Air conditioner

Installation manual

Wired remote controller MWR-SH00N

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

SAMSUNG

Contents

The lowest set temperature is limited to 20 degree in the UAE according to UAE.S 5010-5:2016.

Safety Precautions

This installation manual explains how to install a Wired Remote Controller connected to the indoor unit of your Samsung system air conditioner. Please read this manual thoroughly before installing the product.

(Please refer to appropriate installation for any optional product installation.)

⚠ **WARNING**	Hazards or unsafe practices that may result in **severe personal injury or death.**
⚠ **CAUTION**	Hazards or unsafe practices that may result in minor **personal injury or property damage.**

⚠ WARNING

Contact a service center for installation.

▶ Potential risk of malfunction, water leak, electric shock and fire.

Install the product with proper power supply.

▶ Potential risk of fire or product damage.

Consult the place of purchase or a contact center to disassemble or repair the product.

▶ Potential risk of malfunction, electric shock, or fire.

The electric work must be done by qualified person according to national wiring regulations and installation guide.

▶ If an unauthorized person performs the installation, any resulting defects can cause malfunctions, electrical shocks, or fire accidents.

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

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

Do not move or reinstall the product on your discretion.

▶ Potential risk of electric shock or fire.

Check if the installation work is done correctly according to the installation manual.

▶ Incorrect installation may cause electric shock or fire.

When you want to dispose your Wired Remote Controller, ask the service center.

Safety Precautions

⚠️ **CAUTION**

Do not install the product where there's combustible gas.

▶ Potential risk of fire and explosion.

Ensure no water gets into the Wired Remote Controller.

▶ Potential risk of electric shock or fire.

Install the air conditioner away from direct exposure to sunlight, in room temperature range of 0 ℃(32 ℉) ~ 39 ℃(102 ℉).

▶ Potential risk of electric shock or malfunction.

Do not handle the product with sharp objects.

▶ Potential risk of electric shock or product damage.

Do not install the product in areas exposed to oil or vapor.

▶ Potential risk of product damage or malfunction.

Do not put undue stress on the power cable.

▶ Potential risk of broken cable and fire.

Do not install the product in areas with frequent use of acid or alkali spray.

▶ Potential risk of electric shock or product malfunction

**Do not connect power cable to a communication terminal.**

▶ Potential risk of fire.

Be cautious not to interfere any other electrical devices if the product is installed in a place such as hospital.

▶ Potential risk of product malfunction.

Before installation

Optional accessories

Wired Remote Controller (1)	Cable Tie (2)	Cable Clamp (2)	M4X16 Screw (2)	User Manual (1)	Installation Manual (1)	U Terminal (3)

⚠ **CAUTION**
- The Wired Remote Controller should be installed by an installation expert.
- Check and confirm the power is off before installing your Wired Remote Controller.
- Install the Wired Remote Controller cables in accordance with the electrical wiring rules, and allow it to pass through the inner area of the wall so that other people can't reach it.

External Dimensions

[Unit : mm(inch)]

122.0 (4.80)

75.0 (2.95)

