

Air conditioner

Installation manual

Wired remote controller

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

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Safety Information

California Proposition 65 Warning (US)

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

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 minor personal injury or property damage.

⚠ WARNING

Contact a service centre for installation.

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

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.

Install the product with proper power supply.

- Potential risk of fire or product damage.

Do not move or reinstall the product on your discretion.

- Potential risk of electric shock or fire.

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

- Potential risk of malfunction, 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.

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.

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

⚠ CAUTION

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

- Potential risk of fire and explosion.

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

- Potential risk of product damage or malfunction.

Ensure no water gets into the Wired Remote Controller.

- Potential risk of electric shock or fire.

Do not put undue stress on the power cable.

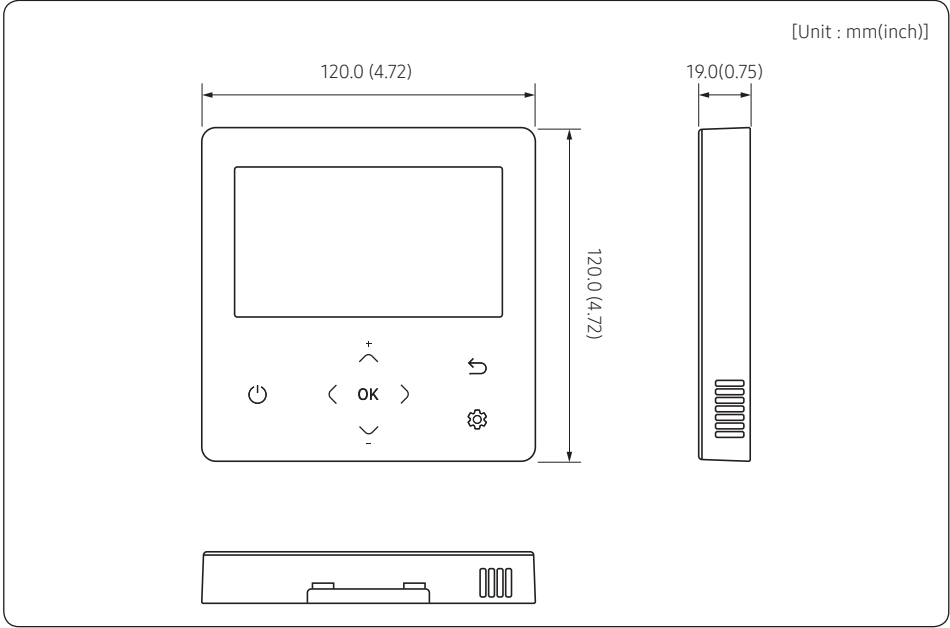
- Potential risk of broken cable and fire.

