

# Installation & Operation

# LG Programmable Thermostat

- Please read this Installation & Operation manual completely before installing the product.
- Installation work must be performed in accordance with the national wiring standards and local code by authorized personnel only.
- Please retain this manual for future reference after reading it thoroughly.

Type: LG Programmable Thermostat

Models: PREMTB10U



P/NO: MFL62129209

# TIPS FOR SAVING ENERGY

Here are some tips that will help you minimize the power consumption when you use the air conditioner. You can use your air conditioner more efficiently by referring to the instructions below:

- Do not cool excessively indoors. This may be harmful for your health and may consume more electricity.
- Block sunlight with blinds or curtains while you are operating the air conditioner.
- Keep doors or windows closed tightly while you are operating the air conditioner.
- Adjust the direction of the air flow vertically or horizontally to circulate indoor air.
- Speed up the fan to cool or warm indoor air quickly, in a short period of time.
- Open windows regularly for ventilation as the indoor air quality may deteriorate if the air conditioner is used for many hours.
- Clean the air filter once every 2 weeks. Dust and impurities collected in the air filter may block the air flow or weaken the cooling / dehumidifying functions.

## For your records

Staple your receipt to this page in case you need it to prove the date of purchase or for warranty purposes. Write the model number and the serial number here:

Model number :	
Serial number :	
You can find them on a label on the side of each unit.	

Dealer's name :

Date of purchase:

# IMPORTANT SAFETY INSTRUCTIONS

#### READ ALL INSTRUCTIONS BEFORE USING THE APPLIANCE.

Always comply with the following precautions to avoid dangerous situations and ensure peak performance of your product.



#### WARNING

It can result in serious injury or death when the directions are ignored.



#### 

It can result in minor injury or product damage when the directions are ignored.



#### WARNING

- Installation or repairs made by unqualified persons can result in hazards to you and others.
- The information contained in the manual is intended for use by a qualified service technician familiar with safety procedures and equipped with the proper tools and test instruments.
- Failure to carefully read and follow all instructions in this manual can result in equipment malfunction, property damage, personal injury and/or death.

#### Installation

- For electrical work, contact the dealer, seller, a qualified electrician, or an authorized service Center. Do not disassemble or repair the product. There is risk of fire, electric shock, explosion, equipment malfunction, or injury.
- Request to the service center or installation specialty store when reinstalling the installed product. There is risk of fire, electric shock, explosion, equipment malfunction, or injury.
- Do not disassemble, fix, and modify products randomly. There is risk of fire, electric shock, explosion, equipment malfunction, or injury.
- The product shall be installed according to the national standards and local code.
- Apply totally enclosed noncombustible conduit in case of local building code requiring plenum.

#### In-use

- Do not place flammable stuffs close to the product. There is risk of fire, electric shock, explosion, equipment malfunction or injury.
- Do not allow water to run into the product. There is risk of fire, electric shock, explosion, equipment malfunction or injury.
- Do not give shock to the product. There is risk of fire, electric shock, explosion, equipment malfunction or injury.
- Request to the dealer, seller, a qualified electrician, or an authorized Service Center when the product becomes wet. There is risk of fire, electric shock, explosion, equipment malfunction, or injury.

- Do not give shock using sharp and pointed objectsThere is risk of fire, electric shock, explosion, equipment malfunction or injury.
- Do not touch or pull the lead wire with wet hands. There is risk of product breakdown or electric shock.



## /!\ CAUTION

#### In-use

- Do not clean using powerful detergents like solvent but use soft cloths. There is risk of fire, electric shock, explosion, equipment malfunction or deformation.
- Do not press the screen using powerful pressure. There is risk of product break-down or malfunction.

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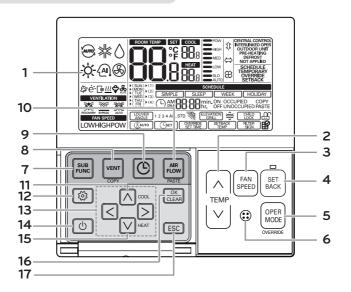
Different mode drive

Different mode drive

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# PART DESCRIPTION

#### Name and Function of Thermostat



- 1 Operation indication screen
- 2 Set temperature button
- 3 Fan Speed button
- 4 Set back button
- 5 Operation mode selection button
- 6 Wireless Thermostat receiver
  - Some product don't receive the wireless signals.
- 7 Sub function button
- 8 Ventilation button
- 9 Reservation button

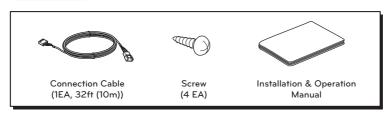
- 11 Cooling desired temperature 12 Function setting button
- 13 Up, Down, Left, Right button
  - 14 On/Off button

10 Air flow button

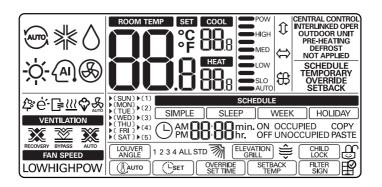
- 15 Heating desired temperature
- 16 Setting/Cancel button
- 17 Exit button

\* Some functions may not be operated and displayed depending on the product type.

#### Accessory



#### Icon description



Function	Icon	Description
Operation mode	AUTO	Auto mode - Product is change operating mode cooling or heating automatically.
	**	Cooling mode - Product is running cooling mode.
	$\Diamond$	Dehumidification Mode - Product is running dehumidifying mode.
	<del>-</del> ;¢-	Heating mode - Product is running heating mode.
	8	Fan only operating mode - Product is running just fan operating.
Sub function	<b>્</b>	Plasma Purification - Product is operating Plasma Purification filter.
	ė́-	Energy-Saving Cooling Operation - Product is running cooling mode in limited set temperature for energy saving.
		Automatic Drying - Indoor unit is operating automatic drying.
	<u> </u>	Electric Heater - Product is operating electric heater in heating mode.
	❖	Humidifier - Product is operating Humidifier.
	AUTO	Fan Auto function - Indoor unit enable fan auto function Indoor unit doesn't operate fan when compressor off

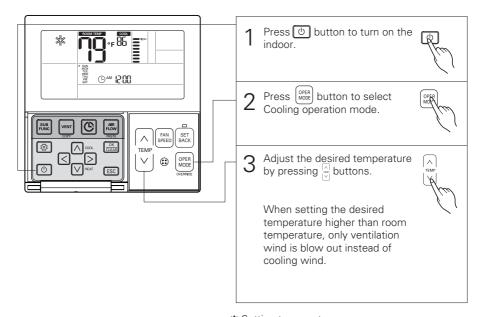
Function	Icon	Description
	88	Current temperature - Display current room temperature.
Tempera- ture	coor	Cooling set point temperature - temperature set point for cooling operation.
	HEAT	<b>Heating set point temperature</b> - temperature set point for heating operation.
Fan Speed	POW HIGH MED LOW SLO AUTO	Display current wind strength.  POW: wind strength - power  HIGH: wind strength - high  MED: wind strength - medium  LOW: wind strength - low  SLO: wind strength - weak  AUTO: wind strength - automatic
Air Flow	Û	Louver up-down swing - Indoor unit louver operate up-down swing.
	⇔	Louver left-right swing - Indoor unit louver operate left-right swing.
	#	Louver Swirl swing - Indoor unit louver operate paired opened cross swing.
	SCHEDULE	Schedule operation mode(Simple / sleep/ week / holiday) - Controller operate in accordance with schedule reservation
Controller	TEMPORARY	Temporary mode - Setting mode change temporarily
mode	OVERRIDE	Schedule override mode - Occupied/unoccupied state change
	SETBACK	Set back operation mode - Controller operate set back operation.
Product state monitoring	CENTRAL CONTROL	Command received from central controller or outdoor unit
	INTERLINKED OPER	Slave indoor unit on a heat pump system. Prevents mode change not compatible with current outdoor unit mode.
	OUTDOOR UNIT	Outdoor unit running
	PRE-HEATING	Indoor unit pre-heating operation running
	DEFROST	Defrost operation running
	NOT APPLIED	Function not applied

Function	Icon	Description
	SIMPLE	Simple reservation in operation
Schedule Reservation	SLEEP	Sleep reservation in operation
	WEEK	weekly reservation in operation
	HOLIDAY	Holiday reservation in operation
	SUN MON TUE WED THU FRI SAT	Day of week SUN: Sunday / MON: Monday / TUE: Tuesday WED: Wednesday / THU: Thursday / FRI: Friday SAT: Saturday
	1 2 3 4 5	The number of weekly reservation event
Schedule Reservation	AM PM	Time - AM/PM
& Time	88:88	Time – value of hour / minute
	min. hr.	min.: minute / hr. : hour
	ON OFF	Turn on/off by schedule reservation
	OCCUPIED UNOCCUPIED	Display weekly reservation occupied / unoccupied state
	COPY PASTE	Weekly reservation schedule data copy / paste
	LOUVER ANGLE	Louver angle setting step
Function setting	1 2 3 4 ALL STD	1,2,3,4,ALL : Louver number / STD: Standard angle set
	勠	Louver angle state
	ELEVATION GRILL	Elevation grill setting step

Function	Icon	Description
	<b>()))</b>	Grill state
	CHILD	Child lock setting step
	£	⊕ :Child lock set / ⊕ : Child lock cancel
	<b></b> Даито	Minimum difference value setting step between cooling / heating set points
Function setting	(C)SET	Current time setting step
	OVERRIDE SET TIME	Schedule override timer setting step
	SETBACK TEMP	Default Set back cooling / heating temperature set points setting step
	FILTER SIGN	Filter sign clear setting step
	<b>₽</b>	Indoor unit air filter cleaning Alarm

# **OPERATION INSTRUCTION**

#### Standard Operation - Cooling Mode



\* Setting temperature range :

Option 1. 64~86 °F (18~30 °C) (default setting) Option 2. 64~99 °F (18~37.5 °C)

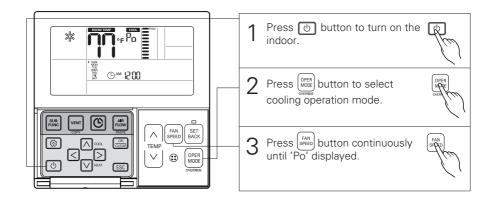
#### What is the three-minute delay function?

