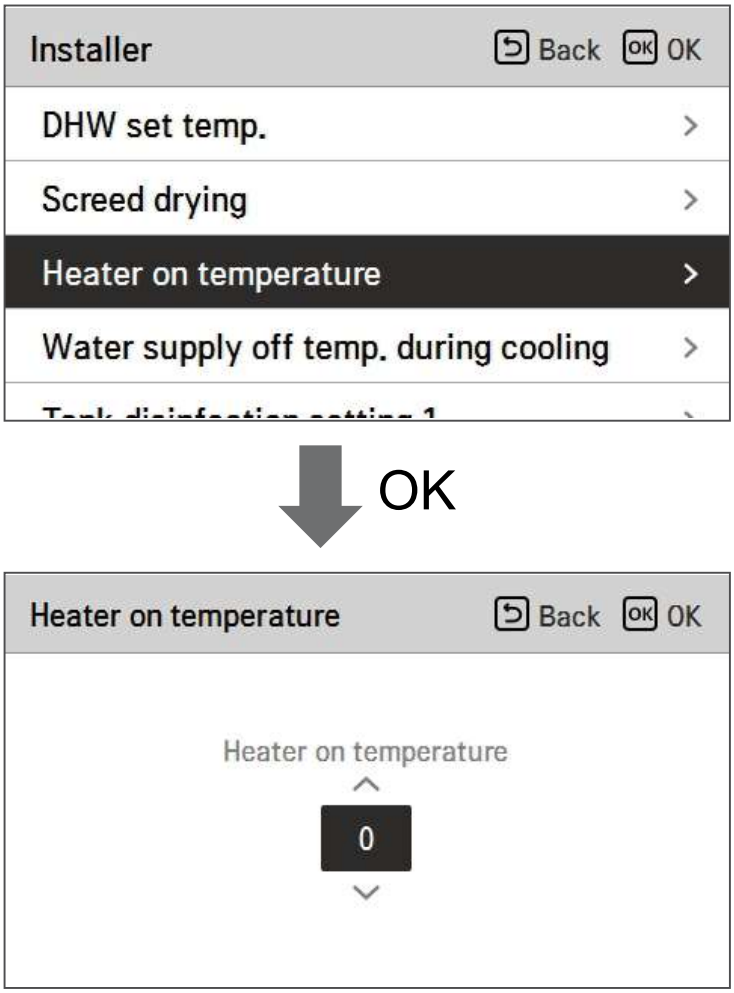
- During Screed drying operation, button input except for installer function and temperature display is restricted.
- When the power is applied again after a power outage during product operation, the product operation state before power failure is remembered and the product is automatically operated.
- Screed drying operation stops when an error occurs / When error is cleared, restart cement Screed drying. (However, if the wired remote control is reset to the error occurrence state, it is compensated in the unit of one day)
- Upon releasing after an error, Screed drying operation may take up to 1 minute of waiting time after boot up. (The Screed drying operation status is judged as 1 minute cycle.)
- During Screed drying operation, installer function Screed drying operation is selectable.
- During Screed drying operation, starting operation, low noise mode off, low noise time setting off, hot water off, solar heat off.
- During Screed drying operation, simple, sleep, on, off, weekly, holiday, heater does not execute reservation operation.



## Heater on temperature

Depending on local climatic conditions, it is necessary to change the temperature condition in which electric heater turns on / off.

- In the installer setting list, Heater on temperature category, and press [OK] button to move to the detail screen.




| | Default | Range |
|---|---|---|
| Split | -5 | 18~-15 |
| Mono | -5 | 18~-25 |

* Upper / lower limit / default value is in ˚C

## NOTE

- Heater on temperature

  Using Half capacity of electric heater : when DIP Switch No. 6 and 7 is set as ‘OFF-ON’ :

  - Example : If Heater on temperature is set as ‘-1’ and DIP switch No 6. and 7 is set as ‘OFF-ON’, then half capacity of electric heater will start operation when outdoor air temperature is below -1 °C and current leaving water temperature or room air temperature is much belower than target leaving water temperature or target room air temperature.

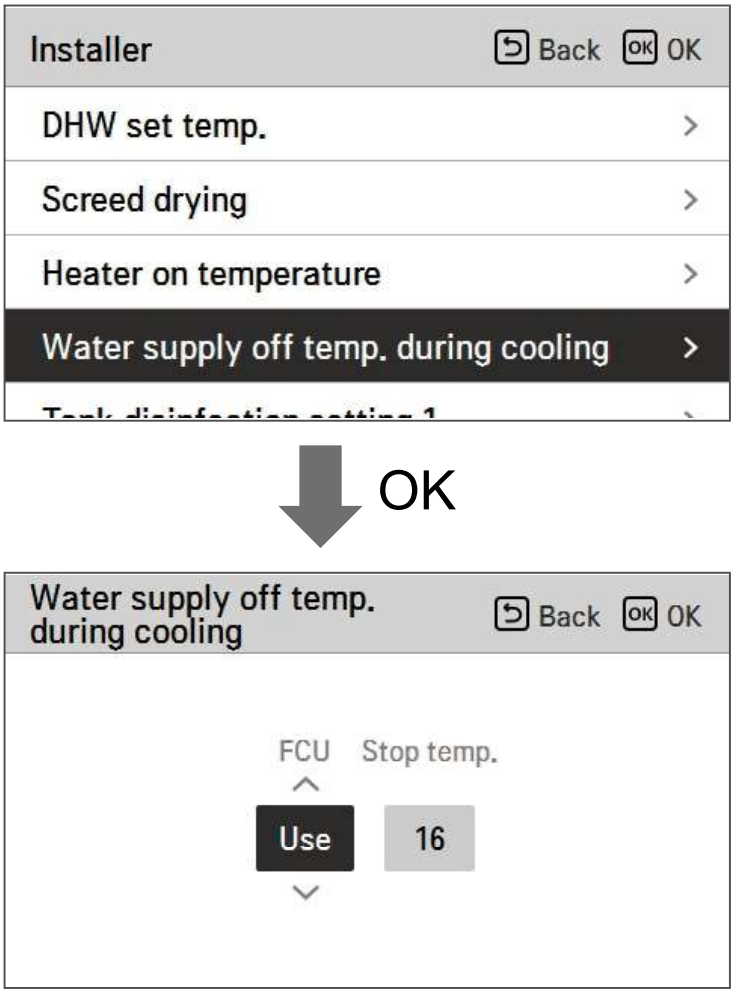
  Using Full capacity of electric heater : when DIP Switch No. 6 and 7 is set as ‘OFF-OFF’ :

  - Example : If Heater on temperature is set as '-1' and DIP switch No 6. and 7 is set as 'OFF-OFF', then full capacity of electric heater will start operation when outdoor air temperature is below -1 °C and current leaving water temperature or room air temperature is much belower than target leaving water temperature or target room air temperature.

## Water supply off temp. during cooling

Determine leaving water temperature when the unit is turned off. This function is used for preventing condensation on the floor in cooling mode

- In the installer setting list, select Water supply off temp. during cooling category, and press [OK] button to move to the detail screen.




| Function | Value | Default | Setting Rang |
|---|---|---|---|
| cooling water temperature | Water supply off temperature | 16 | 25~16 |
| | FCU Use/ not use | use | Use / Not Use |

- Stop temp. : cut-off temperature. Stop temp. is valid when FCU is installed.
- FCU : determines if FCU is installed or not.
- Example : If Stop temp. is set as '10' and FCU is 'Use' and actually FCU is NOT installed in the water loop, the unit stop operation in cooling mode when the leaving water temperature is below 10 °C.
- Example : If Stop temp. is set as '10' and FCU is 'Not use' and actually FCU is installed in the water loop, the Stop temp. is not used and the unit do NOT stop operation in cooling mode when the leaving water temperature is below 10 °C.

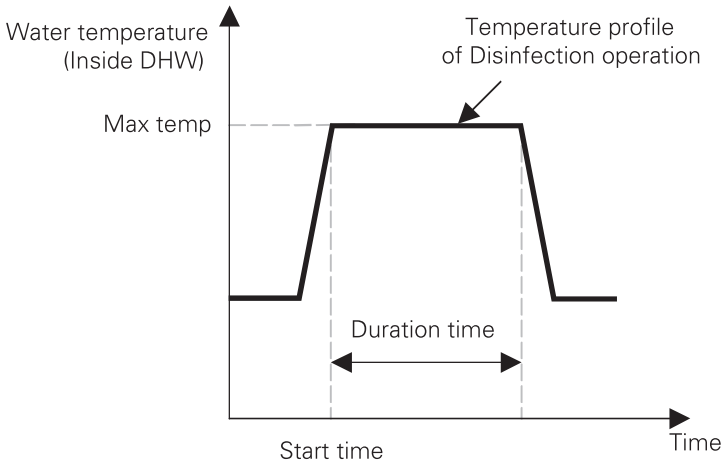
## ⚠ CAUTION

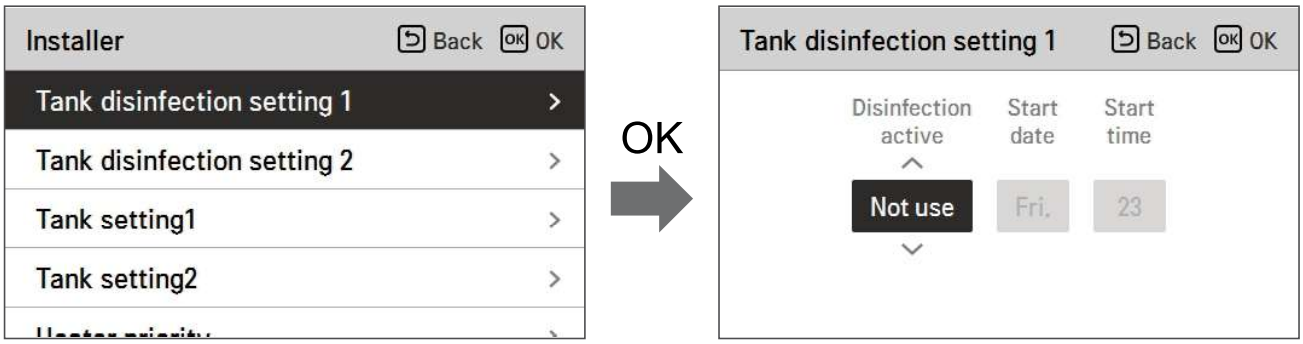
FCU Installation

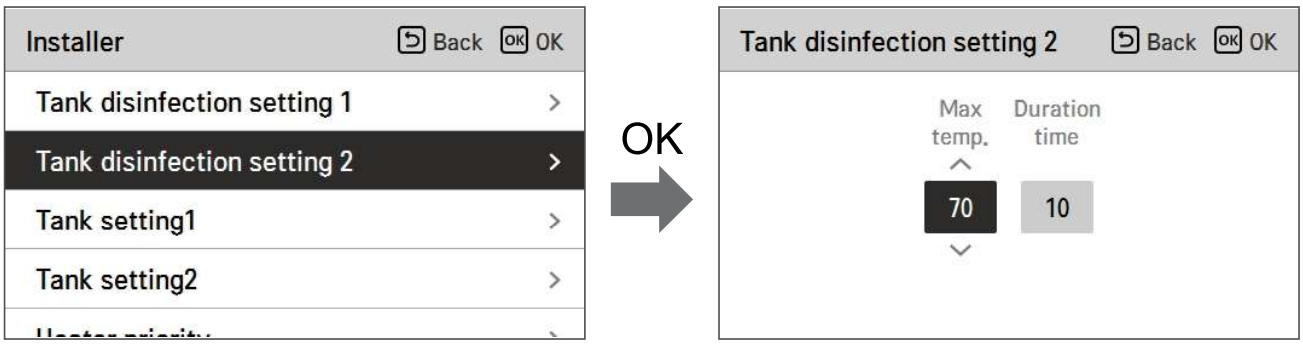
- If FCU is used, related 2way valve should be installed and connected to the unit PCB.
- If FCU is set as 'Not use' but FCU or 2way valve is NOT installed, the unit can do abnormal operation.

