Chiller Module Controller
User manual

VCTRL03P-1

- Thank you for purchasing this Lennox Product.
- Before operating this unit, please read this manual carefully and retain it for future reference.

LENNOX Powered by SAMSUNG

Contents

Safety information

California Proposition 65 Warning (US)

⚠ **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

These safety precautions are for owner's safety and preventions of property damage. Therefore, please read this manual thoroughly before using your product.

⚠ 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.
- Unplug the power plug from the wall socket.
- Do NOT disassemble.

For installation

⚠ WARNING

The installation of this product must be performed by a qualified technician or service company.

- Failure to do so may result in electric shock, fire, product malfunction, or injury.

Connect the power with rated voltage when installing.

- Failure to do so may result in electric shock, fire, or product malfunction.

Do not install this product near a heater, inflammable material. Do not install this product in a humid, oily or dusty location, in a location exposed to direct sunlight and water (rain drops). Do not install this product in a location where gas may leak.

- Potential risk of electric shock or fire.

Safety information

⚠ CAUTION

Install the product on a hard and even place that can support its weight.

- If the place cannot support its weight, the product may fall down and it may cause product damage.

For power supply

⚠ WARNING

Do not pull or excessively bend the power cord. Do not twist or tie the power cord.

- Potential risk of electric shock or fire.

For operation

⚠ WARNING

If the product generates a strange noise, a burning smell or smoke, disconnect the power supply immediately and contact a service center.

- Potential risk of electric shock or fire.

Contact a service center to reinstall the product.

- If not, there is risk of product malfunction, 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 costs and installation fee will be charged.

When an error appears or the product malfunctions, stop the operation immediately.

- If the product generates a burning smell or it malfunctions, turn it off and disconnect the power supply immediately, and then contact a service center. If not, there is risk of electric shock, fire, or damage to the product.

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

- This may result in electric shock, fire, a product malfunction or injury.

Safety information

For operation

⚠ CAUTION

Do not allow water to enter the product.

- There is risk of fire or explosion.

Do not operate the product with wet hands.

- There is risk of electric shock.

Do not spray volatile material such as insecticide onto the product.

- As well as being harmful to humans, this may also result in electric shock, fire or a product malfunction.

Do not give a strong impact to the product and do not disassemble it.

Do not use this product for other purposes.

- This product is designed to be used only for VRF Chiller.

Do not press the buttons with any sharp objects.

- Electric shock or part damage may occur.

For cleaning

⚠ WARNING

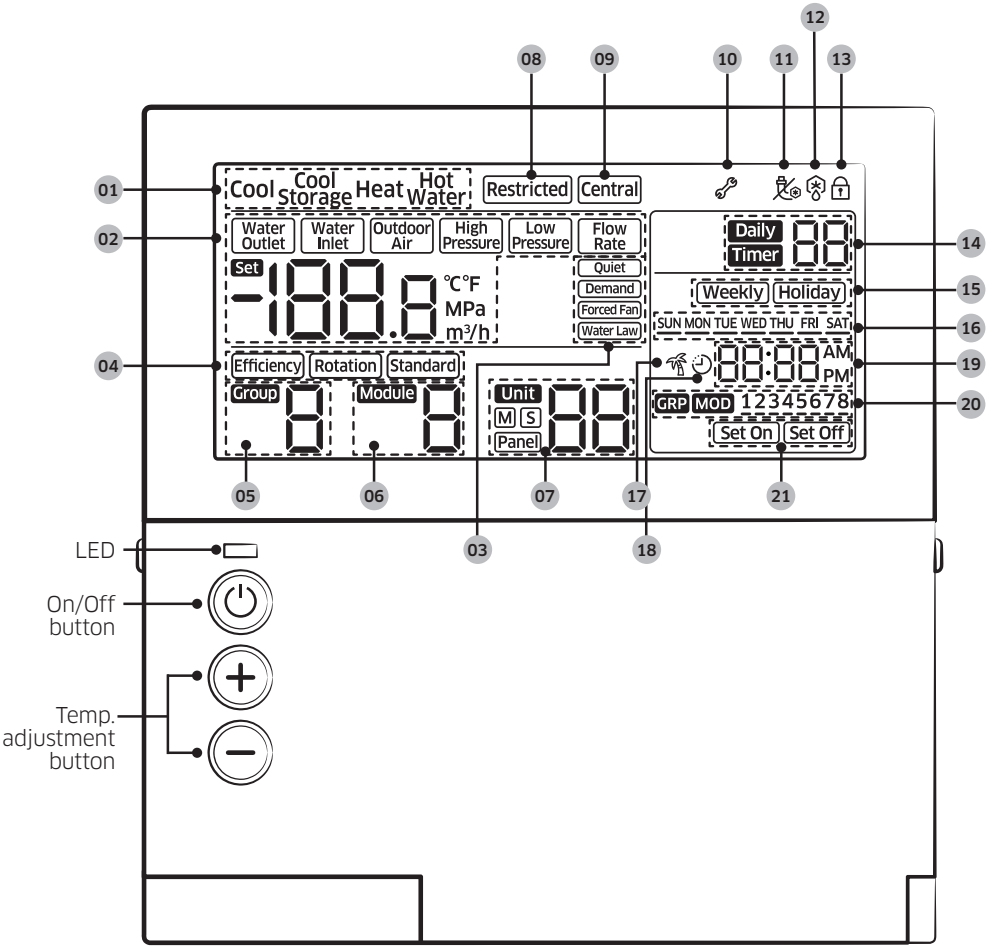
⃠ Do not clean the product by spraying water directly onto it. Do not use benzene, thinner, acetone or alcohol to clean the product.

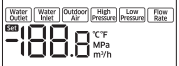
- This may result in discoloration, deformation, damage, electric shock or fire.

Name of the parts

A chiller module controller controls VRF Chillers by each group or module.

Display



No.	Display	Description
⑪	Cool Cool Storage Heat Hot Water	• Displays the operation mode.
⑫		• Displays the set or current water temperature (℃, ˚F). **NOTE** • Press + Temp. − button to display the set water temperature for 3 seconds. • The default is the current water temperature, and it can be changed into the set water temperature in the service setting mode. • The display will show Lo when the value can be displayed (-199 ~ 199) or show HI when it cannot be displayed.
		• Displays the current temperature (℃, ˚F) of water inlet or outdoor air.
		• Displays the current high or low pressure (MPa) of refrigerant.
		• Displays the current water flow rate (m^3/h).
⑬	Quiet Demand Forced Fan Water Law	• Displays the selected applied operation.
⑭	Efficiency Rotation Standard	• Displays the operation pattern by each module and group.
⑮	Group 8	• Displays the group from 1 to 4.
⑯	Module 8	• Displays the module from 1 to 8.
⑰		• Displays the unit from 0 to 15 (maximum 16).
		• Displays Main or Sub.
		• Displayed when setting the Panel control function from a certain unit. – Panel control function is to set the unit to control the operation itself, so the operation cannot be controlled from the chiller module controller if this function is set.

