

Safety Precautions

***This installation manual describes how to install the wired remote controller.
For installation of other optional accessories, refer to the appropriate installation manual.***



WARNING

- ◆ Read carefully this installation manual before installation and check if the wired remote controller is installed correctly after installation.
- ◆ Do not attempt to install or repair this wired remote controller by yourself.
- ◆ This wired remote controller contains no user-serviceable parts. Always consult authorized service personnel for repairs.
- ◆ When moving, consult authorized service personnel for disconnection and installation of the wired remote controller.
- ◆ Ensure that the wall is strong enough to support the weight of the wired remote controller.
- ◆ Must install the wired remote controller with rated power supply.
- ◆ The wired remote controller must be installed according to the national electrical rules by an installation specialist.
- ◆ If you wish to uninstall the wired remote controller, consult an authorized installation center.



CAUTION

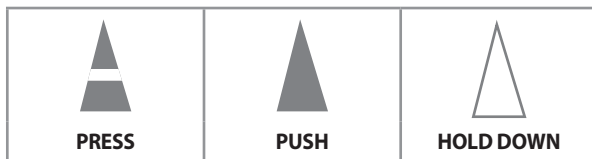
- ◆ Do not use inflammable gases near the wired remote controller.
- ◆ Do not install the wired remote controller in a location where it will come into contact with combustible gases, machine oil, sulphide gas, etc.
- ◆ Avoid locations where acid/alkali solution or special spray is used.
- ◆ Choose a location that is dry and sunny, but not exposed to direct sunlight. Suitable temperature is between 0°C(32°F) and 39°C(102°F) .
- ◆ Do not spill water into the wired remote controller.
- ◆ Do not apply tensile strength to the cable to avoid cable damage.
- ◆ Do not press the buttons with a sharp object.
- ◆ Do not connect the power cable to the control terminal.
- ◆ If the wired remote controller is installed in a hospital or other special places, it should not affect other electronic devices.

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Note

- ◆ The illustrations will help you to understand the symbols displayed in the pictures.
- ◆ The illustrations in the step-by-step procedures use 3 different symbols:



Wired remote controller and Accessories

Accessories

The following accessories are supplied with the air conditioner.

- ◆ The number of each accessory is indicated in parentheses.

Cable Tie (2) 	Cable Clamp (4) 	M4X16 Screw (5) 	Power cable for indoor unit (1) 
Communication cable for indoor unit (1) 	Wire joint (4) 	User's manual (1) 	Installation manual (1) 
10m Connecting wire (1) 			

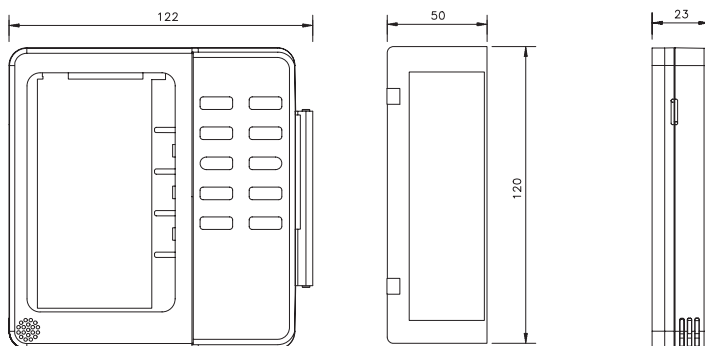


CAUTION

- ◆ **The wired remote controller should be installed by a trained installer.**
- ◆ **Make sure the main power is off before installing the wired remote controller.**
- ◆ **The cables must be installed according to the national wiring regulations and inside the wall for safety reasons.**

Dimension

(Unit : mm)



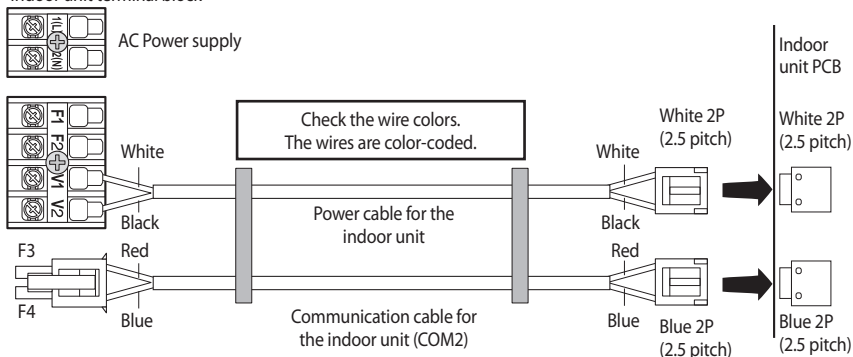
Installing the Wired remote controller

Installing the Power Cables inside of Indoor Unit

This is an explanation of power supply cable and communication cable.
Make sure that you read this thoroughly before installation.