The function to protect the compressor delays the output of cool air when operating instantly after interrupting the cooling mode .

Cooling mode restarts after 3 minutes when the compressor starts to operate.

- 87~99 °F (30.5~37.5 °C) When setting the desired temperature, the indoor unit shuts off on condition that the indoor temperature is lower than the desired temperature.
- When Using a central controller, a displayed value of the desired temperature may differ depending on a function of the product.

# Standard Operation - Power Cooling



#### What is Power Cooling?

• Desired temperature: Po (actually 64 °F (18 °C))

\* Some products do not have power air-cooling function.

• Wind flow: power wind

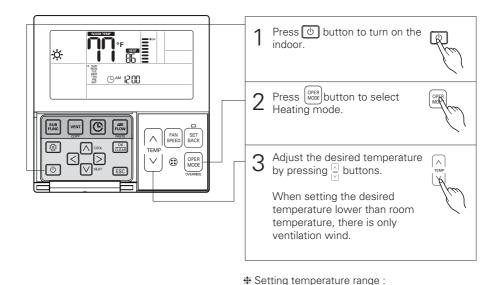
• Wind direction: fix to air-cooling position

drop fast by running

Option 1. 60~86 °F (16~30 °C) (default setting)

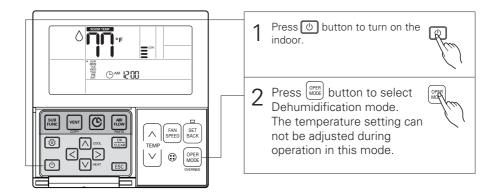
Option 2. 40~86 °F (4~30 °C)

# Standard Operation - Heating Mode



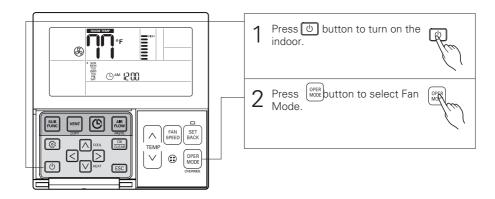
- Heating drive only operates on cooling and heating models.
- Heating doesn't operate on cooling only models.
- 40~59 °F (4~15.5 °C) When setting the desired temperature, the indoor unit shuts off on condition that the indoor temperature is higher than the desired temperature.
- When using a central controller, a displayed value of the desired temperature may differ depending on a function of the product.

## Standard Operation - Dehumidification Mode



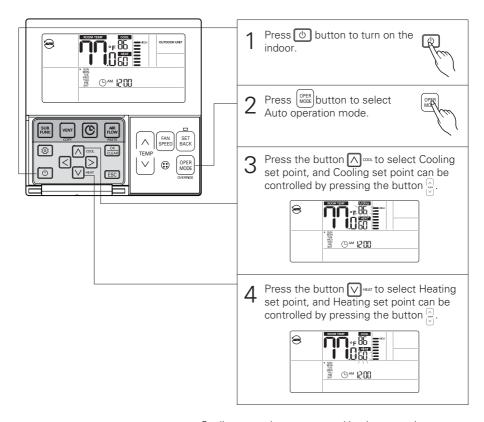
- In rainy season or high humidity climate, it is possible to operate simultaneously dehumidifier and cooling mode to remove humidity effectively.
- The menu item of fan speed may be unavailable depending on the product.

# Standard Operation - Fan Mode

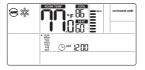


- Ventilation drive does not release cool wind but general fan
- Because it releases the wind that has no temperature difference from the room, it functions to circulate the inside air.
- The menu item of fan speed may be unavailable depending on the product.

## Standard Operation - Auto Operation Mode



Cooling operation state



Heating operation state

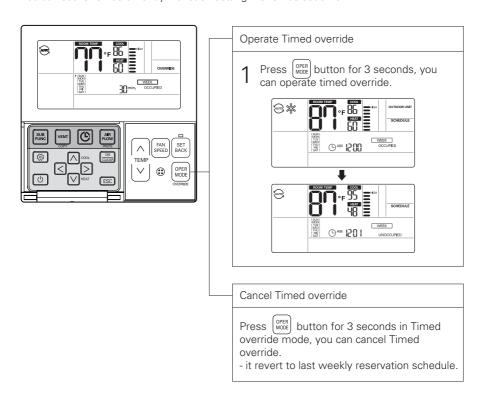


- Auto heating drive only operates on cooling and heating models.
- Auto heating doesn't operate on cooling only models.
- 87~99 °F (30.5~37.5 °C) When setting the desired cooling temperature, the indoor unit shuts off on condition that the indoor temperature is lower than the desired temperature.
- 40~59 °F (4~15.5 °C) When setting the desired heating temperature, the indoor unit shuts off on condition that the indoor temperature is higher than the desired temperature.
- When using a central controller, a displayed value of the desired temperature may differ depending on a function of the product.

### Standard Operation - Timed Override

Timed override operation changes occupied / unoccupied schedule for override time temporarily.

- It revert to last occupied schedule in unoccupied override.
- It revert to last unoccupied schedule in occupied override.
- You can set 'Override time' by 'Function setting Override set time'

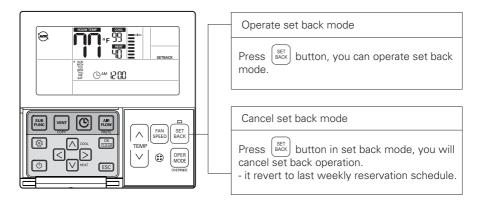


- It revert to default operation setting if Thermostat doesn't have last occupied schedule in unoccupied override.
  - default operation setting: Auto operation mode / set temperature :  $86 \, ^{\circ}\text{F}(30 \, ^{\circ}\text{C})(\text{cool})$  ,  $60 \, ^{\circ}\text{F}(16 \, ^{\circ}\text{C})(\text{heat})$
- It revert to set back operation setting if Thermostat doesn't have last unoccupied schedule in occupied override.
  - set back operation setting: Auto operation mode / set back setting temperature: function setting set back temperature.
- It can be canceled ,if Thermostat receive command from other controller.
- When changes occur in the setting by a daytime reservation operation, the schedule override mode gets deactivated.

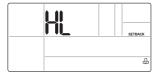
## Standard Operation - Set back

Set back operation revert to last unoccupied schedule until Set back operation is canceled.

- It change to 'function setting set back setting' if Thermostat doesn't have last unoccupied schedule.
- Set back operation setting: Auto operation mode / Set back setting temperature: Function setting - Set back temperature

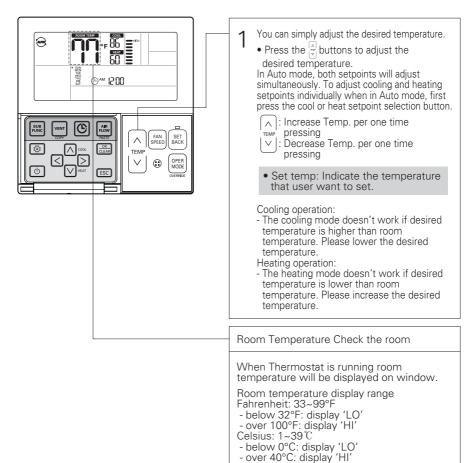


- You can't change setting in set back mode except cancel the set back mode.
  - 'HL' lock is displayed on the window.



- It can be canceled ,if Thermostat receive command from other controller.
- When commands are received by other controllers, the set back mode gets deactivated.
- When the set back mode is deactivated, the following takes place.
- The set points shall go to the current occupied set points.
- If there are no current occupied set points, the set point shall go to the last occupied set points in the weekly schedule.
- If there are no occupied set points in the schedule, the set points will go to the default if the values have not been adjusted.
- Default Occupied setting will be auto. (heat 60 °F(16 °C), cool 86 °F(30 °C))

# Standard Operation - Temperature Setting

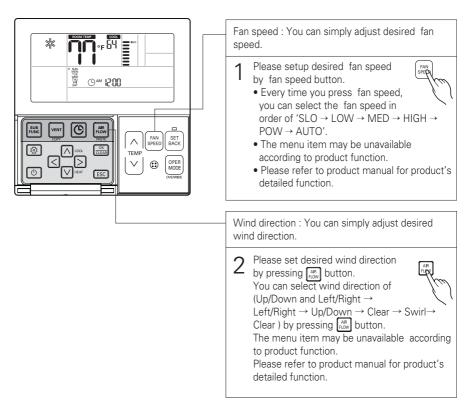


- For air-cooling set point, from 64~86 °F (16~30 °C), and for heating set point, from 60~86 °F (16~30 °C), you can select desired temperature.
  - \* A temperature area of extended range can be selected through desired temperature range setting option.

 Because of location of Temperature sensing, the real room temperature and the this displayed value can be different.