Name of the parts

No.	Display	Description
⑧	Restricted	• Displayed when button input is restricted. • Restricted display will appear when the buttons are restricted due to central control or when a combined operation cannot be performed. **NOTE** • The chiller module controller will be restricted in the following cases. Example1) Displayed when pressing Mode button in the central control. Example2) Displayed when setting the button lock function and then pressing Mode button in the service mode.
⑨	Central	• Displayed when setting the central control. **NOTE** • Central display will appear when the chiller module controller is controlled by the central control room of the building or by the upper level control such as a central control or a DMS etc. In this case, timer and all functions will be operated by the upper level control.
⑩		• Displayed when an error occurs in a product or a chiller module controller. **NOTE** • Blinked when an error occurs in a product or a chiller module controller, followed by the error code. • It will disappear when all errors is solved.
⑪		• Displayed when a pump operates automatically to keep the pipes from freezing.

No.	Display	Description
⑫		• Displayed when the defrost function operates. **NOTE** • Defrost function is to remove frost on the outdoor unit during operating the heat mode.
⑬		• Displayed when selecting the button lock function. **NOTE** • To lock the buttons of the chiller module controller, press Settings button.
⑭		• Displays the number of daily or entire timers.
⑮		• Displays weekly timer or holiday setting.
⑯		• Displayed days of week while setting weekly or daily timer or displaying the set timer.
⑰		• Displayed when the summer time function is set.
⑱		• Displayed when setting the off timer for the entire VRF Chiller in the additional function. Time for the off timer function can be set to maximum 23 hours. **NOTE** • The current time will be displayed if there is more than an hour until the set time. • The remaining time will be displayed and the off timer display will appear if there is less than an hour until the set time.
⑲		• Displays the current time or the set time.

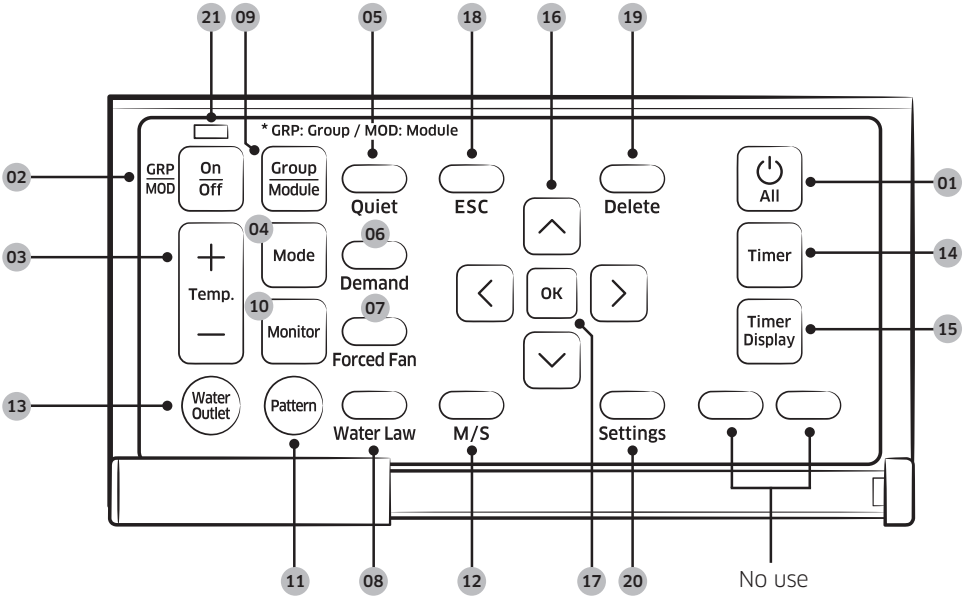
Name of the parts

No.	Display	Description
⑳	GRP MOD 12345678	• Displayed when selecting a group or a module while setting the weekly timer. (Group : 1 ~ 4, Module : 1 ~ 8)
㉑	Set On Set Off	• Displayed Set on or Set off while setting or displaying timer.

NOTE

- If you set the input method as external contact control in the option setting of VRF Chiller, the chiller module controller cannot control the units.
  - When pressing GRP MOD, On Off, Mode, or + Temp. −, button on the chiller module controller, the displays will appear on the display but the VRF Chiller will not operate.
- The chiller module controller cannot sense the indoor temperature.
- The chiller module controller does not control the midnight electricity's time or the cool storage tank.

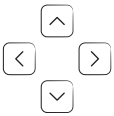
Buttons



Classification		Button		Description
Start/ Stop	⑪	All	All start/stop button	• Turns on or off all the VRF Chillers. • You can turn on or off all the connected modules and groups. **NOTE** • When turning off all units and turn them back on, the units will operate in a previously selected mode.

Name of the parts

Classification		Button		Description
Start/ Stop	⑫	GRP MOD / On Off	On/Off button	• Turns on or off a group or a module individually. • When a module or a group is turned off, temperature or mode displays will not appear. **NOTE** • When turning off a module or a group and turn it back on, each module or group will operate in a previously selected mode.
Basic operation	⑬	+ Temp. −	Temp. adjustment button	• Adjusts the desired water temperature. **NOTE** • For celsius, the set water temperature can be adjusted by 1, 0.5, or 0.1 ℃ depending on the set value in the service mode. For fahrenheit, it can be adjusted by 1 ℉. • If you press and hold the button, it will be adjusted by 1 ℃/1 ℉.
	⑭	Mode	Operation mode button	• Selects the desired operation mode.
Applied operation	⑮	Quiet	Quiet button	• Selects the quiet function.
	⑯	Demand	Demand button	• Selects the demand function.
	⑰	Forced Fan	Snow prevention button	• Selects the snow prevention function.
	⑱	Water Law	Water law button	• Selects the water law function.

Classification		Button		Description
Option change function	⑨		Group/ Module button	• Selects a group or chiller module controller.
	⑩		Monitor button	• Shows the result of monitoring water outlet, water inlet, outdoor air, high and low pressure of refrigerant, and water flow rate.
	⑪		Pattern button	• Sets the operation pattern when controlling the VRF Chiller by groups or modules.
	⑫		M/S button	• Sets Main or Sub units.
	⑬		Water outlet button	• When pressing the water outlet button while the display shows the pressure of refrigerant or the water inlet temperature, the water outlet temperature will be displayed.
Timer function	⑭		Timer button	• Sets the weekly On/Off timer. **NOTE** • The timer can be set up to maximum 40 timers.
	⑮		Timer display button	• Checks the timer already set. **NOTE** • You can check the timer by numbers or days of the week.
Common function	⑯		Up, down, left, right button	• Moves from stage to stage or changes the set value.
	⑰		OK button	• Selects the stage or saves the setting.