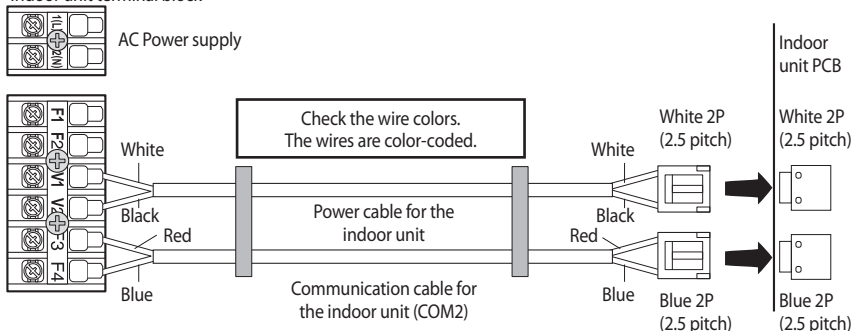
Connector type cable connection

Indoor unit terminal block



Terminal type cable connection

Indoor unit terminal block

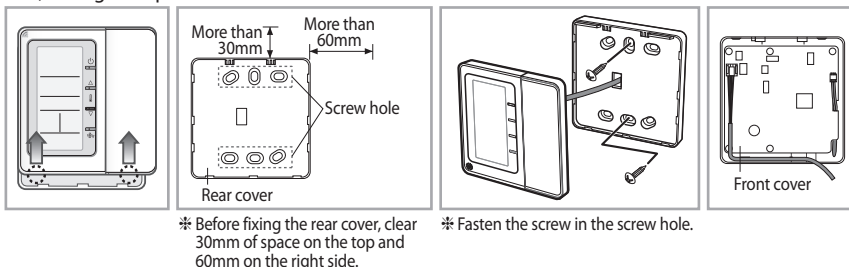


**1 way cassette indoor unit does not contain the power cable.
In this case, use the power cable which is provided with the
wired remote controller.**

Installing the Wired remote controller (Continued)

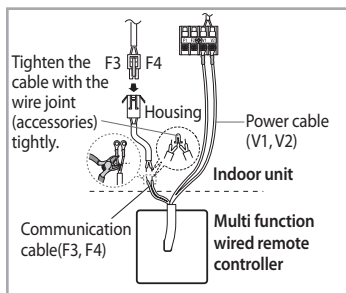
Installation

- 1 Open the wired remote controller by pushing up the top cover of the remote controller while holding the rear cover firmly. The wired remote controller opens in the way of slide.
- 2 Install the rear cover of the wired remote controller on the wall with the supplied screws. After that, arrange the power cables on rear side of the front cover.

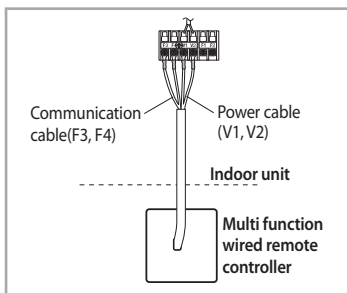


- 3 Connect the yellow and orange wires from the wired remote controller to the power cable (V1, V2) of indoor unit. Connect the red and blue wires to the communication cable (F3, F4) of indoor unit.

Connector type cable connection



Terminal type cable connection



- 4 Reassemble the wired remote controller.
When you reassemble the wired remote controller, match the grooves on the left side.



- ◆ **When using an extension cable, make sure that the communication cable and the power cable is installed separately.**
(If not, it may cause malfunction of the wired remote controller.)
- ◆ **Power cable of the wired remote controller(V1,V2) should be connected to the one indoor unit only.**

Setting the Wired Remote Controller Options

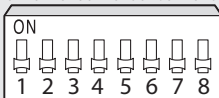
Switch No.	Switch OFF	Switch ON
SW1	Cooling and Heating	Cooling Only
SW2	Allow wireless remote controller	Disable the wireless remote controller
SW3	Master remote controller	Slave remote controller
SW4	Temperature display : °C	Temperature display : °F
SW5	Use the indoor unit Temperature Sensor for the indoor unit control	Use the wired remote controller Temperature Sensor for the indoor unit control
SW6	-	Use the average of the indoor unit sensor and the wired remote controller sensor for the indoor unit control
SW7	Auto mode enable	Auto mode disable
SW8	-	-



CAUTION

◆ Default settings

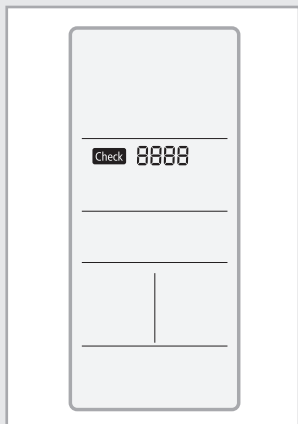
SW1 SW2 SW3 SW4 SW5 SW6 SW7 SW8



DS01

- ◆ **After changing the setting of PCB, make sure to initialize the system.**
 - To initialize the system, press the ,  buttons at the same time for 5 seconds.
- ◆ **If the indoor unit does not support SW5 and SW6 options, indoor unit temperature sensor will be used regardless of the settings.**
- ◆ **You can check the wired remote controller DIP switch settings in menu 15 of additional functions. (Refer to page 29)**
 - You can check it without disassembling the product.

Installing the Wired remote controller (Continued)



<LCD display>

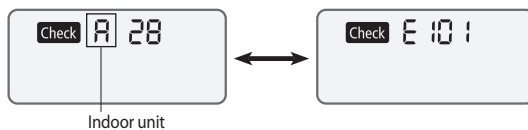
Wired remote controller Error Codes

The error codes of the wired remote controller, indoor unit, outdoor unit are displayed on the LCD display.
Refer to the indoor and outdoor unit technical manuals for the error codes reference.

When the indoor/outdoor unit error occurs

- ◆ Main(COM1) address(A) of the indoor unit where error occurred and error code are displayed in turns.