16.6 (0.65)
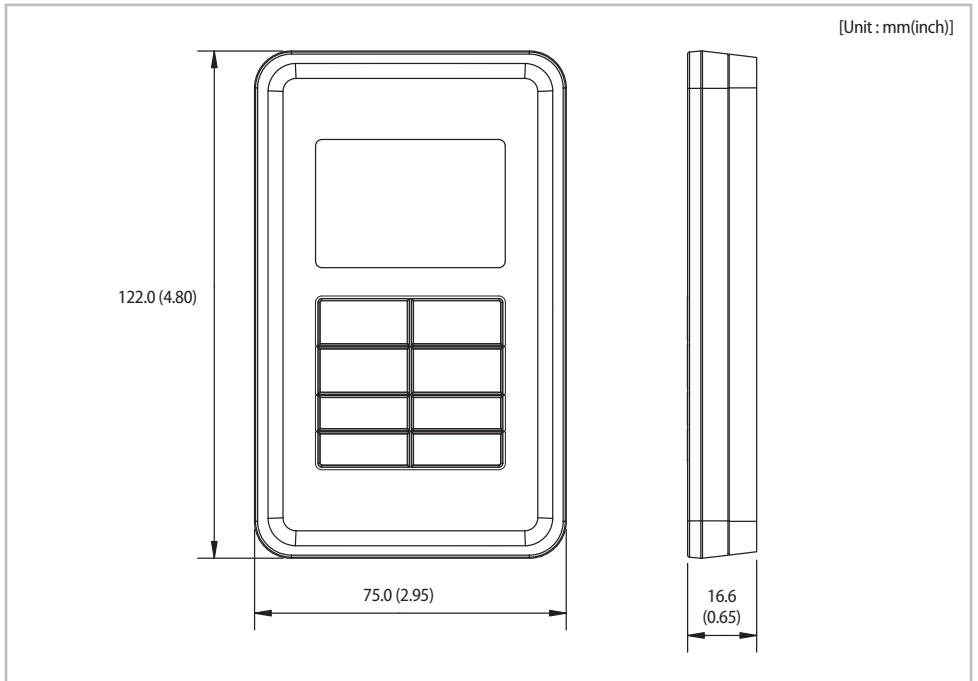
Wired Remote Controller Installation

Wired remote controller installation

1. Hold the bottom part of the wired remote controller's front cover and push it up to separate it from the back cover.
   - Wired remote controller has a slide-open type front cover. (Front cover can be opened and removed simply by holding the front cover and pushing it up)
2. Fix the Back cover of the wired remote controller on the wall by using 2 screws.
3. Connect the F3, F4 terminal of the indoor unit PCB to the F3, F4 terminal of the wire remote controller.
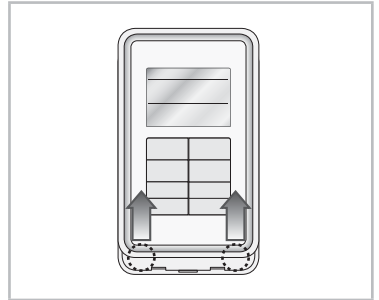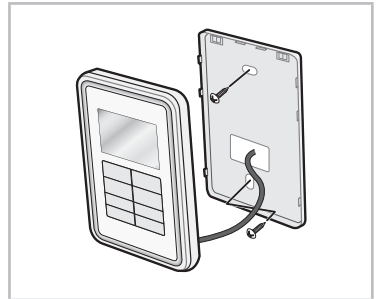
4. Arrange the communication cable according to the installation environment.
   - When wired remote controller is concealed to the wall:
     Withdraw the cable through the hole in the middle of the back cover.

   - When wired remote controller is mounted on the wall:
     Decide the direction of the cables to withdraw and remove the thin part of plastic (circled part in the illustration) in front and back cover.
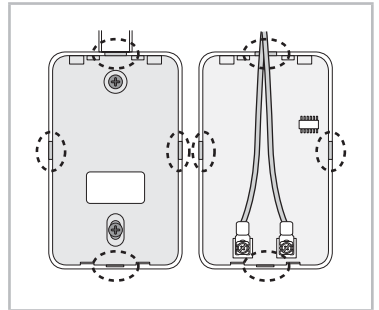
   - When withdrawing the cable through the top of the wired remote controller using a cable molding:
     Cut at least 1 cm of cable molding on the side that is closed to the wired remote controller, so that cable molding does not interfere with opening/closing of the front cover.
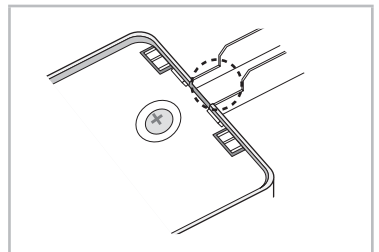
5. Re-assemble the wired remote controller.