- Cooling: 64~99 °F (16~37.5 °C) / Heating: 40~86 °F (4~30 °C)
- 10°F is proper for the difference between room and outside temperature.
  - When combine with other controllers, temperature gap expressed by criterion of each controllers can be generated.
- For indoor temperature below 50 °F (10 °C), the value perceived by the Thermostat(with cable) is displayed.

# Standard Operation - Airflow Setting



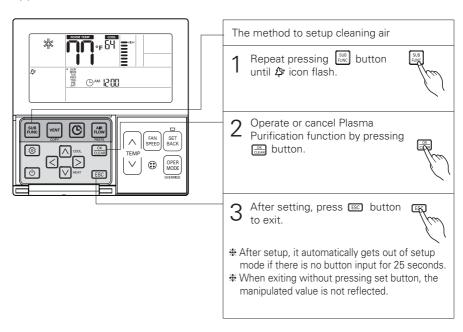
#### <Airflow Setting Table>

Symbol	Description
<b>Û</b>	Left-Right : Vanes move from left to right automatically and continuously
	Up-Down : Vanes move from up to down automatically and continuously
\$	Swirl : Paired Vanes oscillate in 1 minute interval

<sup>\*</sup> Some functions may not be operated and displayed depending on the product type.

#### Sub Function - Plasma Purification

Only products with Plasma Purification function can use this.



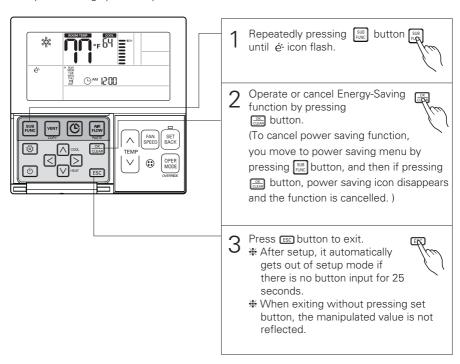
- Cleaning air function is additional function and it might not be available on all products.
- Cleaning air function is possible only when product is running.
- If air cleaning is needed to run independently, please use fan mode and enable air cleaning.

## Sub Function - Energy-Saving Cooling Operation

Energy-Saving Cooling Operation function is the function to improve user's comfortableness and power saving capacity by adjusting desired temperature while running air-cooling.

When operating cooling, setting the power saving function is available.

\* Except for cooling operated by the auto mode.

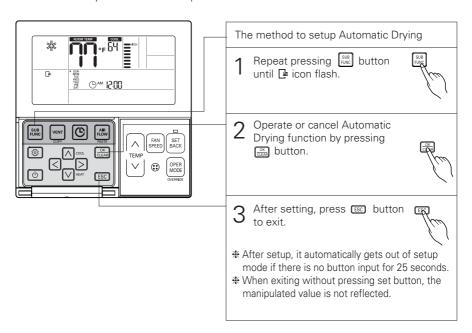


- Power saving function is possible to setup only when in cooling mode.
- Power saving function might not be available on all products.

## **Sub Function - Automatic Drying**

It is the function that dries the inside of an indoor unit when the product is OFF, and allows for the Fan to operate for certain time in order to remove mold and moisture.

This function is only available on some products.

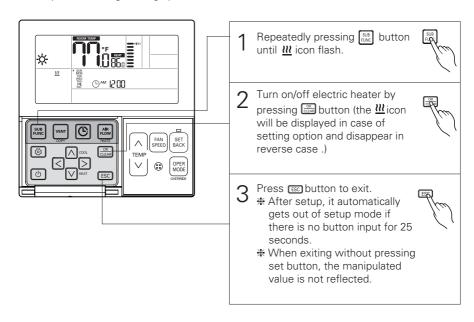


- Automatic dry function might not be available on all products.
- The Automatic drying setting can only be checked when enabled by field setting.

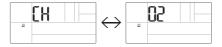
#### Sub Function - Electric Heater

It is a function to strengthen the heating ability by turning on the electric heater during the heating operation.

It can only be set during heating operation.

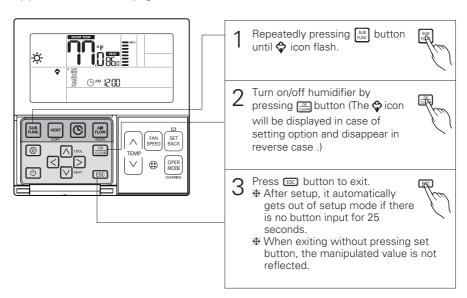


- Heater function is additional function and it might not be available on all products.
- The indoor unit product with Auxiliary Heater function set automatically displays (\( \frac{\mathbb{M}}{\mathbb{M}} \) icon during the heating operation.
- When using non-heat recovery outdoor unit, emergency heater can be turned on for simultaneous heating and cooling. Indoor unit with the emergency heater must be turned OFF for simultaneous cooling and heating.
  - \* Heater function is additional function and it only operates in selected models.
- Emergency heater can be turned on while in error in case of emergency. Electric heater icon is displayed on LCD display window with error code when emergency heater is on while in error
  - \* Exception case: Error code 1,3,9,10
  - \* If the previous mode of the Indoor unit is COOL, DRY or FAN ONLY mode, heater must be turned on manually.



#### Sub Function - Humidifier

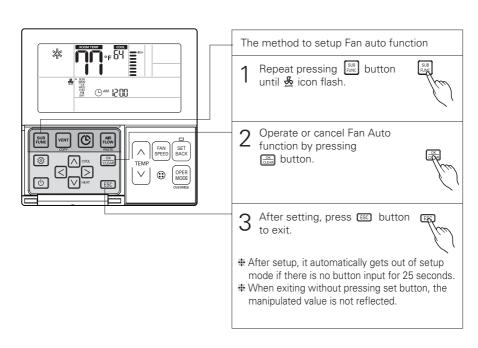
Only products with humidifying function can use this.



• Humidifier function is additional function and it might not be available on all products.

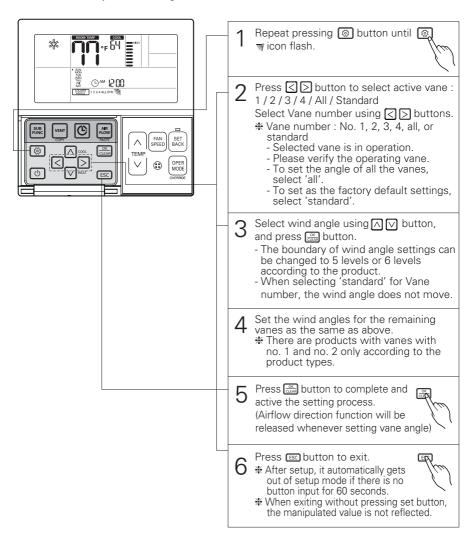
#### Sub Function - Fan Auto

It is the function that operate fan when outdoor unit is running. Only products with fan auto function can use this.



## Function Setting - Vane Angle Control

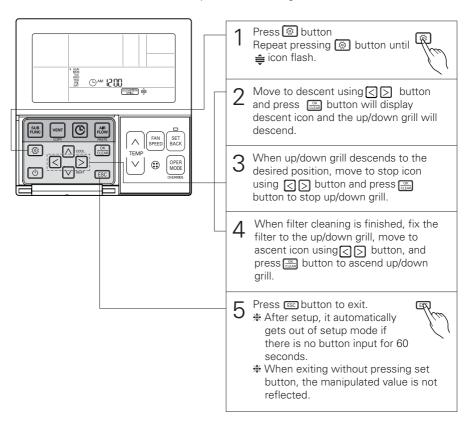
This function is to adjust airflow angle.



· While adjusting the vane angle, a command from central controller, wireless remote controller or dry contact, etc shall not be reflected in the system for 1 minute.

## Function Setting - Elevation Grill

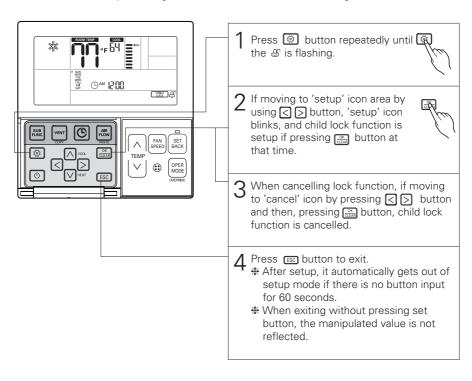
This function is to move the indoor filter up/down for cleaning filter.



- Elevation grill function only operates in the indoor unit with the elevation grill.
- Elevation grill function only operates at drive off.

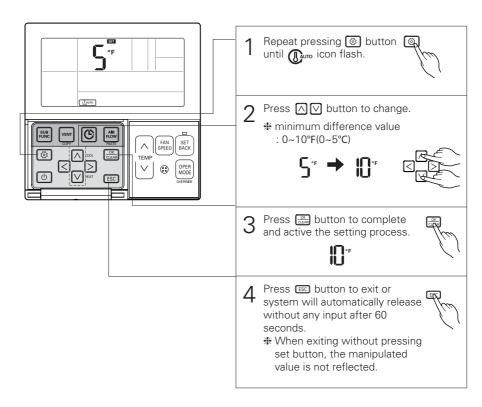
# Function Setting - Child Lock

It is the function to use preventing children or others from careless using.