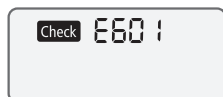
Ex) 101 error occurred in #28 indoor unit



When the wired remote controller error occurs

- ◆ Error code is displayed only. (Address will not be displayed.)

Ex) 601 error occurred in the wired remote controller



Error display priority

- ◆ **Priority 1:** Wired remote controller error > Indoor/Outdoor unit error

Priority 2: Displays master indoor unit error

(Master Indoor unit = Indoor unit whose option switch K10 is set OFF)

Priority 3: Displays the error code of the indoor unit which has earlier Main(COM1) address

Priority 4: Displays the error code of the indoor unit which has earlier COM2 address when Main(COM1) addresses is overlapped

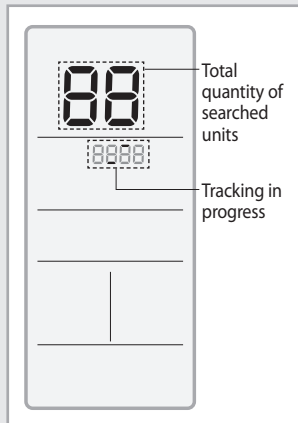
Display	Explanation	Remark
607	- Master error of several units. - Error occurs when 2 wired remote controllers are set as Master and installed in one communication cable. - If communication cable is connected to opposite polarity, detection is impossible. - Error is detected only in Master wired remote controller.	 High Priority
626	- Error of independent ERV installation. - When ERV is installed without an indoor unit. - Error is detected only in Master wired remote controller.	
627	- Slave wired remote controller installation error. - When 2 slave wired remote controllers are installed. - When 1 wired remote controller and 2 slave ERV remote controllers are installed together.	
604	Communication Tracking Error.	
602	- Master↔Slave wired remote controller communication error. - Error is detected only in Slave wired remote controller.	
601	Wired remote controller↔indoor unit/ERV communication error.	
653	Temperature OPEN/SHORT error.	
654	FRAM READ/WRITE error.	
619	- Mixed installation of Celsius(°C)/Fahrenheit(°F) indoor unit error. - Error occurs when indoor units with Celsius(°C)/Fahrenheit(°F) settings are installed together. - Error is detected only in Master wired remote controller.	
620	- Celsius(°C)/Fahrenheit(°F) setting error of the wired remote controller. - Error occurs when the indoor unit is set as Celsius and the wired remote controller is set as Fahrenheit or vice versa. - Change the setting of DIP switch 4 when the 620 error occurs.	
		Low Priority



Refer to the installation manual of each device(Indoor/Outdoor Unit) for error code references.

Installing the Wired remote controller (Continued)

Indoor Unit Tracking with the Wired remote controller



<LCD display>

1 Tracking is started automatically after connecting to the power.

2 To execute tracking again after the installation, press the  and  buttons at the same time for 5 seconds.

◆ System is initialized and tracking will re-start.

3 Total quantity of searched indoor unit is displayed when tracking.



◆ *If the wired remote controller system needs to be resetted, press the  and  buttons at the same time for 5 seconds.*

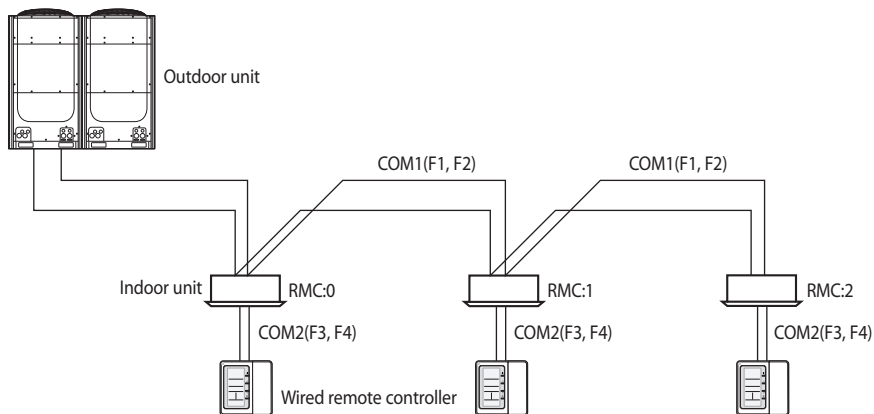
◆ *Total quantity of indoor unit will be displayed in Master wired remote controller.*

- *Slave wired remote controller will not display the total quantity.*

Connecting the Wired remote controller

Individual Control

- ◆ Using one wired remote controller for one indoor unit.



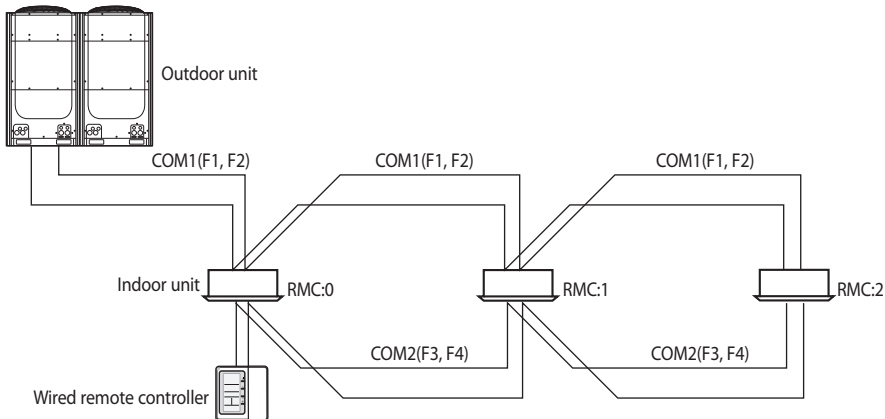
- ◆ **The wired remote controller controls the indoor units, connected to COM2 communication cable, individually regardless of the RMC address.**
- ◆ **Power cable(V1,V2) does not connect between indoor units.**