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

- Potential risk of electric shock or malfunction

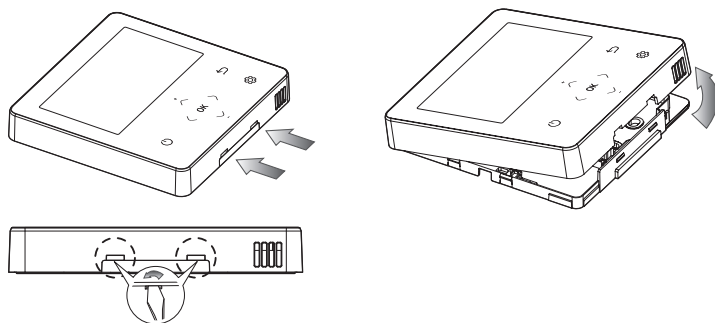
Wired Remote Controller Installation

External Dimensions

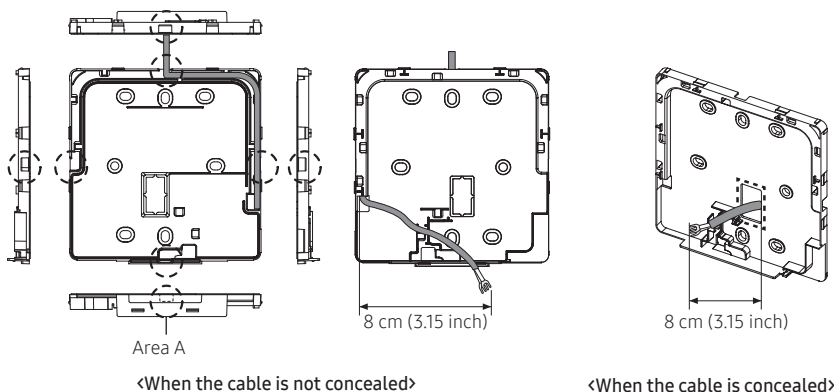


Wired Remote Controller Installation

- 1 Insert the flat-head screwdriver into two square grooves at the bottom of the Wired Remote Controller and rotate it to lift the front cover for removal from the rear cover.



- 2 Arrange the power cable and the communication cable so that they fit in the housing along the edges of the rear cover.

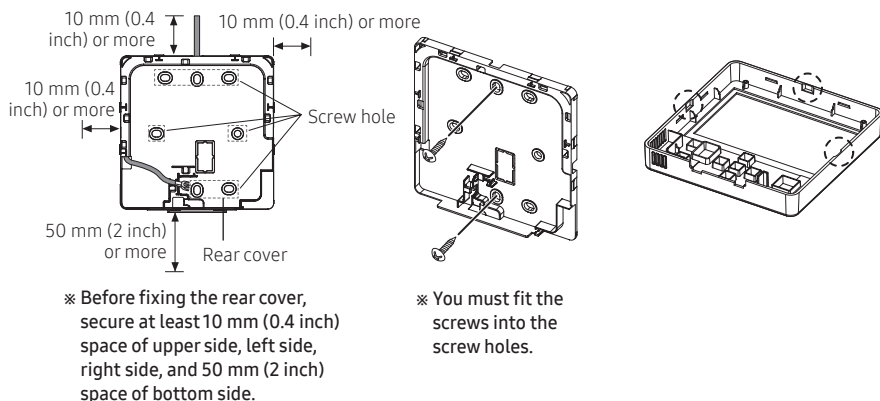


NOTE

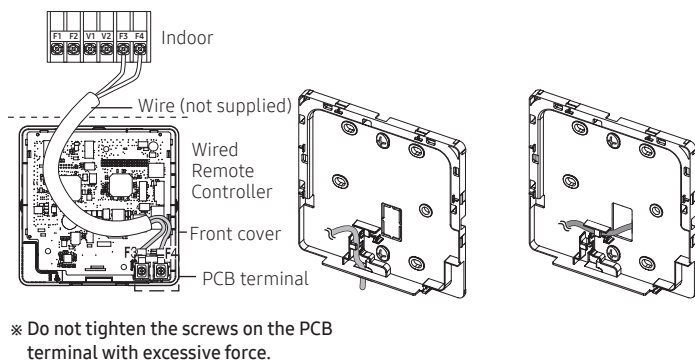
- When connecting the power and communication cables to the bottom of the Wired Remote Controller, first cut off the area A.

Wired Remote Controller Installation

- Using two or more screws, firmly affix the rear cover of the remote controller to the wall, and then cut off the grooves of the front covers for communication and power cables, making sure these cables have reasonable length.



- Connect the communication cables (F3, F4) to the terminals of the back of the front cover, and then fix the wires so that they do not get stuck during connection.



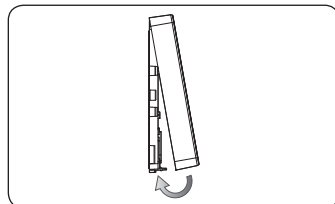
⚠ CAUTION

- When using an electric screwdriver, tighten the screws to the standard torque because the top of screws may be worn out if you use a strong torque.