Name of the parts

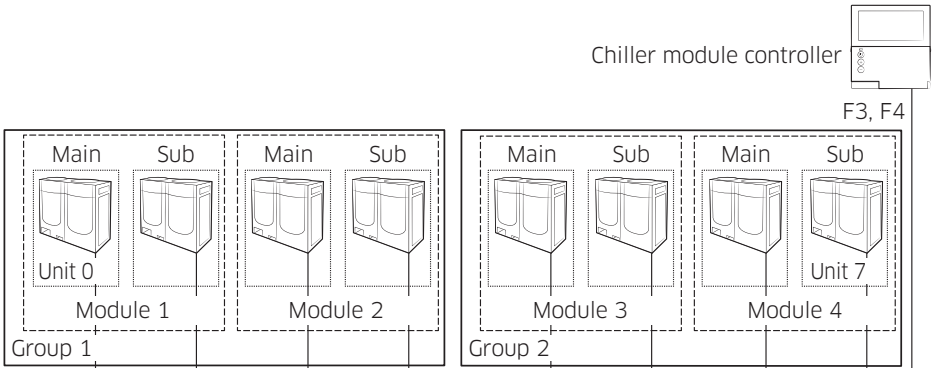
Classification		Button		Description
Common function	⑱	ESC	ESC button	• Exits to normal mode without saving your changes while setting the timer or the additional function.
	⑲	Delete	Delete button	• Deletes the timer. **NOTE** • Press Delete button for 3 seconds to delete all the timers while the display shows the timers.
	⑳	Settings	Settings button	• Enters the additional function setting screen.
LED	㉑	▭	LAMP	• Displays the on/off status of the module or the group on the display. – On : green LED is turned on – Off : green LED is turned off – Error : red LED is blinking **NOTE** • When one of the modules or groups are operating, the green LED is turned on. • When a certain module or group needs to be inspected, the led LED is blinked.

NOTE

- Mode, temperature, or etc. can be set when only the chiller module controller is turned on.
- GRP MOD, On Off, All, Group Module, Quiet, Demand, Water Law, Forced Fan, Settings, Timer, Timer Display, ESC + OK, ESC + Delete buttons can be used when the chiller module controller is turned off.

Module or group operation

Module/group operation is to combine multiple units in modules or groups of a single water pipe system and to operate them depending on the working condition.



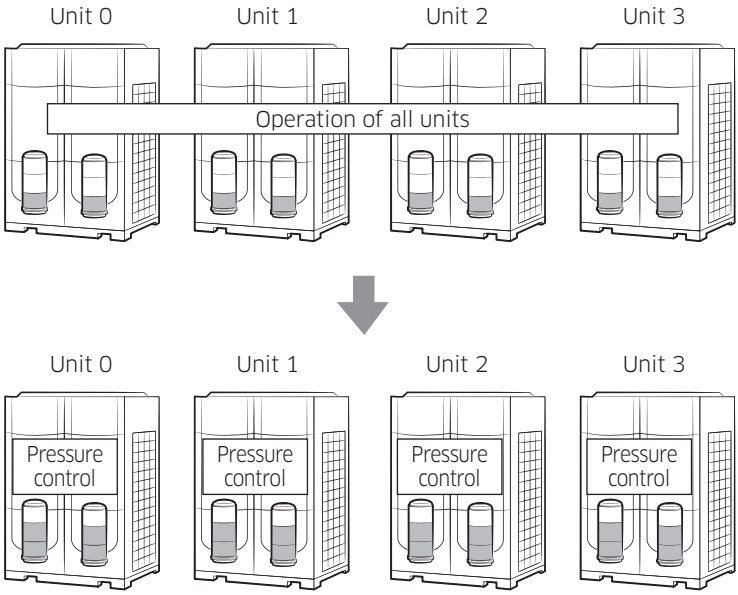
- A single chiller module controller can control a maximum of 16 VRF Chillers (0 ~ 15).
  - VRF Chiller can have a maximum of 8 modules (1 ~ 8) and 4 groups (1 ~4).
  - A maximum of 8 units can be connected to a module, and a maximum of 8 modules can be connected to a group.
- Depending on the working condition below, set modules or groups.
  - A module or a group must be connected to a single water pipe.
  - When modules are controlled by a group, the modules cannot operate themselves and the display will not show the modules during the module operation.
- You can select an operation mode, a pattern operation (according to distribution method of compressor capacity) and an applied operation by each module or group.

Operation pattern for modules

- The default is Standard control. It can be changed in the installation service mode. Contact a service center for further details.
- When the current water temperature reaches the set temperature, On/Off control will be performed by each unit.

Standard control

- All units connected to each module start operating at the same time, and then they control the water outlet temperature and the capacity of compressor separately.

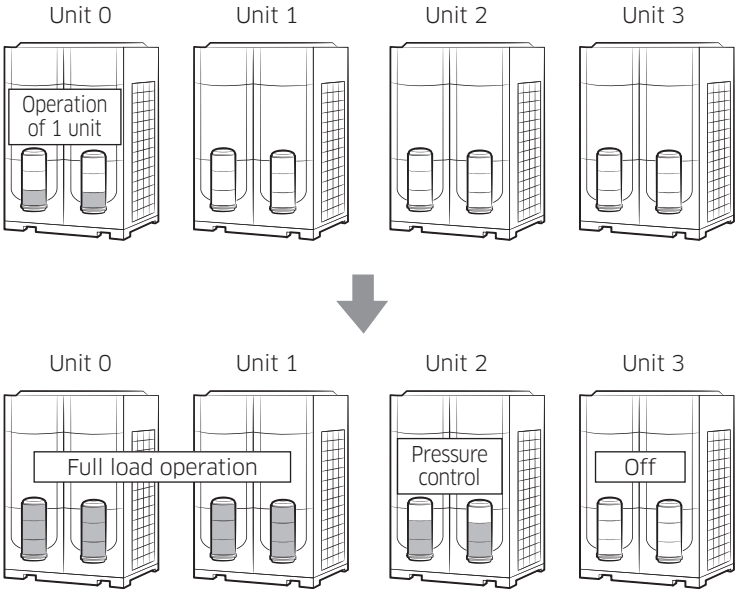


NOTE

- The standard control is suited to the site that has always a high cooling and heating load factor.

Rotation control

- VRF Chiller's water outlet temperature is controlled according to the water outlet temperature average value of all units which operates by pumps in a module. However, if you set "Use" for an external water temperature sensor, it controls the water outlet tmeperature according to a temperature value from the sensor.
- Only one unit with the highest priority operates, and if the unit has the full load, a unit with the following priority will operate.
- The unit with the lowest priority operates at the minimum capacity, and if the water outlet tmeperature reaches the set temperature, it performs On/Off control.