Installing the Wired remote controller (Continued)

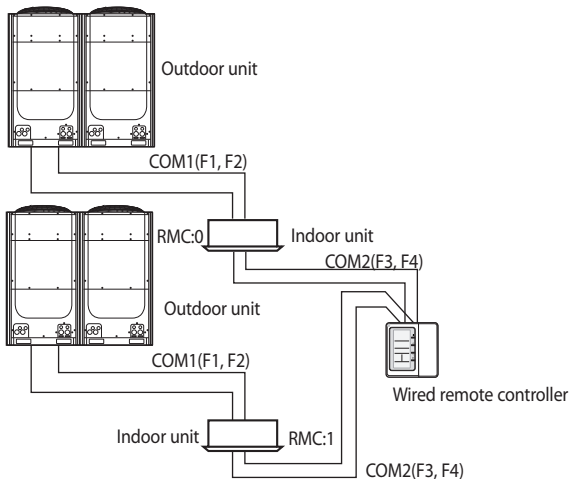
Group Control - indoor units only

Using one wired remote controller for a group of indoor units.

- ◆ Group control of 3 indoor units with one wired remote controller



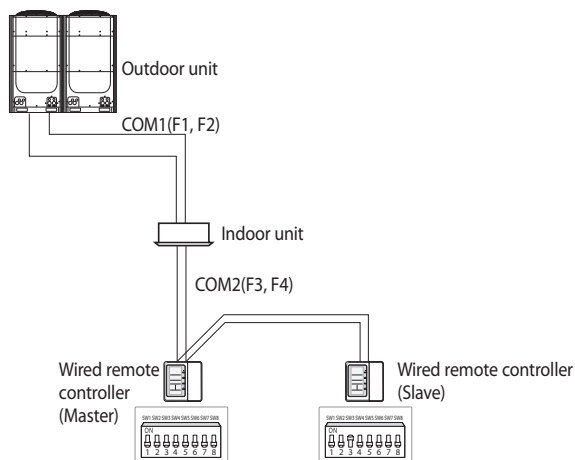
- ◆ Group control of indoor units which is connected to other outdoor unit with one wired remote controller



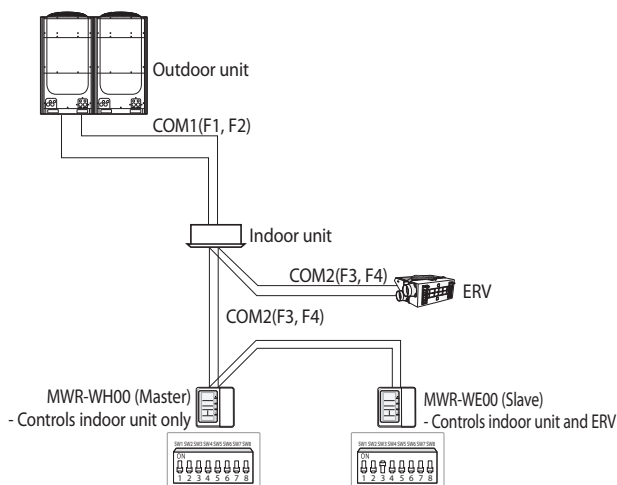
- ◆ ***The wired remote controller controls the indoor units, connected to COM2 communication cable, in group regardless of the RMC address.***
- ◆ ***Maximum 16 indoor units can be controlled as a group.***
- ◆ ***Power cable(V1,V2) does not connect between indoor units.***
- ◆ ***Power cable(V1,V2) should be connected to one indoor unit only.***

Using 2 wired remote controllers-indoor units only

2 wired remote controllers can be used to control a single indoor unit or a group of indoor units.



Using 1 MWR-WH00 and 1 MWR-WE00 - Indoor unit and ERV together



- ◆ **2-wired remote controller controls the indoor units, connected to COM2 communication cable, regardless of the RMC address.**
- ◆ **The ERV is not connected to the MWR-WH00 individually.**
- ◆ **MWR-WE00 and MWR-WH00 are set as Master or Slave remote controller without order.**
- ◆ **MWR-WH00 is not connected with MWR-BS00, MWR-TH01 and MWR-SH00.**

Additional Functions

Service Mode

- ◆ The wired remote controller supports the following service modes.

Menu	Description
1	Monitoring and Setting the Indoor Unit Option Code
2	Monitoring the Indoor Unit Main/Group Address
3	Monitoring the Indoor Unit Cycle Data
4	Monitoring and Setting the Indoor Temperature Compensation for the Wired remote controller
5	Monitoring the RPM Compensation
6	Monitoring the EEV Step for the Stopped Indoor Unit during Heating Mode
7	Monitoring the Filter Time Setting
8	Monitoring the Temperature Compensation Value under Heating Mode
9	Checking the Centralized Control Usage
10	Checking the Drain Pump Usage
11	Checking the Electric Heater Usage
12	Checking the Water Coil Usage
13	Checking the External Control Usage
14	Checking the Connected Indoor Unit Quantity
15	Checking the Wired remote controller PCB Settings
16	Checking the Wired remote controller Software Version

- * In order to access the service mode, hold down the  and  buttons at the same time for 3 seconds.