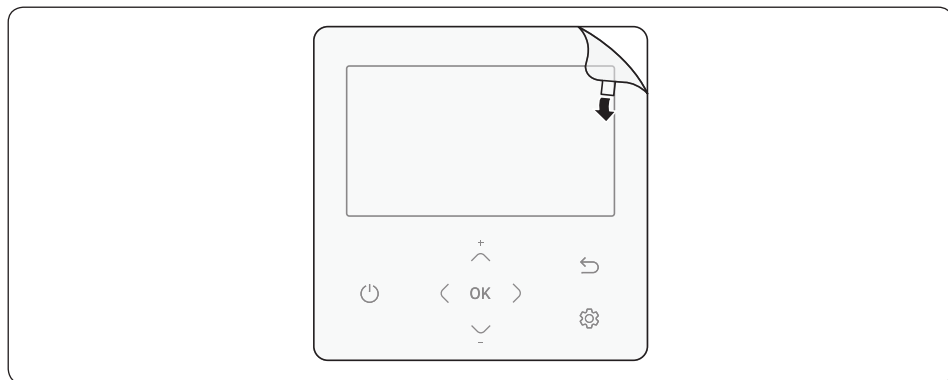
5 Reassemble the Wired Remote Controller.

NOTE

- Align the controller with the upper groove first, and then insert it by turning it downwards as shown in the figure.
After assembly, check and confirm that no wires are stuck in the gap between the back and front covers.



6 Remove the front protective film.

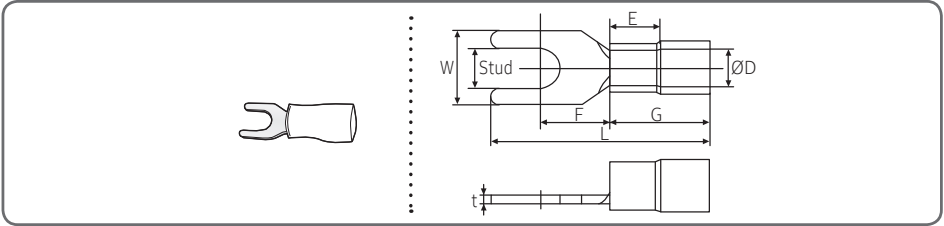


CAUTION

- 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 power cable separately. (Electrical interference can cause the 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)

Wired Remote Controller Installation

- 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	mm ² (inch ²)	mm ² (inch ²)	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 (328 ft)

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

Tracking Your Indoor Unit from the Wired Remote Controller [See the image [A](#)]

- Tracking of your Wired Remote Controller will automatically start when you turn on the power after installation.
- If you want to perform tracking again after installation, then press the and buttons at the same time for more than 5 seconds.
 - The system will reset, and tracking will start again.
- During tracking, the total number of currently searched indoor units and ventilator(ERV) will be displayed.
- It may take about 5 minutes at initial installation or when you re-set the Power Master setting.

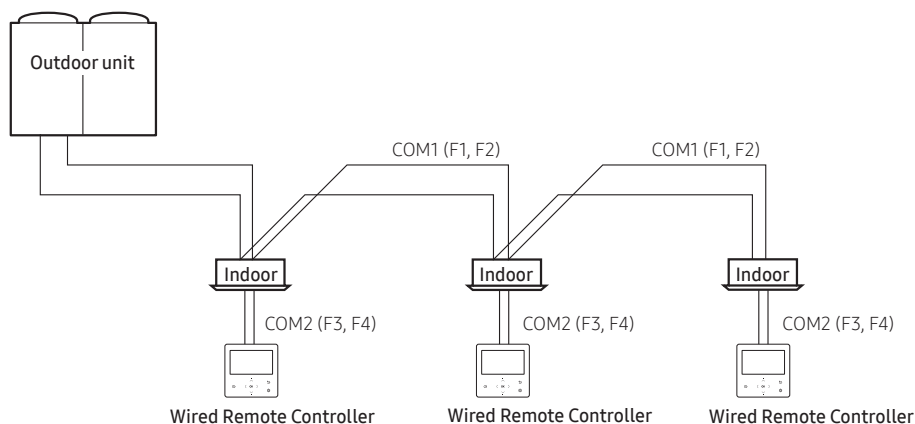
NOTE

- The operation displays on the remote controller may differ depending on the selected language.
- If you want to perform tracking again after installation, then press the and buttons at the same time for more than 5 seconds.

