SPLIT/TDM PLUS Hydro Unit

User manual

AE090JNYDEH / AE090JNYDGH / AE160JNYDEH / AE160JNYDGH /
AE090MNYDEH / AE090MNYDGH / AE160MNYDEH / AE160MNYDGH

- Thank you for purchasing this Samsung air conditioner.
- Before operating this unit, please read this user manual carefully and retain it for future reference.

SAMSUNG

Contents

	Correct Disposal of This Product
	(Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.

For information on Samsung's environmental commitments and product-specific regulatory obligations, e.g. REACH, visit: www.samsung.com/uk/aboutsamsung/sustainability/environment/our-commitment/data/

Safety Information

Before using your new Air to Water Heat pump, please read this manual thoroughly to ensure that you know how to safely and efficiently operate the extensive features and functions of your new appliance.

Because the following operating instructions cover various models, the characteristics of your Air to Water Heat pump may differ slightly from those described in this manual. If you have any questions, call your nearest contact center or find help and information online at www.samsung.com.

⚠ WARNING

Hazards or unsafe practices that may result in **severe personal injury or death**.

⚠ CAUTION

Hazards or unsafe practices that may result in **minor personal injury or property damage**.

- ❗ Follow directions.
- 🚫 Do NOT attempt.
- ⏚ Make sure the machine is grounded to prevent electric shock.
- 🔌 Cut-off the power supply.
- 🚫 Do NOT disassemble.

FOR INSTALLATION

⚠ WARNING

❗ **Use the power line with the power specifications of the product or higher and use the power line for this appliance only. In addition, do not use an extension line.**
- Extending the power line may result in electric shock or fire.
- Do not use an electric transformer. It may result in electric shock or fire.
- If the voltage/frequency/rated current condition is different, it may cause fire.

The installation of this appliance must be performed by a qualified technician or service company.
- Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury.

Install a switch and circuit breaker dedicated to the Air to Water Heat pump.
- Failing to do so may result in electric shock or fire.

Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.
- Failing to do so may result in electric shock or fire.

🚫 **Do not install this appliance near a heater, inflammable material. Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this appliance in a location where gas may leak.**
- This may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.
- If the outdoor unit falls, it may result in injury, death or property damage.

⏚ **This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic water pipe, or telephone line.**
- Failure to do so may result in electric shock, fire, an explosion, or other problems with the product.
- Never plug the power cord into a socket that is not grounded correctly and make sure that it is in accordance with local and national codes.

⚠ **CAUTION**

❗ **Install your appliance on a level and hard floor that can support its weight.**
- Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Install the draining hose properly so that water is drained correctly.
- Failing to do so may result in water overflowing and property damage.

When installing the outdoor unit, make sure to connect the draining hose so that draining is performed correctly.
- The water generated during the heating operation by the outdoor unit may overflow and result in property damage. In particular, in winter, if a block of ice falls, it may result in injury, death or property damage.

Safety Information

- Our units must be installed in compliance with the spaces indicated in the installation manual to ensure either accessibility from both sides or ability to perform routine maintenance and repairs. The units'components must be accessible and that can be disassembled in conditions of complete safety either for people or things. For this reason, where it is not observed as indicated into the Installation Manual, the cost necessary to reach and repair the unit (in safety, as required by current regulations in force) with slings, trucks, scaffolding or any other means of elevation won't be considered in-warranty and charged to end user.

Do not disassemble and alter the heater at your own discretion.

FOR POWER SUPPLY

⚠ **WARNING**

🛑 **When the circuit breaker is damaged, contact your nearest service center.**

🚫 **Do not pull or excessively bend the power line. Do not twist or tie the power line. Do not hook the power line over a metal object, place a heavy object on the power line, insert the power line between objects, or push the power line into the space behind the appliance.**
  - This may result in electric shock or fire.

⚠ **CAUTION**

🔌 **When not using the Air to Water Heat pump for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.**
  - Failing to do so may result in electric shock or fire.

FOR USING

⚠ WARNING

🛈 **If the appliance is flooded, please contact your nearest service center.**
- Failing to do so may result in electric shock or fire.

If the appliance generates a strange noise, a burning smell or smoke, unplug the power plug immediately and contact your nearest service center.
- Failing to do so may result in electric shock or fire.

In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power line. Do not touch the appliance or power line.
- Do not use a ventilating fan.
- A spark may result in an explosion or fire.

To reinstall the Air to Water Heat pump, please contact your nearest service center.
- Failing to do so may result in problems with the product, water leakage, electric shock, or fire.
- A delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.
- Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to the salt in the air, please contact your nearest service center.

🚫 **Do not touch the circuit breaker with wet hands.**
- This may result in electric shock.

Do not turn the Air to Water Heat pump off with the circuit breaker while it is operating.
- Turning the Air to Water Heat pump off and then on again with the circuit breaker may cause a spark and result in electric shock or fire.

Safety Information

After unpacking the Air to Water Heat pump, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.

- If a child places a bag over its head, it may result in suffocation.

Do not insert your fingers or foreign substances into the outlet when the Air to Water Heat pump is operating.

- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not insert your fingers or foreign substances into the air inlet/outlet of the Air to Water Heat pump.

- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not strike or pull the Air to Water Heat pump with excessive force.

- This may result in fire, injury, or problems with the product.

Do not place an object near the outdoor unit that allows children to climb onto the machine.

- This may result in children seriously injuring themselves.

Do not use this Air to Water Heat pump for long periods of time in badly ventilated locations or near infirm people.

- Since this may be dangerous due to a lack of oxygen, Open a window at least once an hour.

If any foreign substance such as water has entered the appliance, cut the power by unplugging the power plug and turning the circuit breaker off and then contact your nearest service center.

- Failing to do so may result in electric shock or fire.

Do not attempt to repair, disassemble, or modify the appliance yourself.

- Do not use any fuse (such as cooper, steel wire, etc.)other than the standard fuse.
- Failing to do so may result in electric shock, fire, problems with the product, or injury.

⚠ CAUTION

❗ Check that the installation frame of the outdoor unit is not broken at least once a year.
- Failing to do so may result in injury, death or property damage.

Max current is measured according to IEC standard for safety and current is measured according to ISO standard for energy efficiency.

🚫 Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.
- This may result in electric shock, fire, problems with the product, or injury.

Do not operate the appliance with wet hands.
- This may result in electric shock.

Do not spray volatile material such as insecticide onto the surface of the appliance.
- As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.

Do not drink the water from the Air to Water Heat pump.
- The water may be harmful to humans.

Do not apply a strong impact to the remote controller and do not disassemble the remote controller.

Do not touch the pipes connected with the product.
- This may result in burns or injury.

Do not use this Air to Water Heat pump to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.
- This may result in property damage.

Avoid directly exposing humans, animals or plants from the air flow from the Air to Water Heat pump for long periods of time.
- This may result in harm to humans, animals or plants.

Safety Information

This 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 should be supervised to ensure that they do not play with the appliance.

For use in Europe : This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

FOR CLEANING

⚠ **WARNING**

🚫 **Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner or alcohol to clean the appliance.**
- This may result in discoloration, deformation, damage, electric shock or fire.

Before cleaning or performing maintenance, unplug the Air to Water Heat pump from the wall socket and wait until the fan stops.
- Failing to do so may result in electric shock or fire.

⚠ **CAUTION**

❗ **Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.**
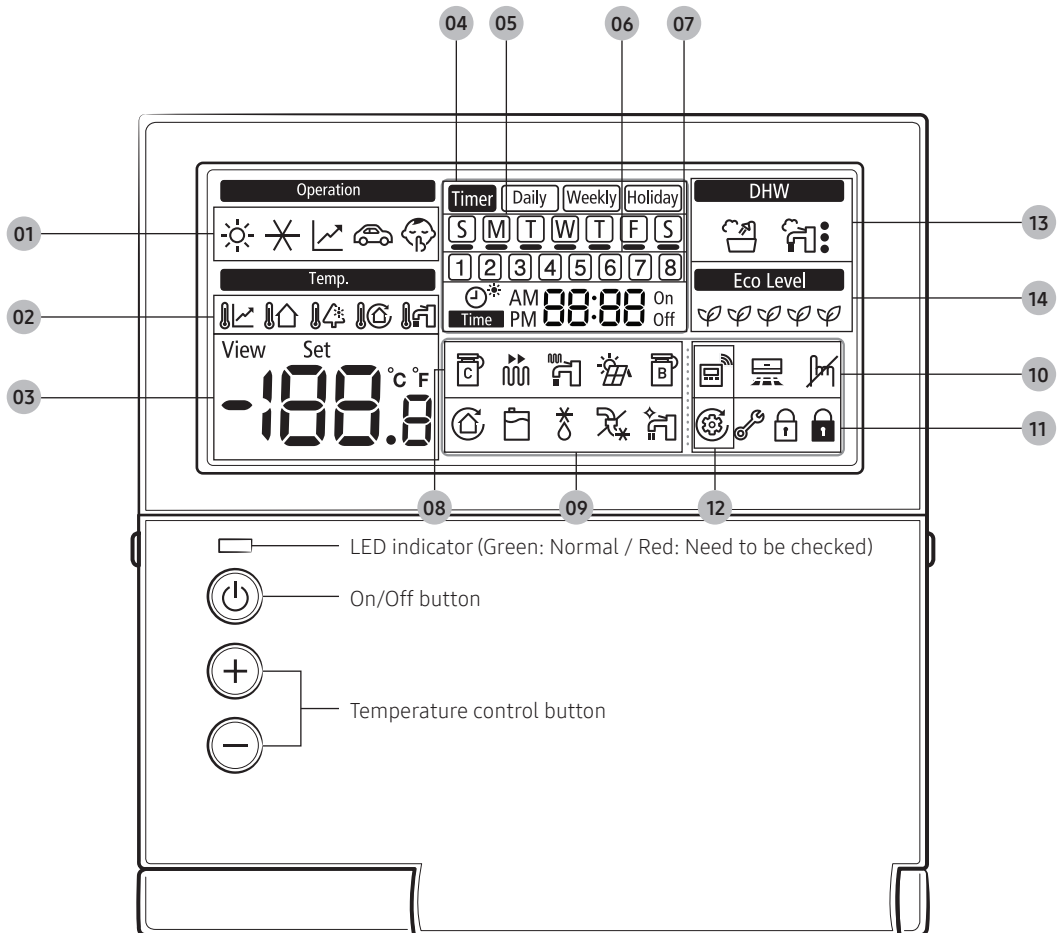- To avoid cutting your fingers, wear thick cotton gloves when cleaning it.

🚫 **Do not clean the inside of the Air to Water Heat pump by yourself.**
- For cleaning inside the appliance, contact your nearest service center.
- Failure to do may result in damage, electric shock or fire.

Description of each icon

Display

- LED indicator (Green: Normal / Red: Need to be checked)
- On/Off button
- Temperature control button

📄 **NOTE**

- Without opening the cover of your wired remote controller, you can turn Hydro unit on or off or set the desired temperature.

Description of each icon

Classification		Indication	Function
Hydro unit	01	☀ ✳ ⟋ 🚗 🌫	Hydro unit operation (heat/cool/auto/outing/silent)
	02		System temperature (water Law temp./indoor temp./outdoor temp./discharge water temp./hot water temp.)
	03	View Set -188.8 °C °F	Temperature (current/desired)
Timer	04	Timer Daily Weekly Holiday	Timer (Daily/Weekly/Holiday)
	05	S M T W T F S	Current day or timer function
	06	1 2 3 4 5 6 7 8	Timer number
	07	⏰ Time AM PM 88:88 On Off	Current time/summer time/ On or Off time
General function	08		Operation status (COMP operation/Back up heater/Booster heater/Solar/Back up boiler)
	09		Operation status (water pump/water tank/defrost operation/freezing control/water tank sterilization operation)
	10		Indoor thermostat installation(connection) status/air to air operation/no function
	11		Trial operation/check/partial lock/all lock
	12	+	Centralized control
Hot water mode (DHW)	13	DHW	DHW (economic/standard/power/forced)
ECO level information	14	Eco Level	ECO level operation (Step 1~5)

Description of each control

Buttons
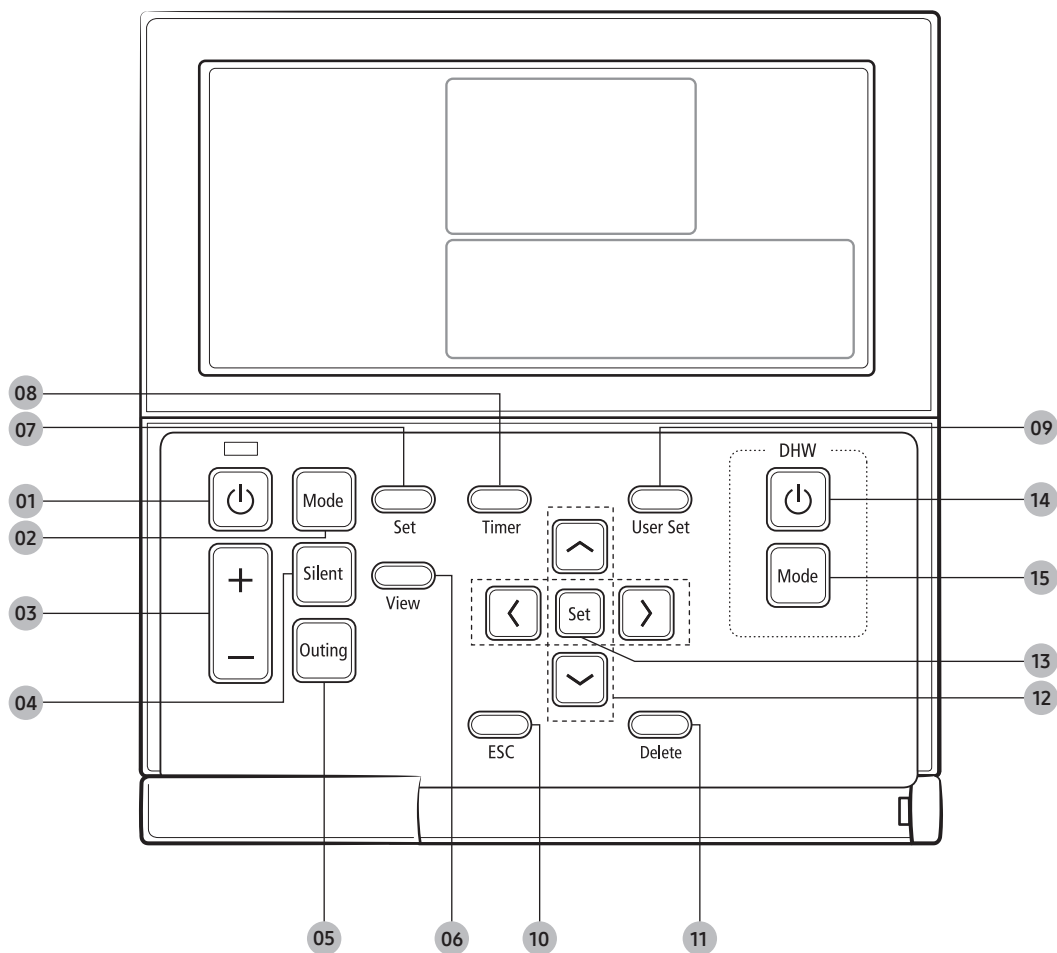
Description of each control

Classification	Button		Function
Basic operation button	01	⏻	Turn Hydro unit on or off
	02	Mode	Select operation mode (Cool/Heat/Auto)
	03	+/−	Select desired temperature (discharge water/indoor/hot water)
	04	Silent	Outdoor unit silent operation mode
	05	Outing	Select outing mode
	06	View	Check current temperature of the system
	07	Set	Set desired temperature of the system
	08	Timer	Select timer setting mode
	09	User Set	Select user setting mode
	10	ESC	Exit to normal mode when setting timer or detailed setting
	11	Delete	Delete a set timer
	12	⌃ ⌄ ‹ ›	Move to another section or change section value.
	13	Set	Save settings
Hot water function button (DHW)	14	⏻	Turn hot water mode on or off
	15	Mode	Select hot water mode (economic/standard/power/forced)

📄 **NOTE**

- When pressing a button that is not supported by your model, ⍈ will be displayed.