CAUTION

- ◆ **All the displayed information in service mode is the information of Master indoor unit. Only the Master indoor unit's information will be displayed when more than 2 indoor units are connected.**
- ◆ **If the wired remote controller is connected to an indoor unit which does not support additional functions, only following functions will be available:
- Menu No.4, No.14, No.15 and No.16.**
- ◆ **none will be displayed if the indoor unit does not support the function.**

- * Master indoor unit: Indoor unit with the K10 off
Indoor unit with the earliest Main(COM1) address
In case of the Main(COM1) address is repeated, master indoor unit is selected by random.

Monitoring and Setting the Indoor Unit Option Code

In order to monitor and set the indoor unit option code using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

- The menu will display 1.

Press the  button to enter the indoor unit option code mode.

Note The first digit represents the page number and the remaining five digits are option codes.

- Press the  button to change the page. You can change the page from 0 to 3.

- Press the   buttons and the  button to set the option code in order.

Note The option code which is currently setting will flicker.

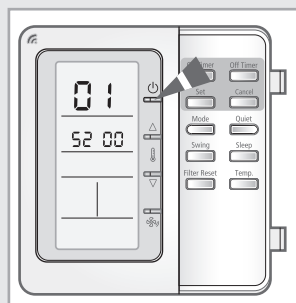
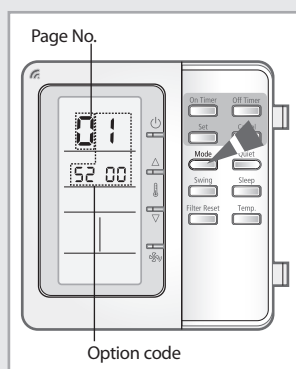
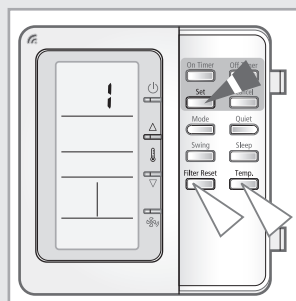
- Press the  button to save the changed setting.

You will move to the menu selection display.

Note Press the  button anytime during setup to exit without setting.



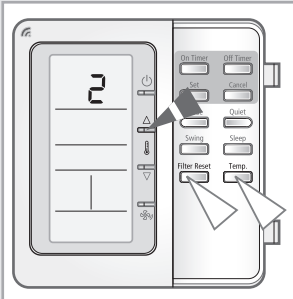
- ◆ **Option code will not be applied if you don't press the  button.**
- ◆ **Setting indoor unit option code is only possible in Master wired remote controller. You can only check the indoor unit option code in Slave wired remote controller.**
- ◆ **Setting indoor unit option code is possible when one indoor unit is connected. If more than 2 indoor units are connected, you can only check the Master indoor unit option code.**



Additional Functions (Continued)

Monitoring the Indoor Unit Main/Group Address

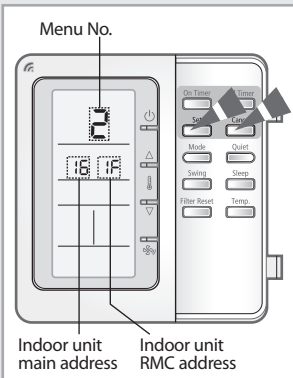
In order to monitor the indoor unit Main/Group Address using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.



- 1 The menu will display 1.
Press the  button and the menu will display 2.

- 2 Press the  button. The main address (decimal notation) and group address (hexadecimal notation) of currently set indoor unit will be displayed.

- 3 Press the  button to exit.
You will move to the menu selection display.



Note Press the  button anytime during setup to exit without setting.

Monitoring the Indoor Unit Cycle Data

In order to monitor the indoor unit cycle data using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

- The menu will display 1.
Press the  button twice and the menu will display 3.

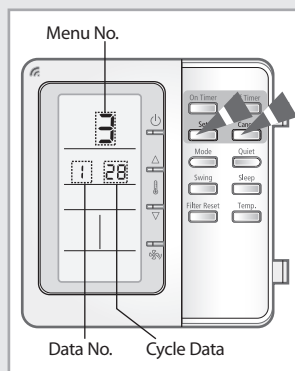
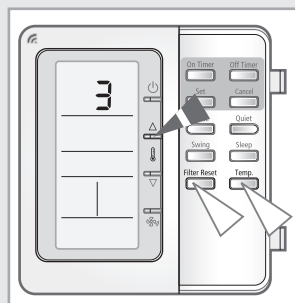
- Press the  button.
The current set temperature(data #1) will be displayed.

- Select the desired menu from 4 digits by using the   buttons.
The first digit represents the menu and the remaining three digits are used for data display.

Data No.	Data
1	Indoor temperature(°C)
2	EVA-IN temperature(°C)
3	EVA -OUT temperature(°C)
4	Indoor unit's EEV step

- Press the  button to exit.
You will move to the menu selection display.

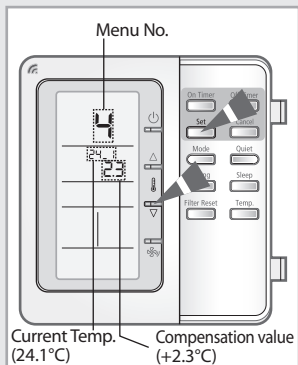
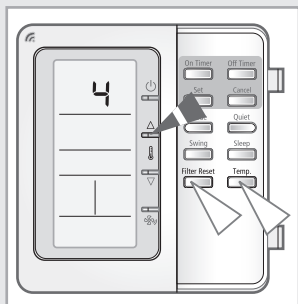
Note Press the  button anytime during setup to exit without setting.