⚠ **CAUTION**

- When installing a Wired Remote Controller by using a cable longer than 10 m(32.80 ft), you must install the communication cable and the AC power cable separately. (Electrical interference can cause your Wired Remote Controller to malfunction.)
- When installing your Wired Remote Controller on the wall, consider the size of the wire hole, and select a wire with a proper thickness.
- Wire that is connectable to Wired Remote Controller PCB.
    - If you install the Wired Remote Controller by reclaiming, install it according to U-terminal cable specification.
    - If you install the Wired Remote Controller by using two pieces of PVC wire, remove the 30 cm(12 inch) of the sheath of the cable and install it only with the two pieces of wires. (Recommended specification: AWG20)
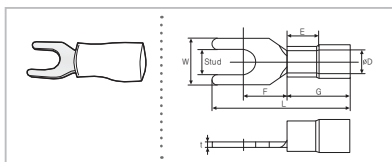- The following are the specs of the compression ring terminal connected to your Wired Remote Controller PCB.

Range of Permitted Wires		Rated Size	Stud Size	Basic Size [mm (inch)]						
AWG	mm² (inch²)	mm² (inch²)	mm (inch)	t	øD	G	E	F	W	L
22~16	0.25~1.65 (0.0003 ~ 0.0025)	1.5 (0.0023)	3 (0.1181)	0.7 (0.0275)	3.8 (0.1496)	10.0 (0.3937)	4.5 (0.1771)	6.5 (0.2559)	6.0 (0.2362)	21.2 (0.8346)

✳ Maximum distance for connecting communication and power cable: 100 m(3.280 ft)

- Screws on the PCB terminal must be tightened with less than 6 N•cm tightening torque. If the tightening torque is greater, it may damage the screw thread.

Wired Remote Controller Installation

Tracking Your Indoor Unit from the Wired Remote Controller

Displays the total number of units searched

Indicates tracking in progress
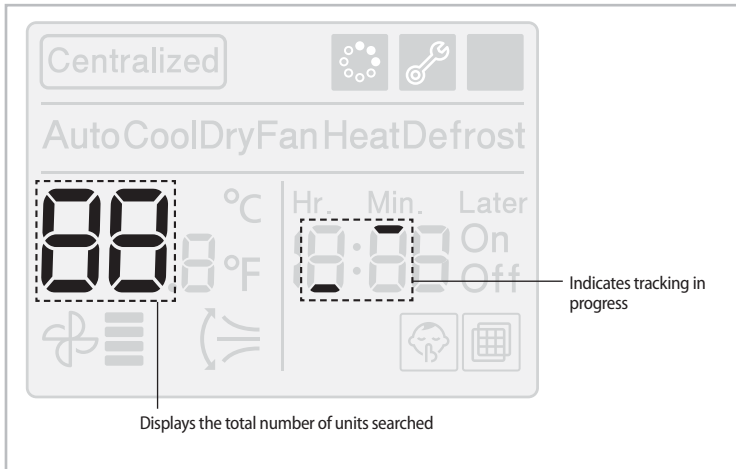
1. Tracking of your Wired Remote Controller will automatically start when you turn on the power after installation.
2. If you want to perform tracking again after installation, then press the **[∧]** and **[Set]** buttons at the same time for more than five seconds.
   - The system will reset, and tracking will start again.
3. During tracking, the total number of currently searched indoor units will be displayed.
4. It may take about 5 minutes at initial installation or when you re-set the Power Master setting.

⚠ CAUTION
- If you want to perform tracking again after installation, then press the **[∧]** and **[Set]** buttons at the same time for more than five seconds.

Individual Control with Your Wired Remote Controller

Individual control means that you are using one remote controller to control one indoor unit.

Outdoor Unit		
COM1(F1, F2)	COM1(F1, F2)	
Indoor Unit	Indoor Unit	Indoor Unit
COM2(F3, F4)	COM2(F3, F4)	COM2(F3, F4)
Wired Remote Controller	Wired Remote Controller	Wired Remote Controller