## Tank disinfection setting 1, 2

- Disinfection operation is special DHW tank operation mode to kill and to prevent growth of viruses inside the tank.
  - Disinfection active : Selecting enable or disable of disinfection operation.
  - Start date : Determining the date when the disinfection mode is running.
  - Start time : Determining the time when the disinfection mode is running.
  - Max temp. : Target temperature of disinfection mode.
  - Duration time : Duration of disinfection mode.



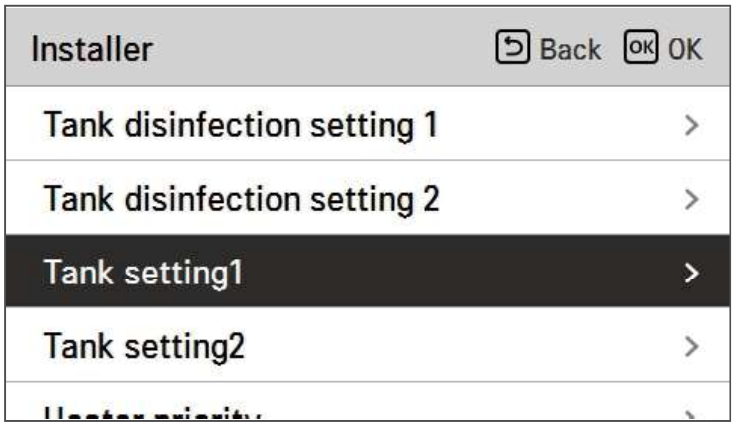

**NOTE**

DHW heating should be enable

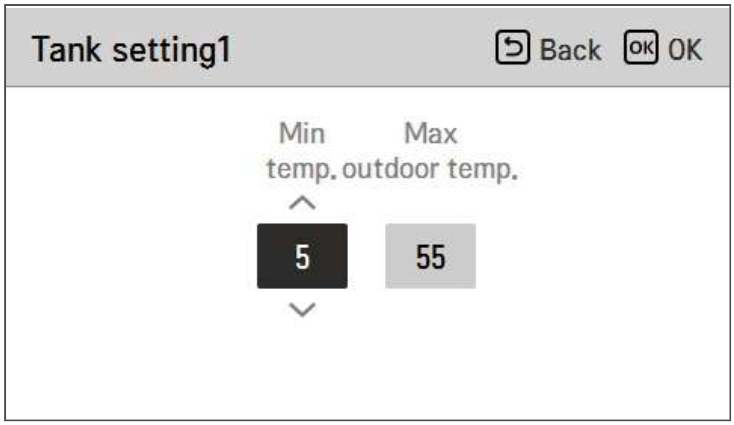
- If Disinfection active is set as ' Not use', that is 'disable disinfection mode', Start date and Start time is not used.

## Tank setting 1

- In the installer setting list, select tank setting 1 category, and press [OK] button to move to the detail screen.





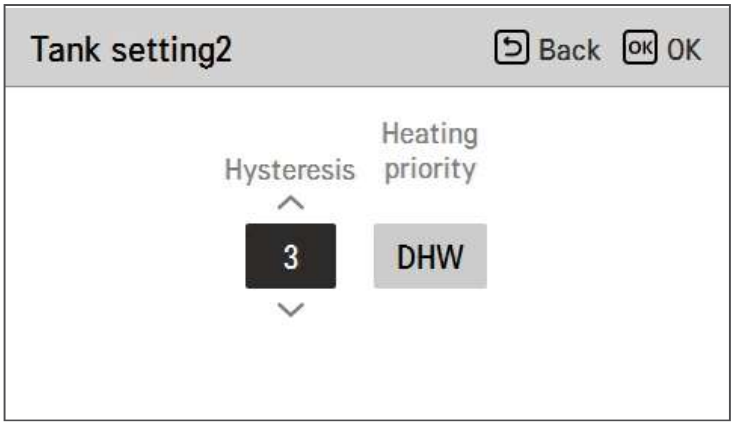



| Value | Range |
|---|---|
| Max outdoor temp | 55~40 |
| Min temp | 30~1 |

## Tank setting 2

- In the installer setting list, select tank setting 2 category, and press [OK] button to move to the detail screen.





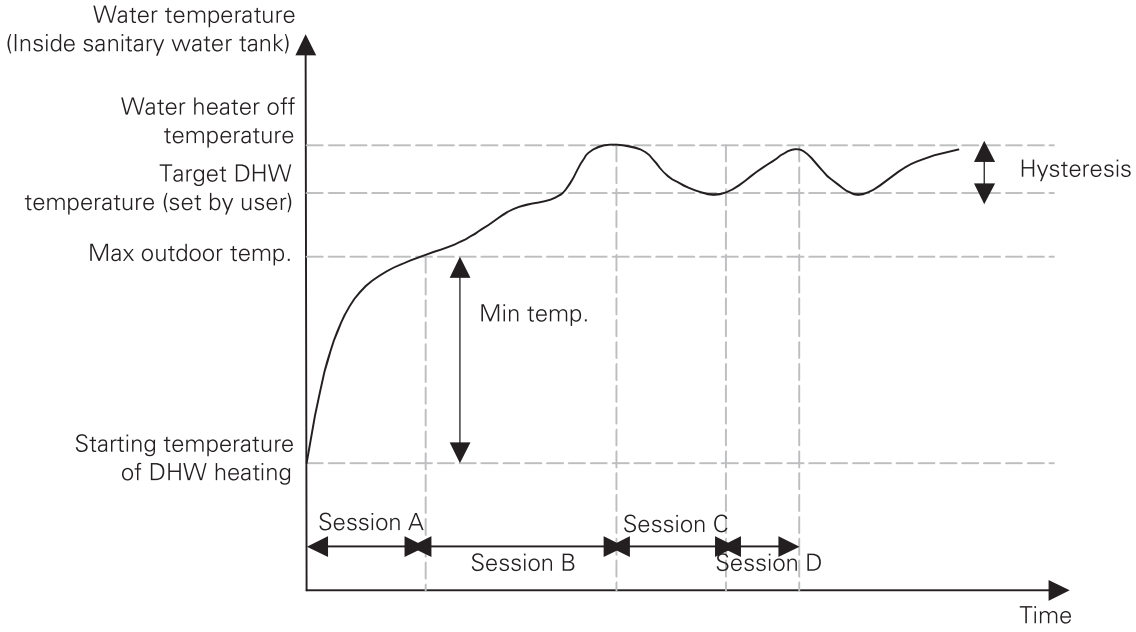

| Value | Range |
|---|---|
| Hysteresis | 4~2 |
| Heating priority | Floor heating / DHW |

• Tank setting 1, 2

Descriptions for each parameters are as following.

- Min temp. : temperature gap from Max outdoor temp.
- Max outdoor temp. : maximum temperature generated by AWHP compressor cycle.
- Example : If Min temp. is set as '5' and Max outdoor temp. is set as '48', then Session A (see the graph) will be started when the water tank temperature is below 45 °C…. If temperature is above 48 °C…, then Session B will be started.

- Hysteresis : temperature gap from target DHW temperature. This value is required to frequent On and Off of water tank heater.
- Heating priority : Determining heating demand priority between DHW tank heating and under floor heating.
- Example : If user's target temperature is set as '70' and Hysteresis is set as '3', then the water tank heater will be turned off when the water temperature is above 73 °C. The water tank heater will be turned on when the water temperature is below 70 °C.
- Example : If Heating priority is set as 'DHW', that means heating priority is on DHW heating, DHW is heated by AWHP compressor cycle and water heater. In this case the under floor can not be heated while DHW heating. On the other hand, if the Heating priority is set as 'Floor heating', that means heating priority is on under floor heating, DHW tank is ONLY heated by water heater. In this case the under floor heating is not stopped while DHW is heated.




Session A : Heating by AWHP compressor cycle and water heater
Session B : Heating by water heater
Session C : No heating (Water heater is Off)
Session D : Heating by water heater

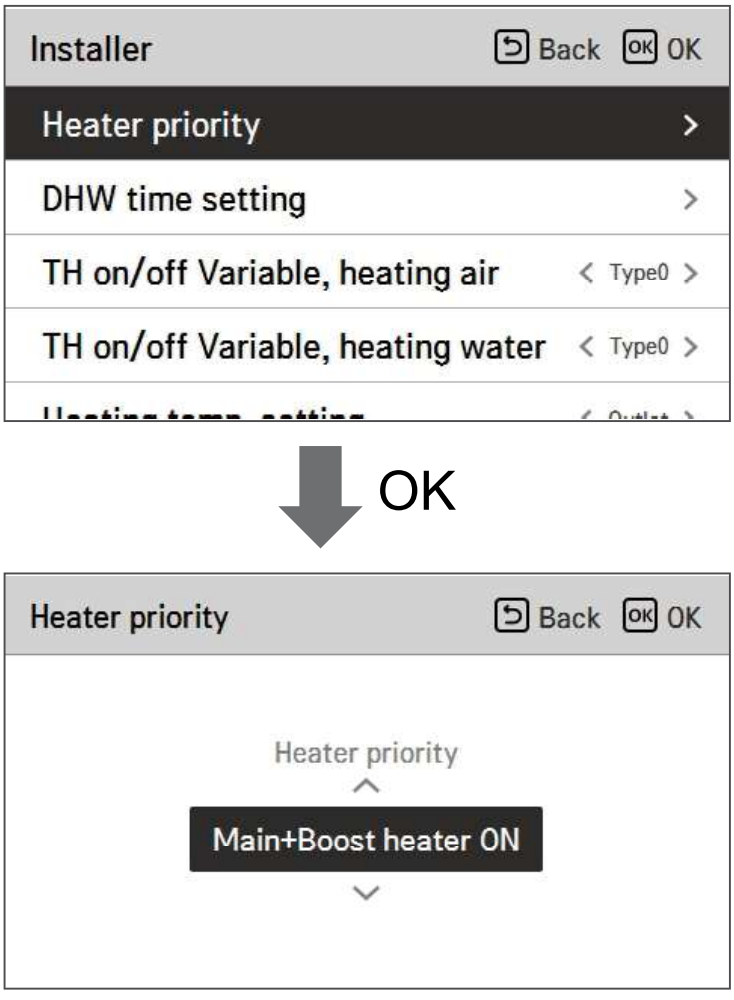
**NOTE**

DHW heating does not operate when it is disabled.

## Heater priority

- Heater priority : determine electric heater and DHW tank heater on and off.
- Example : If Heater priority is set as 'Main+Boost heater ON', then electric heater and DHW tank heater are on and off according to control logic. If Heater priority is set as 'Boost heater only ON', then electric heater is never turned on and only DHW tank heater is on and off according to control logic.