Additional Functions (Continued)

Monitoring and Setting the Indoor Temperature Compensation for the Wired remote controller

In order to monitor and set the indoor temperature compensation using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.



- 1 The menu will display 4.
Press the  button until 4 is displayed.

- 2 Press the  button.
The positive and decimal value of indoor temperature of indoor unit will be displayed in turns. The set compensation value will flicker.

- 3 Press the   buttons to set the compensation value.

Note

- ◆ The temperature will be adjusted by 0.1°C(0.1°F) when the   buttons are pressed.
- ◆ The compensation value range can be set is between -9.9°C~ 9.9°C.

- 4 Press the  button to save the changed setting.
You will move to the menu selection display.

Note

Press the  button anytime during setup to exit without setting.



The compensation value will be maintained even after initialization.

Monitoring the RPM Compensation

In order to compensate for the RPM using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

- The menu will display .
Press the  button until  is displayed.

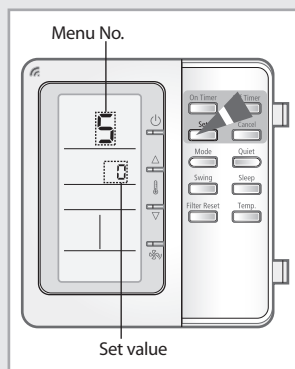
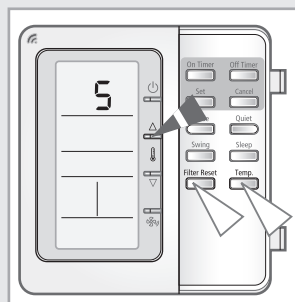
- Press the  button.

The current indoor unit Fan RPM compensation setting state will be displayed.

Value	Data
	RPM compensation used (Indoor unit Dip switch K3: Off)
	No RPM compensation used (Indoor unit Dip switch K3: On (Default))

- Press the  button to exit.
You will move to the menu selection display.

Note Press the  button anytime during setup to exit without setting.

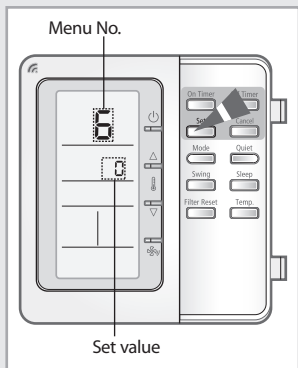
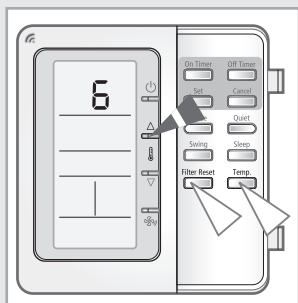


Additional Functions (Continued)

Monitoring the EEV Step for the Stopped Indoor Unit during the Heating Mode

In order to monitor EEV step when the indoor unit is off during heating mode using the wired remote controller, hold down the

Filter Reset and Temp. buttons at the same time for 5 seconds.



- 1 The menu will display 6.
Press the button until 6 is displayed.

- 2 Press the button.

The current indoor unit setting EEV step for the stopped indoor unit during heating mode will be displayed.

Value	Data
0	0 or 80 steps Auto compensation (Indoor unit Dip switch K9: Off)
!	Fixed step to 80(Indoor unit Dip switch K9: On (Default))

- 3 Press the button to exit.
You will move to the menu selection display.

Note Press the button anytime during setup to exit without setting.

Monitoring the Filter Time Setting

In order to monitor the filter time setting using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

- 1 The menu will display .

Press the  button until  is displayed.

- 2 Press the  button.

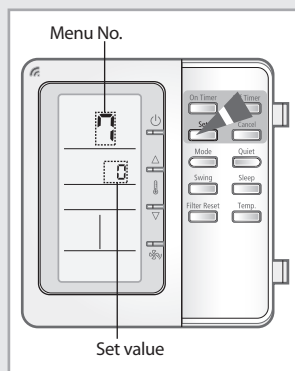
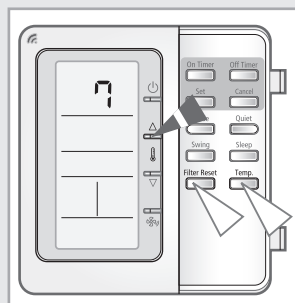
The current indoor unit filter replacement time setting will be displayed.

Value	Data
	Replacement display after 2000 hours (Indoor unit Dip switch K6: Off)
	Replacement display after 1000 hours (Indoor unit Dip switch K6: On (Default))

- 3 Press the  button to exit.

You will move to the menu selection display.

Note Press the  button anytime during setup to exit without setting.

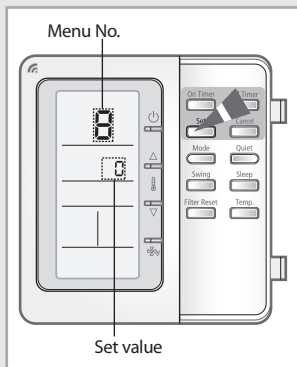
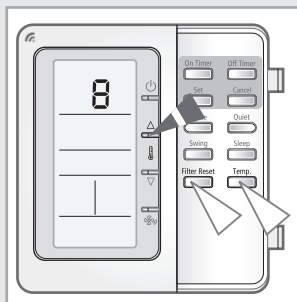


Additional Functions (Continued)

Monitoring the Temperature Compensation Value under the Heating Mode

In order to monitor the temperature compensation value under heating mode using the wired remote controller, hold down the

Filter Reset and Temp. buttons at the same time for 5 seconds.