⚠ CAUTION
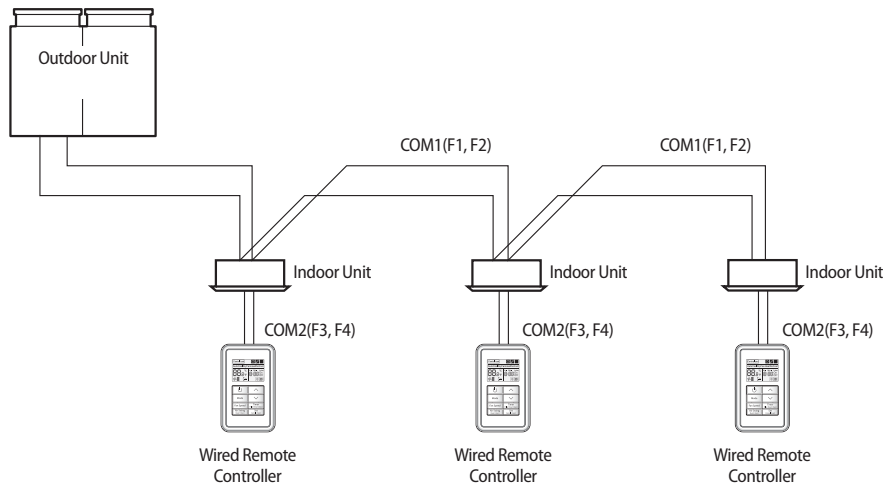
• Regardless of the indoor group address (RMC address) only the indoor unit connected to COM2 is individually controlled.

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Wired Remote Controller Installation

Group Control with Your Wired Remote Controller

Group control means that you are using one Wired Remote Controller to control two or more indoor units at the same time.

1. Using One Wired Remote Controller to control three indoor Units
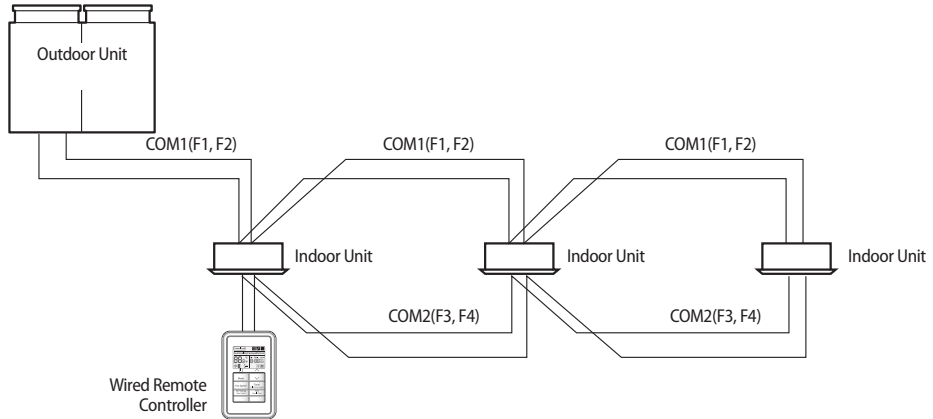
2. Using One Wired Remote Controller to control indoor units connected to different outdoor unit

⚠ **CAUTION**
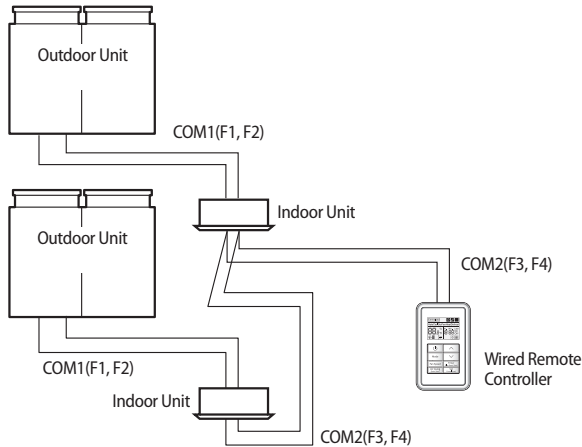
- Regardless of the indoor unit's group address (RMC address), only the indoor units connected to COM2 are controlled in group.
- Regardless of your outdoor units, you can control a maximum of 16 indoor units as a group.
- When controlling group of indoor units connected to different outdoor unit, address of the each outdoor unit must be set differently.

Controlling 2-Remote controller

2-Remote controller is controlling one indoor unit or a group of indoor units with two remote controllers.