• In the installer setting list, heater priority category, and press [OK] button to move to the detail screen.

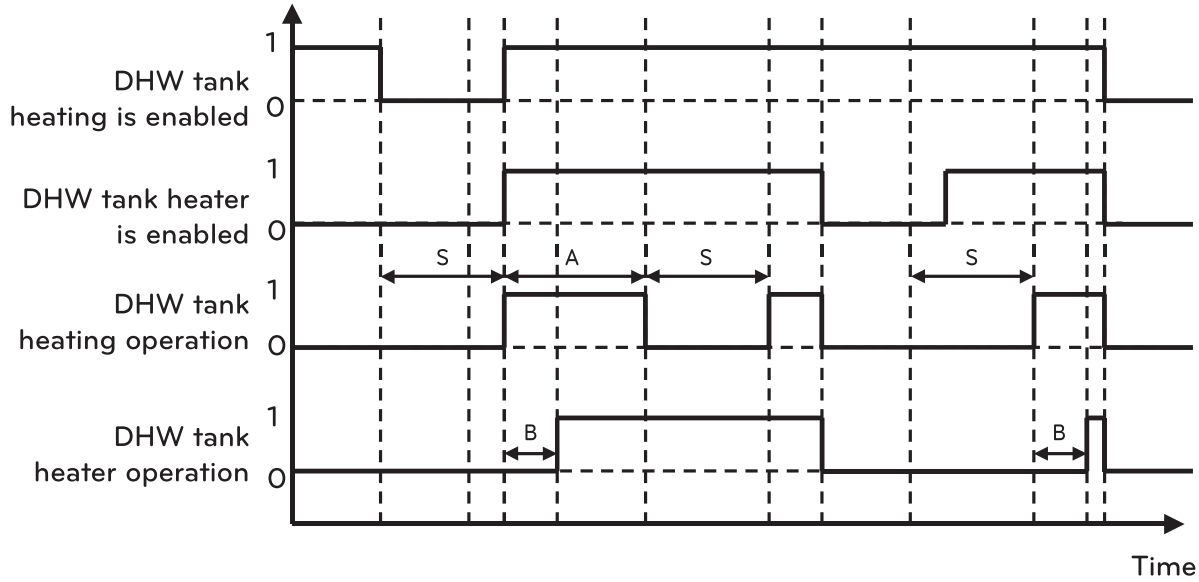



| Value | |
|---|---|
| Boost heater only ON | Main+Boost heater ON |

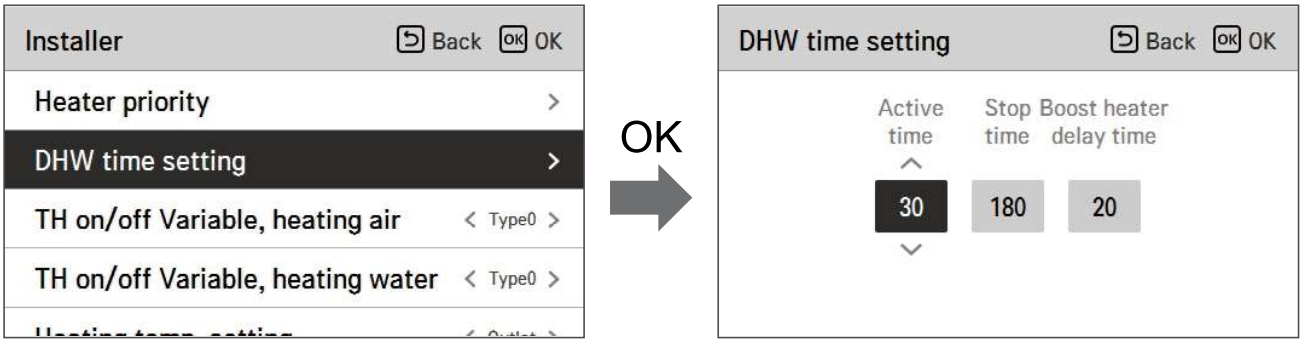
## DHW time setting

Determine following time duration : operation time of DHW tank heating, stop time of DHW tank heating, and delay time of DHW tank heater operating.

- Active time : This time duration defines how long time DHW tank heating can be continued.
- Stop time : This time duration defines how long time DHW tank heating can be stopped. It is also regarded as time gap between DHW tank heating cycle.
- Boost heater delay time : This time duration defines how long time DHW tank heater will not be turned on in DHW heating operation.
- Example of timing chart :



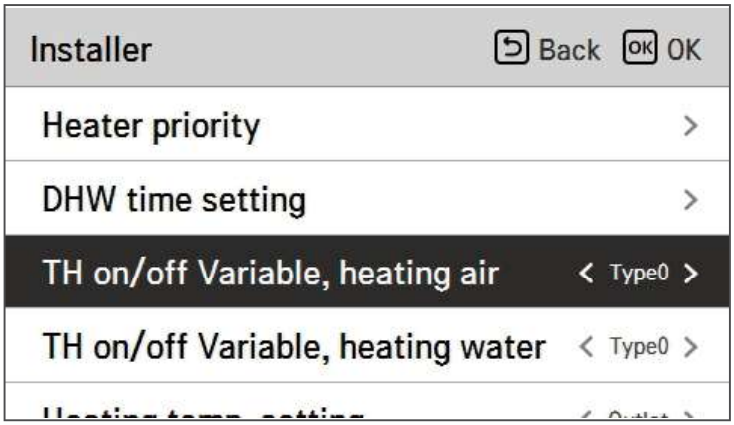

※ 1=active / 0=not active
※ A = Active time
※ S = Stop time
※ B = Boost heater delay time



## TH on/off Variable, heating air

It is a function to adjust the heating air temperature Thermal On / Off temperature according to the field environment in preparation for heating or heating claim.

• You can set the following setting values using [<,>(left/right)] button.

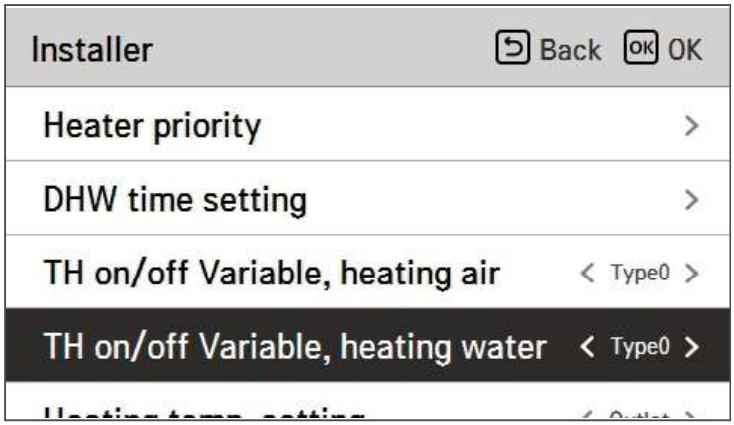



| Value | Description | |
|---|---|---|
| | TH On | TH Off |
| Type0 | -0.5 °C | 1.5 °C |
| Type1 | -1 °C | 2 °C |
| Type2 | -2 °C | 3 °C |
| Type3 | -3 °C | 4 °C |

## TH on/off Variable, heating water

It is a function to adjust the heating water temperature Thermal On / Off temperature according to the field environment in preparation for heating or heating claim.

• You can set the following setting values using [<,>(left/right)] button.

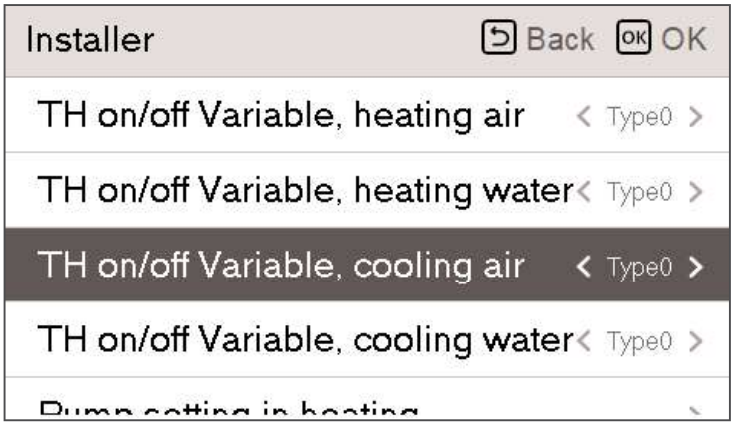



| Value | Description | |
|---|---|---|
| | TH On | TH Off |
| Type0 | -2 °C | 2 °C |
| Type1 | -3 °C | 3 °C |
| Type2 | -4 °C | 4 °C |
| Type3 | -1 °C | 1 °C |

## TH on/off Variable, cooling air

It is a function to adjust the cooling air temperature Thermal On / Off temperature according to the field environment in preparation for cooling or cooling claim.

• You can set the following setting values using [<,>(left/right)] button.

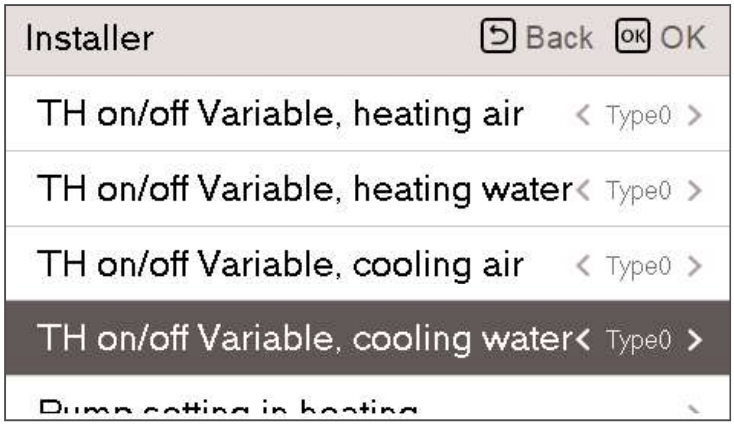



| Value | Description | |
|---|---|---|
| | TH On | TH Off |
| Type0 | 0.5 ˚C | -0.5 ˚C |
| Type1 | 1 ˚C | -1 ˚C |
| Type2 | 2 ˚C | -2 ˚C |
| Type3 | 3 ˚C | -3 ˚C |

## TH on/off Variable, cooling water

It is a function to adjust the cooling water temperature Thermal On / Off temperature according to the field environment in preparation for cooling or cooling claim.

- You can set the following setting values using [<,>(left/right)] button.