- 1 The menu will display 8.
Press the  button until 8 is displayed.

- 2 Press the  button.

The setting compensation value of indoor temperature during heating mode will be displayed.

Value	Data
8	5°C (Indoor unit Dip switch K5: Off)
1	2°C [Indoor unit Dip switch K5: On (default)]

◆ In case of 4 way/ mini 4 way cassette

Value	Data
8	2°C (Indoor unit Dip switch K5: Off)
1	5°C [Indoor unit Dip switch K5: On (default)]

- 3 Press the  button to exit.
You will move to the menu selection display.

Note

Press the  button anytime during setup to exit without setting.

Checking the Centralized Control Usage

In order to check the centralized control usage using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

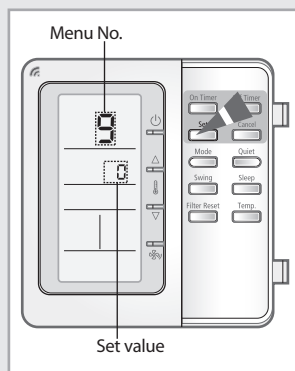
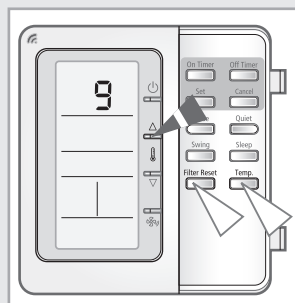
- The menu will display .
Press the  button until  is displayed.

- Press the  button.
The centralized control usage will be displayed.

Value	Data
	Use (Indoor unit Dip switch K2: Off)
	Not Use (Indoor unit Dip switch K2: On(default))

- Press the  button to exit.
You will move to the menu selection display.

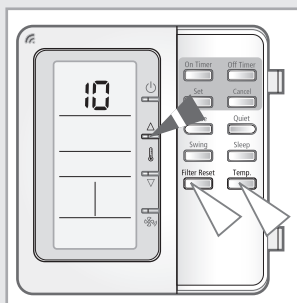
Note Press the  button anytime during setup to exit without setting.



Additional Functions (Continued)

Checking the Drain Pump Usage

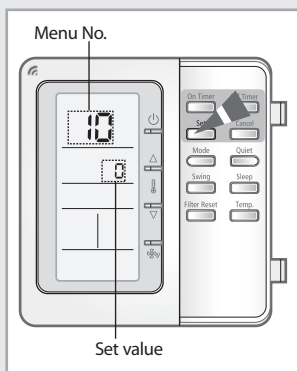
In order to check the drain pump usage using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.



- 1 The menu will display .
Press the  button until  is displayed.

- 2 Press the  button.
The drain pump usage will be displayed.

Value	Data
	Use (Indoor unit Dip switch K4: Off)
	Not Use (Indoor unit Dip switch K4: On(default))



- 3 Press the  button to exit.
You will move to the menu selection display.

Note Press the  button anytime during setup to exit without setting.

Checking the Electric Heater Usage

In order to check the electric heater usage using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

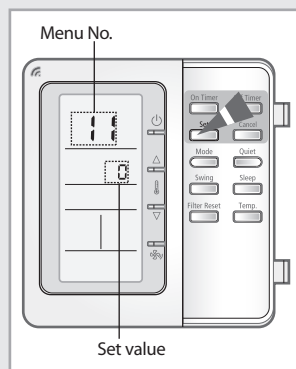
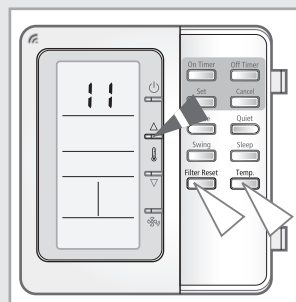
- The menu will display .
Press the  button until  is displayed.

- Press the  button.
The electric heater usage will be displayed.

Value	Data
	Use (Indoor unit Dip switch K8: Off)
	Not Use (Indoor unit Dip switch K8: On(default))

- Press the  button to exit.
You will move to the menu selection display.

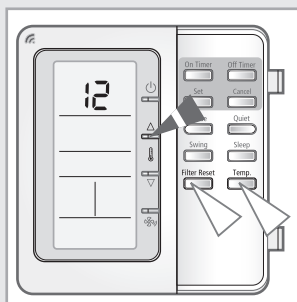
Note Press the  button anytime during setup to exit without setting.



Additional Functions (Continued)

Checking the Water Coil Usage

In order to check the water coil usage using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.



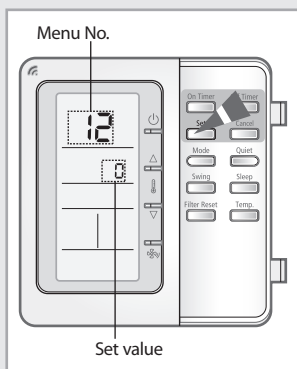
- 1 The menu will display .
Press the  button until  is displayed.

- 2 Press the  button.
The water coil usage will be displayed.