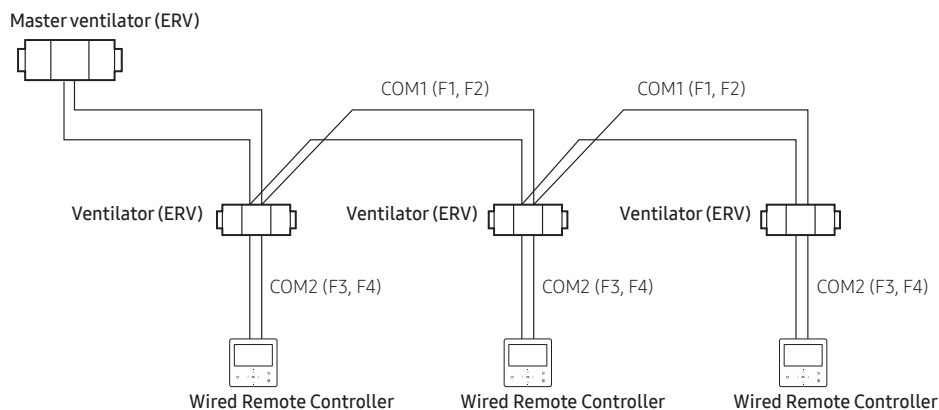
Individual Control with Your Wired Remote Controller

Individual control means that you are using one remote controller to control one indoor unit or ventilator(ERV).

When connected to an indoor unit only



When connected to a ventilator (ERV) only



NOTE

- Regardless of the indoor group address (RMC address) or the ventilator(ERV) group address, only the indoor unit connected to COM2 is individually controlled.
- For air conditioners that use R-32, make sure to install individual wired remote controllers for the indoor units for individual control.

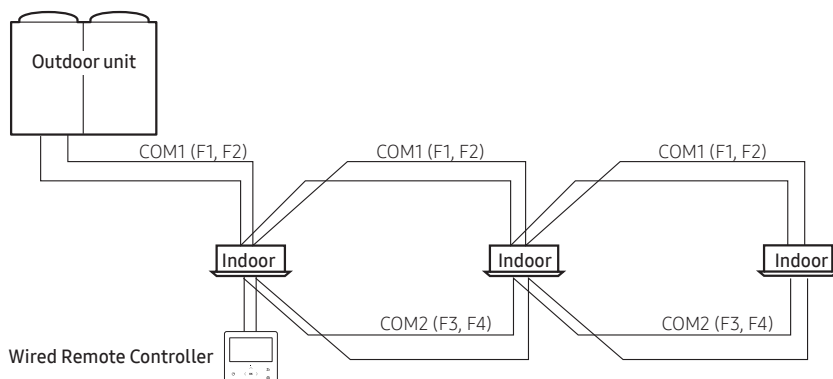
Wired Remote Controller Installation

Group Control with Your Wired Remote Controller

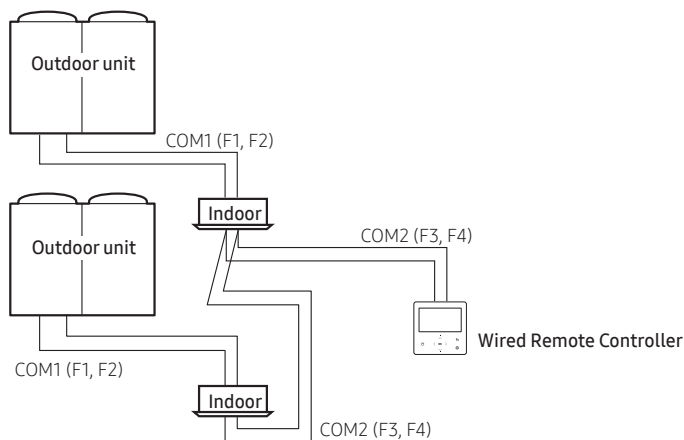
Group control means that you are using one Wired Remote Controller to control two or more indoor units and ventilator (ERV) at the same time.