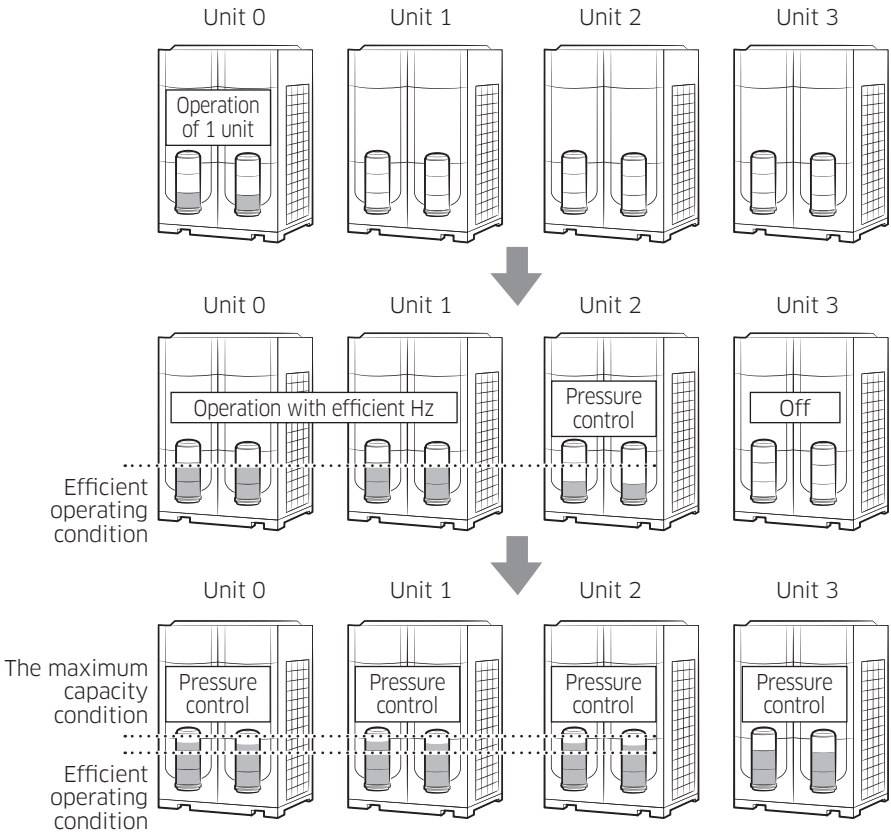
NOTE

- The rotation control is suited to the site that has small capacity at load side during starting a VRF Chiller and has a small fluctuation in momentary load.

Check before use

Efficiency control

- VRF Chiller's water outlet temperature is controlled according to the water outlet temperature average value of all units which operates by pumps in a module. However, if you set "Use" for an external water temperature sensor, it controls the water outlet tmeperature according to a temperature value from the sensor.
- Only one unit with the highest priority operates, and if the unit operates with the optimum efficiency, a unit with the following priority will operate.
- When all units reach efficient operating condition, each unit operates at capacity between efficient operating condition and the maximum capacity condition.
- When all units reach efficient operating condition and the water outlet tmeperature reaches close to the set temperature, the unit with the lowest priority controls descent of compressor operating capacity.



NOTE

- The efficiency control is suited to the site that has both an operating section with the low load and a focused operating time.
- When all units operate with the optimum efficiency, they control the pressure of their compressors in a range between higher than efficient Hz and lower than full load Hz separately.
  - Efficient Hz means the best efficient Hz of inverter.

Check before use

Operation pattern for groups

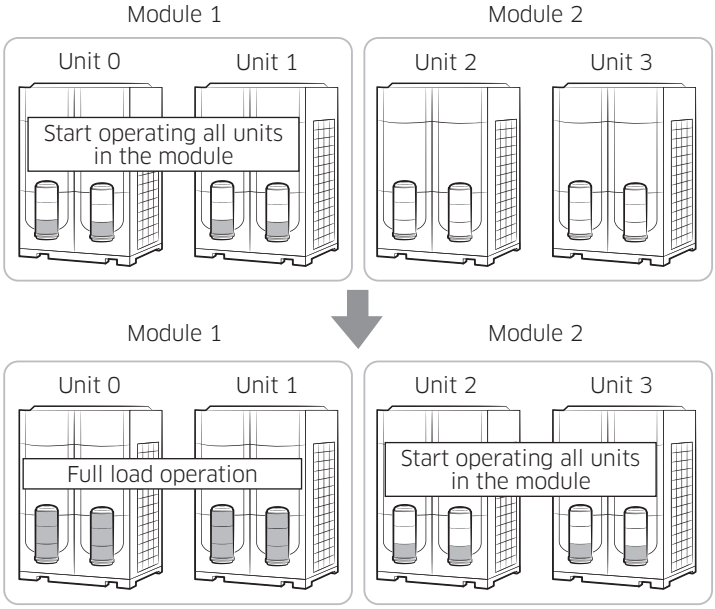
- Set a group to control VRF Chiller as a high-capacity chiller.
- The default is Efficiency control.

Standard control

- All modules start operating at the same time, and each module operates in the operation pattern which set in the installation service mode.
  - The default for each module is Standard control.