Operating basic mode of Hydro unit

Operate basic mode by pressing the **Mode** button.
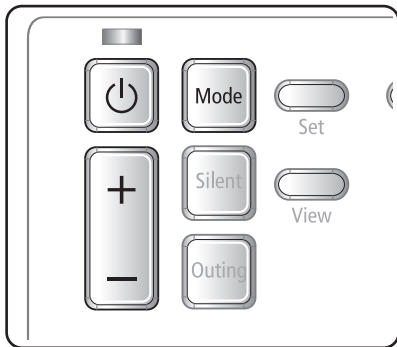
Start Hydro unit operation by pressing the [⏻] button.

Select the mode you want to operate by pressing the [Mode] button.
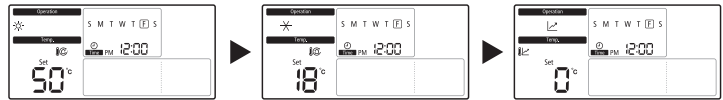
Adjust desired temperature by pressing the [+ −] button.

Temperature of cooling discharge water	You can adjust the desired temperature by 0.5 °C.
Indoor cooling temperature	You can adjust the desired temperature by 0.5 °C.
Temperature of heating discharge water	You can adjust the desired temperature by 0.5 °C.
Indoor heating temperature	You can adjust the desired temperature by 0.5 °C.

Water Law

Hydro unit will automatically adjust the temperature of discharge water with auto mode for indoor heating.

📋 **NOTE**

- When "Water Law" is active, the target supply water temperature will be determined automatically depending on the outdoor temperature: For heating mode, colder outdoor temperatures will result in warmer water.

Cool

You can adjust cooling temperature as you like with cool mode to cool indoor place.

- When selecting the heat mode during the cool mode, the cool mode will be canceled.

Heat

Floor heating is available with heat mode by providing hot water in the spring, autumn and winter.

- Frost removal indicator (❄)
  - The frost removal indication will be displayed when the frost formed around the outdoor unit starts being removed during the heat mode and then the indication will disappear when the frost removal is finished. (When frost is being removed, hot water does not come out from Hydro unit.)
- When selecting cool mode during the heat mode, heat mode will be canceled.

📋 **NOTE**

- When setting standard cooling & heating temperature as indoor temperature, auto mode cannot be selected.

Domestic Hot Water (DHW) mode operation

You can adjust temperature of hot water tank by providing hot water.

Press the **Mode** button in DHW.
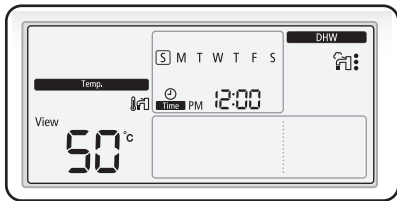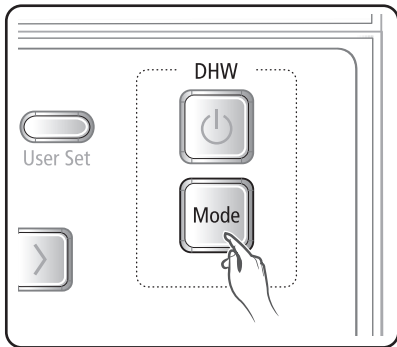
- Select 🏠• (economic), 🏠ᵉ (standard), and 🏠⦂ (power), 🛁 🏠⦂ (forced) by pressing the **Mode** button in DHW section.

📄 **NOTE**

- To operate hot water mode, you need to set the hot water function '1 or 2' in the field specification setting mode (#3011) of wired remote controller and connect the temperature sensor of hot water tank.
- When cool/heat mode and DHW mode are selected at the same time, the heat/cool mode and DHW mode will operate alternately.
- 🏠⦂ (power) for DHW mode cannot be used when the Booster heater is not in use.
- If you want to enjoy a leisurely bath or need a lot of warm water urgently, select the Forced DHW mode. When this mode is enabled, it is assured that the full capacity of the heat pump is only delivered for domestic water heating.

⚠ **CAUTION**

- By default field setting value option, this function will not be turned off automatically.
- If you want a Forced DHW function for a certain amount of duration time, change the field setting value of remote controller.

BASIC OPERATION

Outing mode

Heating can operate at low temperature while you are out with the Outing mode.
Select outing mode by pressing the **Outing** button.
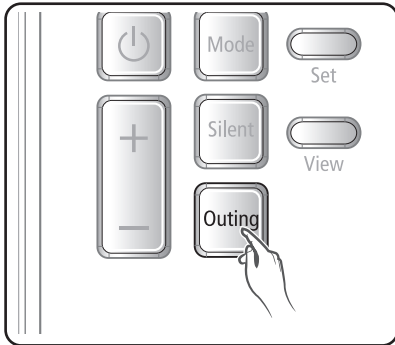
- 🚗 will be displayed and outing mode will operate.

Cancel Press any button on the remote controller.

📄 **NOTE**

- When pressing the **Outing** button while Hydro unit stops its operation, 🚫 indication will appear.
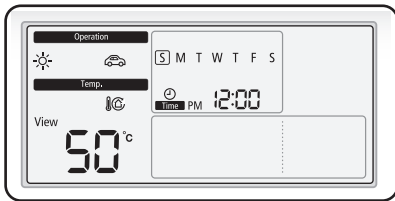
Silent mode

Noise from operation can be reduced with the Silent mode.
Press the **Silent** button to operate the Silent mode.
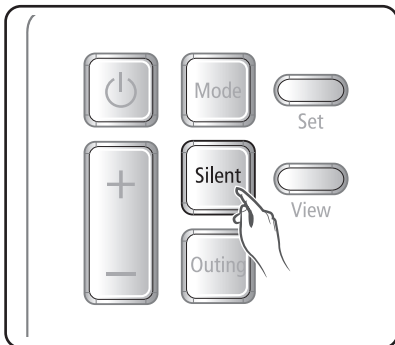
- 🔇 will be displayed and Silent mode will operate.
- Current set temperature will be maintained.

Cancel Press the **Silent** button once again.

📄 **NOTE**

- If you press the **Silent** button while the unit is not in operation, 🚫 will be displayed.
- If the Silent mode operates by outdoor unit external contact, 🔇 will be displayed but **Silent** button on the wired remote controller will not work. If you press the **Silent** button on the wired remote controller, 🚫 will be displayed.
- In the Silent mode, the capacity of the product may be less than rated capacity.
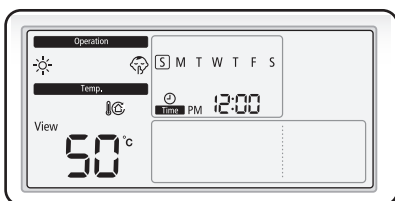
Checking current temperature

You can check current temperature.
Check the current temperature by pressing the **View** button.
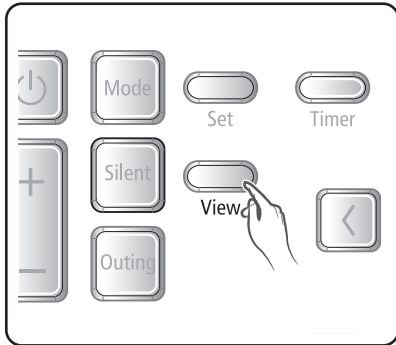
- Current temperature can be checked in order of 🌡⌂ (indoor) → 🌡 (outdoor) → 🌡 (discharge water) → 🌡 (hot water) by pressing the **View** button.
- The temperature which a connected indoor unit does not support will not be displayed.
- After 10 seconds from current temperature display, the set desired temperature will appear.
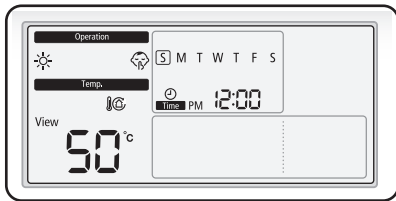
Checking set temperature

You can check the set temperature of current operation mode by the set temperature check function.
Check the set temperature by pressing the **Set** button.
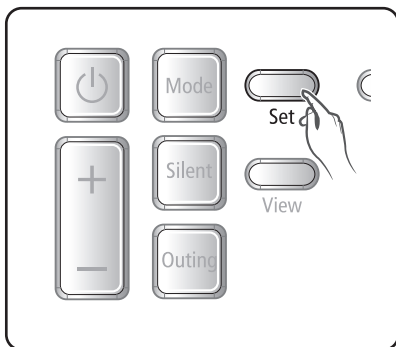
- The set temperature of basic operation mode and hot water mode can be checked by pressing the **Set** button repeatedly.
- When either basic operation mode or hot water mode is in operation, the set temperature of the mode in operation will be displayed.
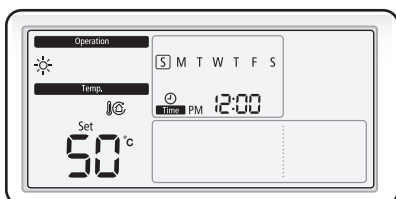
TDM (Time-Division Multi) Variables (TDM product Only)

- Under the installation of both A2A (Air-To-Air type air conditioner) and A2W (Air-To-Water type hydro unit) at the same time, our outdoor machine can supply its full capacity to the operating indoor machines (including A2A or A2W). If there are simultaneous operating demands from many A2A machines with A2W, the priority of controlling the outdoor machine (ex: compressor frequency) will be given to A2A, because of their fast response for use's comfort. Only the remaining capacity of outdoor machine will be given to A2W during A2A's normal operation. In this case, it might take very long time for A2W heating, so the outdoor machine will alternate the controlling priorities between A2A and A2W with time basis.
- Priority maximum operation time (at FSV #5033=0): FSV #5031 (Default "30 min.", Range 10 ~ 90 min.), After elapsing A2A maximum time, the outdoor machine will operate only for A2W to speed up the A2W's heating/cooling performance, even though there are A2A's continuous operation demands.
- Non priority minimum operation time (at FSV #5033=0): FSV #5032(Default "5 min.", Range 3 ~ 60 min.), in this minimum time, the outdoor machine will operate only for A2W, even though there are no more A2W's continuous operation demands.

‹Operating specifications of Time Division Switching (TDS) in accordance with FSV #5033 setting (In case of the A2A & A2W simultaneous operation is "ON")›				
FSV setting	A2A Cooling + A2W Cooling	A2A Cooling + A2W Heating	A2A Heating + A2W Cooling	A2A Heating + A2W Heating
A2A Priority (#5033=0)	A2A Cooling A2W Cooling "Same cooling Mode TDS Control"	A2A Cooling A2W Cycle Off (The heater just operates without heating.) "Cooling Operation"	A2A Heating A2W x (Not operation) "Heating Operation"	A2A Heating A2W Heating "Same heating Mode TDS Control"
DHW Priority (#5033=1)	Same with A2A Priority setting	A2W Heating A2A Cooling "(Heating + Cooling) TDS Control"	Same with A2A Priority setting	Same with A2A Priority setting

※ A2A : Air to Air, A2W : Air to Water

- When DHW Priority is enabled, hot water (heating) operation is given priority only if the A2A & A2W simultaneous operation is on. Other operations are the same as when A2A Priority is enabled.
- How to set DHW Priority:
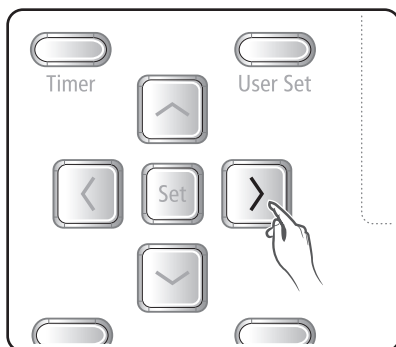
1 Press the " **>** " key on the wired remote controller for 3 seconds. The setting value is changed in order of DHW Priority (⬚:blink) → A2A Priority (⬚:blink) → DHW Priority (⬚:blink) → A2A Priority (⬚:blink) repeatedly.

2 Setting FSV #5033 to '0' becomes 'A2A Priority', and setting to '1' becomes 'DHW Priority'.

⚠ CAUTION

- While A2W is in operation, A2A does not operate. This is a normal operation.
- While A2A or A2W is not in simultaneous operation, you can use any mode without operation mode restriction.