Outdoor Unit

COM1(F1, F2)

Indoor Unit

COM2(F3, F4)

Wired Remote Controller (Main)

Wired Remote Controller (Sub)
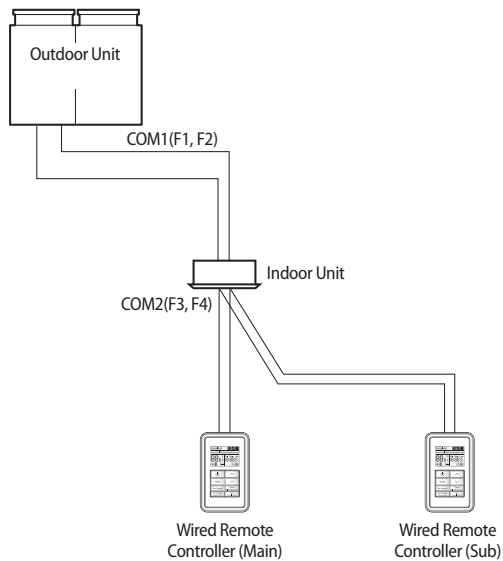
⚠ CAUTION
- For the sub Wired Remote Controller settings, please refer to the sections about the additional functions of the Wired Remote Controller. (Refer to 'Additional Functions of Your Wired remote Controller')
0 : Main, 1 : Sub

Wired Remote Controller Installation

Initializing Your Wired Remote Controller Communication

If the number of indoor unit is decreased while you are using your remote control to control one indoor unit or a group of indoor units, then you need to initialize your remote controller communication.

Press the [∧] and **[Set]** buttons at the same time for more than five seconds.
► Your Wired Remote Controller will be initialized, and the device will search for the indoor units connected to your Wired Remote Controller again.
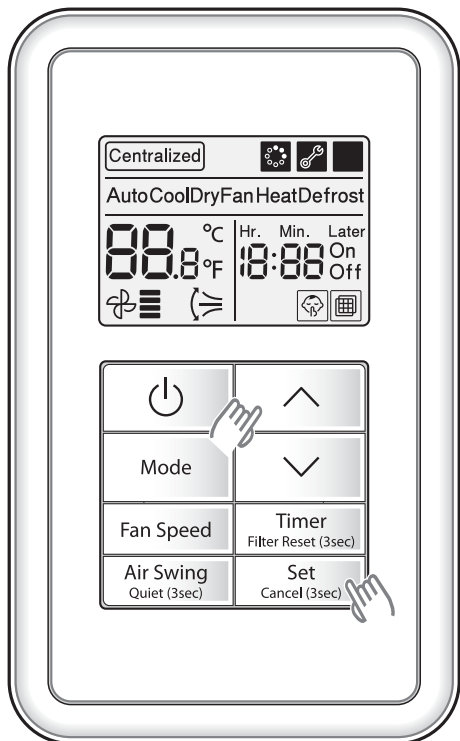
Errors Displayed on Your Wired Remote Controller

Error codes for the Wired Remote Controller and the product connected to your Wired Remote Controller will be displayed in the LCD display.
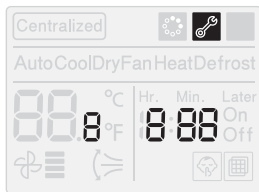
LCD Display

When an Error Occurs in Your Indoor/Outdoor Units (Product Group Display: A)

▶ The product address for the error will be displayed, followed by the error code.
Example : Error 101 occurs for Indoor Unit no. 10 (Decimal digits)

Indoor Unit

Outdoor unit address
(hexadecimal digits)

Indoor unit address
(hexadecimal digits)
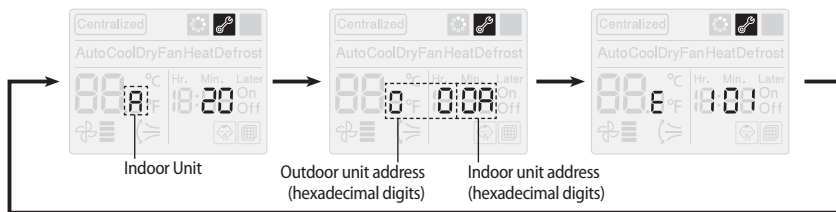
When an Error Occurs in Your Wired Remote Controller