Rotation control

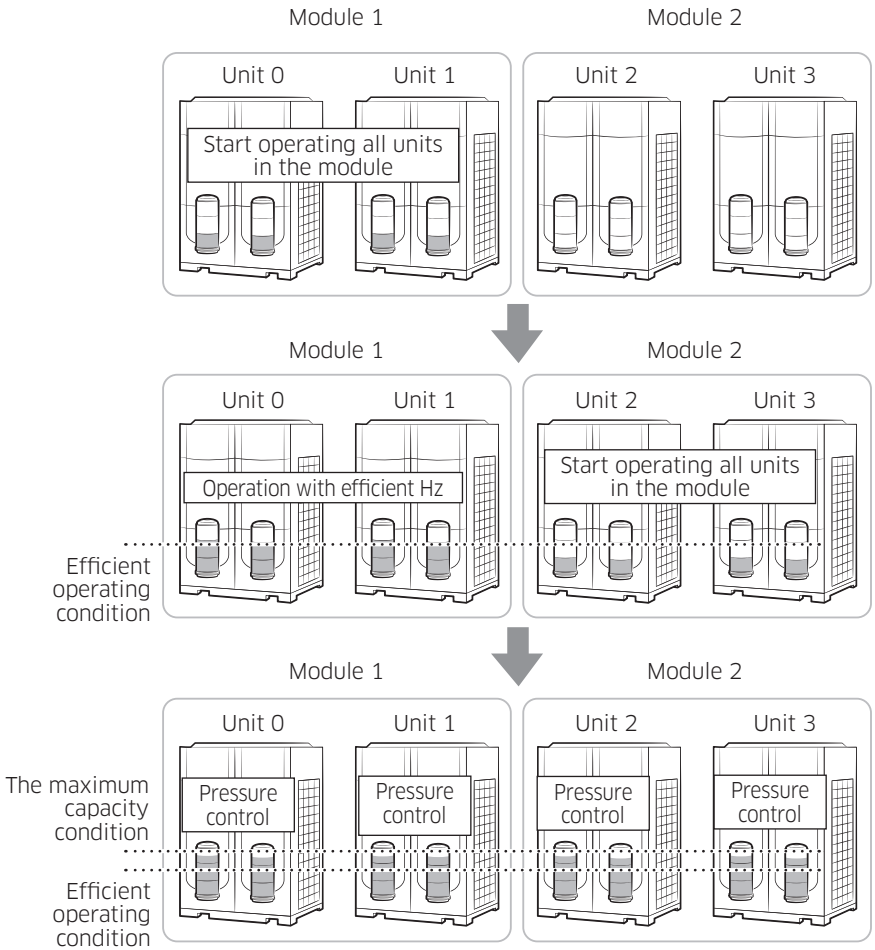
- VRF Chiller's water outlet temperature is controlled according to the water outlet temperature average value of all units which operates by pumps in a module. However, if you set "Use" for an external water temperature sensor, it controls the water outlet temperature according to a temperature value from the sensor.
- Modules in a group operate in Standard control.
- The module with the highest priority starts operating first, and if the module has the full load, a module with the following priority will start operating.
- When the module with the lowest priority operates at the minimum capacity and the water outlet tmeperature reaches close to the set temperature, the compressors of the module stop.



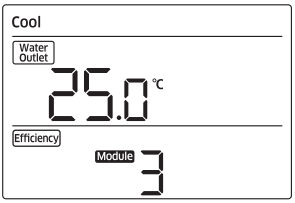
Check before use

Efficiency control

- VRF Chiller's water outlet temperature is controlled according to the water outlet temperature average value of all units which operates by pumps in a module. However, if you set "Use" for an external water temperature sensor, it controls the water outlet temperature according to a temperature value from the sensor.
- Modules in a group operate in Standard control.
- The module with the highest priority starts operating first, and if the module reach efficient operating condition, a module with the following priority will start operating.
- When all modules reach efficient operating condition, they operate at the capacity between efficient operating condition and the maximum capacity condition.
- When all modules reach efficient operating condition and the water outlet temperature reaches close to the set temperature, the module with the lowest priority controls descent of compressor operating capacity. Then, when the module with the lowest priority operates at the minimum capacity and the water temperature reaches close to the set temperature, the compressors of the module stop.


Module 1
Module 2
Unit 0
Unit 1
Unit 2
Unit 3
Start operating all units in the module
Module 1
Module 2
Unit 0
Unit 1
Unit 2
Unit 3
Operation with efficient Hz
Start operating all units in the module
Efficient operating condition
Module 1
Module 2
Unit 0
Unit 1
Unit 2
Unit 3
Pressure control
Pressure control
Pressure control
Pressure control
The maximum capacity condition
Efficient operating condition

Selecting group or module

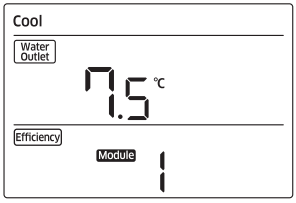


Group or module

You can control the VRF Chillers by groups or modules.

Group / Module ▶ **Select Group/ Module** ▶ < / > ▶ **Select a group/module number** ▶ GRP / MOD On / Off

Cooling Operation



Cool mode

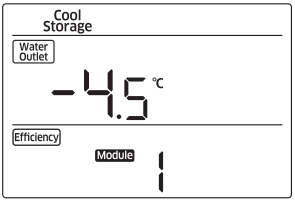
It is a basic cooling operation mode to cool the indoor area by providing chilled water.

Group / Module ▶ Select Group/ Module ▶ GRP / MOD On / Off ▶ Mode ▶ Select Cool

NOTE

- It may take a while for the water to reach the set temperature.
- The water outlet temperature range is 41 ~ 77°F (5 ~ 25°C), and you can adjust the set temperature by pressing + Temp. − button. However, if you set the low temperature function of VRF Chiller, the temperature range will be 14 ~ 77 °F (-10 ~ 25 °C).
- When using low temperature mode, you must use anti-freeze as circulation water.

Cooling Operation



Cool storage mode

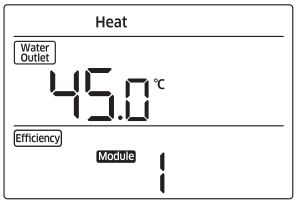
It is a cooling operation mode to cool the indoor area by ice that is stored in the cool storage tank.

Group / Module ▶ **Select Group/ Module** ▶ GRP / MOD On / Off ▶ Mode ▶ **Select Cool Storage**

NOTE

- The water outlet temperature range is 41 ~ 77°F (5 ~ 25°C), and you can adjust the set temperature by pressing + Temp. − button. However, if you set the low temperature function of VRF Chiller, the temperature range will be 14 ~ 77 °F (-10 ~ 25 °C).
- You must set the cool storage mode in the installation service mode to use it. Contact a service center.
  - When using the cool storage mode, you must use anti-freeze as circulating water.

Heating Operation



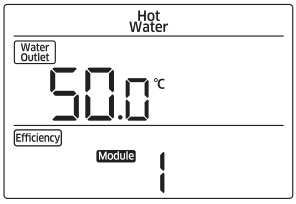
Heat mode

It is a heating operation mode to warm the indoor area by providing hot water in spring, autumn and winter.

Group Module ▶ Select Group/ Module ▶ GRP MOD On Off ▶ Mode ▶ Select Heat

NOTE

- It may take a while for the water to reach the set temperature.
  - When it is cold in the morning or it is snowing, please operate the heat mode sooner.
- The water outlet temperature range is 77 ~ 131 °F (25 ~ 55 °C), and you can adjust the set temperature by pressing + Temp. − button.



Hot water mode

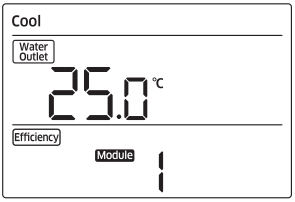
It is a heating operation mode to warm the indoor area by using the hot water that is stored in the heat storage tank.

Group Module ▶ Select Group/ Module ▶ GRP MOD On Off ▶ Mode ▶ Select Hot Water

NOTE

- The water outlet temperature range is 77 ~ 131 °F (25 ~ 55 °C), and you can adjust the set temperature by pressing + Temp. − button.
- You must set the hot water mode in the installation service mode to use it. Contact a service center.

Operation pattern setting



Operation pattern

You can set an operation pattern by each group or module.