Setting weekly timer

You can operate or stop a desired mode on the day and time you reserve.
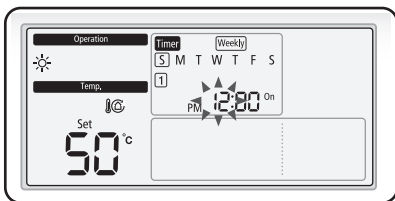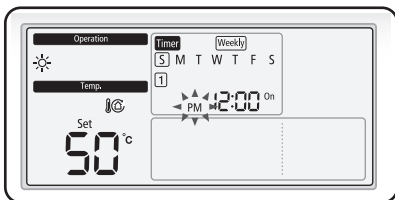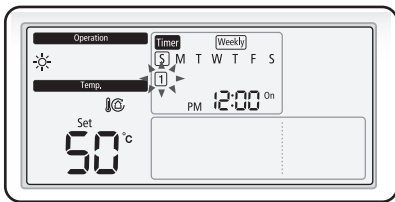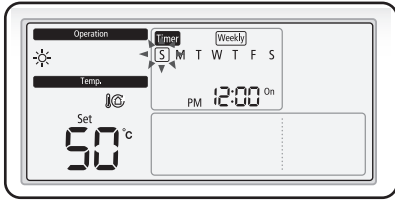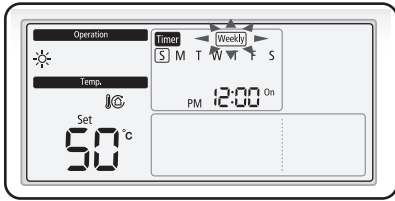
1 Press the **Timer** button.

- (Timer) will be displayed and then select 'Weekly' among 'Daily', 'Weekly', or 'Holiday' by pressing the [∧]/[∨] button.

2 After pressing the [>] button, select the 'Day' you want to reserve.

- Select the day you want to reserve (Sun~Sat) by pressing the [∧]/[∨] button.

📋 **NOTE**

- You can set multiple timers by selecting multiple days and when multiple timers are set, you will move on to the time setting for the timer.

3 Select 'Timer number' by pressing the [>] button until timer number is displayed.
(When entering, the last available number for timer setting is set.)

- The timer already set is assigned with number in time sequence order.
- You can select timer number(1~8) by pressing the [∧]/[∨] button.
- If there is no timer, the edge of the box for the timer number and the timer number will blink.

📋 **NOTE**

- If the timer is already set, the square box surrounding the timer number will blink. If you want to change it, select the set timer number and change it.

4 After pressing the [>] button, select 'AM/PM'.

- You can select AM or PM by pressing the [∧]/[∨] button.

5 After pressing the [>] button, select 'Hour'.

- You can set hour by pressing the [∧]/[∨] button.
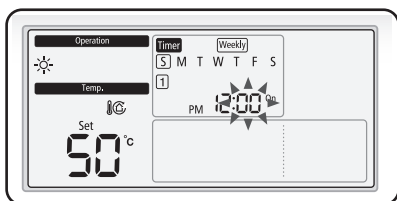
6 After pressing the [>] button, select 'Minute'.

• You can select minute by pressing the [∧]/[∨] button.

📖 NOTE

     • If the time setting is set as 24 hours a day, AM/PM setting will be omitted.
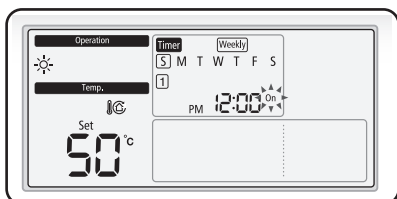
7 After pressing the [>] button, select 'On/Off' timer.

• You can select On or Off by repeatedly pressing the [∧]/[∨] button.

• When selecting 'Off', follow 10 or 11.
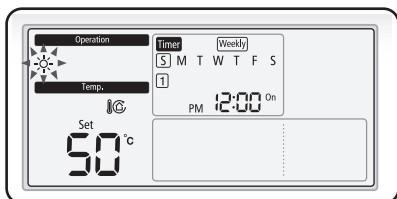
8 After pressing the [>] button, select the operation mode.

• It is available only for setting Hydro unit On timer.

• You can set operation mode by pressing the [∧]/[∨] or **Mode** button.
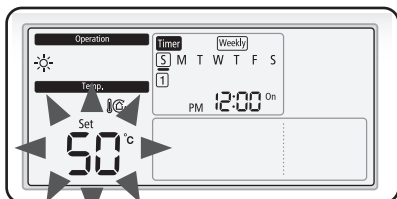
9 After pressing the [>] button, select the desired temperature.

• It is available only for setting Hydro unit On timer.

• You can adjust temperature by 0.5 °C unit by pressing the [∧]/[∨] or [+]/[-] button.
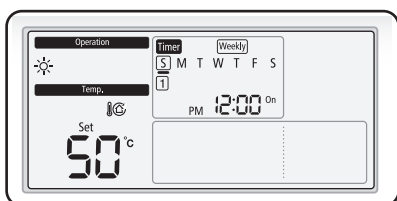
10 Complete timer function by pressing the **Set** button.

• The reserved day will be displayed with '_' and be saved in 3 seconds.
[e.g. When Monday is reserved (Ⓜ)]

• When additional timer is needed, re-select the setting from daily timer or weekly timer.

11 Press the **ESC** button to exit normal mode.

📖 NOTE

     • When canceling the setting during the weekly timer setting, press the **ESC** button to exit.

Setting a holiday with weekly timer

You can set a holiday with the weekly timer. The set weekly timer will not function when holiday setting is applied.
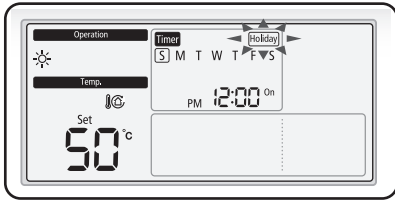
1 Press the **Timer** button.

- (Timer) is displayed and then select 'Holiday' among 'Daily', 'Weekly', or 'Holiday' by pressing the [∧]/[∨] button.
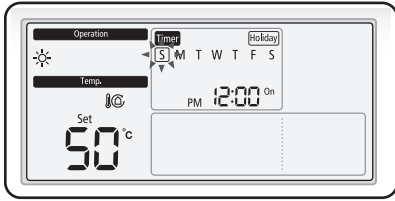
2 After pressing the [>] button, select the 'day' you will set as holiday.

- You can select the holiday (Sun~Sat) by pressing the [∧]/[∨] button.

📄 **NOTE**

- Multiple settings are available by selecting many days.
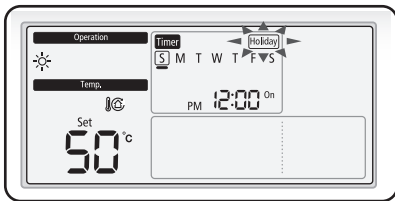
3 Complete the holiday setting with the weekly timer by pressing the **Set** button.

4 Press the **ESC** button to exit normal mode.

📄 **NOTE**

- If you want to cancel your holiday with the weekly timer while you are setting them, press the **ESC** button.
- The weekly timer indicator '_' of the dates set as holidays will disappear on the display.

Canceling a weekly timer

You can cancel weekly timer function.
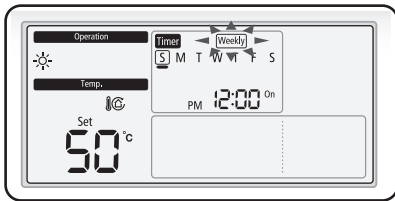
1 Press the **Timer** button.
- (Timer) is displayed and (Weekly) will blink.
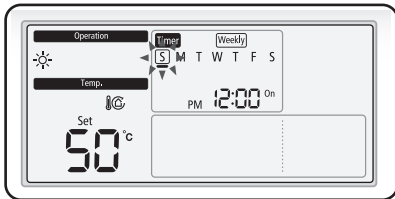
2 After pressing the [>] button, select the 'Day' you want to cancel.
- Select a reserved day by pressing the [∧]/[∨] button.
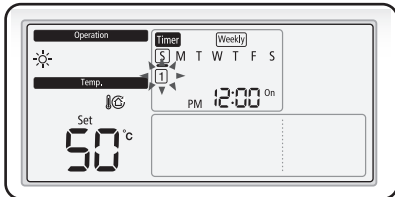
3 After pressing the [>] button, select a 'timer number' to cancel.
- Select a timer number(1~8) by pressing the [∧]/[∨] button.
- The square box around the selected number will blink.
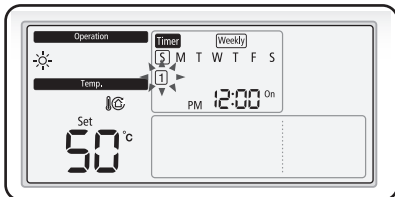
4 Cancel the weekly timer setting by pressing the **Delete** button.
- The canceled weekly timer number and the box for the number will blink.
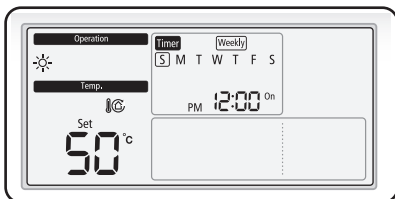
5 Save the weekly timer cancel setting by pressing the **Set** button.

6 Press the **ESC** button to exit to general mode.

Initializing a weekly timer

You can initialize all the weekly timer set with the wired remote controller.
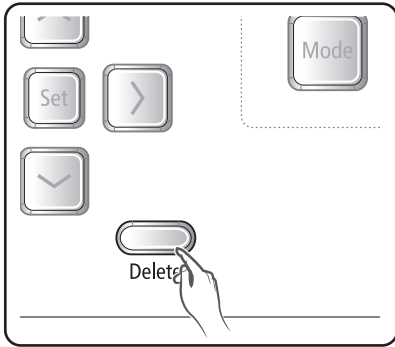
1   Press the **Delete** button for 5 seconds.

• All the weekly timer settings will be deleted.

📄 **NOTE**

• You can't restore your old settings after deleting the weekly timer by pressing the **Delete** button, so be careful when you use this function.

BASIC OPERATION

Setting daily timer

Hydro unit can operate or stop at the time you reserve every day. (Silent mode and DHW mode can be reserved.) The reservation time for Silent mode and DHW mode should be different.
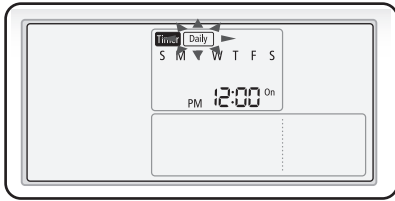
1 Press the **Timer** button.

- (Timer) will be displayed and then select 'Daily' among 'Daily', 'Weekly', or 'Holiday' by pressing the [∧]/[∨] button.
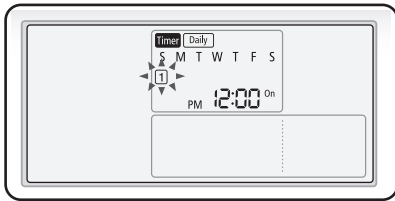
2 Select 'timer number' until the timer number is displayed by pressing the [>] button. (When entering, the last available number for timer setting is set.)

- The timer already set is assigned with number in time sequence order.
- You can select timer number(1~8) by pressing the [∧]/[∨] button.
- If there is no timer, the edge of the box for the timer number and the timer number will blink.

📄 **NOTE**

- If the timer is already set, then the square box surrounding the timer number will blink. If you want to change it, then select a timer number and change it.
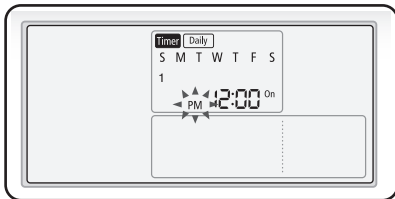
3 After pressing the [>] button, select 'AM/PM'.

- You can select AM or PM by pressing the [∧]/[∨] button.
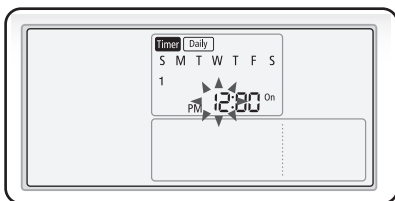
4 After pressing the [>] button, select 'Hour'.

- You can select hour by pressing the [∧]/[∨] button.
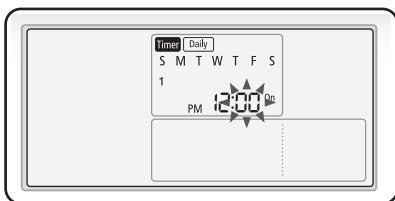
5 After pressing the [>] button, select 'Minute'.

- You can select minute by pressing the [∧]/[∨] button.

📄 **NOTE**

- If the time setting is set as 24 hours a day, AM/PM setting is omitted.
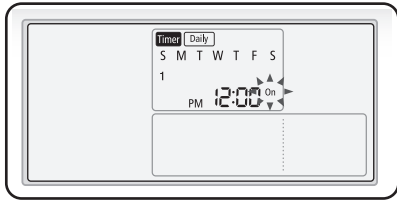
BASIC OPERATION

English 25

Setting daily timer

6 After pressing the [>] button, select 'On/Off' timer.

• You can select On or Off by repeatedly pressing the [∧]/[∨] button.
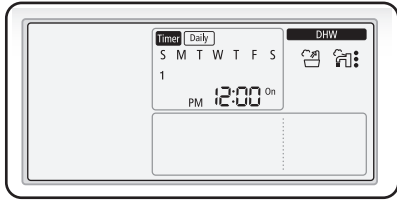
7 After pressing the [>] button, select the reservation for DHW mode or Silent mode. Press the up or down button to select the DHW or Silent mode.

📄 **NOTE**

- • You cannot use timer function for hot water mode (economic/standard/power) when you select the use of hot water function as no use in the field specification setting with installation of an wired remote controller or when DHW thermostat is used (FSV Code: 3061 is set as "2".)
- • When the use of booster heater has selection 'no use' in the field specification setting with the installation of a wired remote controller, you cannot use timer function for power hot water mode(DHW).
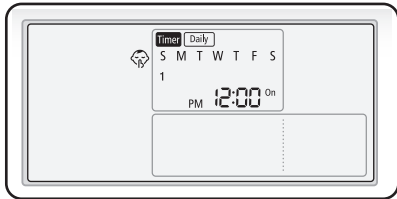
8 Complete timer function by pressing the **Set** button.

▶ When additional timer is needed, re-select the setting from daily timer or weekly timer.
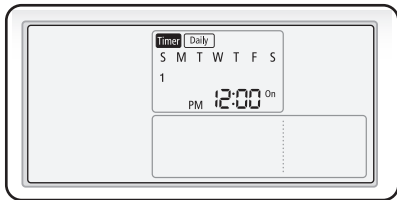
9 Press the **ESC** button to exit normal mode.