# Function Setting - Minimum Difference between heating and cooling Set points

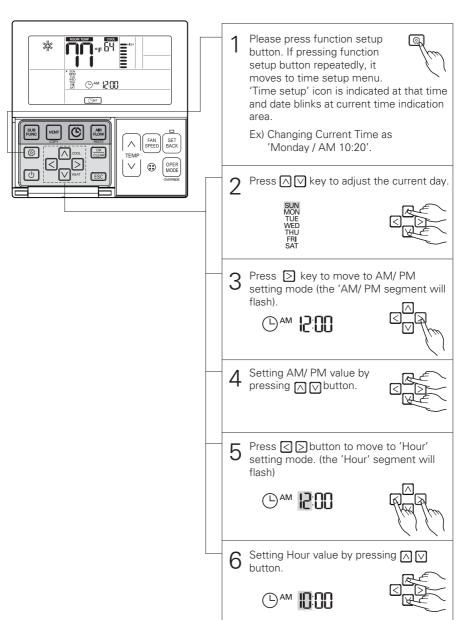
It is function to setup minimum difference between heating and cooling set points.

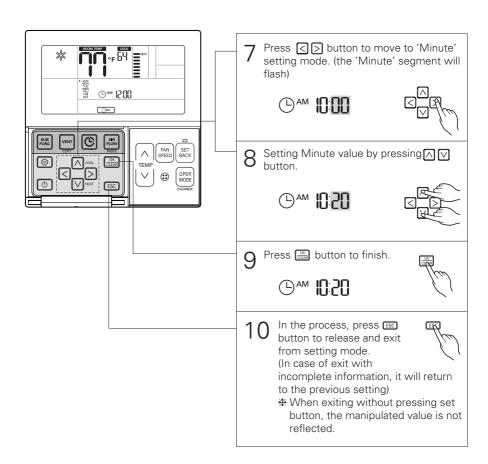


- When changing the desired cooling temperature, in case of that the difference with the heating temperature becomes lesser than its minimal value of difference, it lowers the desired heating temperature automatically.
- When changing the desired heating temperature, in case of that the difference with the heating temperature becomes lesser than its minimal value of difference, it raises the desired cooling temperature automatically.

<sup>\*</sup> If power supplying is stopped for more than 50 hours, please check the current time and correct it.

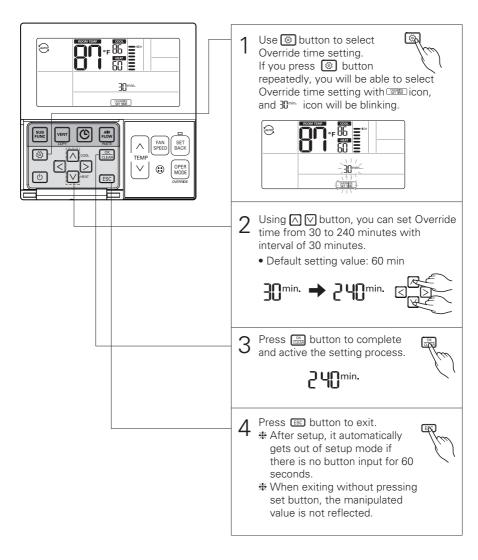
# Function setting - Changing Current Time





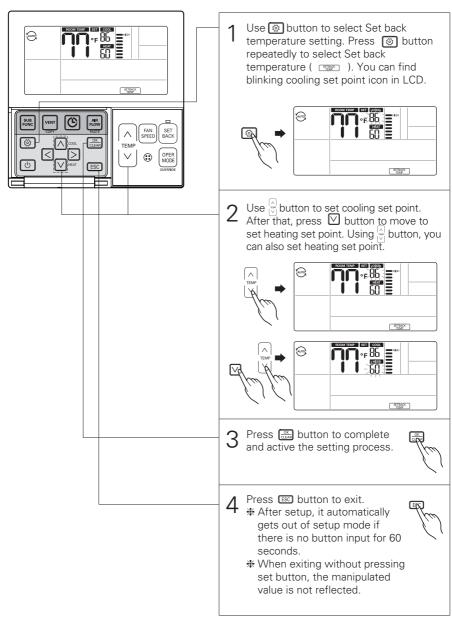
# Function Setting - Override set time

It is the function to set schedule override operation time.



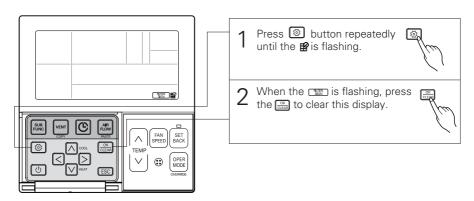
# Function Setting - Set back temperature

It is the function to set default temperature setting points for set back operation. It used when controller doesn't have last unoccupied schedule.



# Function Setting - Filter Sign Clear

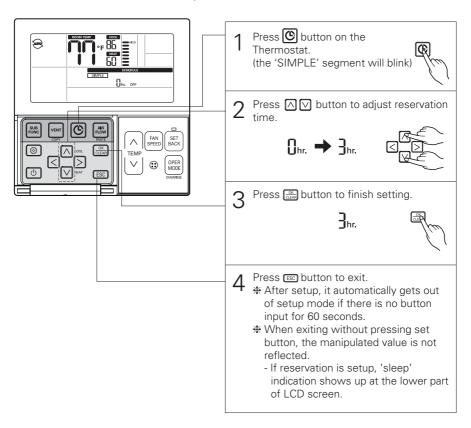
This function is to clear the indicator of indoor filter cleaning.



- When filter is covered by dust, it will reduce cooling/heating efficiency and consume more electric power. Therefore, do clean the filter whenever cleaning time is expired.
- # Filter cleaning indication is automatically cancelled without manual cancellation after certain period of time.

# **Programming - Simple Reservation**

You can set the reservation conveniently in the units of 1 hour from 1 hour to 7 hours.

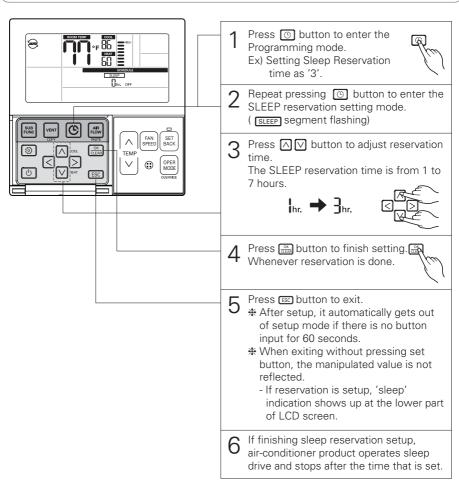


<sup>\*</sup> When simple timer setup, product automatically runs or stops after the time that is set.

#### Programming - Sleep Reservation

Sleep reservation is the function of air-conditioner to run and stop after certain period of time at sleep mode before sleep. When connected to a ventilation product and set the sleep reservation, when it goes to the sleep mode, after the set time has elapsed.

- When operating under the Auto operation mode, the Sleep reservation cannot be made.
- When setting the Auto operation mode, the Sleep reservation gets deactivated.





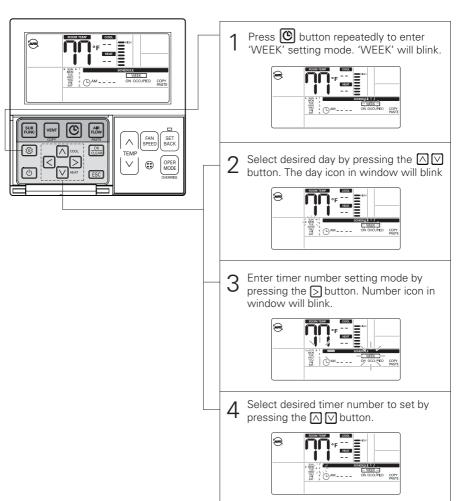
Please reserve proper time at sleeping.

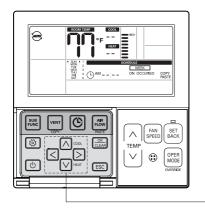
 Because it automatically adjusts desired temperature for comfortable air-cooling at sleep drive, there could be difference between Thermostat's desired temperature and air-conditioner body's desired temperature.

# Programming - Weekly Reservation

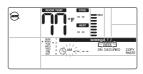
You can set individual daily schedules for the week.

- For correct operation of Weekly Reservation, please set current time correctly.

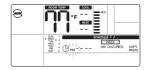




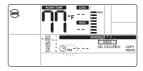
Enter AM/PM setting mode by pressing the Dutton. AM or PM icon in window will blink.



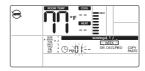
Select the AM/PM by pressing the △∨ button.

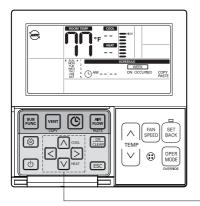


Enter 'hour' setting mode by pressing the |> button. The hour icon in window will blink.

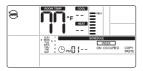


Select desired hour by pressing the 

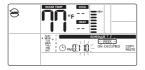




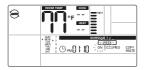
Enter 'minute' setting mode by pressing the button. The minute icon in window will blink.



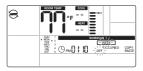
Select desired minute by pressing the 

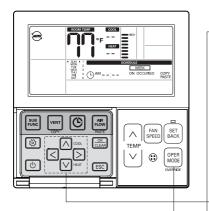


Enter ON/OFF setting mode by pressing the D button. ON or OFF icon in window will blink.

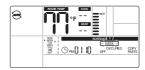


 $12 \begin{array}{c} \text{Select ON/OFF condition of timer by} \\ \text{pressing the } \boxed{\vee} \text{ button.} \end{array}$ 

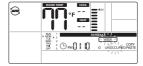




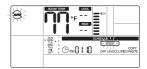
13 Enter OCCUPIED/UNOCCUPIED setting mode by pressing the button. OCCUPIED or UNOCCUPIED icon in window will blink.