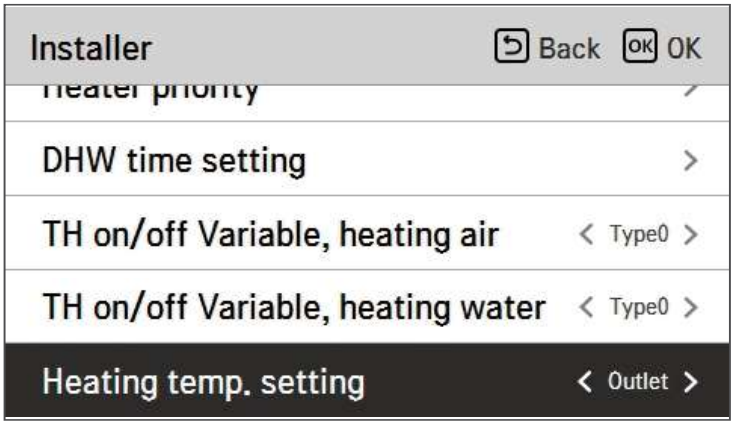

| Value | Description | |
|---|---|---|
| | TH On | TH Off |
| Type0 | 0.5 ˚C | -0.5 ˚C |
| Type1 | 1 ˚C | -1 ˚C |
| Type2 | 2 ˚C | -2 ˚C |
| Type3 | 3 ˚C | -3 ˚C |

## Heating temp. setting

- At the leaving water control in heating mode, the control reference water temperature position setting

- If the air / leaving water temperature selection setting is set to leaving water temperature

- Change setting values using [<,>(left/right)] button



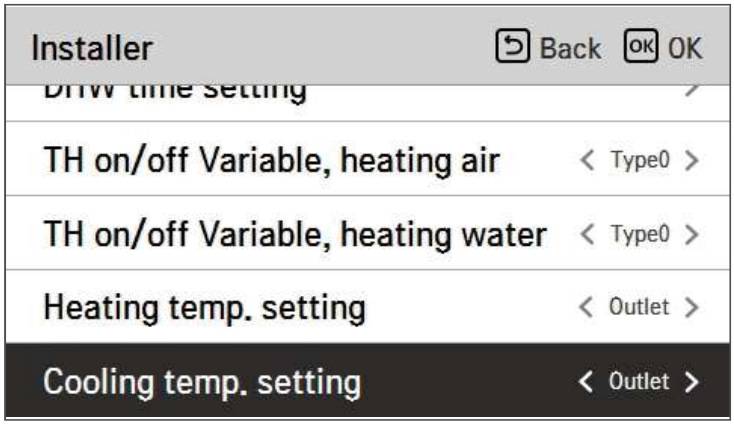

| Value | |
|---|---|
| Outlet (Default) | Inlet |

## Cooling temp. setting

- At the leaving water control in cooling mode, the control reference water temperature position setting

- If the air / leaving water temperature selection setting is set to leaving water temperature

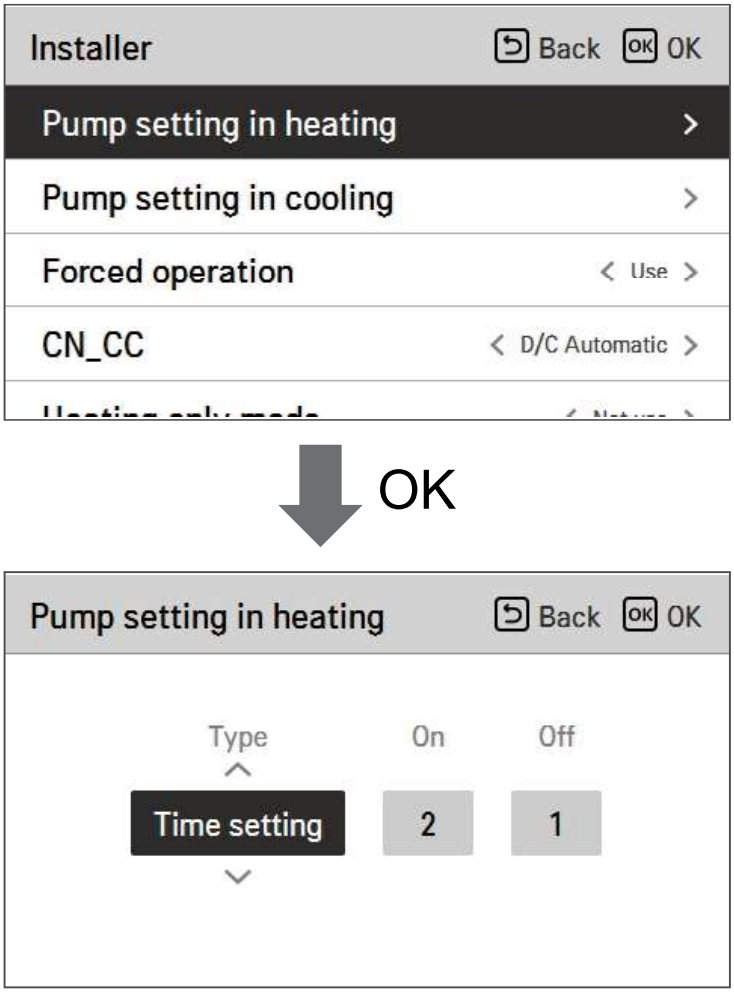
- Change setting values using [<,>(left/right)] button




| Value | |
|---|---|
| Outlet (Default) | Inlet |

## Pump setting in heating

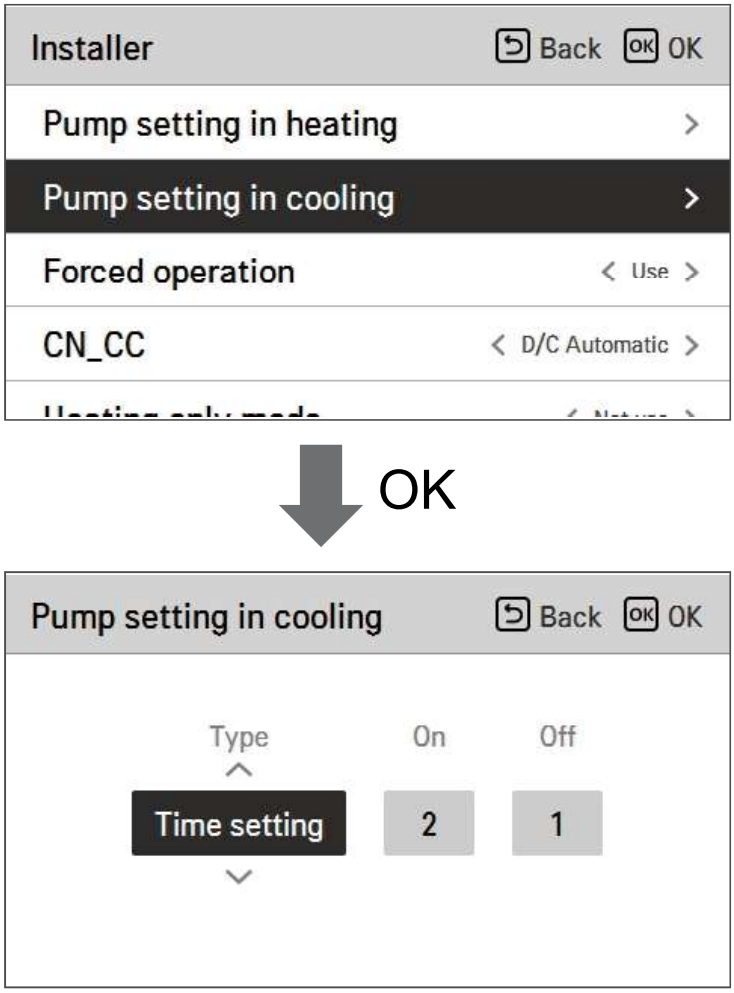
- It is a function to help the water pump's mechanical life by putting the water pump's rest time
- Installer setting function to set water pump operation / delay time option in heating mode
- In the installer setting list, select Pump setting in heating category, and press [OK] button to move to the detail screen.




| Type | Time setting | Operation continue |
|---|---|---|
| On | 1 min ~ 60 min | - |
| Off | 1 min ~ 60 min | - |

## Pump setting. in cooling

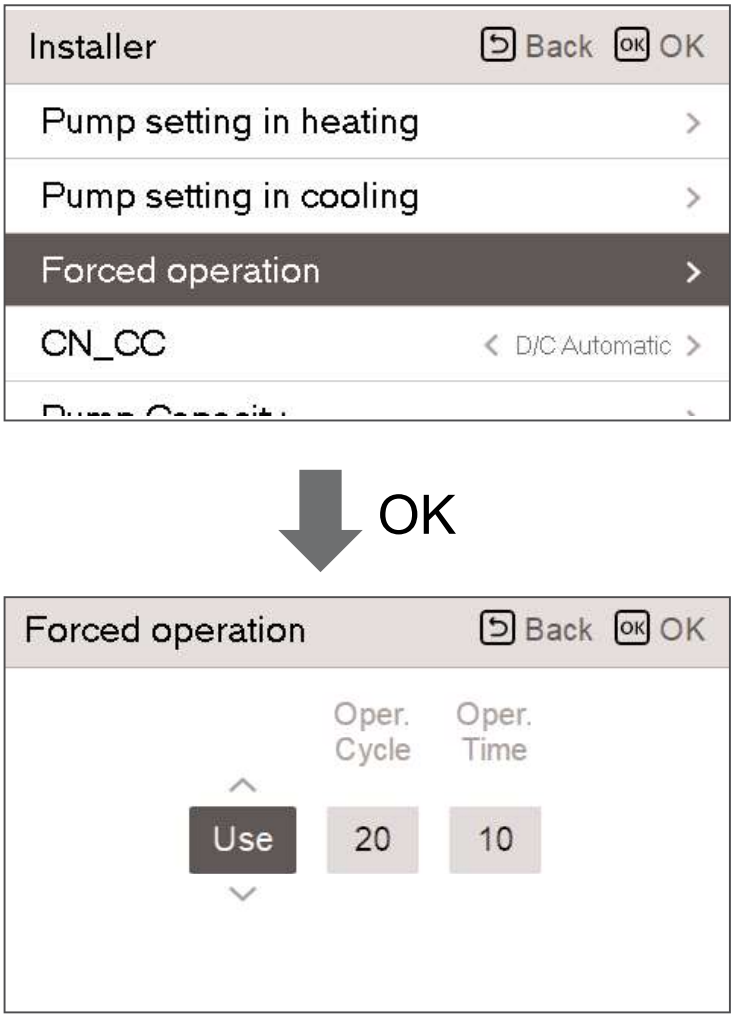
- It is a function to help the water pump's mechanical life by putting the water pump's rest time
- installer setting function to set water pump operation / delay time option in cooling mode
- In the installer setting list, select Pump setting in cooling category, and press [OK] button to move to the detail screen.




| Type | Time setting | Operation continue |
|---|---|---|
| On | 1 min ~ 60 min | - |
| Off | 1 min ~ 60 min | - |

## Forced operation

- If the product is not used for a long time, the product will be forced to operate to prevent pump failure and PHEX freezing
- Water pump off After 20 consecutive hours, disable / enable the logic that drives the water pump by itself
- In the installer setting list, select Forced operation category, and press [OK] button to move to the detail screen

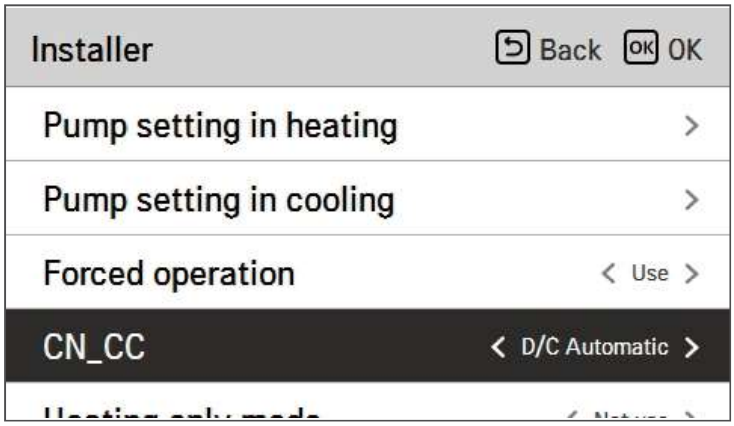



| Type | Use | Not use |
|---|---|---|
| Oper. Cycle | 20 min ~ 180 min | - |
| Oper. Time | 1 min ~ 10 min | - |

## CN_CC

It is the function to set the usage of the unit's CN_CC port.