📄 **NOTE**

- • If you want to cancel daily timer while you are setting them, press the **ESC** button.

How to set the detailed setting (User setting mode)
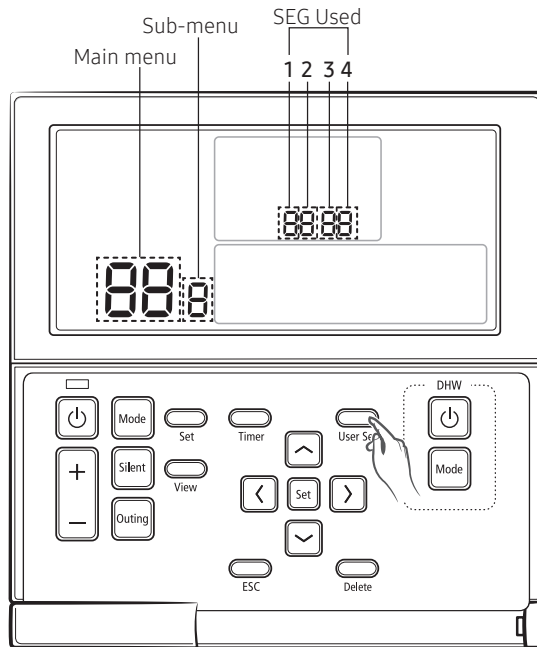
1   If you want to enter the user set mode, press the **User set** button.
• You will enter the User Set mode, and the 'main menu' will be displayed.

2   Refer to the Wired Remote Controller's User Set list on the next page to select the desired menu.
• By using the [∧]/[∨] buttons, select a main menu number and press the [>] button to enter the sub-menu setting screen.
• By using the [∧]/[∨] buttons, select a sub-menu number and press the [>] button to enter the data setting screen.
• Once you have entered the setting screen, the current setting value will be displayed.
• Refer to the chart for data setting.
• By using the [∧]/[∨] buttons, change the setting value and press the [>] button to move to the next setting value.
• Press the **Set** button to save the setting value and exit to the sub-menu setting screen.
• Press the **ESC** button to exit to general mode.

📄 **NOTE**
  • While setting the data, you can use the [<]/[>] buttons to move the range of SEG used.
  • While configuring the setting, if you press the **ESC** button to exit, you will move to the sub-menu setting screen without saving the setting value.
  • If you don't press any button for more than 3 minutes, general mode will appear.
  • If you don't use summer time, you don't need to set year/month/day.

How to set the detailed setting (User setting mode)

User setting mode

Main menu	Sub-menu	Function		SEG number	Default	Range	Unit
1	1	All lock		1	0	0-Unlock, 1-Lock	-
	2	Partial key lock	Operation On/Off key lock	1	0	0-Unlock, 1-Lock	
			Operation selection key lock	2	0	0-Unlock, 1-Lock	
			Temperature setting key lock	3	0	0-Unlock, 1-Lock	
			Timer setting key lock	4	0	0-Unlock, 1-Lock	
2 *1)	1	Current time setting(year)		12/34	20**	2000~2099	Year
	2	Current time setting(month/date)		12/34	**/**	1~12/1~31	Month, Date
	3	Current time setting (day/hour/minute)		Day, AM/ PM, 24, 12/34	(*,*,*/*)	Sun~Sat/ AM~PM/ 0~12/0~60	Day, hour, minute
3	1	Summer time use and setting methods	Use of summer time (Y/N)	1	0	0- Disuse 1- Use	-
		Summer time application method	Summer time application method	2	0	0- Weekly 1- Daily	-
	2	Summer time use (weekly) Start (? month, ? th Sunday)		12, 4	03, F	Jan~Dec month 1~4, F (last week) th week	-
	3	Summer time use (weekly) End (? month, ? th Sunday)		12, 4	10, F	Jan~Dec month 1~4, F (last week) th week	-
	4	Summer time use (daily) Start (? month, ? date)		12, 34	0322	Jan~Dec / 1~31st day	Month, date
	5	Summer time use (daily) End (? month, ? date)		12, 34	0922	Jan~Dec / 1~31st day	Month, date
4		Backlight time Setting/Checking		12	5	0~30 sec.	1 sec
		Use of LED(Green) (Y/N)		3	1	0- Disuse 1- Use	
		Use of LED (Red) (Y/N)		4	1	0- Disuse 1- Use	
0		Reset to user mode defaults (except the current time)		1	0	0- Disuse 1- Use	

*1) Arbitrary value can be displayed.

Setting current time (example)
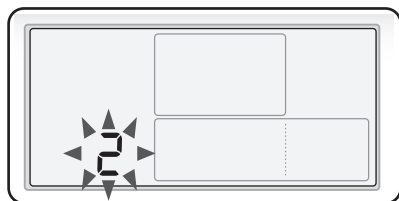
1 Press the **User Set** button.

• 'Main Menu' will be displayed and current time can be set by pressing the [∧]/[∨] buttons and selecting No.2.
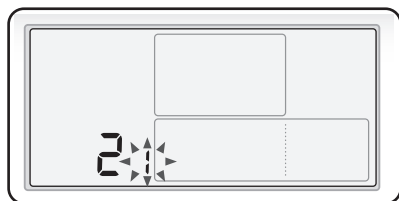
2 Select the number to set 'year, month, date' in sub-menu by pressing the [>] button.

• You can select 'year, month and date' by pressing the [∧]/[∨] buttons and selecting No.1.
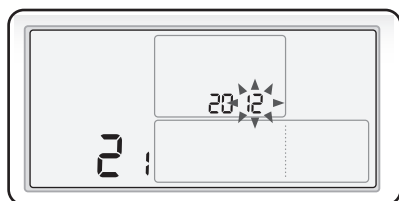
3 Select the 'year' you want to set by pressing the [>] button.

• You can select 'year(2000~2099)' by pressing the [∧]/[∨] buttons.
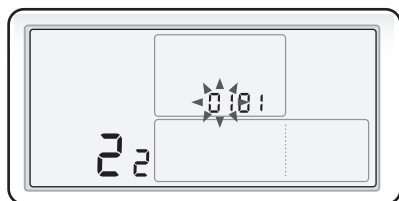
4 Select the 'month' you want to set by pressing the [>] button.

• You can select 'month(01~12)' by pressing the [∧]/[∨] button.
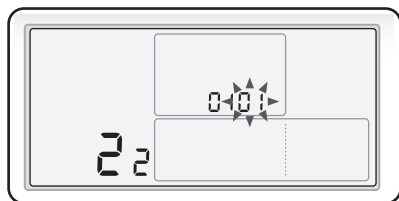
5 Select the 'date' you want to set by pressing the [>] button.

• You can select 'Date(01~31)' by pressing the [∧]/[∨] button.
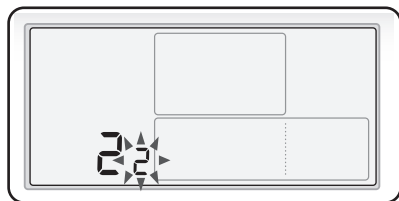
6 Complete the setting for 'year, month, and date' by pressing the **Set** button.

• The setting value will be applied and you can exit to the sub-menu.

📄 NOTE

• When not using the summer time function, you don't need to set "Year", "Month" and "Day".

How to set the detailed setting (User setting mode)
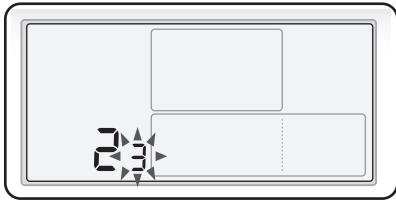
7 Select 'day, AM/PM, hour, and minute' in the 'sub-menu'.

- You can set 'day, AM/PM, hour, and minute' by pressing the [∧]/[∨] buttons and selecting No.3.
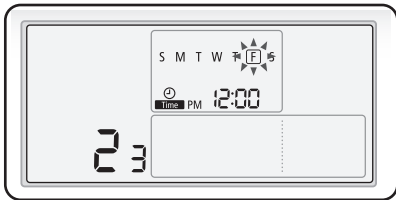
8 Select the 'day' you want to set by pressing the [>] button.

- You can select 'Day(Sun~Sat)' by pressing the [∧]/[∨] buttons.
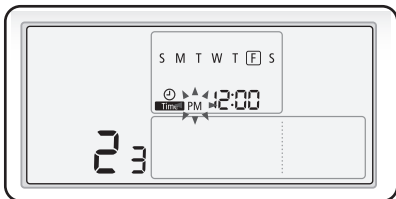
9 Select the 'AM/PM' you want to set by pressing the [>] button.

- You can select 'AM/PM/ AM & PM' by pressing the [∧]/[∨] buttons. 'AM & PM' is 24 hours a day setting mode.
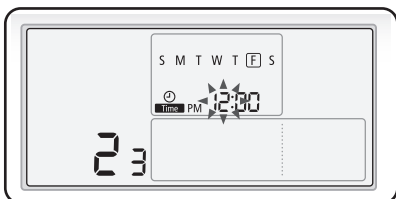
10 Select the 'Hour' you want to set by pressing the [>] button.

- You can select 'Hour(01~12)' by pressing the [∧]/[∨] buttons. When it is 24 hours a day setting mode, 0~23 setting is available.
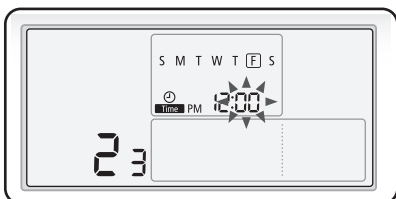
11 Select the 'Minute' you want to set by pressing the [>] button.

- You can select 'Minute(00~59)' by pressing the [∧]/[∨] buttons.

12 Complete the current time setting by pressing the **Set** button.

- The setting value will be applied and you can exit to the sub-menu.

13 Whenever you press the **ESC** button, you will exit to general mode from sub-menu.

Wired remote controller installation

Initializing your wired remote controller communication

1 Press the **Esc** and **Delete** buttons at the same time for more than 5 seconds.
- The communication of your wired remote controller will be initialized, and the device will search for the Hydro unit connected to your wired remote controller again.
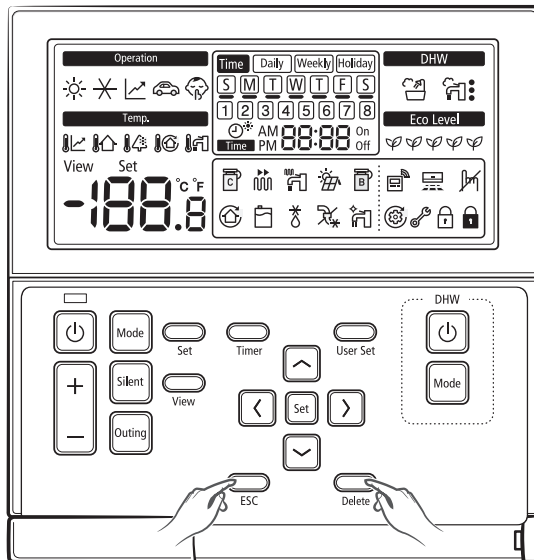
Wired remote controller installation

Error display on the wired remote controller

※ The address of Hydro unit is displayed "200000"

- Error codes for the wired remote controller and the product connected to your wired remote controller will be displayed in the LCD display.

Error indications are displayed as seen below.

a Hydro unit error

- The address of Error, "Ai" and the error code will be displayed alternately on the remote controller display.

S M T W T F S		S M T W T F S		S M T W T F S
Ai 20	→	0000	→	E 101
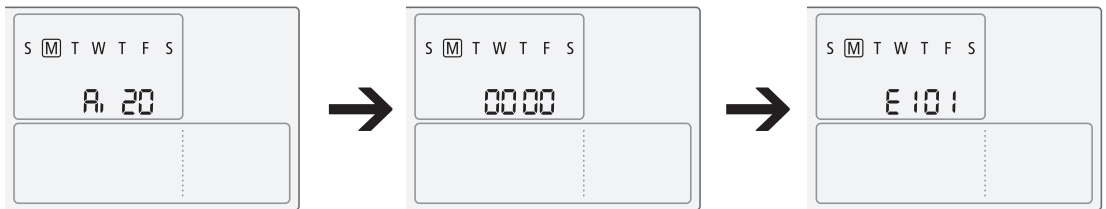
b Outdoor unit error

- The address of Error, "Ao" and error code will be displayed alternately on the remote controller display.

S M T W T F S		S M T W T F S		S M T W T F S
Ao 20	→	0000	→	E 101
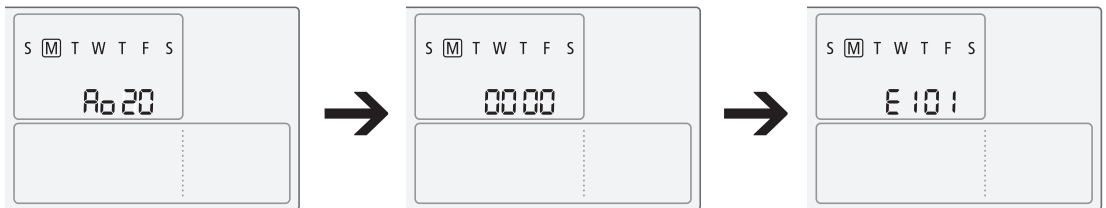
c Wired remote controller error

- The error code will blink at 0.5 second interval on the remote controller display and the address of error will not be displayed.

S M T W T F S
E604
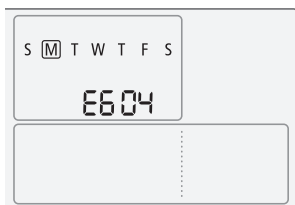
Use of wired remote controller installation / service mode

Use of installation/service mode
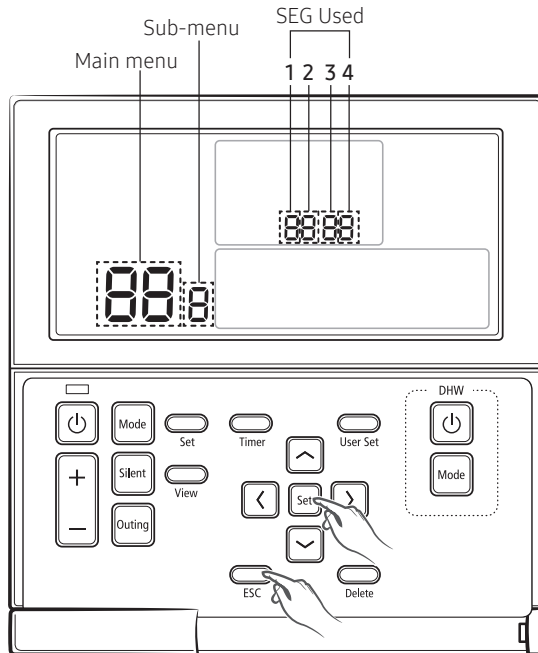
1 If you want to use the installation/service mode for your wired remote controller, press the **Set** and **ESC** buttons at the same time for more than 3 seconds.