▶ Only an error code will be displayed. (No address will be displayed.)
Example : Error 601 has occurred at your Wired Remote Controller.
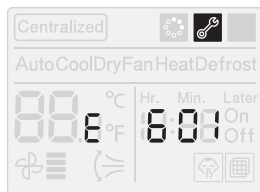
Wired Remote Controller Installation

Wired Remote Controller Error Codes

Display	Description
601	Communication error between wired remote controller and indoor units (When communication is lost for over 3 minutes after detecting the indoor unit and the wired remote controller)
602	No communication between Main and Sub wired remote controllers.
604	No communication between wired remote controller and indoor units
618	- Exceeded maximum number of indoor unit connection (16 rooms) - Reset is required after checking the number of indoor units
627	Two or more wired remote controllers set as Sub.
654	EEPROM Error

⚠ CAUTION
• For the error codes for your indoor/outdoor units, refer to the installation manual of each device.

📋 NOTE
[Setting/Cancelling the Mode master indoor unit]
• Mode master indoor unit setting is simply selecting an indoor unit that will become standard among many indoor units to prevent mixed operation (which one or more indoor units operating in different operation mode).
  - Setting: Connect just 1 indoor unit and stop the operation. Then press and hold the **[Mode]** button for 5 seconds to set the indoor unit as 'Mode master indoor unit'.
  - Cancelling: Connect just 1 indoor unit and stop the operation. Then press and hold the **[Fan Speed]** button for 5 seconds to cancel the 'Mode master indoor unit' setting.
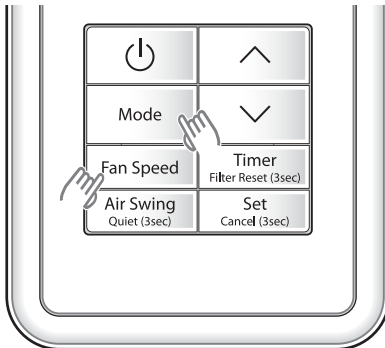
Wired Remote Controller Installation/Service Mode

Additional Functions of Your Wired Remote Controller

1. If you want to use the various additional functions for your Wired Remote Controller, press the **[Mode]** and **[Set]** buttons at the same time for more than three seconds.
▶ You will enter the additional function settings, and the main menu will be displayed.

2. Refer to the list of additional functions for your Wired Remote Controller on the next page, and select the desired menu.
▶ Using the **[∧]/[∨]** buttons, select a main menu number and press the **[Timer]** button to enter the sub-menu setting screen.
▶ Using the **[∧]/[∨]** buttons, select a sub-menu number and press the **[Timer]** button to enter data setting screen.
▶ When you enter the setting stage, the current setting will be displayed.
▶ Refer to the chart for data settings.
▶ Using the **[∧]/[∨]** buttons, select the settings. Press the **[Timer]** button to move to the next setting.
▶ Press the **[Set]** button to save the settings and exit to the sub-menu setting screen.
▶ Press the **[Air Swing]** button to exit to normal mode.

| NOTE | • While setting the data, you can use the **[Fan Speed]/[Timer]** buttons to set the range of Data bit. |
| | • While configuring the setting, press the **[Air Swing]** button to exit to the setting sub-menu without saving your changes. |

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Wired Remote Controller Installation/Service Mode

Additional Functions of Your Wired Remote Controller

> **NOTE**
> - 'NONE' will be displayed if the indoor unit does not support the function. In some cases, the setting may not possible or it may be not applied though it is set on the unit.
> - If communication initialization is needed after the setting, the system will reset automatically and communication will be initialized.