• Change setting values using [<,>(left/right)] button




| Value | Description |
|---|---|
| D/C Automatic | When power is applied to the product, the unit when the contact point is on in Dry Contact installed state recognizes Dry Contact installation |
| D/C Not Installed | Do not use (install) Dry Contact |
| D/C Installed | Use (install) Dry Contact |

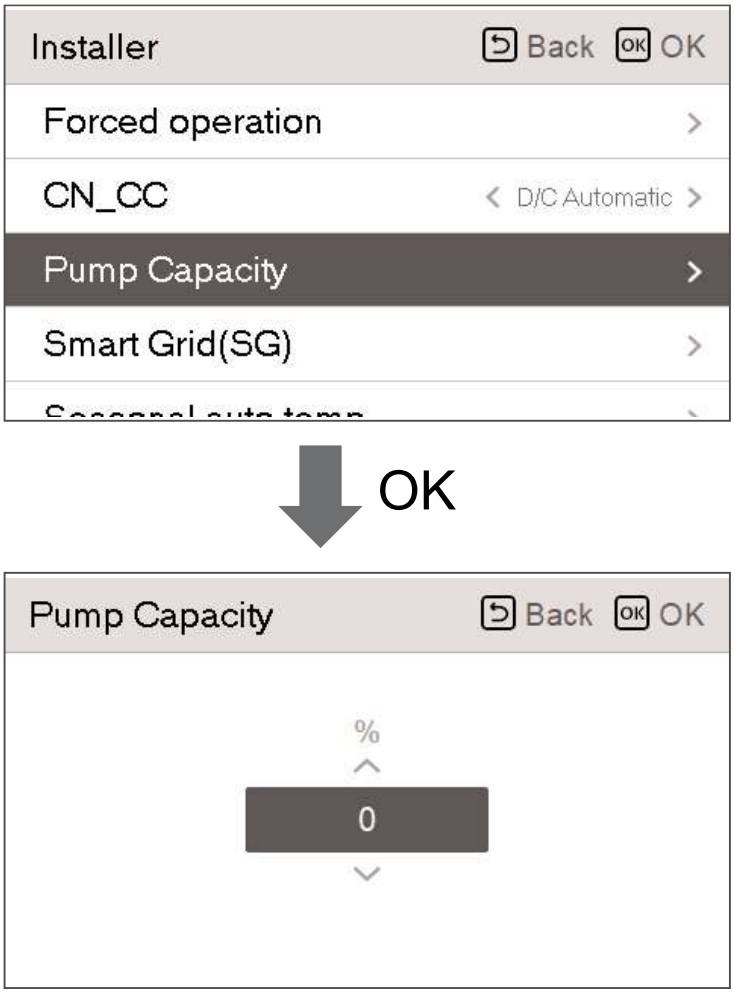
**NOTE**

CN_CC is the device connected to the unit to recognize and control the external contact point.

## Pump Capacity

It is a function to enable installer to control Pump capacity application model.

- In the installer setting list, select Pump Capacity category, and press [OK] button to move to the detail screen.

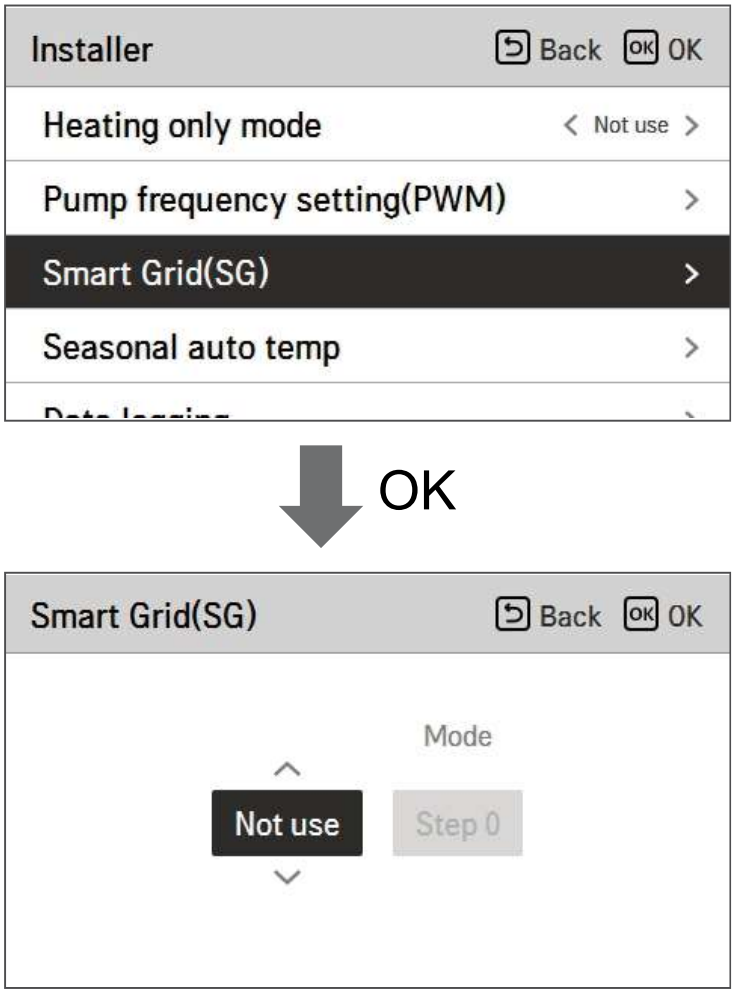



| Value | Description |
|---|---|
| 100 (Default) | 10~100 : %<br>Change unit: 5 |

## Smart Grid(SG)

It is the function to enable / disable the SG Ready function and to set the reference value at SG2 step.

- In the installer setting list, select Smart Grid(SG) category, and press [OK] button to move to the detail screen.

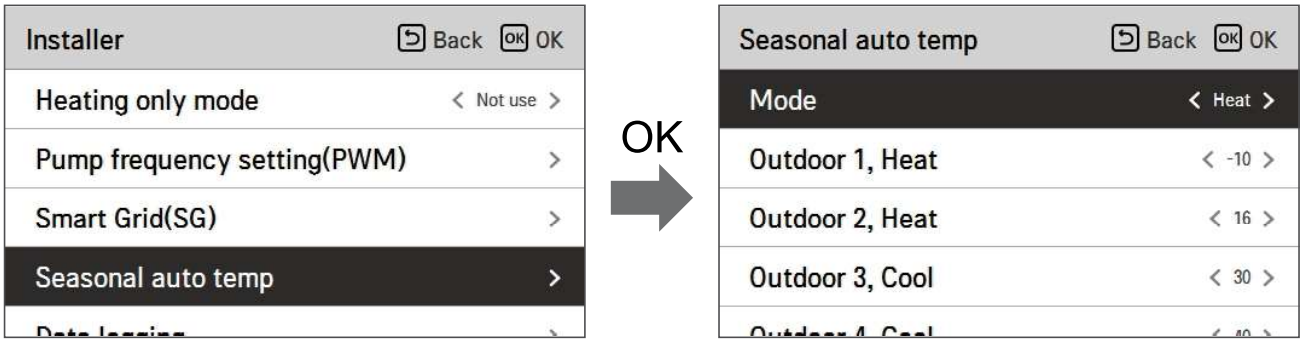



| Value | Mode |
|---|---|
| Not use (Default) | - |
| Use | Step 0 |
| | Step 1 |
| | Step 2 |

## Seasonal auto temp

It is the function to set the operation reference value in Seasonal Auto mode.

- In the installer setting list, select Seasonal auto temp category, and press [OK] button to move to the detail screen.




| Function | Description | Range | Default | Boundary |
|---|---|---|---|---|
| Outdoor1,Heat (Out1) | Heating lower ambient temp | -25~35 °C | -10°C | Out1 ⟵ Out2-1 |
| Outdoor2,Heat (Out2) | Heating higher ambient temp | | 16°C | Out2 ⟶ Out1 +1<br>Out2 ⟵ Out3 -5 |
| Outdoor3,Cool (Out3) | Cooling lower ambient temp | 10~46°C | 30°C | Out3 ⟶ Out2 +5<br>Out3 ⟵ Out4 -1 |
| Tank setting 2 | Setting maintain temperature for operation | | 40°C | Out4 ⟶ Out3 +1 |
| Water1,Heat (LW1) | Heating higher water temp | Use heater :<br>LW STD : 15~65°C<br>EW STD : 15~55°C<br>Not use heater :<br>LW STD : 20~65°C<br>EW STD : 20~55°C | 35°C | LW1 ⟵ LW2 |
| DHW time setting | Determine follow time duration : operation time of domestic hot water tank heating, stop time of domestic hot water tank heating, and delay time of DHW tank heater operating | | 28°C | LW1 ⟵ LW2 |
| Water3,Cool (LW3) | Cooling higher water temp | Use FCU & 5°C IDU :<br>LW STD : 5~27°C<br>EW STD : 10~27°C<br>Use FCU & 6°C IDU :<br>LW STD : 6~27°C<br>EW STD : 11~27°C<br>Not use FCU :<br>LW STD : 16~27°C<br>EW STD : 20~27°C | 20°C | LW3 ⟵ LW4 |
| Water4,Cool (LW4) | Cooling lower water temp | | 16°C | LW3 ⟵ LW4 |

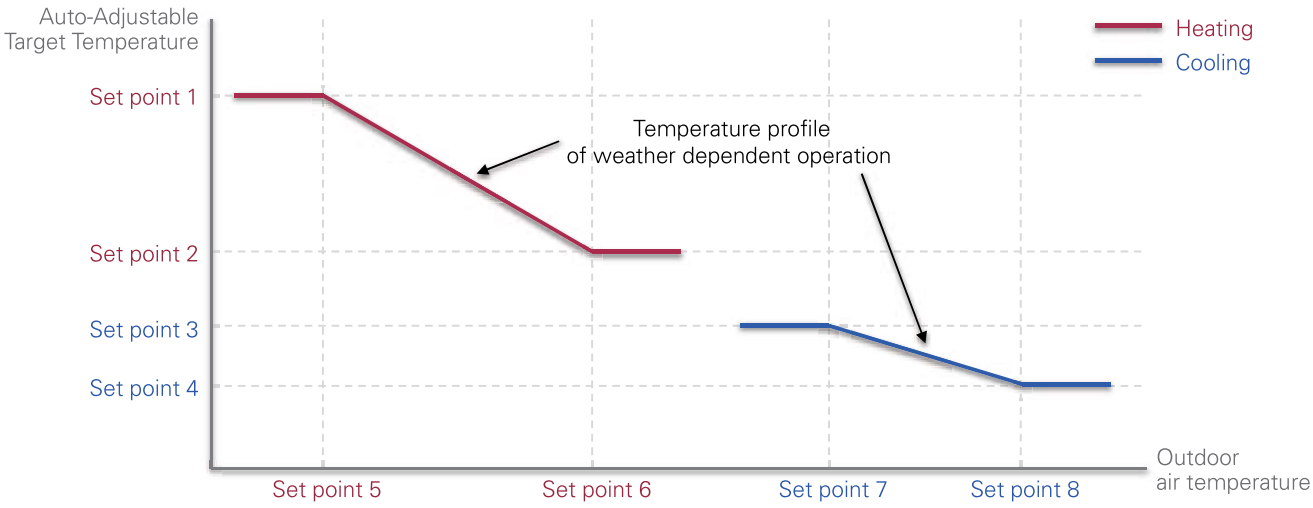
- Setting range: Celsius
- Seasonal Auto Driving mode: Heating, Heating & Cooling, Air-conditioning

* If heating mode is selected, heating & cooling or cooling can not be selected.