• You will enter the installation/service settings, and the 'main menu' will be displayed.

2 Refer to the list of installation / service setting mode for your wired remote controller on the next page, and select the desired menu.

• Using the [∧]/[∨] buttons, select a main menu number and press the [>] button to enter the sub-menu setting screen.

• Using the [∧]/[∨] buttons, select a sub-menu number and press the [>] button to enter data setting screen.

• When you enter the setting stage, the current setting value will be displayed.

• Refer to the chart for data settings.

• Using the [∧]/[∨] buttons, change the setting value. Press the [>] button to move to the next setting value.

• Press the **Set** button to save the setting value and exit to the sub-menu setting screen.

• Press the **ESC** button to exit to normal mode.

📄 **NOTE**
- When setting the data, you can move SEG range with [<]/[>] buttons.
- While configuring the setting, press the **ESC** button to exit to the sub-menu setting screen without saving your changes.
- When you don't enter any buttons for more than 3 minutes, you will be back to normal mode.

ADVANCED OPERATION

Use of wired remote controller installation / service mode

Installation/Service mode

📄 **NOTE**
- 'NONE' will be displayed for the menu that setting modes don't support. In some cases, the setting may not be possible or it may not be applied though it is set on the unit.
- If communication initialization is needed after saving the setting, the system will reset automatically and communication will be initialized.

Main menu	Sub-menu	Function		SEG number	Default	Range	Unit
1	1	Wired remote controller's option function set / Check 1	Cooling support Y / N	1	0	0 – Both cooling & heating 1 – Heating Only	-
			Selecting the standard temperature of cooling and heating	2	0	0-Water Outlet temperature 1-Indoor temperature	-
			Selecting a standard sensor of indoor temperature	3	0	0-Temperature sensor of wired remote controller 1-External temperature sensor	-
			Selecting Master/Slave	4	0	0-Master, 1-Slave	-
	2	Wired remotecontroller's option function set /Check 2 1	Checking current sensor temperature value	123	0	-9~40˚C	-
	3		Setting compensation temperature value	123	0	-9.9~9.9˚C	0.1 ˚C
	4	Checking the number of connected devices	The number of connected device	1,2	0	0~16	1
	5	Setting desired temperature unit (Available only when the temperature display is °C)		1	1	0-1˚C, 1-0.5˚C, 2-0.1˚C	-
	0	Reset to option setting default value of wiredremote controller		1	0	0-Disuse, 1-Reset	-

Main menu	Sub-menu	Function		SEG number	Default	Range	Unit
2	1	Checking Micom code of wired remote controller		1234, 4	-	Micom code	-
	2	Checking version information of wired remote controller		1234, 34	-	Revision date	-
3 *1)	1	Setting Hydro unit option	Hydro unit address Set/Check	1234	-	*2)	
	2		Basic Option Set / Check	1234, 12	-	Option code	
	3		Install Option Set / Check	1234, 12	-	Option code	
	4		Install (2) Option Set / Check	1234, 12	-	Option code	
4	1	View Master Set/ Check	Hydro unit View Master Set / Check	1234, 34	-	Address	
	2	Master Hydro unit Set/Check	Check the Master Hydro unit address	1234, 34	-	Address	
	3		Master Hydro unit Set	1	-	0-Disuse, 1-Use, 2-Reset	
0	1	Reset	Wired remote controller factory Reset	1	0	0-Disuse, 1-Reset	-
	2		Power Master Reset	1	0	0-Disuse, 1-Reset	-
	3		Addressing Reset (Outdoor unit Reset)	1	0	0-Disuse, 1-Reset	-

*1) When entering the main menu 3, set and check the unit address and then move to the sub menu.
The unit address will be displayed by blinking SEG 34 (Device ID) and SEG 1234 (Control Layer, Set Layer address).

*2) 1. Reservation No. 1 display, Main address setting and checking: Range of current main address (SEG 1, 2) and main address setting: 0x00 ~ 0x4F (hexadecimal)

2. Reservation No. 2 display, Group address setting and checking: Range of current group address (SEG 1, 2) and group address setting: 0x00 ~ 0xFE (hexadecimal)

Field specification setting mode of wired remote controller

Use of field specification setting mode

Data   Main menu   Sub-menu

1 If you want to use the field specification setting mode for your wired remote controller, press the **Set** and [∨]buttons at the same time for more than 3 seconds.

2 Refer to the list of field specification for your wired remote controller on the next page, and select the desired menu.

• Using the [∧]/[∨] buttons, select a main menu number and press the [>] button to enter the sub-menu setting screen.

• Using the [∧]/[∨] buttons, select a sub-menu number and press the [>] button to enter data setting screen.

• When you enter the setting stage, the current setting value will be displayed.

• Refer to the chart for data settings.

• Using the [∧]/[∨] buttons, change the setting value and press the Set button to save the setting value. Setting value will be displayed when it is saved.

• Press the [<] button to move previous setting value.

• While configuring the sub manu setting, press the **ESC** button to exit to normal menu.

📄 NOTE

   • While configuring the setting, press the **ESC** button to exit to the sub-menu setting screen without saving your changes.
   • When you don't enter any buttons for more than 3 minutes, you will be back to normal mode.

ADVANCED OPERATION

Use of field specification checking mode

Data   Main menu   Sub-menu
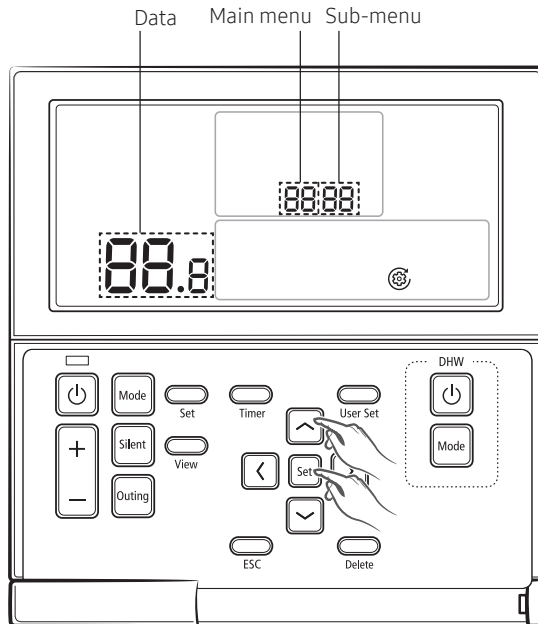
1 If you want to use the field specification checking mode for your wired remote controller, press the **Set** and [∧]buttons at the same time for more than 3 seconds.

2 Refer to the list of field specification for your wired remote controller on the next page, and select the desired menu.

• Using the [∧]/[∨] buttons, select a main menu number and press the [>] button to enter the sub-menu checking screen.

• Using the [∧]/[∨] buttons, select a sub-menu number and press the [>] button to enter data checking screen.

• When you enter the checking stage, the current setting value will be displayed.

• Press the [<] button to move previous setting value.

• While configuring the sub manu setting, press the **ESC** button to exit to normal menu.

📄 **NOTE**

• While configuring the checking, press the **ESC** button to exit to the sub-menu setting screen.

• When you don't enter any buttons for more than 3 minutes, you will be back to normal mode.

Field setting mode

Field Setting Value (FSV) Table

📋 **NOTE**
- Reset the power after changing the Field Setting Value.

Code 10✕✕ : Upper and lower temperature limits of each operation mode of wired remote controller Heating(Water Out, Room), Cooling(Water Out, Room), DHW(Tank)

Code 20✕✕ : Water law design and external room thermostat Heating(2 WL's for floor & FCU), Cooling(2 WL's for floor & FCU), WL & Thermostat types

Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Remote Controller Setting Range Code 10✕✕	Water Out Temp for Cooling	Max	✕✕11	25	18	25	1	°C
		Min	✕✕12	16	5	18	1	°C
	Room Temp for Cooling	Max	✕✕21	30	28	30	1	°C
		Min	✕✕22	18	18	28	1	°C
	Water Out Temp for Heating	Max	✕✕31	55	37	55	1	°C
		Min	✕✕32	25	15	37	1	°C
	Room Temp for heating	Max	✕✕41	30	18	30	1	°C
		Min	✕✕42	16	16	18	1	°C
	DHW Tank Temp	Max	✕✕51	50	50	70	1	°C
		Min	✕✕52	40	30	40	1	°C
Water Law Code 20✕✕	Outdoor Temp for Water Law (Heating)	Point ①	✕✕11	-10	-20	5	1	°C
		Point ②	✕✕12	15	10	20	1	°C
	Water Out Temp for WL1 Heating (WL1-Floor)	Point ①	✕✕21	40	17	55	1	°C
		Point ②	✕✕22	25	17	55	1	°C
	Water Out Temp for WL2 Heating (WL2-Fan Coil Unit)	Point ①	✕✕31	50	17	55	1	°C
		Point ②	✕✕32	35	17	55	1	°C
	Heating Water Law for Auto Mode	WL Type	✕✕41	1(WL1)	1	2	-	-
	Outdoor Temp for Water Law (Cooling)	Point ①	✕✕51	30	25	35	1	°C
		Point ②	✕✕52	40	35	45	1	°C
	Water Out Temp for WL1 Cooling (WL1-Floor)	Point ①	✕✕61	25	5	25	1	°C
		Point ②	✕✕62	18	5	25	1	°C
	Water Out Temp for WL2 Cooling (WL2-Fan Coil Unit)	Point ①	✕✕71	18	5	25	1	°C
		Point ②	✕✕72	5	5	25	1	°C
	Cooling Water Law for Auto Mode	WL Type	✕✕81	1(WL1)	1	2	-	-
	External Thermostat Application	#1 (Floor)	✕✕91	0(No)	0	4	1	-
		#2 (FCU)	✕✕92	0(No)	0	4	1	-

Table title: Field Setting Value

Code 30✳✳ : User's options for domestic hot water(DHW) tank heating

    3011 : Application of DHW tank in user's system

    302✳ : Heat pump variables for tank temp. control and combination with booster heater

    303✳ : Booster heater variables for combination with heat pump

    304✳ : Periodical disinfection heating of water tank

    305✳ : Off timer for power DHW mode by Forced DHW of wired remote controller

    3061 : "1"Combination of external field solar panel for with heat pump for DHW heating
           "2"Application of DHW Tank thermostat in user's system

    307✳ : Default direction of the DHW valve or Zone #1, #2 valve
           When the 3way valve is applied to DHW Valve terminal block instead of 2way valve,
           default direction is Space Heating (Room)

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
DHW Code 30✳✳	Domestic Hot Water Tank	Application	✳✳11	0 (No)	0	2	1	-
	Heat Pump	Max Temp	✳✳21	50	45	50	1	˚C
		Stop	✳✳22	2	0	10	1	˚C
		Start	✳✳23	5	5	20	1	˚C
		Min. Space heating/Cooling operation time	✳✳24	5	1	20	1	min
		Max. DHW operation time	✳✳25	30	5	95	5	min
		Max. Space heating/Cooling operation time	✳✳26	3	0.5	10	0.5	hour
	Booster Heater	Application	✳✳31	1 (On)	0(Off)	1	-	-
		Delay Time	✳✳32	20	20	95	5	min
		Overshoot	✳✳33	0	0	4	1	˚C
	Disinfection	Application	✳✳41	1 (On)	0(Off)	1	-	-
		Interval	✳✳42	Fri (5)	Sun(0)	All (7)	1	day
		Start Time	✳✳43	23	0	23	1	o'clock
		Target Temp	✳✳44	70	40	70	5	˚C
		Duration	✳✳45	10	5	60	5	min
		Max time	✳✳46	8	1	24	1	hour
	Forced DHW operation	Timer OFF Function	✳✳51	0 (No)	0	1 (Yes)	-	-
		Timer Duration	✳✳52	6	3	30	1	(x10) min
	Solar Panel/DHW Thermostat	H/P Combination	✳✳61	0 (No)	0	2	1	-
	Direction of DHW valve	DHW Tank	✳✳71	0 (Room)	0	1 (Tank)	-	-

Field setting mode

Field Setting Value (FSV) Table

Code 40✶✶ : User's options for heating devices including internal backup heater and external boiler
      401✶ : Space/DHW heating priority and control variables
      402✶ : Backup/Booster heater priority and control variables
      403✶ : Additional backup boiler operating variables

Code 50✶✶ : User's options for extra functions
      501✶ : New target temperatures of each mode by "Outgoing" hot key of remote controller
      5021 : Temperature difference between before & after values in "Economic" DHW mode
      503✶ : TDM(time division multi) variables (TDM product Only)
      504✶ : Power Peak control for Smart Grid

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Heating Code 40✶✶	Heat Pump	Heating/DHW Priority	✶✶11	0 (DHW)	0	1 (Heating)	-	-
		Outdoor Temp for Priority	✶✶12	0	-15	20	1	°C
		Heating Off	✶✶13	35	14	35	1	°C
	Backup Heater	Application	✶✶21	0 (No)	0	1 (Yes)	-	-
		BUH/BSH Priority	✶✶22	0 (Both)	0	2 (BSH)	1	-
		Cold weather compensation	✶✶23	1 (Yes)	0 (No)	1	-	-
		Threshold Temp	✶✶24	0	-25	35	1	°C
		Defrost Backup Temp.	✶✶25	15	10	55	5	°C
	Backup Boiler	Application	✶✶31	0 (No)	0	1 (Yes)	-	-
		Boiler Priority	✶✶32	0 (No)	0	1 (Yes)	-	-
		Threshold Temp	✶✶33	-15	-20	5	1	°C
	Mixing valve	Application	✶✶41	0 (No)	0	2	1	-
		Target ΔT(Heating)	✶✶42	10	5	15	1	°C
		Target ΔT(Cooling)	✶✶43	10	5	15	1	°C
		Control factor	✶✶44	2	1	5	1	-
		Control interval	✶✶45	2	1	30	1	min
		Running Time	✶✶46	9	6	24	3	(x10) sec
	Inverter Pump	Application	✶✶51	1	0	2	-	-
		Target ΔT	✶✶52	5	2	8	1	°C
		Control factor	✶✶53	2	1	3	1	-
Others Code 50✶✶	Outing	Water Out Temp for Cooling	✶✶11	25	5	25	1	°C
		Room Temp for Cooling	✶✶12	30	18	30	1	°C
		Water Out Temp for Heating	✶✶13	15	15	55	1	°C
		Room Temp for Heating	✶✶14	16	16	30	1	°C