When connected to an indoor unit only

- Using One Wired Remote Controller to control three indoor Units



- Using One Wired Remote Controller to control indoor units connected to different outdoor unit



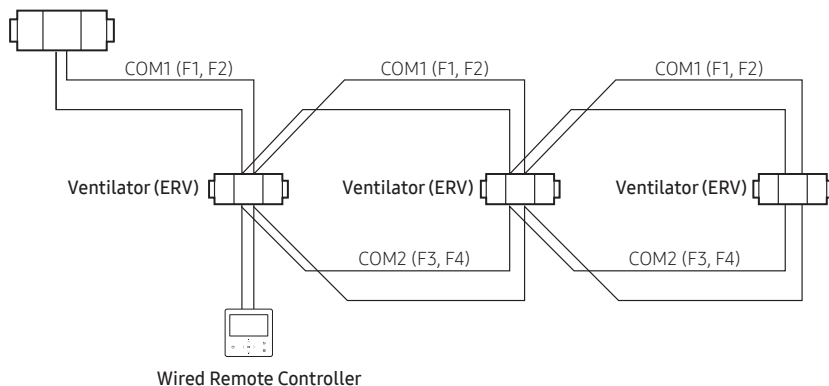
NOTE

- 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.
- Address of each outdoor units must be set differently when group control indoor units connected to the other outdoor unit.
- For air conditioners that use R-32, group control using a wired remote control is not possible.

When connected to a ventilator (ERV) only

- Using One Wired Remote Controller to Control Three ventilator(ERV)

Master ventilator (ERV)

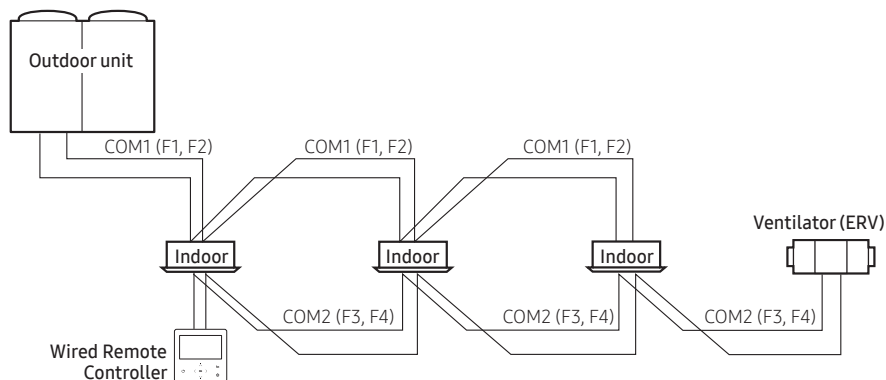


NOTE

- Regardless of the ventilator(ERV)'s group address (RMC address), only the ventilator(ERV) connected to COM2 is controlled in group.

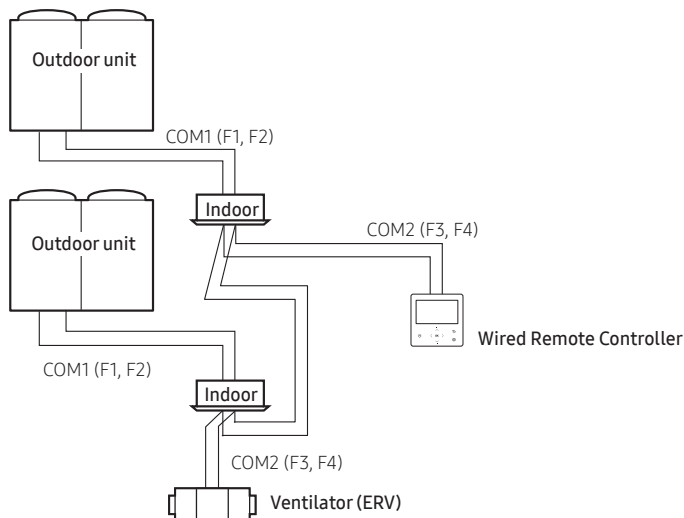
When connecting an indoor unit and a ventilator (ERV) together

- Using One Wired Remote Controller to control multiple indoor units and ventilator(ERV)



Wired Remote Controller Installation

- Using One Wired Remote Controller to control indoor units connected to different outdoor unit and ventilator(ERV)