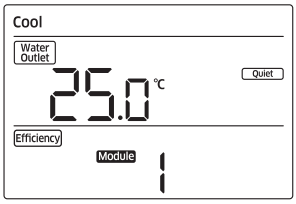
Pattern ▶ **Select Efficiency/ Rotation/Standard**

NOTE

- Efficiency → Rotation → Standard will be repeatedly selected in order.
- For details about each operation pattern, refer to "Check before use". (Refer to page 20 ~ 27.)

Quick Smart Features

You can use the multiple applied functions at one time.



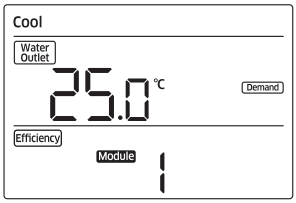
Quiet function

This function will reduce the operation noise.

When VRF Chiller is operating or stopped ▶ Quiet

NOTE

- It will operate depending on the standard that you set in the installation service mode.
- You may operate the VRF Chiller with lowering the operation phase up to 3 phase automatically depending on the outdoor temperature, or operate the quiet function using external contact manually.
- When selecting the quiet function on the chiller module controller, it will operate only while operating the cool mode. While operating the heat mode, it will operate by only external contact.
- The quiet function will operate according to the very last set value by external contact or the chiller module controller.



Demand function

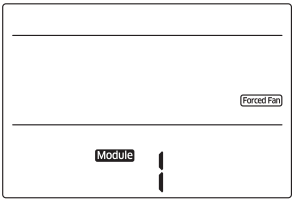
This function will restrict the operation of VRF Chiller up to the power consumption already set.

When VRF Chiller is operating or stopped ▶ Demand

NOTE

- It will operate depending on the standard that you set in the installation service mode.
- The demand function will operate according to the very last set value by external contact or the chiller module controller.

Quick Smart Features



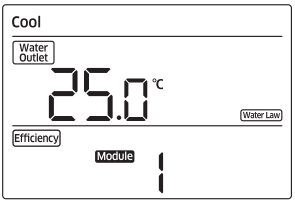
Forced fan function

This function will operate fan to prevent snow accumulation on the fan of VRF Chiller.

When VRF Chiller is operating or stopped ▶ Forced Fan

NOTE

- A stopped fan of VRF Chiller operates. Use this function when snow is accumulated because you do not use the product for long period of time.

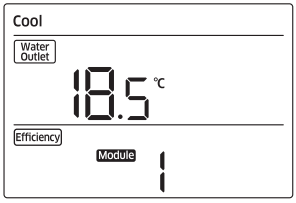


Water law function

This function will perform variable control of the water outlet temperature depending on the standard that you set in the installation service mode.

For example, during cooling, it operates with high temperature of water when the outdoor temperature is low and it operates with low temperature of water when the outdoor temperature is high. It helps you to stay refreshing and increase energy efficiency.

When VRF Chiller is operating or stopped ▶ Water Law



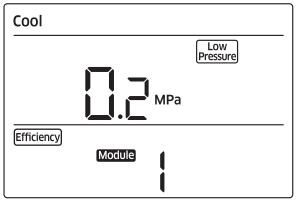
Water outlet display

You can check the current water temperature.

In operation ▶ Water Outlet

NOTE

- The current water temperature is displayed for about 3 seconds.



Monitoring function

Each time you press Monitor button, you can check the temperature of water outlet, water inlet, outdoor air and water flow rate, and also check the status of high and low pressure of refrigerant.

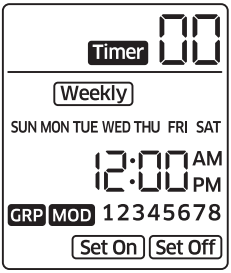
In operation ▶ Monitor

NOTE

- Water flow rate may differ from the actual value up to more than 10 %. Use the monitoring result for only reference.

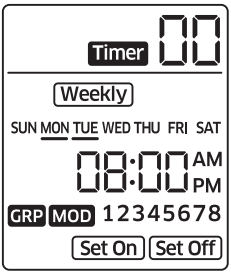
Weekly timer

This function will turn on or off the outdoor unit automatically at the desired day and time.



1 Select Weekly timer.

Timer ▶ **Select Weekly**

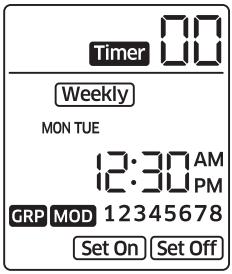


2 Select the desired day for timer.

< / > ▶ **Select the day** ▶ OK

NOTE

- When pressing OK button while the desired day is blinking, the underline will be displayed and the stage will be completed.
- You can select multiple days when setting the timer at once.



3 Select the desired time.

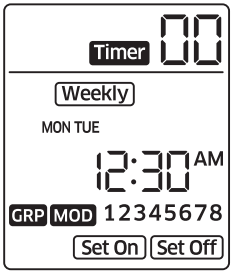
▼ ▶ < / > ▶ Select AM/PM OK ▶

< / > ▶ Select hour ▶ OK ▶ < / > ▶

Select minute ▶ OK

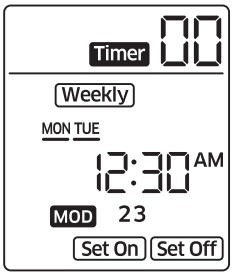
NOTE

- The set time is displayed as 12-hours system even you already set 24-hours system.
- When pressing the ^ button in the time stage, you move to the previous stage, the day stage.



4 Select a group or a module.

< / > ▶ Select Group/ Module ▶ OK

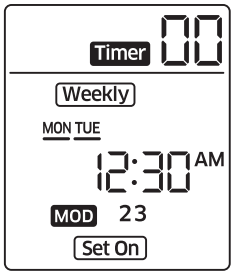


5 Select a group or module number.

< / > ▶ Select the number ▶ OK

NOTE

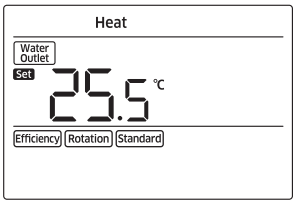
- When pressing OK button while the desired number is blinking, the underline will be displayed and the stage will be completed.



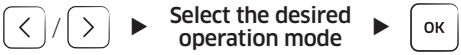
6 Select Set On or Set Off.

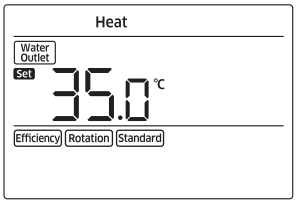
NOTE

- When selecting **Set Off**, the setting is completed.
- You can set a timer for a group or a module. The module in the group will operate by the group timer, but not by the module timer.
- You can set an operation mode for a timer, but it will not operate if the setting (option setting of cooling and heating or device option in the installation service mode) is restricted.