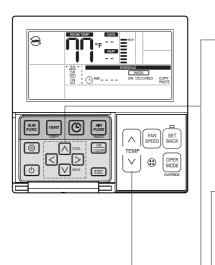
Select OCCUPIED/UNOCCUPIED condition of timer by pressing the very button.



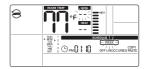
15 Enter operation mode setting mode by pressing the button. Operation mode icon in window will blink.



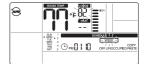
16 Select desired operation mode by pressing the OPER button.



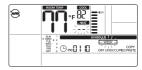
Enter Cooling set point setting mode by pressing the |> button and the |\infty \cong | button. Cooling set point icon in window will blink.



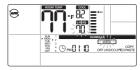
Select desired cooling set point by pressing the button.

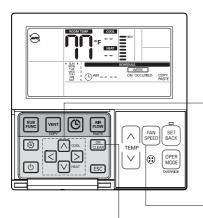


Enter Heating set point setting mode by pressing the MEAT button. Heating set point icon in window will blink.

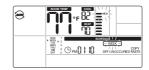


Select desired heating set point by 20 pressing the  $\frac{1}{|\nabla|}$  button.

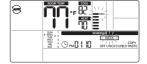




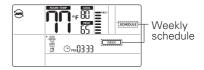
Enter fan speed setting mode by 21 pressing the > button. Fan speed icon in window will blink.



Select desired fan speed by pressing the FAN button.



- If finishing weekly reservation setup, please press the button. Weekly reservation setup for the day that you set is finished.
- If you setup with the method 24 identical with above by selecting the day that you'd like to setup, it operates weekly reservation.



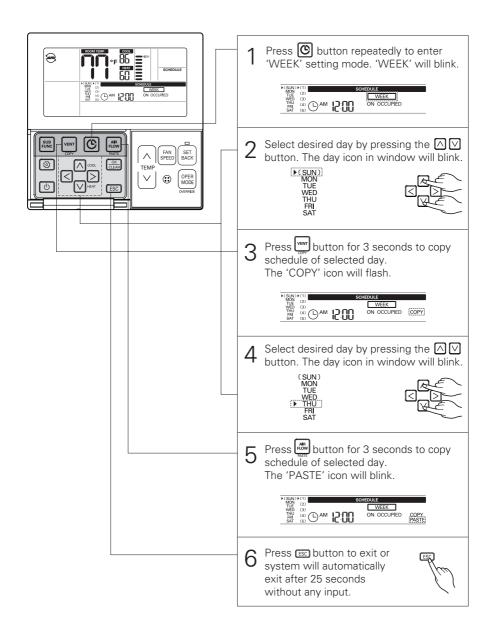
Side bar: the indication that there is weekly reservation for corresponding day

You can't change operate mode, fan speed, setting temperature in unoccupied.
Display 'Unoccupied Lock' on the window.



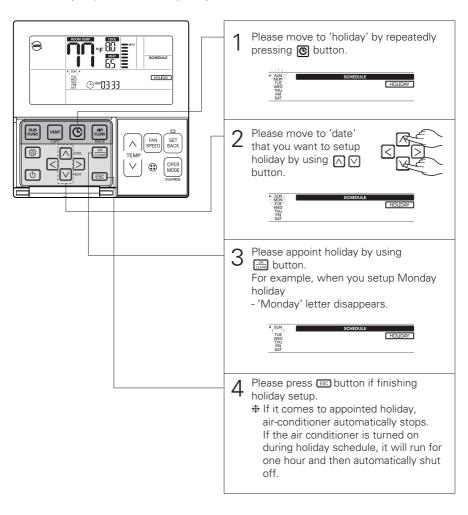
#### Programming - Weekly Reservation Schedule Copy/Paste

You can copy weekly timer schedule data to another day.



# Programming - Holiday Reservation

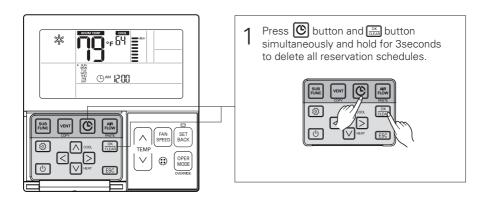
It automatically stops at reserved day that you set.



## Programming - Delete All Reservation

You can delete all reservation schedules.

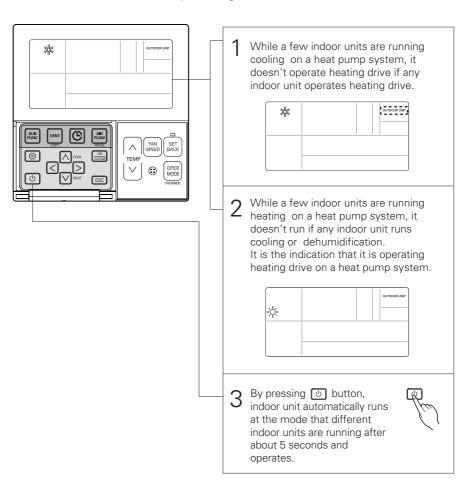
- Simple, sleep, weekly, holiday reservation



#### Different mode drive

Different mode drive is a phenomenon taking place when indoor units' drive mode is different in the case that a few indoor units are set up on a heat pump system.

(Different mode drive doesn't show up at cooling exclusive model.)



#### Ventilation Product - Interlocked Air conditioner and Ventilator

- 1 Control using Thermostat where air conditioner indoor unit and the ventilation product is installed at the same time.
  - When the power is turned on, your Thermostat recognizes the product (takes about 30 seconds) and then works normally.

	Single Operation	Interlocked Operation	
	(General Ventilation Single Operation)	(General Ventilation Interlocked Operation)	
General Ventilation	General Ventilation	Air conditioner General Ventilation	
	Thermostat	Thermostat	

- \* Connecting wires is the same as air conditioner user manual. (Refer to page about Group control)
- 2 Press 'Ventilation' button on the Thermostat and enter Ventilation control mode to check the operation of ventilation product.



[Air conditioner control mode]

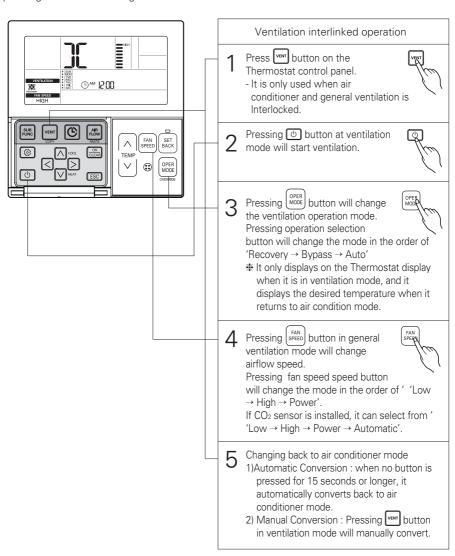
[Ventilation control mode]

- 3 To convert back to air conditioner mode, press 'Ventilation' button when in ventilation mode.
  - If no button pressed for 15 seconds or more in ventilation mode, it automatically converts back to air conditioner mode.
  - Ventilation product represent general ventilation product and direct expansion ventilation product.

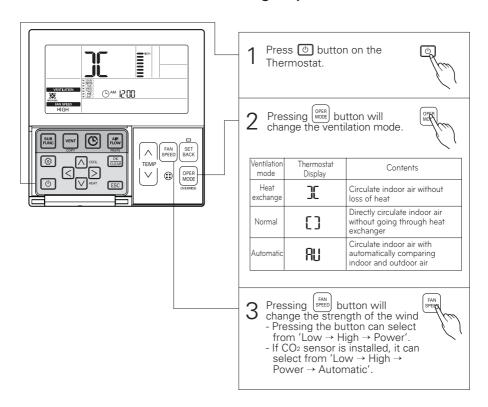
# Ventilation Product - Interlocked operation with general Ventila-

It is used when air conditioner is interlocked with ventilation product.

It is a function that cools and refreshes indoor air using the ventilation product at the same time operating the air conditioning function.



#### Ventilation Product - Ventilator single operation

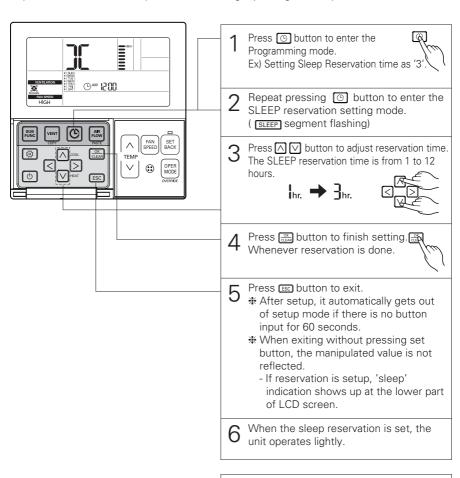


#### **Ventilation Product Function Settings**

- \* Refer to 'Function Setting Child Lock 'part for lock function.
- \* Refer to 'Function Setting Filter Sign Clear 'part for Filter Cleaning function.
- \* Refer to 'Function Setting Changing Current Time | part for Time Setting function.

#### **Ventilation Product Reservations Settings**

Sleep Reservations: Sets to operate ventilation lightly during the sleep.