Main Menu	Sub Menu	Function		Default	Number of pages	Description	Remarks
0	1	Reset	Reset option setting of the wired remote controller	0	1	0 - Disable, 1 - Reset	
	2		Reset wired remote controller as factory default setting	0	1	0 - Disable, 1 - Reset	
	3		Power Master Reset 4)*	0	1	0 - Disable, 1 - Reset	
	4		Addressing Reset	0	1	0 - Disable, 1 - Reset	
1	1	Wired remote controller information	Check the number of indoor units	0	1	0~16	
	2		Check the number of ERV units	0	1	0~16	No function
	3		Check the Micom Code of wired remote controller	none	3	Micom code	
	4		Check the program version of wired remote controller	none	3	Updated date	
2	1	Address/ option setting 2)*	Indoor unit setting (Target)	View Master	3	Address of the registered device	
	2		Set/Check the MAIN address of the indoor unit	Main address of the target	1	MAIN address [00H~4FH (hexadecimal digits)]	
	3		Set/Check the RMC address of the indoor unit	RMC address of the target	1	Group address [00H~FEH (hexadecimal digits)] 5)*	
	4		Set/Check the product option of the indoor unit	Basic option of the target	10 1)*	Indoor unit option code	
	5		Set/Check the installation option 1 of the indoor unit	Install option of the target	10 1)*	Refer to the installation manual of the connected indoor unit	
	6		Set/Check the installation option 2 of the indoor unit	Install (2) option of the target	10 1)*	Refer to the installation manual of the connected indoor unit	
	7		MCU/Port address setting	MCU address of target	2	MCU address (00 to 15) Port address (A to F)	
3	1	Set/Check View Master	Set/check indoor unit View Master	Indoor Units View Master	3	Address of the registered device	
	2		Set/check ERV unit View Master	ERV View Master	3	Address of the registered device	No function
4	1	Checking the address of mode master indoor unit	Check the address of the mode master indoor unit	none	3	Address of the mode master indoor unit	
	2		Set the mode msater indoor unit 3)*	none	1	0-Disable, 1-Enable, 2-Cancel	

Main Menu	Sub Menu	Function		Default	Number of pages	Description	Remarks
5	1	Set/Check the optional function of the wired remote controller	Set Cooling&Heating/Cooling only indoor unit	0	1	0-Cooling&Heating, 1-Cooling only	
	2		Wireless remote controller usage	1	1	0 - Disable, 1 - Enable	
	3		Setting Main/Sub wired remote controller	0	1	0 - Main, 1 - Sub	
	4		Auto mode usage	1	1	0 - Disable, 1 - Enable	
	5		Temperature display (℃/℉)	0	1	0 - Celsius (℃), 1- Fahrenheit (℉)	
	6		Temperature adjustment unit (0, 1, 2) [Available when temperature display is set to Celsius (℃)]	0	1	0 - 1℃, 1 - 0.5℃, 2 - 1℃	

1)* The total option codes are 24 digits. You can set six digits at a time and it is distinguished by page number.

- Press the **[Timer]** button to go to the next page.

⚠ **CAUTION**

- Option setting is from SEG1 to SEG24.
  - SEG1, SEG7, SEG13, SEG19 cannot be set and will not be displayed.
  - SEG2 is a type of option and it cannot be set.
  - ON will be displayed when setting the SEG2~SEG6 and SEG8~SEG12 and OFF will be displayed when setting the SEG14~18 and SEG20~24.

SEG1	SEG2	SEG3	SEG4	SEG5	SEG6	SEG7	SEG8	SEG9	SEG10	SEG11	SEG12
0	X	X	X	X	X	1	X	X	X	X	X
SEG13	SEG14	SEG15	SEG16	SEG17	SEG18	SEG19	SEG20	SEG21	SEG22	SEG23	SEG24
2	X	X	X	X	X	3	X	X	X	X	X

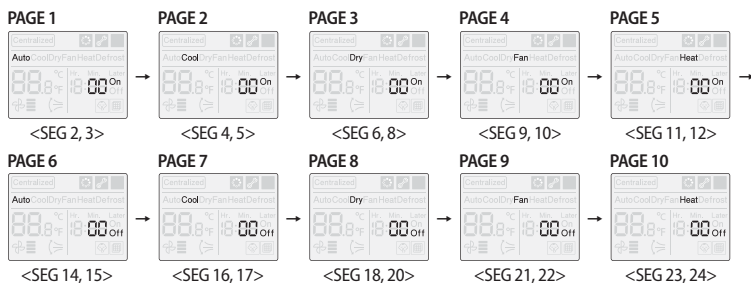| On(SEG1~12)	Off(SEG13~24)

- Check the operation mode indicator, ON and OFF indicator to distinguish which SEG are displayed.