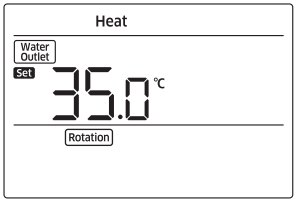
7 Select an operation mode.





8 Set a water outlet temperature.

< / > ▶ **Adjust the temperature** ▶ OK



9 Complete the timer after selecting an operation pattern.

< / > ▶ **Select the operation pattern.** ▶ OK

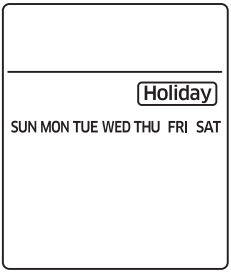
NOTE

- Press ESC button to cancel the timer while setting the weekly timer.
- When the central control has been set, you cannot set the timer.
- Press ^, v button to move from stage to stage while setting the weekly timer.
- If the central control is not set or the chiller module controller is not restricted, the timers of the upper control and the chiller module controller will operate in order of time.

Energy-Saving Operation

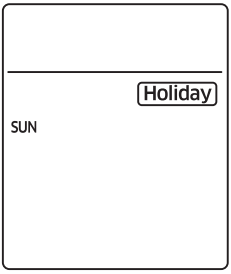
Holiday setting

This function will exclude the desired day from a weekly timer by setting holidays. When setting a holiday, the weekly timer will not operate on that day.



1 Select Holiday setting.

Timer ▶ **Select Holiday**



2 Complete the setting after selecting the desired day.

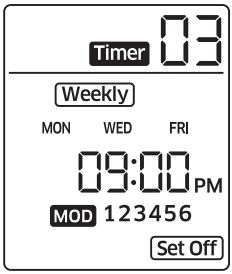
< / > ▶ **Select the day** ▶ OK ▶ ∨

NOTE

- The underline will be displayed when selecting the desired day for the holiday, and the underline will disappear after completing the setting.
- Press ESC button to cancel the holiday setting while setting the holiday.
- When checking the timers, the display will not show the holidays.

OPERATION

Checking the timer



Weekly timer

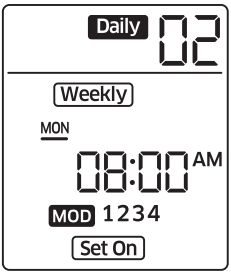
This function will show the weekly timers by timer numbers.

Timer Display ▶ < / > ▶ **Display the timer's details**

NOTE

- To modify the selected timer, press OK button while the display shows the timer's details. Refer to the Weekly timer for modifying the timer.
- When pressing Delete button while the display show a timer number, the number is blinked and the timer is deleted.
- Press Delete button for 3 seconds to delete all timers while selecting a timer.
  - When all timers are deleted, the timer number will be displayed as 00.

Energy-Saving Operation



Timer by days

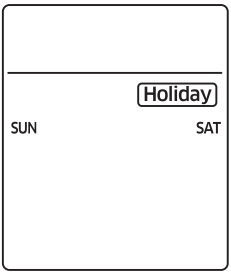
This function will show the timers by days of week.

Timer Display ▶ ⌄ ▶ **Display 'Daily'** ▶ 〈 / 〉 ▶

Select the day of week ▶ ⌄ ▶ **Display the timer's details**

NOTE

- You cannot modify the selected timer while the timer of a certain day is displayed.



Holidays

This function will show the holidays of timers.

Timer Display ▶ **Display the holidays**

NOTE

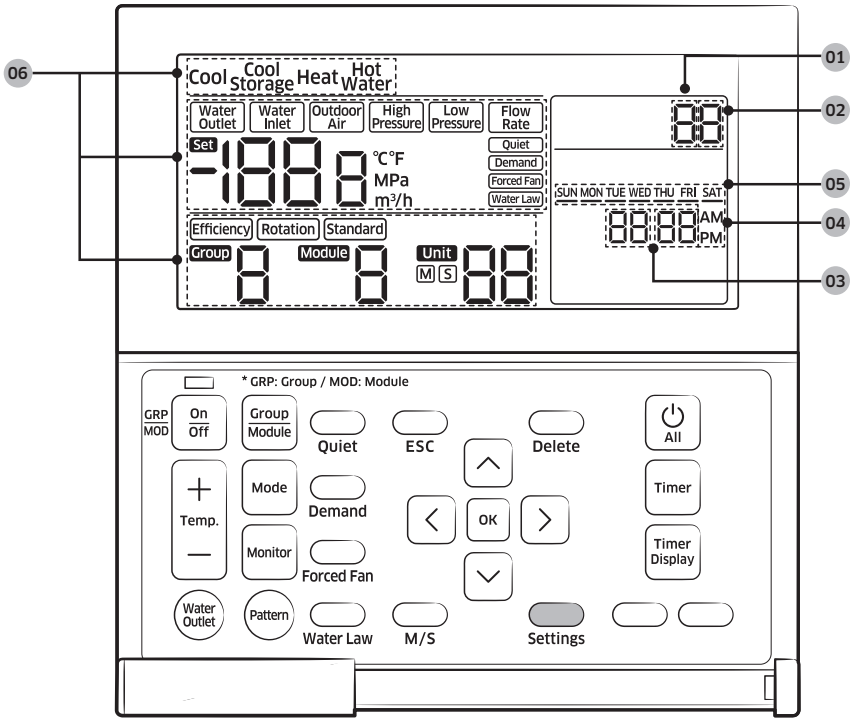
- To modify the holidays, press OK button while the display shows the holidays.
- Refer to the Holiday setting for modifying the holidays.
- Press Delete button to delete the holidays while selecting it.

Off timer

This function will turn off VRF Chiller after operating during the set time from when completing the timer setting.

- Off timer can be set in additional function, and the setting should be done every time you use it.

Additional Features



No.	Item	Description
⑴	Main menu	Displays main menu value of the service mode table.
⑵	Sub menu	Displays sub menu value of the service mode table.
⑶	Page	Displays Page value of the service mode table.
⑷	Data Segment	Displays Data value of the service mode table.
⑸	Synchronized segment for setting the current time	Displays the data value of the Page on the left side of the LCD at the same time.
⑹	The status of each unit	Displays the status of each unit when selecting the monitoring function by each unit in the user mode.