Simple, Weekdays, Holidays Reservations

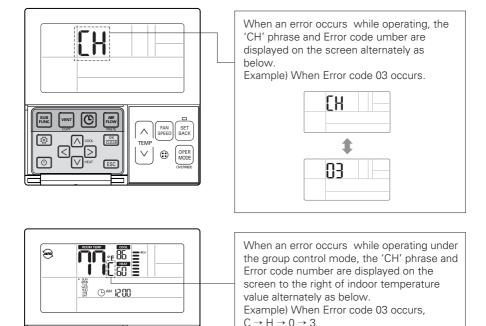
\* Please refer to the Reservation Settings part of the air conditioner for Simple, Weekdays, Holidays Reservations

#### Troubleshooting Mode Self Diagnosis

TEME

OPER

If there are problems with the product, it self-diagnoses with Troubleshooting mode. It displays a number for the Troubleshooting mode with its inspection code phrase.



- When recovery takes place after occurrence of an error, controller operation mode may change because of communication with indoor unit. Make sure you set the correct operation mode after adjusting vane angle settings.
- Since the setting of the Thermostat (with cable) can be altered after its recovery from occurrence of a group control error, reset is recommended.

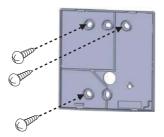
## Checkups before reporting breakdown

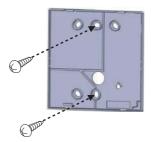
Please first check the items below for troubleshooting before consulting a service center.

Symptoms	Check-up	Management	
	• Is air-conditioner's power on?	<ul> <li>Please check up circuit breaker.</li> <li>Please check up Thermostat wire setup condition.</li> </ul>	
Abnormal operating conditions.	Are air-conditioner and Ther- mostat properly connected with cable?	Please connect air-conditioner and Ther- mostat cable.	
	• Is cable connection correct?	Please check again referring to setup method at the manual.	
It doesn't operate	Did you correctly setup time?	Please set up current time correctly.	
reservation.	Did you correctly make a reservation?	Please set up again referring to the man- ual.	
It doesn't release cool wind.	• Is desired temperature setup lower than current temperature?	Please set up desired temperature lower than current temperature.	
Air-conditioner automatically runs or stops.	• Isn't reservation drive setup?	Please set up 'Weekly timer' again referring to the manual.	
Error is indicated on Thermostat in- dication window.	Does Thermostat indication window indicate 'CH03'?	<ul> <li>Please check again remote controller wire setup condition.</li> <li>Please check again connection condition of air-conditioner and Thermostat cable.</li> </ul>	

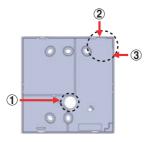
# INSTALLATION METHOD

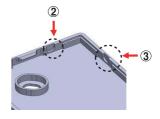
- 1 Please fix tightly using provided screws after placing Thermostat backplate on the placewhere you like to setup.
  - Please set it up not to bend because poor setup could take place if backplate bends. Please set up Thermostat board fit to the electrical box if there is a electrical box.
  - Install the product so as not to make a gap with the wall side and to prevent shaking afterthe installation.





- 2 Can set up Thermostat cable in one of three possible directions.
  - Setup direction: back, top, or right
  - If setting up Thermostat cable into top or right side, please set up after removing Thermostat cable guide groove.
- \* Remove guide groove with long nose pliers.
- 1) Back through the wall
- 2 Top guide groove
- 3 Right side guide groove



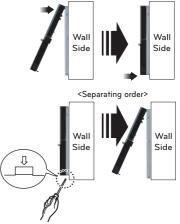


<Wire guide grooves>

- 3 Please fix Thermostat upper part into the backplate attached to the surface of the wall, as the picture below, and then, connect with backplate by pressing lower part.
  - Please make sure to leave no gaps on the top, bottom, left or right sides between the Thermostat and backplate.
  - Before assembly with the backplate, arrange the Cable not to interfere with circuit parts.

Remove Thermostat by inserting a screwdriver into the lower separating holes and twisting to release the controller from backplate.

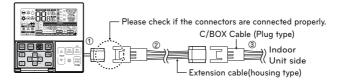
- There are two separating holes. Please individually separate one at a time.
- Please be careful not to damage the inside components when separating.



<Connecting order>

- 4 Please refer to the following directions when connecting the indoor unit and the Thermostat together.
  - 1) Please connect the cables as shown in the figure below when connecting the plug type cable from the indoor unit's C/BOX and the housing type of the extension cable.

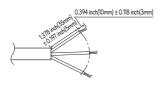




\*(1):AWG#24 / (2),(3): AWG#22

#### CAUTION

- Specification of LG supplied extension cable: AWG#22, 3 core shielded. (Model: PZCWRC1)
- Apply enclosed noncombustible conduit(metal raceway) totally or use FT-6 rated cable or above level in case of local electric & building code that requires plenum(CMP) cable usage.
- 2) When connecting Terminal Blocks of the indoor C/BOX and the Thermostat with the extension cable, refer to the steps below.
- ① Remove the screw on the cable which is fastened to the Thermostat's Terminal Block by loosening with a screw driver.
- 2) Remove the housing of the provided 32ft extension cable with a cutting nipper and peel it as shown in the figure below. (when purchasing the extension cable at the site directly, please peel it as shown in the figure below.)



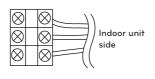
- ③ Make sure each wire is securely fastened under each screw terminal and the wires are not in contact with each other.
- Please connect the Terminal blocks of indoor unit's C/BOX and wired remote controller by referring to the images and contents shown below.

Connect the yellow(signal) part of the Thermostat's terminal block and the 'YL' part of the indoor unit's terminal block.

Connect the red(12V) part of the Thermostat's terminal block and the 'RD' part of the indoor unit's terminal block.

Connect the black(GND) part of the Thermostat's terminal block and the 'BK' part of the indoor unit's terminal block.





Thermostat PCB Terminal block Remark	Indoor Terminal block	Function
YELLOW	YL	Signal
RED	RD	12V
BLACK	BK	GND

<Thermostat>

<Indoor Terminal Block>

- \* In case of loosened screws or insufficient contact between the terminal and the wire, thermostat may not function properly.
- \* When the power is off on the Thermostat, check the connection between the Thermostat and Terminal Block.
- \* Use an appropriate screwdriver for tightening the terminal screws. A screwdriver with a small head will strip the head and make proper tightening impossible.
- \* Over-tightening the terminal screws may break wires and terminal block structure.

## (CAUTION

- Installation work must be performed in accordance with the national wiring standards and local code by authorized personnel only.
- Apply enclosed noncombustible conduit(metal raceway) totally or use cable above FT-6 level
  in case of local electric & building code that requires plenum plenum(CMP)cable usage.
- AWG#22, 3 core shielded is recommended when using the large hole in the center of the backplate.
- AWG#24, 3 core shielded is recommended when using the side or top knock-out of the backplate.
- 5 Please use an extension cable if the distance between the Thermostat and the indoor unit is longer than 32ft (10m).



When installing the Thermostat, do not bury it in the wall.

(It can cause damage in the temperature sensor.)

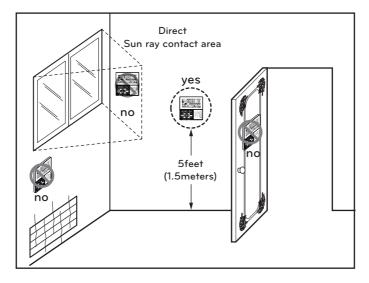
Do not install the cable to be 164ft (50m) or longer. (It can cause communication error.)

#### Thermostat installation

Since the room temperature sensor is in the Thermostat, the Thermostat box should be installed in a place away from direct sunlight, high humidity and direct supply of cold air to maintain proper space temperature. Install the Thermostat about 5ft(1.5m) above the floor in an area with good air circulation at an average temperature.

#### Do not install the Thermostat where it can be affected by:

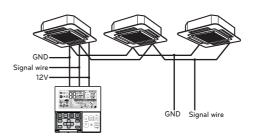
- Drafts, or dead spots behind doors and in corners.
- Hot or cold air from ducts.
- Radiant heat from sun or appliances.
- Concealed pipes and chimneys.
- Uncontrolled areas such as an outside wall behind the Thermostat.
- This Thermostat is equipped with LCD. display. For proper display of the Thermostat LCD's, the Thermostat should be installed properly as shown in Fig.1. (The standard height is 4~5 ft (1.2~1.5 m) from floor level.)



[Fig.1]

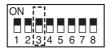
#### **GROUP CONTROL**

- 1 When installing more than 2 units of air conditioner to one Thermostat, please connect as the right figure.
  - Set one indoor unit to master and the remaining to slave.



When controlling multiple indoor units with one Thermostat, you must change the master/slave setting from the indoor unit.

- Once DIP S/W is set, recycle power. When recycling power, please remain in OFF position for at least 1 minute for new settings to take effect.
- For ceiling type cassette and duct product group, change the switch setting of the indoor PCB.



#3 switch OFF: Master (Factory default setting)



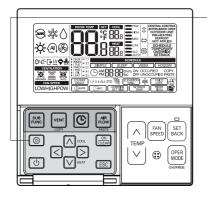
#3 switch ON: Slave

- For wall-mount type and stand type product, change the master/slave setting with the wireless Thermostat. (Refer to wireless Thermostat manual for detail)

When controlling the group, some functions excluding basic operation setting, fan level Low, med, high, Thermostat lock setting and time setting may be limited.

## INSTALLATION INSTRUCTION

#### Installer Setting - How to enter installer setting mode



- If pressing button long for 3 seconds, it enters into Thermostat installer setup mode.
  - If pressing once shortly, it enters into user setup mode. Please press more than 3 seconds for sure.
- When you enter the setting mode initially, Function code is displayed on the bottom of the LCD screen.