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Others Code 50�X✗	Outing	Auto Cooling WL1 Temp	✗✗15	25	5	25	1	˚C
		Auto Cooling WL2 Temp	✗✗16	25	5	25	1	˚C
		Auto Heating WL1 Temp	✗✗17	15	15	55	1	˚C
		Auto Heating WL2 Temp	✗✗18	15	15	55	1	˚C
		Target Tank Temp	✗✗19	30	30	70	1	˚C
	DHW Saving Mode	Temp Difference	✗✗21	5	0	40	1	˚C
	TDM Variable (TDM product Only)	Priority Max. Operation Time	✗✗31	30	10	90	5	min
		Non Priority Min. Operation Time	✗✗32	5	3	60	1	min
		A2A / DHW Priority	✗✗33	0	0 (A2A)	1 (DHW)	1	-
	Power Peak Control	Application	✗✗41	0 (No)	0	1 (Yes)	-	-
		Select forced off parts	✗✗42	0 (All)	0	3	1	-
		Using input voltage	✗✗43	1 (High)	0 (Low)	1	-	-
	Frequency Ratio Control		✗✗51	0 (No)	0	1 (Yes)	-	

Remote Controller Setting Range : Code 10✗✗

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Remote Controller Setting Range Code 10✗✗	Water Out Temp for Cooling	Max	✗✗11	25	18	25	1	˚C
		Min	✗✗12	16	5	18	1	˚C
	Room Temp for Cooling	Max	✗✗21	30	28	30	1	˚C
		Min	✗✗22	18	18	28	1	˚C
	Water Out Temp for Heating	Max	✗✗31	55	37	55	1	˚C
		Min	✗✗32	25	15	37	1	˚C
	Room Temp for heating	Max	✗✗41	30	18	30	1	˚C
		Min	✗✗42	16	16	18	1	˚C
	DHW Tank Temp	Max	✗✗51	50	50	70	1	˚C
		Min	✗✗52	40	30	40	1	˚C

Field setting mode

Space Cooling

- Target water outlet temperature : Upper limit(#1011, Default 25˚C, Range : 18 ~ 25˚C),
  Lower limit(#1012, Default 16˚C, Range : 5 ~ 18˚C)
  - With this default FSV settings, user can change the target water outlet temperature within the range of 5 ~ 25˚C for cooling.
- Target room temperature : Upper limit(#1021, Default 30˚C), Lower limit(#1022, Default 18˚C)
  - With this default FSV settings, user can change the target room temperature within the range of 18 ~ 30˚C for cooling.

Space Heating

- Target water outlet temperature : Upper limit(#1031, Default 55˚C, Range : 37 ~ 55˚C),
  Lower limit(#1032, Default 25˚C, Range : 15 ~ 37˚C)
  - With this default FSV settings, user can change the target water outlet temperature within the range of 25 ~ 55˚C for heating.
- Target room temperature : Upper limit(#1041, Default 30˚C), Lower limit(#1042, Default 16˚C)
  - With this default FSV settings, user can change the target room temperature within the range of 16 ~ 30˚C for heating.

DHW Heating

- Target DHW tank temperature : Upper limit(#1051, Default 50˚C, Range : 50 ~ 70˚C),
  Lower limit(#1052, Default 40˚C, Range : 30 ~ 40˚C)
  - With this default FSV settings, user can change the target tank temperature within the range of 40 ~ 50˚C for DHW heating.

📄 **NOTE**
- The FSV #3011 in the wired remote controller should be set to "1 or 2" to use DHW function.

Water Law & Room Thermostat : Code 20✳✳
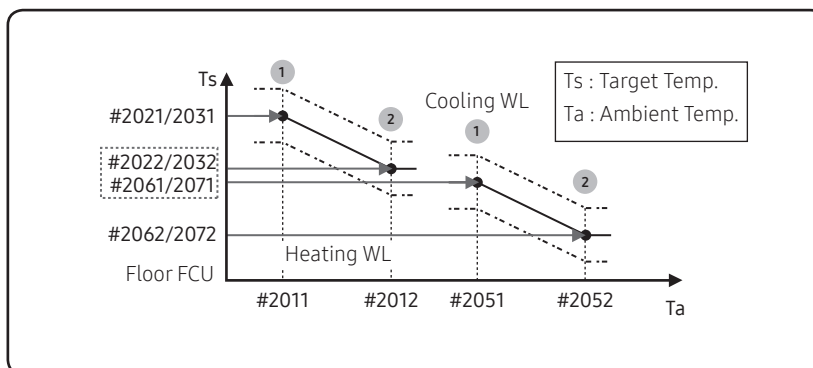
Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Water Law Code 20✱✱	Outdoor Temp for Water Law (Heating)	Point (1)	✱✱11	-10	-20	5	1	˚C
		Point (2)	✱✱12	15	10	20	1	˚C
	Water Out Temp for WL1 Heating (WL1-Floor)	Point (1)	✱✱21	40	17	55	1	˚C
		Point (2)	✱✱22	25	17	55	1	˚C
	Water Out Temp for WL2 Heating (WL2-Fan Coil Unit)	Point (1)	✱✱31	50	17	55	1	˚C
		Point (2)	✱✱32	35	17	55	1	˚C
	Heating Water Law for Auto Mode	WL Type	✱✱41	1(WL1)	1	2	-	-
	Outdoor Temp for Water Law (Cooling)	Point (1)	✱✱51	30	25	35	1	˚C
		Point (2)	✱✱52	40	35	45	1	˚C
	Water Out Temp for WL1 Cooling (WL1-Floor)	Point (1)	✱✱61	25	5	25	1	˚C
		Point (2)	✱✱62	18	5	25	1	˚C
	Water Out Temp for WL2 Cooling (WL2-Fan Coil Unit)	Point (1)	✱✱71	18	5	25	1	˚C
		Point (2)	✱✱72	5	5	25	1	˚C
	Cooling Water Law for Auto Mode	WL Type	✱✱81	1(WL1)	1	2	-	-
	External Thermostat Application	#1(Floor)	✱✱91	0(No)	0	4	1	-
		#2(FCU)	✱✱92	0(No)	0	4	1	-

Water Law for Heating

- Outdoor air temperature range : Lower limit (1) (#2011, Default -10˚C, Range : -20 ~ 5˚C), Upper limit (2) (#2012, Default 15˚C, Range : 10 ~ 20˚C)
  - With this default settings, the water outlet temperature by heating water law can be changed within the outdoor temperature range of -10 ~ 15˚C.
- Water out temperature range for floor/FCU applications respectively : Upper limit (1) (#2021/2031, Default 40/50˚C, Range : 17 ~ 55˚C), Lower limit (2) (#2022/2032, Default 25/35˚C, Range : 17 ~ 55˚C)
  - With this default settings, the water outlet temperature by heating water law can be changed within the range of 25/35 ~ 40/50˚C.
- Type of water law for according to heating devices(floor/FCU) : #2041(Default "1"(WL1 for floor)), "2"(WL2 for FCU or radiator)

Water Law for Cooling

- Outdoor air temperature range : Lower limit (1) (#2051, Default 30˚C, Range : 25 ~ 35˚C), Upper limit (2) (#2052, Default 40˚C, Range : 35 ~ 45˚C)
  - With this default settings, the water outlet temperature by cooling water law can be changed within the outdoor temperature range of 30 ~ 40˚C.
- Water out temperature range for floor/FCU applications respectively : Upper limit (1) (#2061/2071, Default 25/18˚C), Lower limit (2) (#2062/2072, Default 18/5˚C)
  - With this default settings, the water outlet temperature by cooling water law can be changed within the range of 5/18 ~ 18/25˚C.
- Type of water law for according to cooling devices(floor/FCU) : #2081(Default "1"(WL1 for floor), "2"(WL2 for FCU or radiator)

Field setting mode

External Room Thermostat (Field Option)

- Terminal #1 (#2091, Default "0" for no usage), #2 (#2092, Default "0" for no usage)
  - To use wired remote controller for heating/cooling operation, both of the above settings should be set to "0" simultaneously. If not, thermostat controls system.
  - If set to #2091/#2092 1, the compressor can be turned on or off only by the thermostat.
  - If set to #2091/#2092 2~4, the compressor can be turned on or off by the thermostat or according to the WL discharged water temperature.(#2092 2, WL Thermo off → Water pump off, #2092 3, WL Thermo off → Water pump on, #2092 4, WL Thermo off → Water pump 7min off → 3min on →.......).
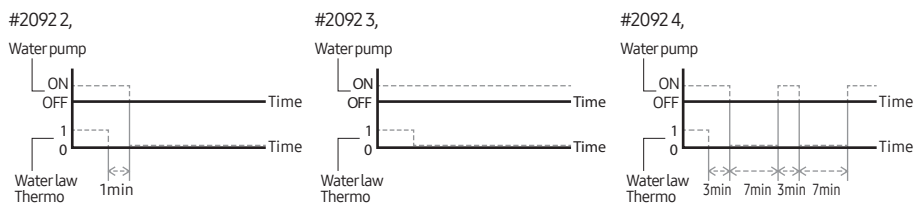
  - Types of water law used by room thermostat operation will follow the FSV settings defined in #2041 (heating) and #2081 (cooling) respectively.
  - During the thermostat operation, the user has the possibility to shift up or down the target water temperature within the range of -5 ~ +5°C.
- When the remote controller is used, floor valve should be connected to zone #1 and the FCU valve should be separately connected to zone #2 of the Hydro Unit PBA.
- When only floor cooling/heating is installed and if the Water Law or outlet water temperature is too low, 2way valve may closed and E911 error may occur.
- When the floor and FCU units are installed together and operating in cooling mode, floor valve may close and E911 may occur to prevent floor condensation when the outlet water temperature is below 16°C. Therefore FCU should secure minimum value for the flow rate.
- Thermostat #2 which controls FCU has the priority for operation modes and the discharge water temperature.
- Samsung is not responsible for the accidents such as floor condensations which can occur by not connecting the valve to the zone #1 port of the Hydro Unit PBA.

DHW Heating : Code 30✱✱

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
DHW Code 30✶✶	Domestic Hot Water Tank	Application	✶✶11	0(No)	0	2	1	-
	Heat Pump	Max Temp	✶✶21	50	45	50	1	˚C
		Stop	✶✶22	2	0	10	1	˚C
		Start	✶✶23	5	5	20	1	˚C
		Min. Space heating/Cooling operation time	✶✶24	5	1	20	1	min
		Max. DHW operation time	✶✶25	30	5	95	5	min
		Max. Space heating/Cooling operation time	✶✶26	3	0.5	10	0.5	hour
	Booster Heater	Application	✶✶31	1(On)	0(Off)	1	-	-
		Delay Time	✶✶32	20	20	95	5	min
		Overshoot	✶✶33	0	0	4	1	˚C
	Disinfection	Application	✶✶41	1(On)	0(off)	1	-	-
		Interval	✶✶42	Fri(5)	Sun(0)	All(7)	1	day
		Start Time	✶✶43	23	0	23	1	o'clock
		Target Temp	✶✶44	70	40	70	5	˚C
		Duration	✶✶45	10	5	60	5	min
		Max time	✶✶46	8	1	24	1	hour
	Forced DHW operation	Timer OFF Function	✶✶51	0(No)	0	1(Yes)	-	-
		Timer Duration	✶✶52	6	3	30	1	(x10)min
	Solar Panel/DHW Thermostat	H/P Combination	✶✶61	0(No)	0	2	1	-
	Direction of DHW valve	DHW Tank	✶✶71	0(Room)	0	1(Tank)	-	-

Field setting mode

DHW Application

The FSV #3011 in the wired remote controller should be set to "1 or 2" to use DHW function.

If FSV #3011 is set to 1, the DHW operation starts based on the thermo on temperature.
If FSV #3011 is set to 2, the DHW operation starts based on the thermo off temperature.

(For example, when the current temperature becomes 45°C under the conditions that the thermo on temperature is 43°C and the thermo off temperature is 48°C, the DHW turns off if FSV #3011 is set to 1 and DHW turns on if FSV #3011 is set to 2.)

Heat Pump Variables for Controlling DHW Tank

- Maximum DHW tank temperature with R-410A(refrigerant) heat pump operation : FSV #3021, Default 50˚C, Range : 45 ~ 50˚C.
- Temperature difference determining the heat pump OFF temperature : FSV #3022, Default 2˚C, Range : 0 ~ 10˚C.
- Temperature difference determining the heat pump ON temperature : FSV #3023, Default 5˚C, Range : 5 ~ 20˚C.
- DHW heating mode timer : Mode timer manage the operation terms when there are simultaneous requests of space heating/cooling and DHW.
  – FSV #3024 (minimum Space heating operating time, Default 5 min., Range 1 ~ 20 min.), #3025 (maximum DHW time, Default 30 min., Range 5 ~ 95 min.), #3026(maximum space heating operation time, Default 3 hour, Range 0.5 ~ 10 hour)
  – Maximum operation time is applied only when both DHW and Space heating request operation. DHW or Space heating operates continuously until reaching at target temperature without time limitation in the single operation.

📄 **NOTE**

- The FSV #4011 for DHW priority should be set to "0(DHW)"(Default). Space heating gets a priority by setting FSV #4011 "1", but this is only valid when the outdoor temperature is lower than the specified temperature defined by FSV #4012.