- Depending on the air / outflow control selection value, the water / air related setting value is displayed on the screen.

In this mode, setting temperature will follow outdoor temperature automatically. This mode adds the cooling season function to the conventional weather dependent operation mode.

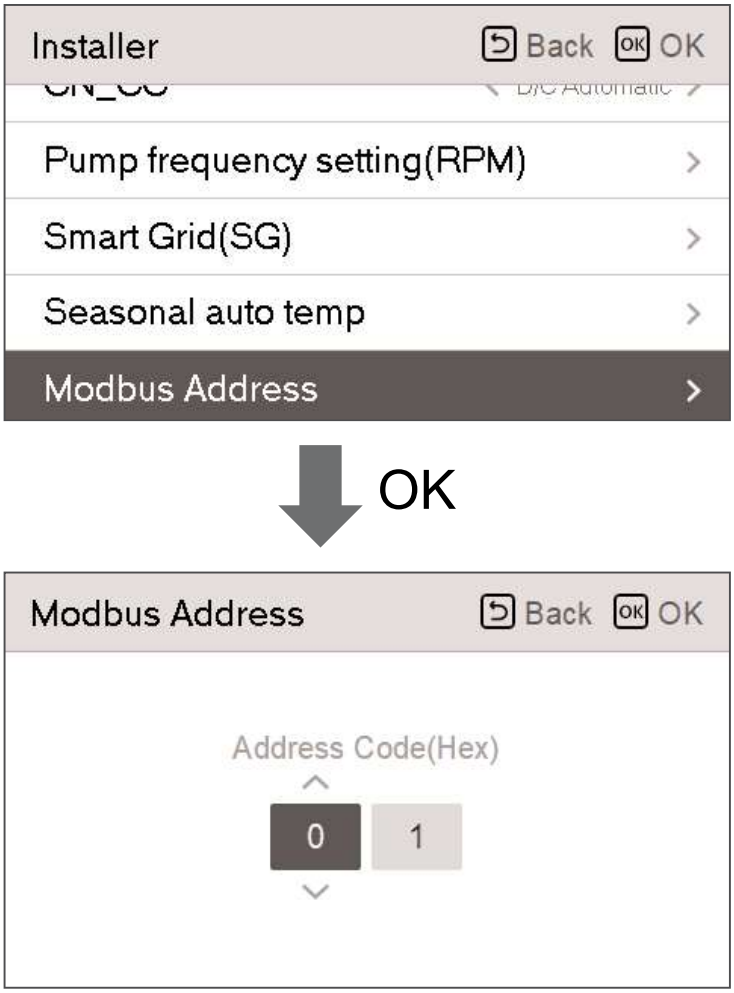
| | Auto-Adjustable Target Temp. | Room Air Temp.(°C) | Leaving Water Temp. | Outdoor Air Temp. | |
|---|---|---|---|---|---|
| Heating | Set point 1 | 30~20 | 57~39 | Set point 5 | -20 ~ -10 |
| | Set point 2 | 19~16 | 38~20 | Set point 6 | -5 ~ 5 |
| Cooling | Set point 3 | 30~24 | 25~17 | Set point 7 | 10 ~ 18 |
| | Set point 4 | 23~18 | 16~6 | Set point 8 | 22 ~ 30 |



## Modbus Address

It is function to set the address of the Modbus device that is externally linked to the product. Modbus address setting function is available from indoor unit.

- In the installer setting list, select Modbus Address , and press [OK] button to move to the detail screen.



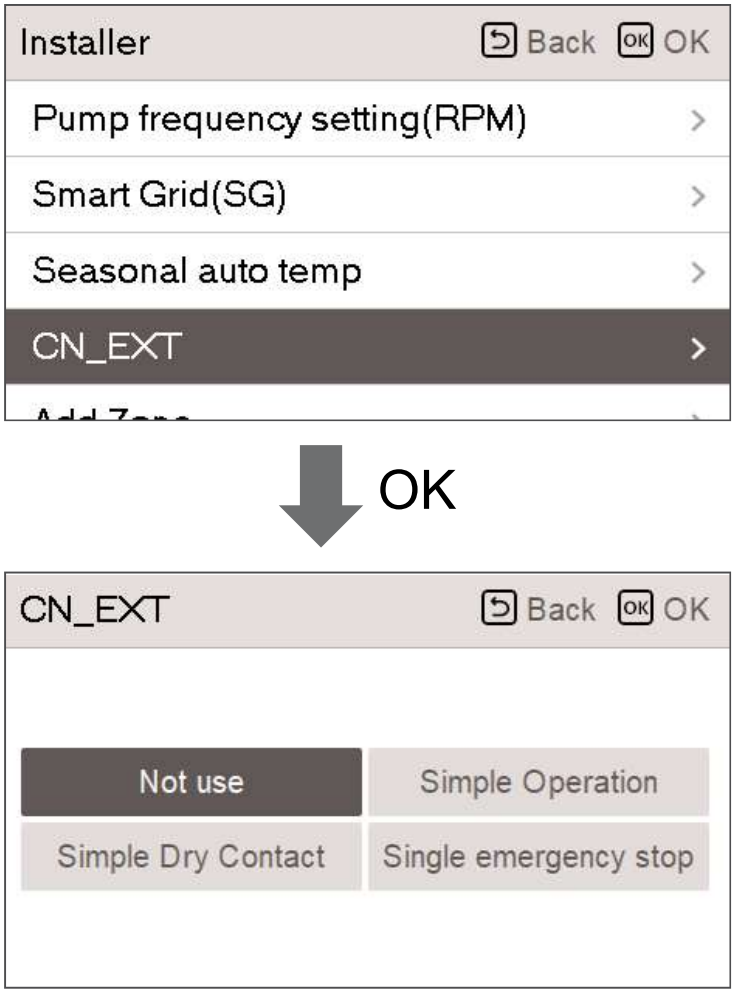

**NOTE**

To use this function, switch No.1 of option switch 1 must be turned ON.

## CN_EXT

It is a function to control external input and output according to DI type set by customer using CN-EXT Port.

- In the installer setting list, select CN-EXT Port category, and press [OK] button to move to the detail screen.

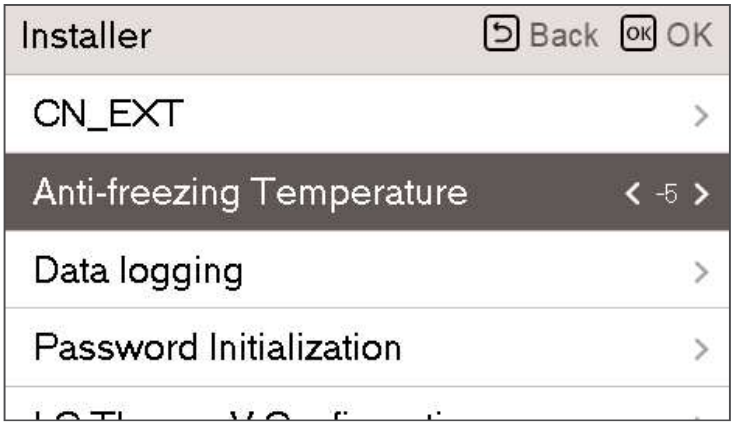



| Value | | | |
|---|---|---|---|
| Not use | Simple Operation | Simple Dry Contact | Single emergency stop |

## Anti-freezing Temperature

Anti-freeze temperature setting is available in installer mode. It prevents frostbite from happening In the range of -25 to -5 degree celsius.

• Change setting values using [<, >(left/right)] button

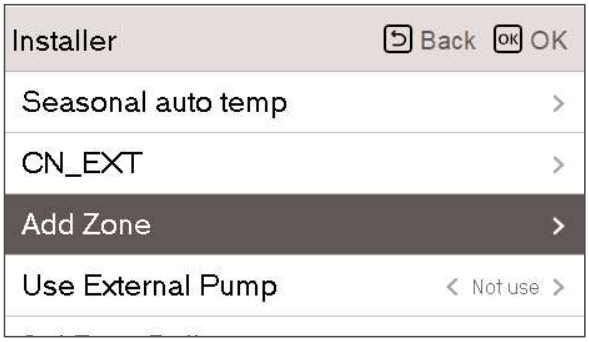


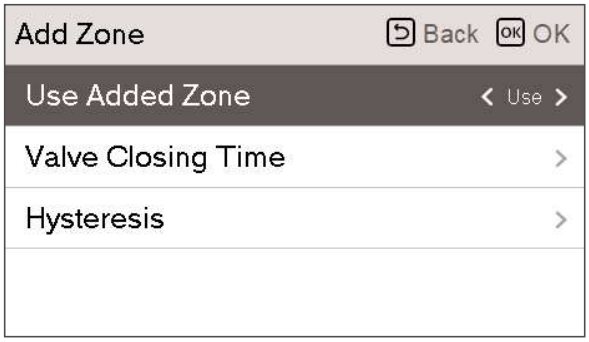

**NOTE**

To use this function, the antifreeze short pin must be open and switch No.2 in Option SW 3 must be on.

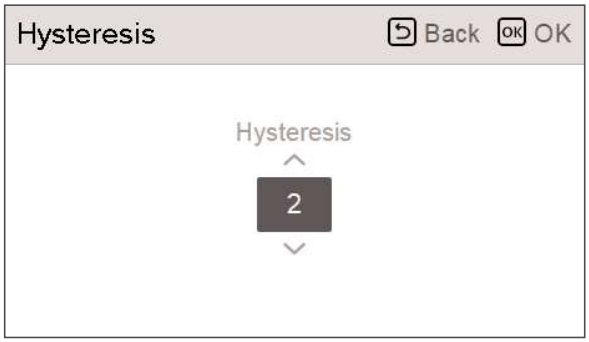
## Add Zone

Function to set whether or not to use a installed 2nd circuit function using mixing kit.




You can set valve closing time[sec] and hysteresis temperature[°C] on screen by yourself.


Activating this function, It allows 2 zones(Room1, Room2) temperature to be controlled, separately.

- In case of heating, the temperature of Room1 can not be set higher than Room2 temperature.
- In case of cooling, the temperature of Room1 can not be set lower than Room2 temperature.