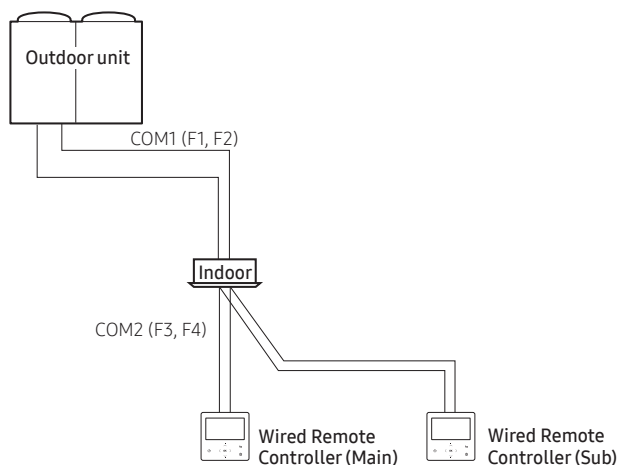
NOTE

- Regardless of the indoor unit's group address (RMC address), only the indoor units and ventilator(ERV) connected to COM2 are controlled in group.
- When controlling indoor units and ventilator(ERV) together in group, you can control maximum of 16 indoor units and ventilator(ERV).
- If you want to use the power saving function, you have to connect Wired Remote Controller to only one indoor unit and one ventilator(ERV).

Controlling the 2-remote controller

2-Remote controller is controlling one indoor unit, ventilator(ERV) or one group of indoor units and ventilator(ERV) with two remote controllers.

When connected to an indoor unit only

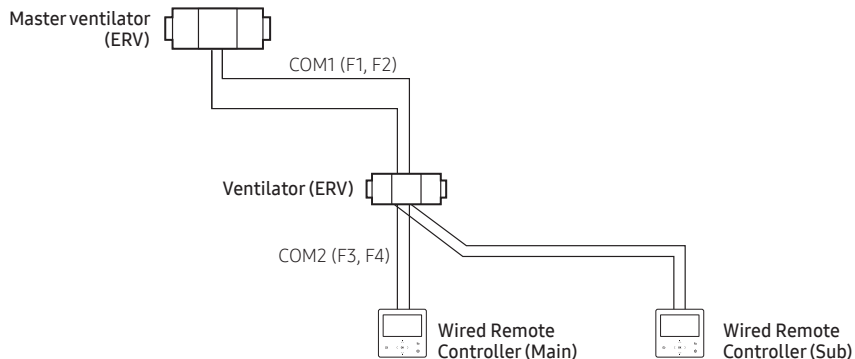


NOTE

- Air conditioners that use R-32 also support connecting two remote controls to a single indoor unit.

Wired Remote Controller Installation

When connected to a ventilator (ERV) only



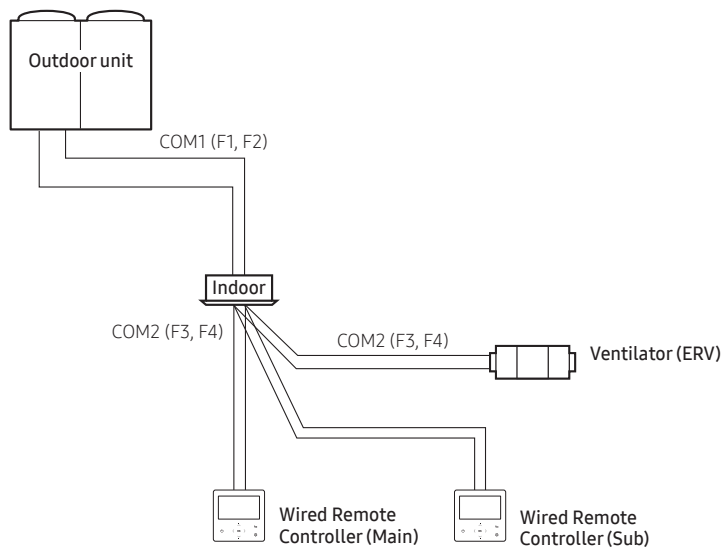
NOTE

- For the sub Wired Remote Controller settings, please see Option of the Wired Remote Controller. (Refer to page 18)
- You can install up to two Wired Remote Controllers (Main/Sub).