ADVANCED OPERATION
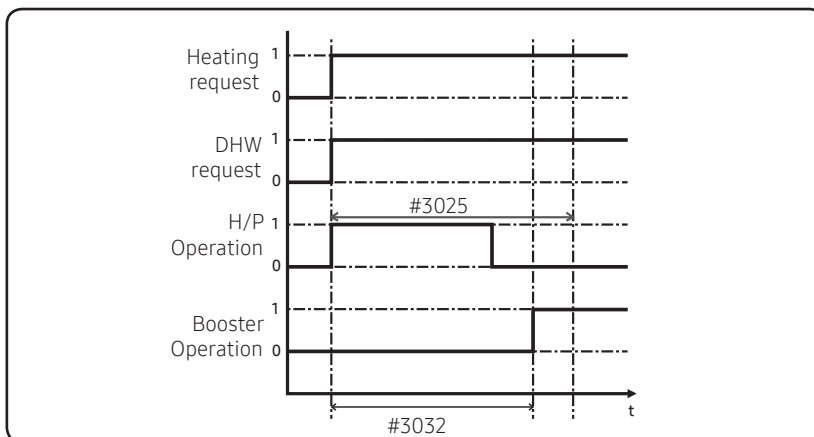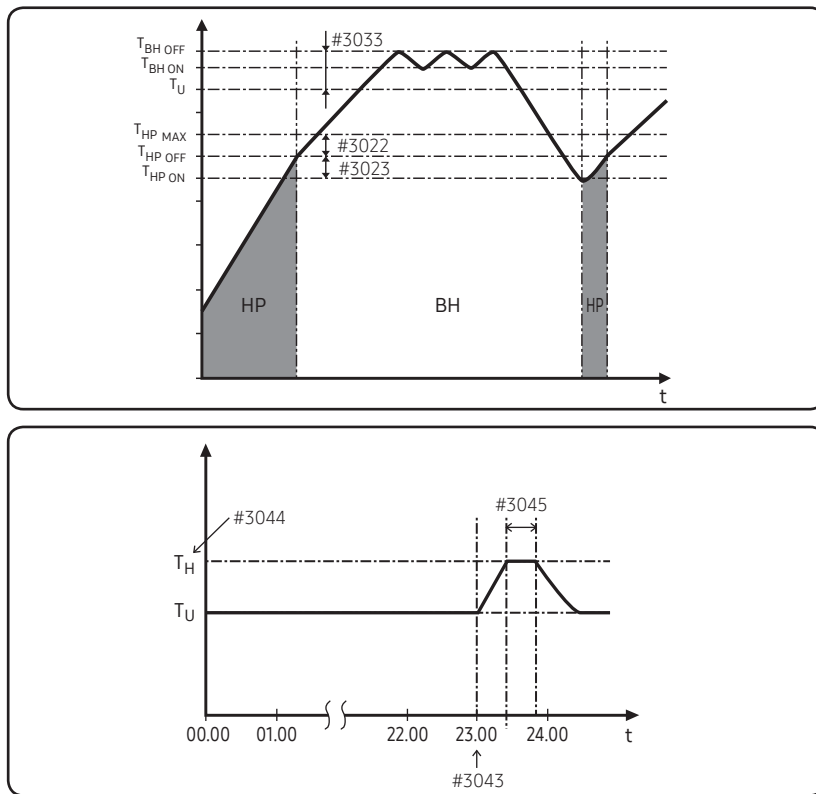
Booster Heater Variables for Controlling DHW Tank

- The FSV #3031 should be set to "1(On)" (Default) to use booster heater as an additional heat source for DHW tank.
- Booster heater startup delay timer : In case of DHW request, this timer will delay the operation of booster heater compared to heat pump.
  – FSV #3032 (Default 20 min., Range 20 ~ 95 min.), In "Power" DHW mode, the delay timer will be neglected, and the booster starts immediately.
  – In "Economic" DHW mode, the DHW heating will be conducted only with heat pump.
  – #3032 should be smaller than the maximum H/P time (#3025). If the delay time is set too high, it might take very long time for DHW heating.
- Temperature difference determining the booster heater OFF temperature (T_BH OFF = Tu + #3033) : FSV #3033, Default 0 ˚C, Range : 0 ~ 4 ˚C.
- Temperature difference determining the booster heater ON temperature (T_BH ON = T_BH OFF - 2)

📄 NOTE

- The FSV #4022 for booster heater priority should be set to "0 (both)" (Default) or "2" (booster) to use booster heater.
- If not(backup heater priority), the booster heater can be operated in case of no backup heater demand.

Field setting mode

Disinfection Function
- The FSV #3041 should be set to "1 (On)" (Default) to use disinfection function.
  - Scheduling : Day (#3042, Default "Friday"), starting time (#3043, Default "23:00"), target tank temp. (#3044, Default "70˚C"), duration (#3045, Default 10 min.)

📄 **NOTE**
- Disinfection function is available only when a booster heater is connected.
- Check tank capacity, booster heater capacity, and booster heater for issues if disinfection operation does not work normally over the maximum operation time(E919 error).

Forced DHW by User's Input
- Forced DHW mode can be activated by changing setting value from the default setting (#3011, "0" (No)).
- Forced DHW mode shall be working depending on Timer setting (#3051, #3052).

Additional Solar panel/DHW thermostat Installation for DHW with Heat Pump (Field Option)
- Solar panel and heat pump are able to operate simultaneously by default setting value. (FSV #3061, "1")
- When using DHW thermostat, set the FSV #3061, "2".
- Zone #1 and #2 valve always keep open except DHW mode in "ON" when the power is "ON" unless changing the FSV #3071. Default: Room direction valves are open and DHW valve is closed.
- Zone #1 and #2 can be open separately or simultaneously but all three zone valves can not be open or closed at the same time.
- There is one minute delay of 2-way / 3-Way valve closing whereas no delay of valve opening.
- Individual zone control is only available with external thermostat.

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Heating Code 40�✕✕	Heat Pump	Heating/DHW Priority	✕✕11	0 (DHW)	0	1 (Heating)	-	-
		Outdoor Temp for Priority	✕✕12	0	-15	20	1	˚C
		Heating Off	✕✕13	35	14	35	1	˚C
	Backup Heater	Application	✕✕21	0 (No)	0	1 (Yes)	-	-
		BUH/BSH Priority	✕✕22	0 (Both)	0	2 (BSH)	1	-
		Cold weather compensation	✕✕23	1 (Yes)	0(No)	1	-	-
		Threshold Temp	✕✕24	0	-25	35	1	˚C
		Defrost Backup Temp.	✕✕25	15	10	55	5	˚C
	Backup Boiler	Application	✕✕31	0 (No)	0	1 (Yes)	-	-
		Boiler Priority	✕✕32	0 (No)	0	1 (Yes)	-	-
		Threshold Temp	✕✕33	-15	-20	5	1	˚C
	Mixing valve	Application	✕✕41	0 (No)	0	2	1	-
		Target ΔT (Heating)	✕✕42	10	5	15	1	˚C
		Target ΔT (Cooling)	✕✕43	10	5	15	1	˚C
		Control factor	✕✕44	2	1	5	1	-
		Control interval	✕✕45	2	1	30	1	min
		Running Time	✕✕46	9	6	24	3	(x10)sec
	Inverter Pump	Application	✕✕51	1	0	2	-	-
		Target ΔT	✕✕52	5	2	8	1	˚C
		Control factor	✕✕53	2	1	3	1	-

Heat Pump Variables for Space Heating

- FSV #4011 for DHW priority is set to "0(DHW)" (Default) as a default. Space heating gets a priority by setting FSV #4011 "1", but this is only valid when the outdoor temperature is lower than the specified temperature defined by FSV #4012.

- Cold weather compensation is applied when the space heating gets a priority (FSV #4011=1). It is due to position of heating coil and booster heater in the water tank. Heating coil is at the bottom part of the water tank and the booster heater is located at the middle part of the tank. So the heating coil is efficient to heat the whole water in the tank. Chances that hot water flows through the heating coil decrease with the space heating priority. And lower part of water in the tank might not get enough heat with the booster heater.

- Space heating off temperature(FSV #4013, Default "35˚C", Range 14 ~ 35˚C): At high outdoor temperature above this value, the space heating will be turned off, to avoid overheating.

Field setting mode

Backup Heater Variables for Space Heating

- The FSV #4021 should be set to 1(Yes) to use 2-stage electric backup heater in hydro unit as an additional heat source.
- To compensate the lowered heat pump heating performance under very cold weather conditions, the FSV #4023 should be set to "1(On)"(Default).
  - The threshold temperature to use backup heater for cold weather compensation: FSV #4024, Default "0˚C", Range -25 ~ 35˚C
  - The backup heater operation is restricted to save energy in the threshold temperature range.
- The FSV #4022 for backup heater priority should be set to "0 (both)" (Default) or "1" (backup) to use backup heater. If not (booster heater priority), the backup heater can be operated in case of no booster heater demand.
- The threshold temperature for backup heater operation during defrost mode to prevent cold draft because of chilled water can be controlled by adjusting FSV #4025. Under FSV #4025 of water outlet temperature, backup heater Will be turned on.

📄 **NOTE**

- To use both heaters together at the same time, please check the capacity of the power circuit breaker of your house before use.

External Backup Boiler for Space Heating (Field Option)

- The FSV #4031 should be set to "1 (Yes)" to use a backup boiler as an additional heat source. (default: "0 (No installation)")
- Priority of backup boiler and heat pump is defined by FSV #4032 (default: "0 (OFF)")
- To compensate the lowered heat pump heating performance under very cold weather conditions, the backup boiler operates instead of heat pump under the threshold temperature (FSV #4033, Default "-15˚C", Range -20 ~ 5˚C).

Mixing vavle Installation(Field Option)

- The FSV #4041 should be set to "1 or 2" to use mixing valve.
- ※ 4041 =1 : Controlled based on the temperature difference (4042, 4043)
- ※ 4041 =2 : Controlled based on the temperature difference of the WL value

ex) Heating   ⟨#4041=1⟩   ⟨#4041=2⟩
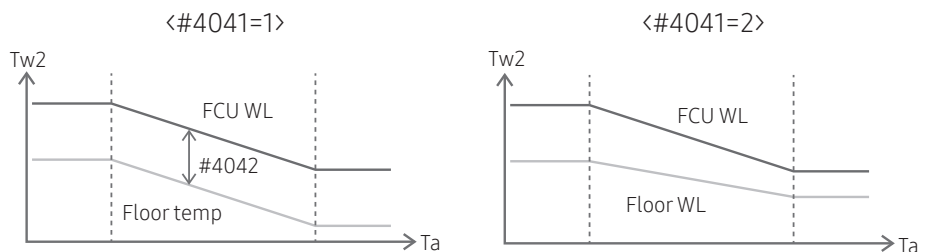
- FSV #4042 / #4043 is for adjusting temperature difference between Tw3(Tw2) and Tw4.
- When using mixing valve, FSV #4046 should be matched with mixing valve running time charateristic.

Inverter Pump Installation(Field Option)

- FSV #4051=1(Default) : Inverter pump use + Output 100%, FSV #4051=2 : Inverter pump use + Output 70%, FSV #4051=0 : Inverter pump Not use.
- FSV #4052 is for adjusting temperature difference between Tw2 and Tw1.

📄 **NOTE**
- Tw1 (Inlet Water Temp), Tw2 (Discharge Water Temp), Tw3 (Backup Heater oulet Water Temp), Tw4 (Mixing valve Temp.)

Others : Code 50✶✶

Field Setting Value								
Main Menu & Code	Sub Menu Function	Description	Sub Code	Default	Min	Max	Step	Unit
Others Code 50✶✶	Outing	Water Out Temp for Cooling	✶✶11	25	5	25	1	˚C
		Room Temp for Cooling	✶✶12	30	18	30	1	˚C
		Water Out Temp for Heating	✶✶13	15	15	55	1	˚C
		Room Temp for Heating	✶✶14	16	16	30	1	˚C
		Auto Cooling WL1 Temp	✶✶15	25	5	25	1	˚C
		Auto Cooling WL2 Temp	✶✶16	25	5	25	1	˚C
		Auto Heating WL1 Temp	✶✶17	15	15	55	1	˚C
		Auto Heating WL2 Temp	✶✶18	15	15	55	1	˚C
		Target Tank Temp	✶✶19	30	30	70	1	˚C
	DHW Saving Mode	Temp Difference	✶✶21	5	0	40	1	˚C
	TDM Variable (TDM product Only)	Priority Max. Operation Time	✶✶31	30	10	90	5	min
		Non Priority Min. Operation Time	✶✶32	5	3	60	1	min
		A2A / DHW Priorty	✶✶33	0	0 (A2A)	1 (DHW)	1	-
	Power Peak Control	Application	✶✶41	0 (No)	0	1 (Yes)	-	-
		Select forced off parts	✶✶42	0 (All)	0	3	1	-
		Using input voltage	✶✶43	1 (High)	0 (Low)	1	-	-
	Frequency Ratio Control		✶✶51	0 (No)	0	1 (Yes)	-	-

Outing Mode (Hot Key of Wired Remote Controller)

- All the target temperatures – space heating and cooling, water law, DHW, Room temperature – are set to the values defined in the above table under the holiday mode (outing hot key)

📄 **NOTE**
- With the lowered target temperatures (FSV #5011 ~ #5019), the system operates normally.

Field setting mode

Economic DHW Heating

- DHW heating only by the heat pump to save energy. Target DHW temperature is lower than the temperature set by user. The temperature difference is defined by FSV #5021. (default: 5°C)
  - If user sets the temperature 45°C, the system sets the target temperature 40°C with the default setting.

Peak Power Control

- If users make contracts with local electric power company for limiting the amount of power consumption when a surge in power usage, users can set FSV of "Forced off".
- According to FSV (#5041), Default is Non-usage. And According to FSV (#5042), If input is "0 (default)", Back up heater (BUH) is unavailable while external contact is high.
  If input is "1", Only Compressor(Heat Pump) is available.
  If input is " 2", Only Booster Heater (BSH) is available.
  If input is "3", nothing is available.
- Applying the control when power voltage of input contact is high is default. According to FSV (#5043), it is available to adopt this logic in low condition exceptionally.
- When applying to this logic, SAMSUNG controller come to get "Thermo off" condition for all operation.
- If not used for a long time, anti-freeze fluid shall be used for preventing damage to the unit in cold condition.

TDM (Time-Division Multi) Variables (TDM product Only)

- Please refer to the page 27.

Power peak control for Smart Grid

[D-00]	Compressor	Back up heater	Booster heater
0 (Default)	Permitted	Forced off	Permitted
1	Permitted	Forced off	Forced off
2	Forced off	Forced off	Permitted
3	Forced off	Forced off	Forced off

ADVANCED OPERATION

Maintaining the unit

Maintenance activities

- In order to ensure optimal availability of the unit, a number of checks and inspections on the unit and the field wiring have to be carried out at regular intervals, preferably yearly.
  This maintenance should be carried out by SAMSUNG local technician. Besides keeping the remote controller clean by means of a soft damp cloth, no maintenance is required by the operator.