  SEG2~SEG6, SEG8~SEG12

  - ON (Auto → Cool → Dry → Fan → Heat)

  SEG14~SEG18, SEG20~24

  - OFF (Auto → Cool → Dry → Fan → Heat)

PAGE 1	**PAGE 2**	**PAGE 3**	**PAGE 4**	**PAGE 5**
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PAGE 6	**PAGE 7**	**PAGE 8**	**PAGE 9**	**PAGE 10**
<SEG 14, 15>	<SEG 16, 17>	<SEG 18, 20>	<SEG 21, 22>	<SEG 23, 24>

Wired Remote Controller Installation/Service Mode

2)* When setting the address/option, you can set the target indoor unit by selecting submenu 1.

3)* Setting is available when there is only 1 indoor unit connection and while the indoor unit operation is not operating.

4)* Power Master Reset is a setting needed to supply optimized power to wired remote controller when multiple indoor units are connected to wired remote controller in a group.

5)* RMC(1) : 0~F / RMC(2) : 0~F (hexadecimal digits)
    When RMC(1) is set as F, RMC(2) setting is only available up to E. (RMC(1): Group channel, RMC(2): Group address)

NOTE

• Main address of the indoor unit is displayed in hexadecimal digits. Please refer to the following table.

| Hexadecimal	Decimal	Hexadecimal	Decimal	Hexadecimal	Decimal	Hexadecimal	Decimal	Hexadecimal	Decimal
00	0	10	16	20	32	30	48	40	64
01	1	11	17	21	33	31	49	41	65
02	2	12	18	22	34	32	50	42	66
03	3	13	19	23	35	33	51	43	67
04	4	14	20	24	36	34	52	44	68
05	5	15	21	25	37	35	53	45	69
06	6	16	22	26	38	36	54	46	70
07	7	17	23	27	39	37	55	47	71
08	8	18	24	28	40	38	56	48	72
09	9	19	25	29	41	39	57	49	73
0A	10	1A	26	2A	42	3A	58	4A	74
0B	11	1B	27	2B	43	3B	59	4B	75
0C	12	1C	28	2C	44	3C	60	4C	76
0D	13	1D	29	2D	45	3D	61	4D	77
0E	14	1E	30	2E	46	3E	62	4E	78
0F	15	1F	31	2F	47	3F	63	4F	79

The example of Wired Remote Controller option setting method
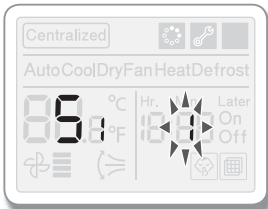
1. Press **[Mode]** and **[Set]** buttons at the same time for more than 3 seconds.
▶ When Main menu is displayed, press the **[∧]/[∨]** button to select no.5.
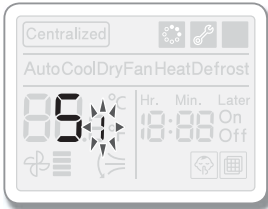
2. Press **[Timer]** button to select the number you will set.
▶ Press **[∧]/[∨]** button and select no.1
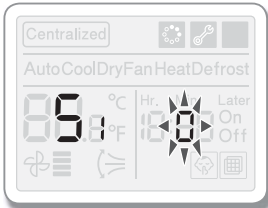
3. Press **[Timer]** button to enter the data setting stage.
▶ When you enter the setting stage, the current setting value will be displayed.

4. Press **[∧]/[∨]** button to select no.1.
▶ The wired remote controller option is set from both cooling and heating to cooling only.

5. Press **[Set]** button to complete the option setting.
▶ Save the setting value and exit to sub menu.

6. Press **[Air Swing]** button to exit to normal mode.