• Some categories of the menu may not be displayed according to the function of the product, or the menu name may be different.

#### CAUTION -

Installer setting mode is to set the detail function of the Thermostat.

If the installer setting mode is not set correctly, it can cause problems to the product, user injury or property damage. This must be set by an certified installer, Any non-certified personnel attempting to install or make changes shall be responsible for any adverse effects or operation.

#### <Installer Setting Code Table>

#### 1) General air-conditioner product

Code	Function	Value		
01	Test Run	01:Set		
02	Address Setting	00~FF: Address		
03	E.S.P. Value	$ \begin{array}{llllllllllllllllllllllllllllllllllll$		
04	Thermistor	01:Remo 02:Indoor 03:2TH		
05	Ceiling Height	01:Low 02:Med 03:High 04:Very High		
06	Static Pressure	01:V-H 02:F-H 03:V-L 04:F-L		
07	Master Setting	00:Slave * If only "Plus1" series models 00 : Group setting 01:Master 01 : Single setting		
08	Override Setting	00:Slave 01:Master		
09	Dry Contact	00:Auto-Off 01:Auto-On		
12	Celsius Fahrenheit Switching	00:Celsius 01:Fahrenheit		
18	Emergency Heater Setting	Select mode         Setup Low Ambient Heating Operation         Setup FAN Speed           00 : not use         0 : fan off           01 : use         1 : use - compressor off (0 °F/-18 °C)/on(5 °F/-15 °C)         1 : fan on           2 : use - compressor off (5 °F/-15 °C)/on(10 °F/-12 °C)         3 : use - compressor off (10 °F/-12 °C)/on(15 °F/-9 °C)		
20	Plasma			
21	Electric heater			
22	Humidifier	00: Not Installed		
23	Elevation Grill	01: Installed		
24	Ventilation Kit			
25	Auxiliary Heater			
31	Setting temperature range	00: 60~86 °F / 16~30 °C 01: 40~99 °F / 4~37.5 °C		

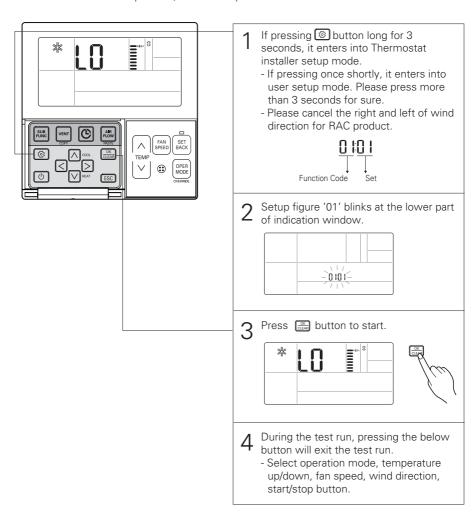
<sup>★</sup> Some contents may not be displayed depending on the product function.

#### 2) General Ventilation product

Code	Function	Value		
01	Test Run	01 : Test Run Setup		
02	Address Setting	00~FF: Address of Central Control		
03	SA(Supply Air) ESP			
04	EA(Exhaust Air) ESP	<esp step=""> <esp value=""> <example> 01:Low</example></esp></esp>		
05	Product Direction	01 : Normal 02 : Opposite		
09	Dry Contact	00 : Auto-Off 01 : Auto-On		
11	Zone State	01:Variable 02:Fixed		
13	Humidification for Singular Ventilation	00 : Not in Use 01 : Use		
14	Humidification for Heat Mode Ventilation	00 : Automatic 01 : Manual		

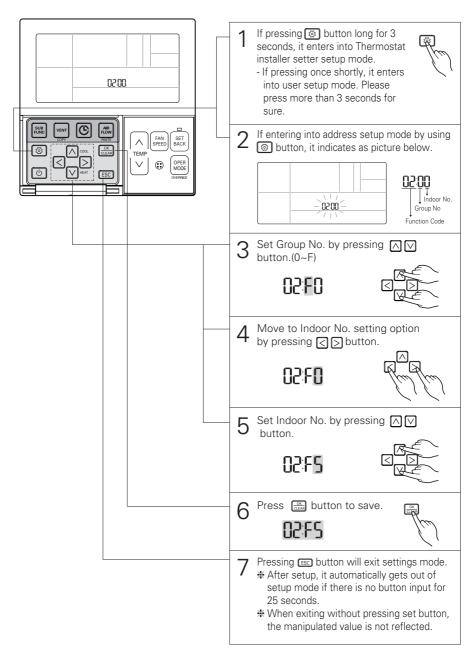
#### Installer Setting - Test Run Mode

After installing the product, you must run a Test Run mode. For details related to this operation, refer to the product manual.



## Installer Setting - Setting Address of Central Control

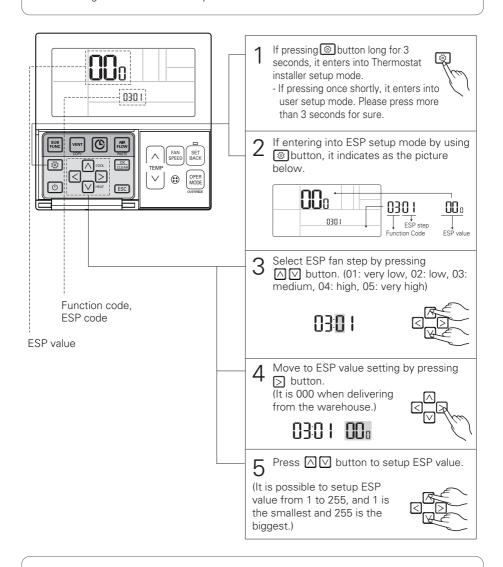
It's the function to use for connecting central control. Please refer to central controller manual for the details



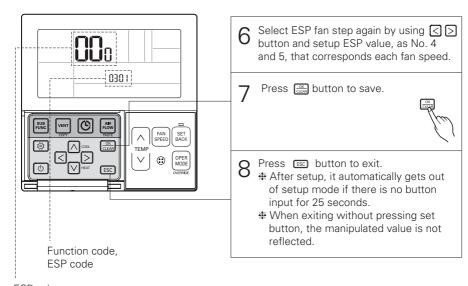
#### Installer Setting - E.S.P. Function

This is the function that decides the strength of the wind for each wind level and because this function is to make the installation easier.

- If you set ESP incorrectly, the air conditioner may malfunction.
- This setting must be carried out by a certificated-technician.



ESP setting may not work on products without weak or power fan speed settings.

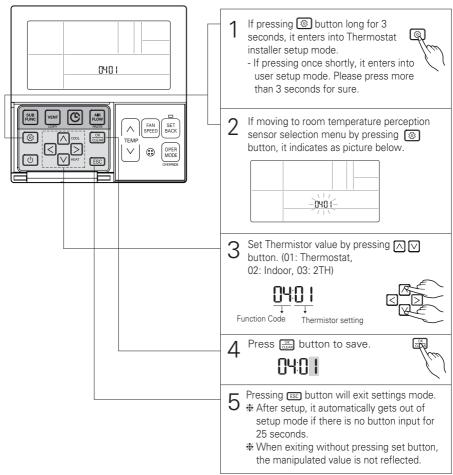


ESP value

- Please be careful when adjusting ESP values.
- It does not work to setup ESP value for weak/power step for some products.
- ESP value range is dependent on product.

#### Installer Setting - Thermistor

This is the function to select the temperature sensor to judge the room temperature.



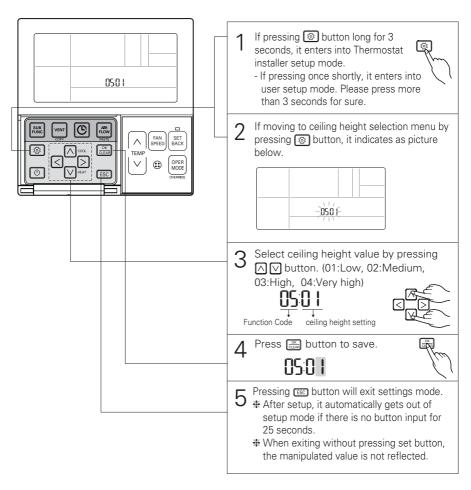
#### <Thermistor Table>

Ter	Temperature sensor selection		Function	
01	01 Thermostat		Operate according to Thermostat temperature sensor	
02	2 Indoor unit		Operate according to indoor unit temperature sensor	
03	2TH	Cooling	Operate according to higher temperature by comparing indoor unit's and Thermostat's temperature.  (There are products that operate at a lower temperature.)	
		Heating	Operate according to lower temperature by comparing indoor unit's and Thermostat's temperature.	

- \* The function of 2TH has different operation characteristics according to the product.
- \* For the indoor temperature below 10 °F, it displays the value perceived by the sensor of the Thermostat regardless of the temperature sensor setting.