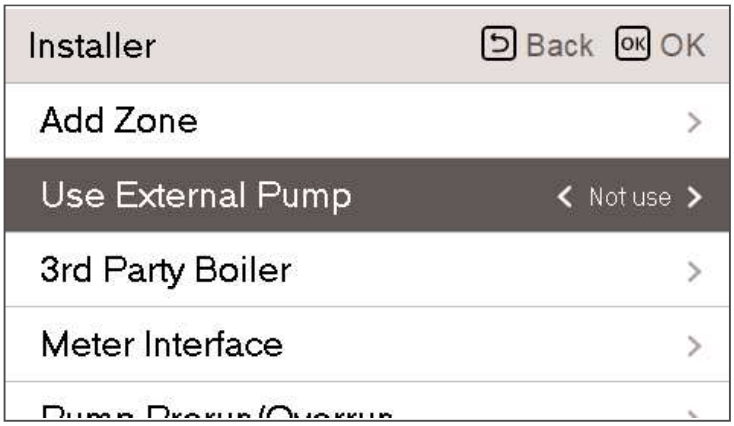
Setting range

- Add Zone (2nd Circuit function setting) : Use / Not Use
- Value Closing Time : 60 ~ 999 sec (Default: 240)
- Hysteresis (Thermal On / Off ) : 1 ~ 5 °C (Default: 2)

## Use External Pump

This function can be set to control the external water pump.

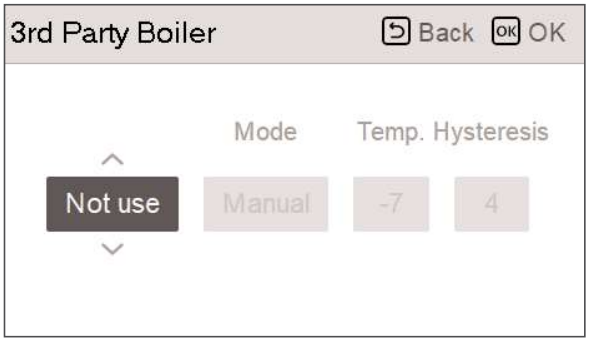
- In the installer setting list, select Use External Pump category, and press [OK] button to move to the detail screen.

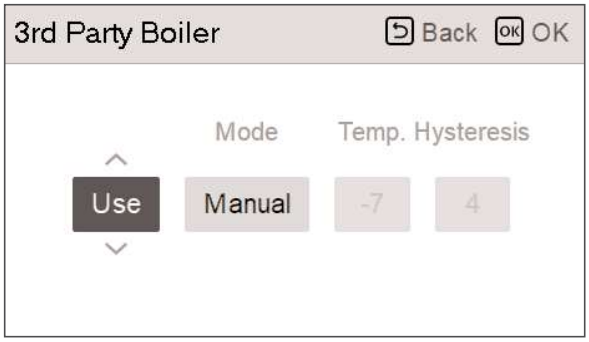



| Value | |
|---|---|
| Not use | Use |

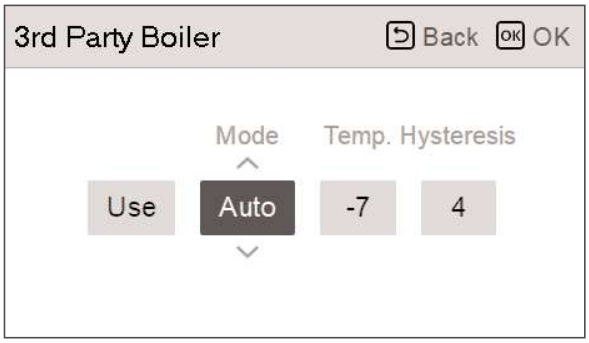
## 3rd Party Boiler

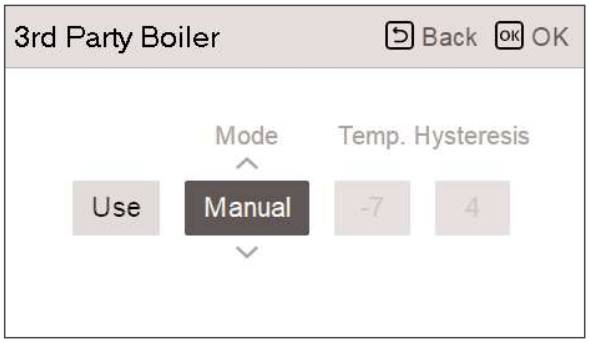
This function is to configure the 3rd party boiler to be controlled.



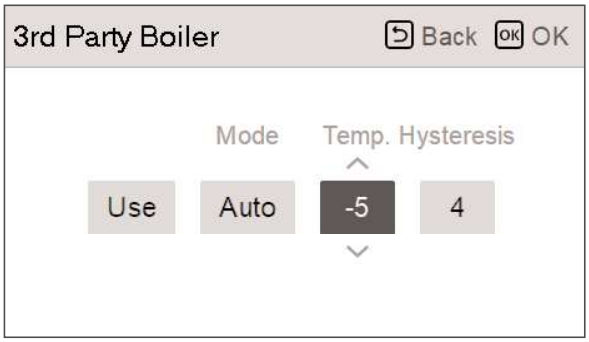




If the status of this function is “Use”, you can choose control mode of boiler, Auto or Manual.




If the mode of this function is set to “Manual”, you can set temperature of the boiler and hysteresis, respectively.




External boiler ON condition :

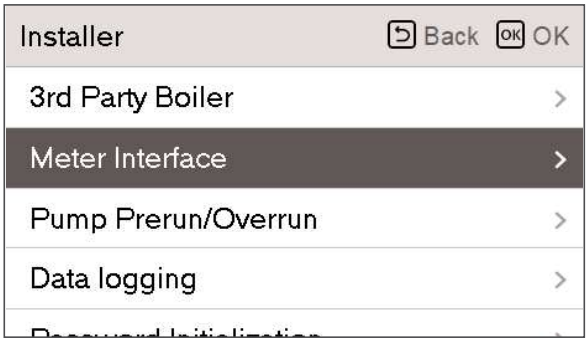
- If outdoor temperature ≤ external boiler operation temperature value (installer setting), turn off the indoor unit and operate the external boiler.

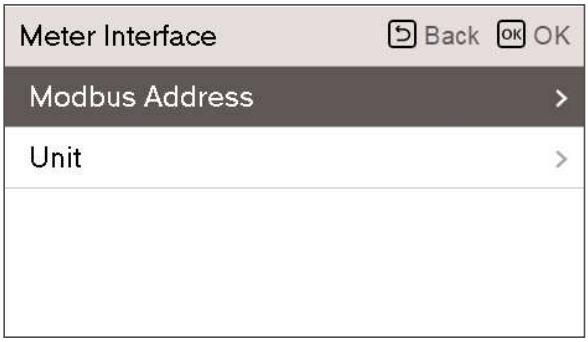
External boiler OFF condition :

- If External air temperature ≥ external boiler operation temperature value (installer setting) + Hysteresis (installer setting), turn off external boiler operation and operate indoor unit

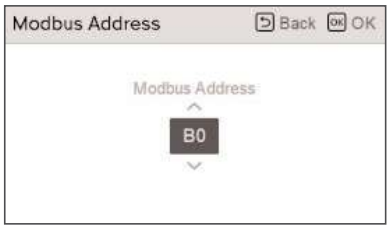
## Meter Interface

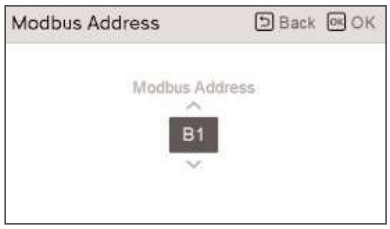
It is the function that can check the status of energy and power on screen. It collects and calculates power or calorie data to create data for energy monitoring and energy warning alarm pop-ups. This function can be activated in installer mode.



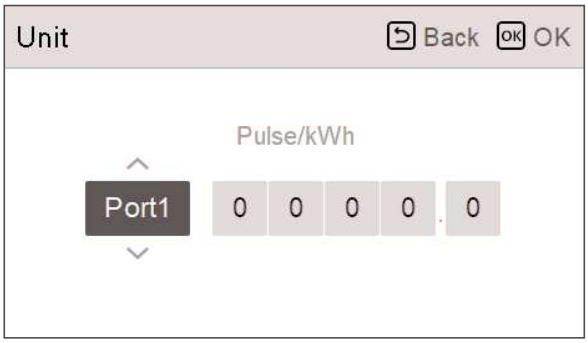



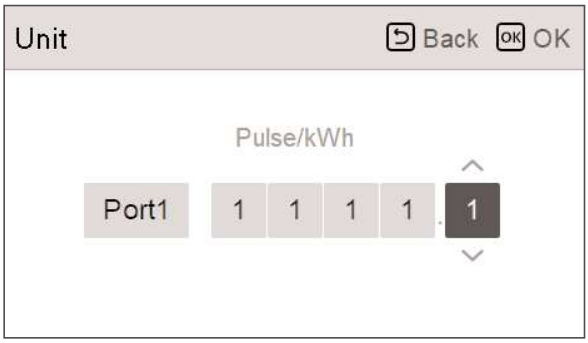

OK


There are 2 options, modbus address and unit, in this function. Activating the modbus address option, you choose one address(B0 or B1) or don't use. Then, you set the port and specification in range of 0000.0~9999.9[pulse/kW] as shown in the figure below.

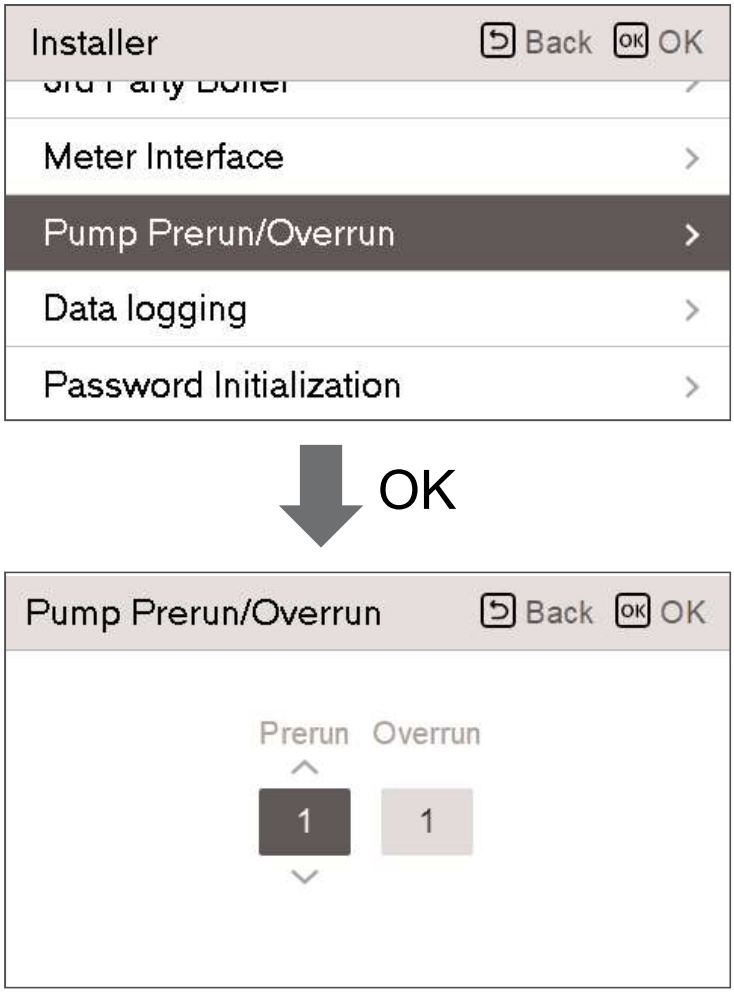


## Pump Prerun/Overrun

Pump Prerun operates to ensure sufficient flow before the compressor is operated. This is a function that allows heat exchange to work smoothly.