Value	Data
	Use (Indoor unit Dip switch K7: Off)
	Not Use (Indoor unit Dip switch K7: On(default))

- 3 Press the  button to exit.
You will move to the menu selection display.

Note Press the  button anytime during setup to exit without setting.



Checking the External Control Usage

In order to check the external control usage using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

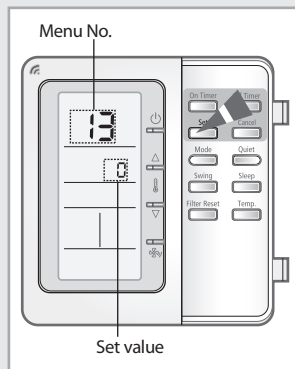
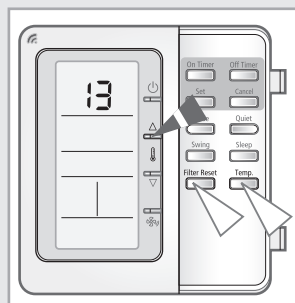
- The menu will display .
Press the  button until  is displayed.

- Press the  button.
The external control usage will be displayed.

Value	Data
	Use (Indoor unit Dip switch K11: Off)
	Not Use (Indoor unit Dip switch K11: On(default))

- Press the  button to exit.
You will move to the menu selection display.

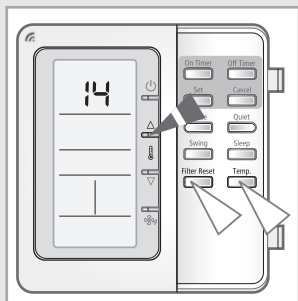
Note Press the  button anytime during setup to exit without setting.



Additional Functions (Continued)

Checking the Connected Indoor Unit/ERV Quantity

In order to check the connected indoor unit/ERV quantity using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.



- 1 The menu will display 1.

Press the  button until 14 is displayed.

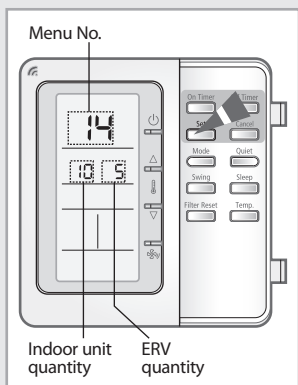
- 2 Press the  button.

The total quantity of connected indoor unit/ERV will be displayed.

Note Indoor unit+ERV quantity: 1~16 units

- 3 Press the  button to exit.

You will move to the menu selection display.



Note

- ◆ Press the  button anytime during setup to exit without setting.
- ◆ The ERV cannot be connected to the wired remote controller without an indoor unit. At least one indoor unit must be connected to the wired remote controller.

Checking the Wired remote controller PCB Settings

In order to check the DIP switch settings using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.

- The menu will display 1.
Press the  button until 15 is displayed.

- Press the  button.
Check the DIP switch value of the wired remote controller.

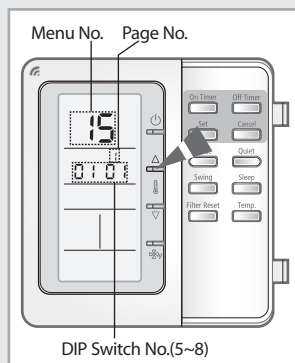
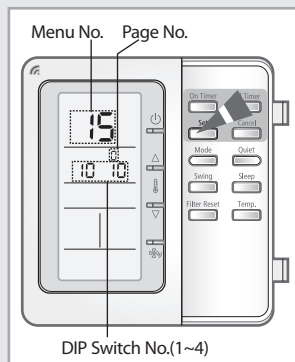
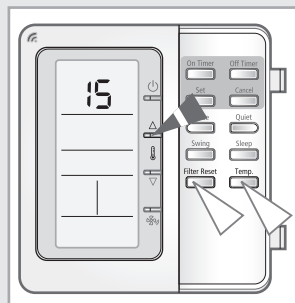
Value	Data
	Switch OFF
	Switch ON

- To change the page, press the   buttons.

Page No.	Data
	Set value of DIP switch 1~4
	Set value of DIP switch 5~8

- Press the  button to exit.
You will move to the menu selection display.

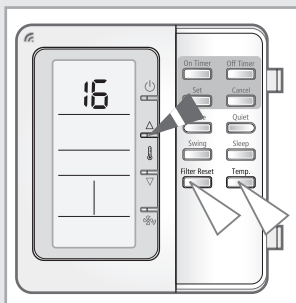
Note Press the  button anytime during setup to exit without setting.



Additional Functions (Continued)

Checking the Wired remote controller Software Version

In order to check the wired remote controller software version using the wired remote controller, hold down the  and  buttons at the same time for 5 seconds.



- 1 The menu will display .

Press the  button until  is displayed.

- 2 Press the  button.

Wired remote controller software version will be displayed.

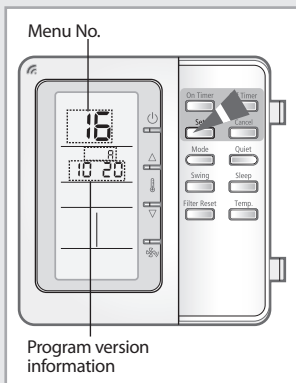
Note Program version information: Displays program code

Ex) When the program code is DB91-01020A,
it will be displayed as  .

- 3 Press the  button to exit.

You will move to the menu selection display.

Note ♦ Press the  button anytime during setup to exit without setting.



Memo