#### Installer Setting - Ceiling Height Selection

This function is to adjust FAN Airflow rate according to ceiling height (For ceiling type product)



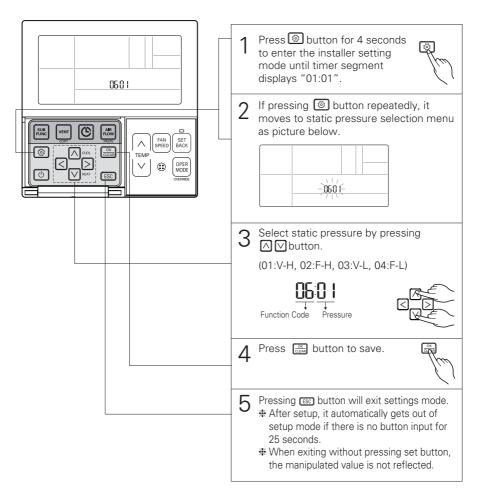
#### <Ceiling Height Selection Table>

Ceiling Height Level		Description		
01	Low	Decrease the indoor airflow rate 1 step from standard level		
02	Medium	Set the indoor airflow rate as standard level		
03	High	Increase indoor airflow rate 1 step from standard level		
04	Very high	Increase indoor airflow rate 2 steps from standard level		

- Ceiling height setting is available only for some products.
- Ceiling height of 'Very high' function may not exist depending on the indoor unit.
- Refer to the product manual for more details.

## Installer Setting - Static Pressure Setting

This function is applied to only duct type. Setting this in other cases will cause malfunction.

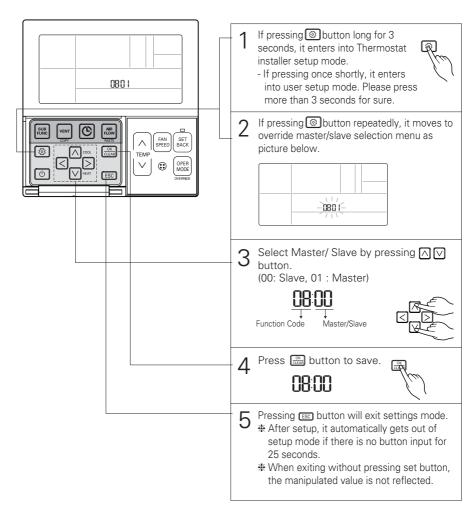


#### <Static Pressure Setting Table>

Pressure selection		Function	
		Zone state	ESP standard value
01	V-H	Variable	High
02	F-H	Fixed	High
03	V-L	Variable	Low
04	F-L	Fixed	Low

#### Installer Setting - Override Master/Slave Setting

Since Multi V II, override master/slave function is to prevent product's different mode operation. If it setup as the slave, It blocks to change opposite run mode to outdoor unit cycle (cooling/heating)

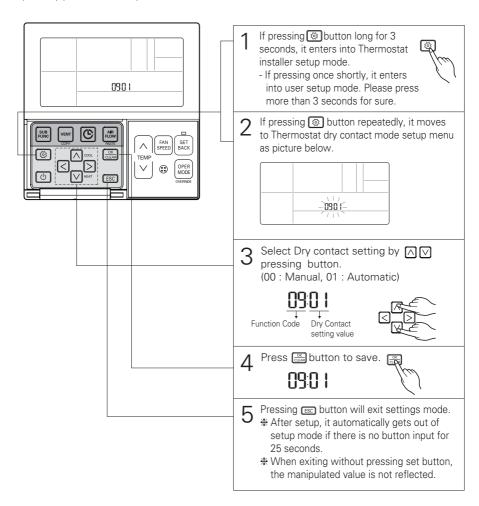


- ₩ Override master/slave selection function is possible to use only when it is connected to the succeeding models of Multi V II series.
- If it is set as Override Slave, INTERLINKED OPER icon is displayed on LCD Display Window.



## Installer Setting - Dry Contact Mode Setting

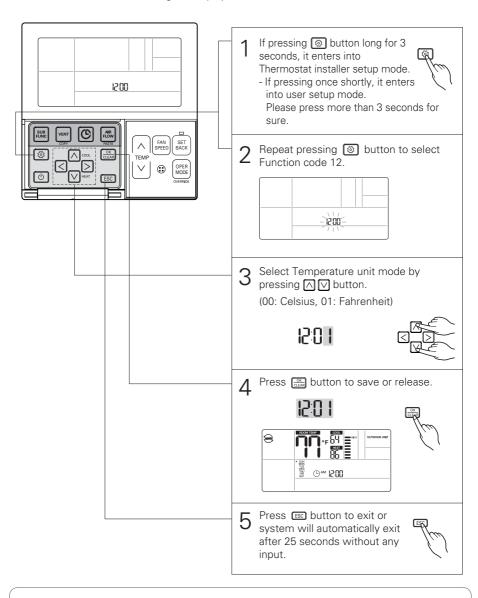
Dry contact function is the function that is possible to use only when dry contact equipment is separately purchased/setup.



- ▶ What is Dry Contact?
  Like hotel card key or occupancy sensor, it is the signal of the point of contact when using air-conditioner by interlocking.
- Please refer to dry contact manual for more details.

## Installer Setting - Fahrenheit / Celsius Switching

This function is used for switching the display between Celsius and Fahrenheit.



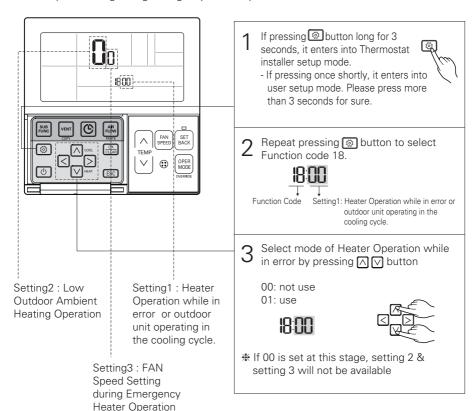
## Installer Setting - Emergency Heater Setting

This function is only available on some products.

This function will set the Emergency Heater Setting.

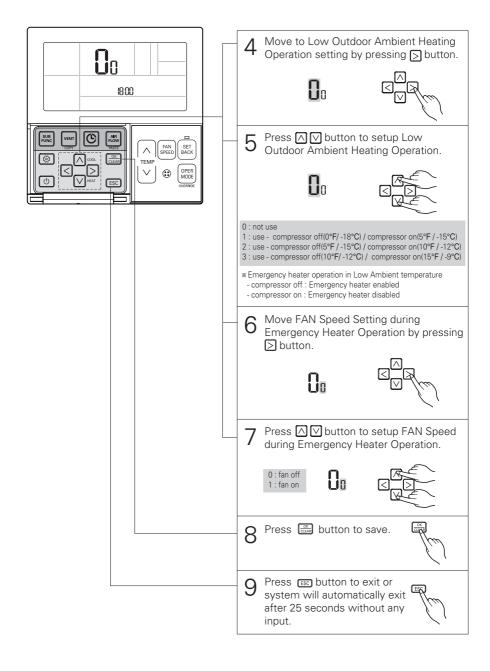
Emergency Heater is used to heat the space in emergency case such as heat pump error. Emergency heat is in place of and does not supplement heat pump.

- \* Emergency Heater setting Function sets following conditions:
  - 1) Emergency Heater operation while in error or outdoor unit operating in the cooling cycle.
  - 2) Emergency Heater operation in Low Outdoor Ambient temperature
  - 3) Fan speed setting during Emergency Heater operation



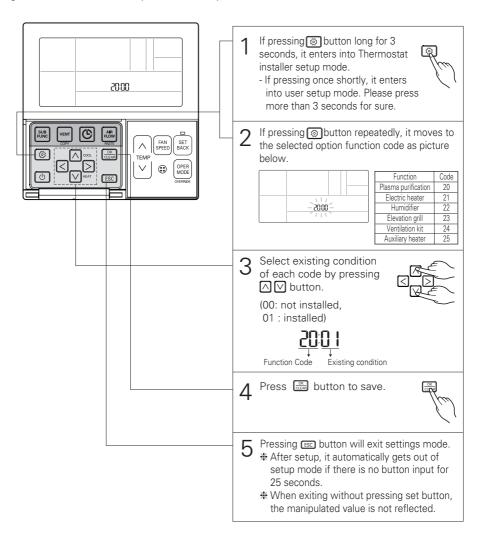


This function setting must be carried out by a certified-technician. Incorrect function setting can cause fire.



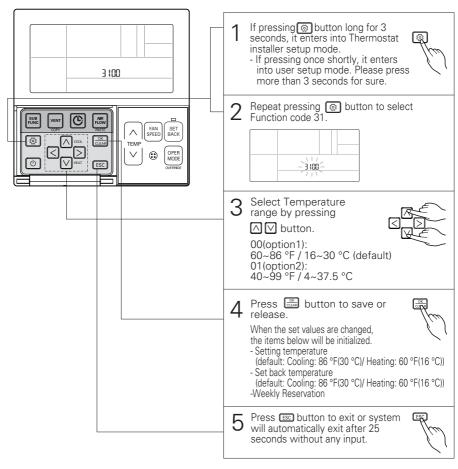
#### Installer Setting - Option Function Setting

Setting feature for indoor unit when plasma purification / electric heater / humidifier / elevation grill / ventilation kit / auxiliary heater is newly installed, or installed unit is removed.



#### Installer Setting - Setting temperature range

This function is used for select setting temperature range option.



In case of the setting temperature range option2(31:01), please note that the setting of the remote controller (with cable) can be altered under below circumstances. (Changes in setting example)

- In case of cooling at 30~37.5 °C(64~99 °F), it is changed to cooling at 86 °F(30 °C).
- In case of heating at 4~15.5 °C(40~86 °F), it is changed to heating at 60 °F(16 °C).
- If it is on the 2Set Mode, it is changed to the current operation mode(cooling or heating) of the indoor unit.

Situation where changes in the setting occur

- a. Operates the Auto address work and pipe search in situations such as product installment and service.
- b. Occurrence of errors and deactivation.
- c. Command generated by the central control, outdoor unit, Dry contact, Remote controller, indoor unit switch.