Pump Overrun is a function to prevent water pump failure and to help mechanical life. If the water pump has been off for 20 hours, Water pump will operate for the set time

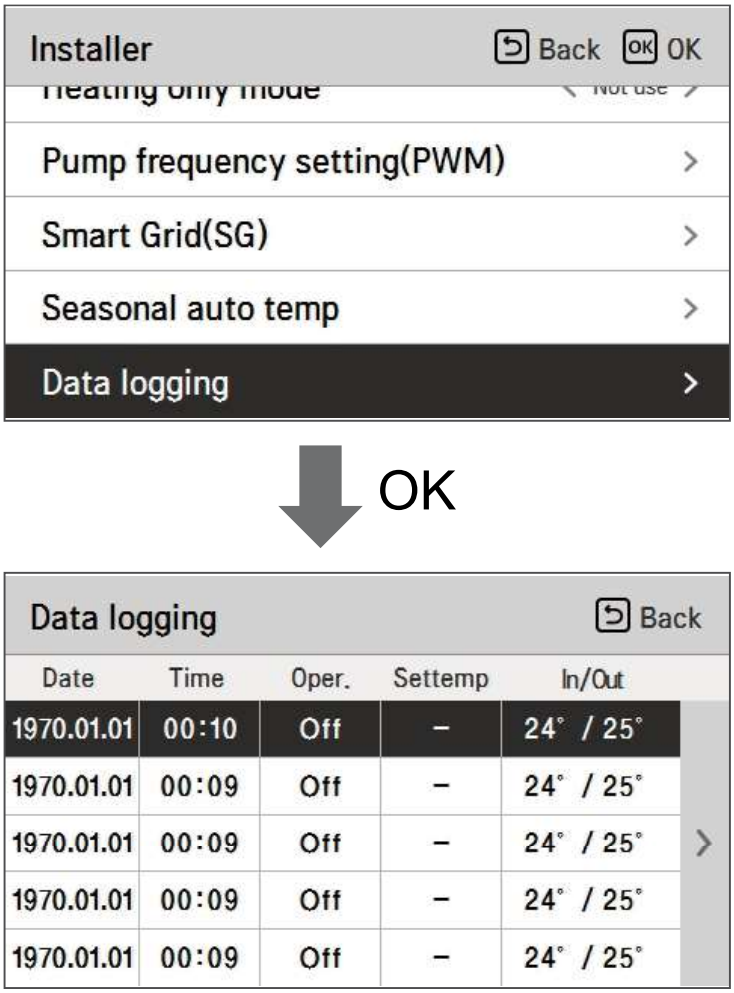



| Value | Default | Setting Range |
|---|---|---|
| Prerun | 1 min | 1~10 min |
| Overrun | 10 min | 1~10 min |

## Data logging

It is the function to set the operation reference value in Seasonal Auto mode.

- In the installer setting list, select Data logging category, and press [OK] button to move to the detail screen.




**NOTE**

Error history lookup range: 50

Error history information

Item: date, time, mode (including Off), set temperature, incoming temperature, outgoing temperature, room temperature, Hot water operation / stop, Hot water set temperature, Hot water temperature, Outdoor unit On / Off, Error code

Number of Display: Within 50

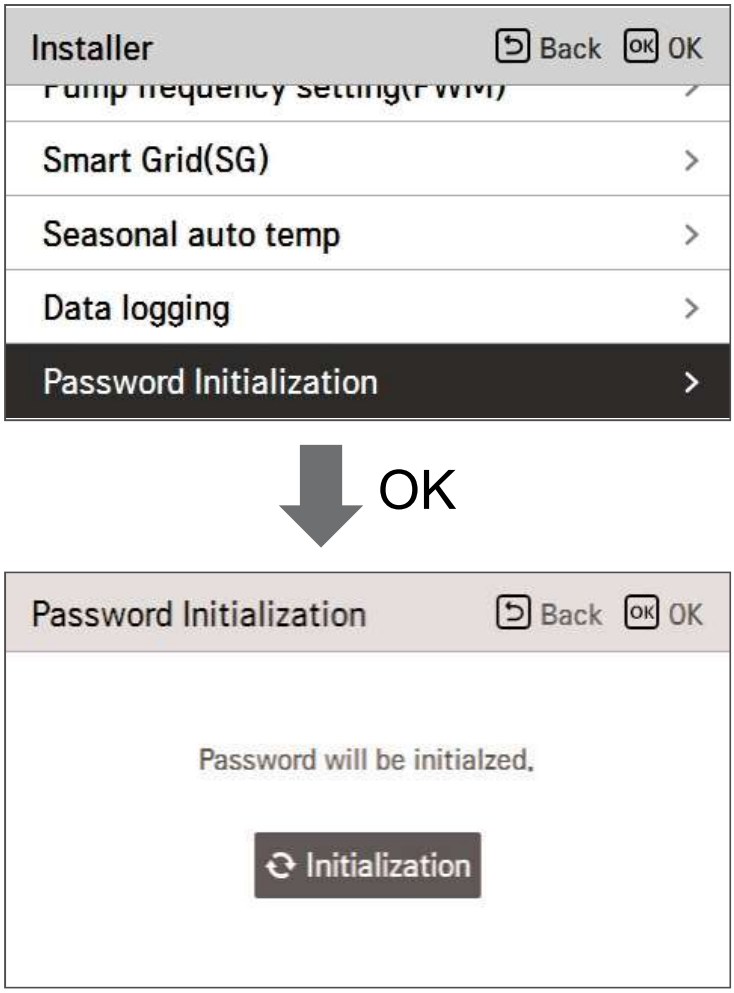
- Save criteria ν

ν Error occurred, released
ON / OFF of outdoor unit operation

## Password Initialization

It is the function to initialize (0000) when you forgot the password set in the remote controller.

- In the installer setting list, select the password initialization setting category, and press [OK] button to move to the detail screen.
- When you press “initialization” button, a popup screen appears, and when you press “check” button, password initialization starts, and the user password is changed to 0000.



## Power Supply Blockage (SG Ready)

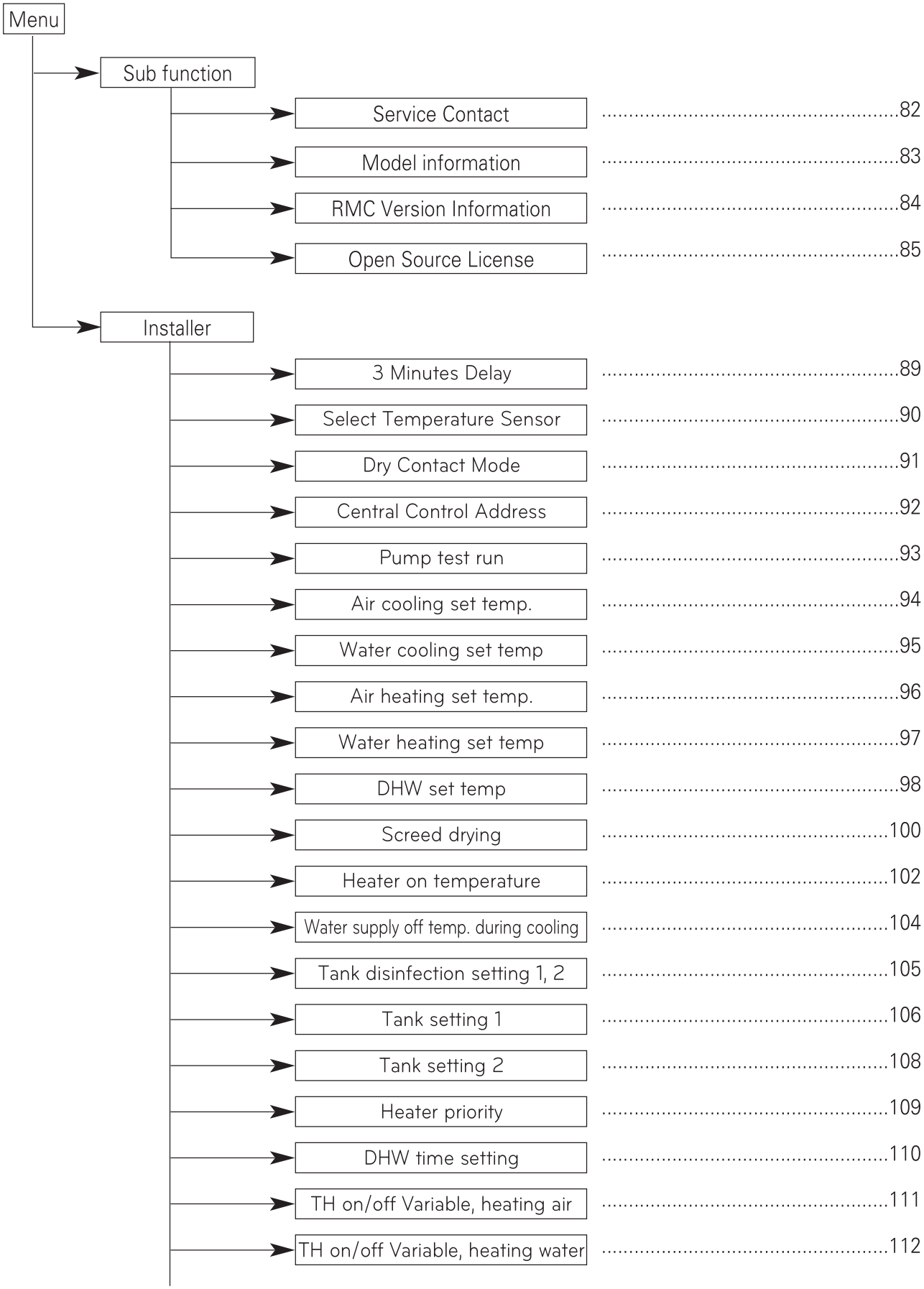
The heat pump operated automatically by the power supply status signals from power supply companies. This function can respond to European countries' special tariff for heat pump using on a smart grid.

**4 modes**
depending on
power supply status

| Power Supply Status | Operating Mode |
|---|---|
|  | **0:0 [Normal Operation]**<br>The heat pump works at maximum efficiency. |
|  | **1:0 [Switch-off command, Utility lock]**<br>Deactivates the heat pump to avoid peak load. The maximum blocking time depends on the system's thermal storage capacity, but amounts to at least 2 hours 3 times a day. (No frost protection) |
|  | **0:1 [Switch-on recommendation]**<br>The switch-on recommendation and set value storage tank temperature is increased, depending on the parameter "Mode SG"<br>Mode SG : set temperature + $\alpha$ depending on the below parameter<br>Step 0 (DHW +5˚C)<br>Step 1 (H/P+2˚C, DHW +5˚C)<br>Step 2 (H/P+5˚C, DHW +7˚C) |
|  | **1:1[Switch-on command]**<br>The command activates the compressor. Optionally, electrical booster heaters can be activated to utilize electricity surpluses |

# Overview settings

## Menu Structure



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