Main menu	Sub menu	Function		Initial value	Page	Range	Save
1	1	Off timer		0	1	00 ~ 12 hour(s) (by an hour)	Save
3	1	Lock all		0	1	0 - Unlock, 1 - Lock	Save
	2	Lock timer		0	1	0 - Unlock, 1 - Lock	Save
4	1	Set today's date	(yy) year	-	1	00 ~ 99	Save
			(mm) month	-	2	01 ~ 12	Save
			(dd) day	-	3	01 ~ 31	Save
			(week) day of week	-	4	Sun. ~ Sat. (0 ~ 6)	Save
	2	Set the current time	Hour : Minute	-	-	Setting range of hour • 12-hours : (AM/PM) 01 ~ 12 • 24-hours : (AM+PM) 00 ~ 23 • Setting range of minute : 0 ~ 59	Save
5	1	Use and set the summer time function	Use the summer time function or not	0	1	0 - No use, 1 - Use	Save
			Set the summer time type	0	2	0 - by a week, 1 - by a day	Save

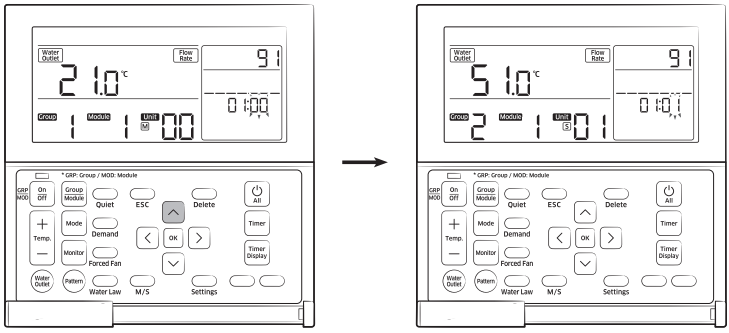
Additional Features

Main menu	Sub menu	Function		Initial value	Page	Range	Save
5	2	Start the summer time function (by a week)	Month	3	1	01 ~ 12 (Jan. ~ Dec.)	Save
			Sunday on the selected week	F	2	1 ~ 4 (week) or F - the last week	Save
	3	End the summer time function (by a week)	Month	10	1	01 ~ 12 (Jan. ~ Dec.)	Save
			Sunday on the selected week	F	2	1 ~ 4 (week) or F - the last week	Save
	4	Start the summer time function (by a day)	(mm) month	3	1	01 ~ 12 (Jan. ~ Dec.)	Save
			(dd) day	22	2	01 ~ 31 (day)	Save
	5	End the summer time function (by a day)	(mm) month	9	1	01 ~ 12 (Jan. ~ Dec.)	Save
			(dd) day	22	2	01 ~ 31 (day)	Save
6	1	Set/check the time for backlight		5	1	00 ~ 30 (second) (Disuse when it is 00)	Save
	2	Use LED (green) or not		1	1	0 - No use, 1 - Use	Save
	3	Use LED (red) or not		1	1	0 - No use, 1 - Use	Save
9	1	User setting functions	Display the operating status by units [1)*]	The smallest unit number	1	00 ~ 15	-

Main menu	Sub menu	Function		Initial value	Page	Range	Save
9	2	User setting functions	Display the number of temperature control devices/ thermostats	The number of the temperature control devices/ thermostats	1	00 ~ 16	-
0	1	Reset to the default value of user mode (except the current time)		0	1	0 - No use, 1 - Reset	-

1)* You can check the status of units connected to the chiller module controller.

- When pressing [Monitor] button after selecting the unit number, you can change the status of the selected unit. (Water Outlet → Water Inlet → Outdoor Air → High Pressure → Low Pressure → Flow Rate →).
  Press [∨], [∧] button to change the unit number.



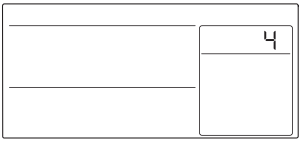
NOTE

- The Summer Time (Daylight Saving Time) is to put the clock ahead an hour earlier than standard time in summer.

Additional Features

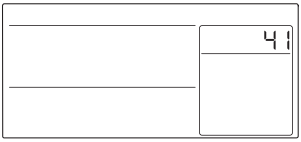
Setting the additional function (Example)

It is an example to set the current time.



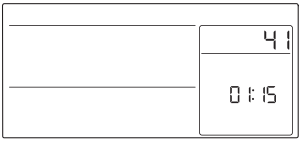
1 Enter the user mode and then select today's date setting in the main menu.

Settings ▶ **Display the main menu** ▶ ^ / v ▶ **Select 4**



2 Move to the sub menu and then set today's year, month, day and day of week.

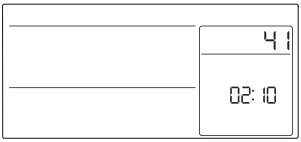
> ▶ **Display the sub menu** ▶ ^ / v ▶ **Select 1**



3 To set today's year, month, day and day of week by each Page, move to Page. First, set 'year'.

> ▶ **Display the Page** ▶ ^ / v ▶ **Select 1** ▶

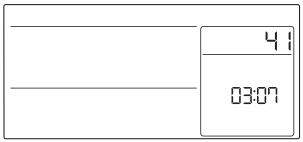
> ▶ ^ / v ▶ **Set the year**



4 Set 'month'.

< ▶ ^ / v ▶ **Select 2** ▶ ^ / v ▶

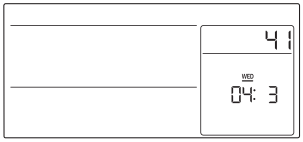
Set the month



5 Set 'day' (01 ~ 31).

< ▶ ^ / v ▶ **Select 3** ▶ > ▶

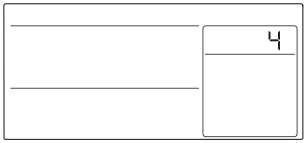
^ / v ▶ **Set the day**



6 Set 'day of week' (0[Mon.] ~ 6[Sat]).

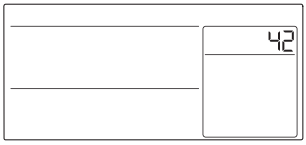
< ▶ ^ / v ▶ **Select 4** ▶ > ▶

^ / v ▶ **Select the day of week**



7 Complete today's date setting.

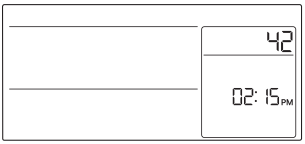
OK



8 Move to the sub menu and then set the current time.

> ▶ **Display the sub menu** ▶ ^ / v ▶ **Select 2**

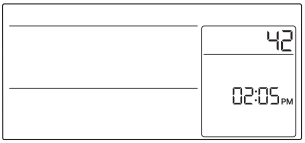
Additional Features



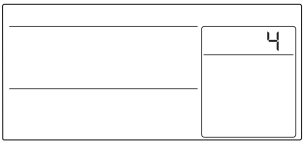
9 Move to Page and then set 'hour'.

NOTE

- The AM/PM display may be changed depending on 12-hours or 24-hours.
  - AM or PM will be displayed if you set 12-hours, and AM and PM will be displayed at a time if you set 24-hours.



10 Move to Data and then set 'minute'.



11 Complete setting the current time.

12 Move to the normal mode.

SETTING

Memo