⚠ WARNING

- During longer periods of standstill, e.g. during summer with a heating only application, it is very important NOT TO SWITCH OFF THE POWER SUPPLY towards the unit.
- Switching off the power supply stops the automatic repetitive movement of the motor in order to prevent it from getting jammed.

This product contains fluorinated greenhouse gases covered by the Kyoto Protocol.

Refrigerant type: R-410A
GWP (1) value: 2088 (GWP = global warming potential)

- Periodical inspections for refrigerant leaks may be required depending on European or local legislation. Please contact your local dealer for more information.

Emergency heating / Emergency hot water supply

‹Emergency heating_(when using #4021)›

- Heating function is performed only by the backup heater if the outdoor unit malfunctions (available only when a backup heater is connected).
- Enabling the function : Turn off the Control kit Dip S/W #1, and then turn the power off and on.
- Disabling the function : Turn on the Control kit Dip S/W #1, and then turn the power off and on.
- Default operation : Automatic heating is performed at a set temperature of 35°C.

Maintaining the unit

<Emergency hot water supply_(when using FSV #3011, 3031)>

- Hot water is supplied only by the booster heater if the outdoor unit malfunctions.
- Enabling the function : Turn off the Control kit Dip S/W #2, and then turn the power off and on.
- Disabling the function : Turn on the Control kit Dip S/W #2, and then turn the power off and on.
- Default operation : Automatic hot water supply is performed at a set temperature of 50°C.
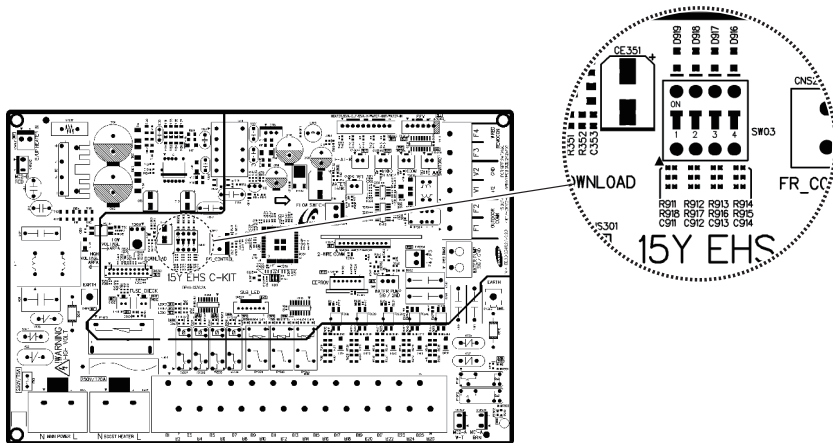
Troubleshooting tips

If the unit has some problem to work properly, error codes will be displayed on the wired remote controller. The following table describes the explanation of the error codes.

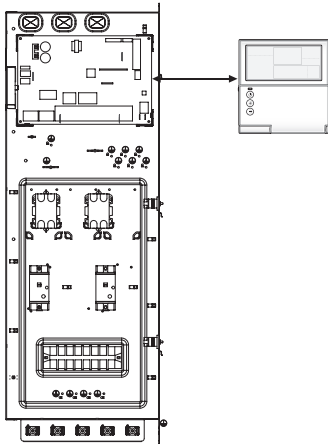| Display	Explanation
122	EVA Inlet temp sensor SHORT or OPEN
123	EVA Outlet temp sensor SHORT or OPEN
653	Wired remote controller temp sensor SHORT or OPEN
901	Water Inlet temp sensor SHORT or OPEN
902	PHE Outlet temp sensor SHORT or OPEN
903	Water outlet (Back up Heater) temp sensor SHORT or OPEN
904	Water TANK temp sensor SHORT or OPEN
916	Mixing valve temp sensor SHORT or OPEN (When FSV #4041 "1 or 2")
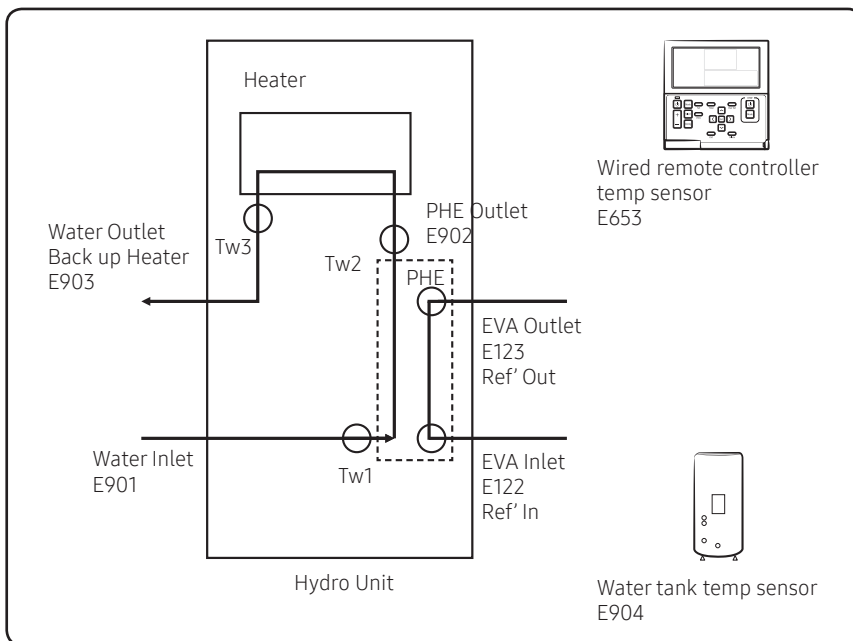
Troubleshooting tips
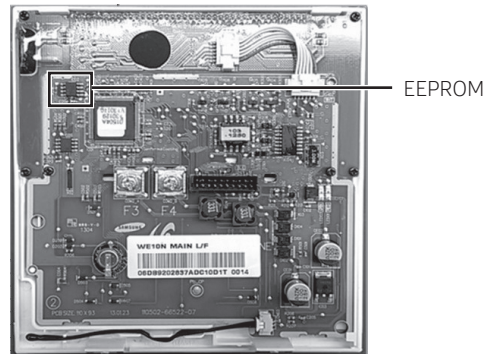
Communication

Display	Explanation
601	Communication error between remote controller and the Hydro unit
604	Tracking error between remote controller and the Hydro unit
654	Memory (EEPROM) Read/Write Error (Wired remote Controller data error)

E601, E604

E654

- MEMORY(EEPROM) Read/Write Error (Wired controller data error)

EEPROM

Water pump & Flow S/W

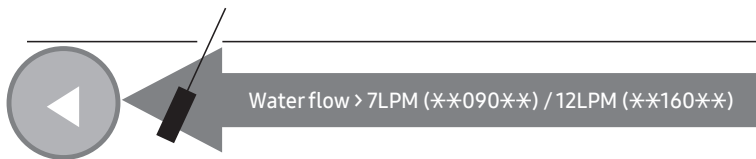| Display	Explanation
911	Flow S/W OFF error
	In case of flow S/W OFF in 30sec during water pump signal is ON(Starting)
	In case of flow S/W OFF in 15sec during water pump signal is ON (After starting)
912	Flow S/W ON error
	In case of flow S/W ON in 10min during water pump signal is OFF

E911

• Water pump ON (Flow S/W off)

• Water pump ON (Flow S/W off) : NOT enough water flow

Water flow < 7LPM(✷✷090✷✷) / 12LPM (✷✷160✷✷)
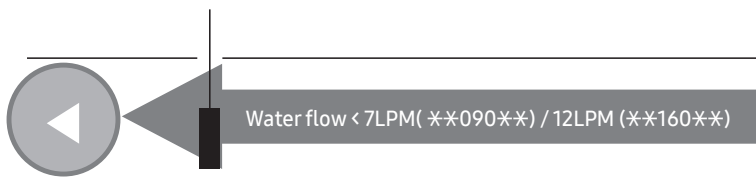
E912

• Water pump OFF (Flow S/W on)

Water flow > 7LPM (✷✷090✷✷) / 12LPM (✷✷160✷✷)

Error codes

If the unit has some problems and does not work normally, error code is shown on the OUTDOOR UNIT main PBA or LCD of the wired remote controller.

Display	Explanation	Error Source
101	Hydro Unit / OUTDOOR UNIT wire connection error	Hydro Unit, OUTDOOR UNIT
122	EVA Inlet temp sensor SHORT or OPEN	Hydro Unit
123	EVA Outlet temp sensor SHORT or OPEN	Hydro Unit
162	EEPROM Error	Hydro Unit
198	Error of Terminal Block's Thermal Fuse (Open)	Hydro Unit
201	Hydro Unit/OUTDOOR UNIT communication error (Matching error)	Hydro Unit, OUTDOOR UNIT
202	Hydro Unit/OUTDOOR UNIT communication error (3 min)	Hydro Unit, OUTDOOR UNIT
203	Communication error between INVERTER and MAIN MICOM (6 min)	OUTDOOR UNIT
221	OUTDOOR UNIT temperature sensor error	OUTDOOR UNIT
231	condenser temperature sensor error	OUTDOOR UNIT
251	Discharge temperature sensor error	OUTDOOR UNIT
320	OLP sensor error	OUTDOOR UNIT
403	Detection of OUTDOOR UNIT compressor freezing (During cooling operation)	OUTDOOR UNIT
404	Protection of OUTDOOR UNIT when it is overload (during Safety Start, Normal operation state)	OUTDOOR UNIT
407	Comp down due to high pressure	OUTDOOR UNIT
416	Discharge of a compressor is overheated	OUTDOOR UNIT
419	OUTDOOR UNIT EEV operation error	OUTDOOR UNIT
425	Power source line missing error (only for 3-phase model)	OUTDOOR UNIT
440	Heating operation blocked (outdoor temperature over 35°C)	OUTDOOR UNIT
441	Cooling operation blocked (outdoor temperature under 9°C)	OUTDOOR UNIT
458	OUTDOOR UNIT fan1 error	OUTDOOR UNIT
461	[Inverter] Compressor startup error	OUTDOOR UNIT
462	[Inverter] Total current error/PFC over current error	OUTDOOR UNIT
463	OLP is overheated	OUTDOOR UNIT
464	[Inverter] IPM over current error	OUTDOOR UNIT
465	Compressor V limit error	OUTDOOR UNIT
466	DC LINK over/low voltage error	OUTDOOR UNIT
467	[Inverter] Compressor rotation error	OUTDOOR UNIT
468	[Inverter] Current sensor error	OUTDOOR UNIT
469	[Inverter] DC LINK voltage sensor error	OUTDOOR UNIT
470	Outdoor unit EEPROM Read/Write error (H/W)	OUTDOOR UNIT

OTHERS

Display	Explanation	Error Source
471	Outdoor unit EEPROM Read/Write error (Option)	OUTDOOR UNIT
474	IPM(IGBT Module) or PFCM temperature sensor Error	OUTDOOR UNIT
475	OUTDOOR UNIT fan2 error	OUTDOOR UNIT
484	PFC Overload Error	OUTDOOR UNIT
485	Input current sensor error	OUTDOOR UNIT
500	IPM is overheated	OUTDOOR UNIT
554	Gas leak error	OUTDOOR UNIT
590	Inverter EEPROM Checksum error	OUTDOOR UNIT
601	Communication error between the Hydro Unit and wired remote controller	Wired Remote Controller
604	Communication tracking error between the Hydro Unit and wired remote controller	Hydro Unit, Wired Remote Controller
653	Wired remote controller temp sensor SHORT or OPEN	Hydro Unit, Wired Remote Controller
654	Memory(EEPROM) Read/Write Error (Wired remote Controller data error)	Hydro Unit, Wired Remote Controller
702	Error due to closed EEV of indoor unit(1st detection)	Hydro unit, Indoor unit
703	Error due to opened EEV of indoor unit(1st detection)	Hydro unit, Indoor unit
901	Water inlet (PHE) temperature sensor error (open/short)	OUTDOOR UNIT
902	Water outlet (PHE) temperature sensor error (open/short)	OUTDOOR UNIT
903	Water outlet (backup heater) temperature sensor error.	Hydro Unit
904	DHW tank temperature sensor error	Hydro Unit
906	Refrigerant gas inlet (PHE) temperature sensor (open/short)	OUTDOOR UNIT
911	Flow switch and water pump error	Hydro Unit
912	Flow switch and water pump error	Hydro Unit
916	Mixing valve sensor (Tw4) error (Short/Open)	Hydro Unit
919	Error that the set temperature for disinfection operation is not reached, or, after reaching, the temperature fails to continue for the requested time.	Hydro Unit

📄 **NOTE**

- When the product does not work during or after the concrete curing function and it displays "CC" on the wired remote controller, contact the installer to cancel the concrete curing function.

Product specification

Indoor		AE090JNYDEH	AE160JNYDEH	AE090JNYDGH	AE160JNYDGH
Weight (Net)	kg	45.0	45.0	46.5	46.5
Dimensions (Net)	mm	850 x 510 x 315	850 x 510 x 315	850 x 510 x 315	850 x 510 x 315

Indoor		AE090MNYDEH	AE160MNYDEH	AE090MNYDGH	AE160MNYDGH
Weight (Net)	kg	45.5	46.5	46.5	46.5
Dimensions (Net)	mm	850 x 510 x 315	850 x 510 x 315	850 x 510 x 315	850 x 510 x 315

Memo

SAMSUNG

QUESTIONS OR COMMENTS?

COUNTRY	CALL	OR VISIT US ONLINE AT
UK	0333 000 0333	www.samsung.com/uk/support
IRELAND (EIRE)	0818 717100	www.samsung.com/ie/support
GERMANY	06196 77 555 77	www.samsung.com/de/support
FRANCE	01 48 63 00 00	www.samsung.com/fr/support
ITALIA	800-SAMSUNG (800.7267864)	www.samsung.com/it/support
SPAIN	91 175 00 15	www.samsung.com/es/support
PORTUGAL	808 207 267	www.samsung.com/pt/support
LUXEMBURG	261 03 710	www.samsung.com/be_fr/support
NETHERLANDS	088 90 90 100	www.samsung.com/nl/support
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LATVIA	8000-7267	www.samsung.com/lv/support
ESTONIA	800-7267	www.samsung.com/ee/support