CAUTION

- If the Wired Remote Controller (Main) is already installed and another one (Sub) is to be installed, the remote control starts again for protection of the product.

When connecting an indoor unit and a ventilator (ERV) together



NOTE

- Regardless of the indoor unit group address (RMC address), only the indoor units connected to COM2 are controlled by the 2-remote controller.
- For the sub Wired Remote Controller settings, please see Option of the Wired Remote Controller. (Refer to page 18)

Wired Remote Controller Installation

Initializing Your Wired Remote Controller Communication

Wired remote controller must be initialized if installation status changes.

- Changing number of ventilator (ERV)/indoor unit or their address
- 1 Press the  and  buttons at the same time for more than 5 seconds.
 - Your Wired Remote Controller will be initialized, and the device will search for the indoor units/ventilator(ERV) connected to your Wired Remote Controller again.

Errors displayed on the 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.

Wired Remote Controller error codes

Indication	Description	Remarks
601	Communication error between wired remote controller and indoor/ERV units after successful communication. (communication stop for 3 minutes after detection)	
602	No communication between Main and Sub Wired Remote Controllers. (communication stop for 3 minutes after detection)	
604	When tracking between the Wired Remote Controller and indoor units/ventilators (ERV) is not complete for more than 5 minutes (Including communication error between indoor units and outdoor units)	
618	Over 16 indoor units and ventilators (ERV) installed. Reset is required after checking the number of installed indoor units and ventilators (ERV).	
653	Temperature sensor Open/Short error	Can be detected by the product with a temperature sensor.
654	EEPROM error	

NOTE

- For the error codes for your indoor/outdoor units and ventilator(ERV), refer to the installation manual of each device.

Installation/Service mode

Additional functions of the Wired Remote Controller [See the image

- 1 If you want to use the various additional functions for your Wired Remote Controller, press the  and  buttons at the same time for more than 3 seconds.
 - The password entry screen appears.
- 2 Enter the password, "0202," and then press the **OK** button.
 - The settings screen for installation/service mode appears.
- 3 See the list of additional functions for the Wired Remote Controller on the next page, and then select the desired menu.
 - Once you have entered the setting screen, the current setting appears.
 - Refer to the chart for data setting.
 - Using the  and  buttons, change the settings and press the  button to move to the next setting.
 - Press the **OK** button to save the new setting.
 - Press the  button to move to the Home screen.

NOTE

- While setting the data, you can press the  button to move to the Home screen after checking the saving status at a pop-up screen.

Installation/Service mode

Installation/Service mode

NOTE

- Unavailable functions are marked inactive and they cannot be set.
- If communication initialization is needed after the setting, the system will reset automatically and communication will be initialized.

Major	Step 1	Step 2	Step 3	Description	Default
General	Indoor Unit option	Power button	-	Default/Indoor unit & Ventilation	Indoor unit & Ventilation
		Auto mode	-	ON/OFF	ON
		Cool/Heat selection	-	Cool Only/Cool & Heat	Cool & Heat
		Wireless remote controller	-	ON/OFF	ON
		MAIN/SUB wired remote	-	Main/Sub	Main
		Temperature unit	Temperature unit	Celsius (°C)/Fahrenheit (°F)	Fahrenheit(°F)
			Set temp. Unit	Celsius (°C): 1°C/0.5°C/0.1°C, Fahrenheit (°F): 1°F	1°F
		Temperature sensor selection	-	Indoor/Wired remote controller	Wired remote controller
		Average temperature	-	ON/OFF	OFF
		Set Temperature Type	-	ON/OFF	ON
	Connection Information	Number of Connection	Indoor	0 to 16	-
			Ventilator	0 to 16	-
		Master Indoor Unit Information	Serial No.		-
			Model No.		-
			Indoor unit room temp.	Temperature	-
			Indoor unit EVA IN temp.	Temperature	-
			Indoor unit EVA OUT temp.	Temperature	-
			Indoor unit EEV step	EEV step	-
		View master Indoor Unit	Indoor	Address	-
			Ventilator	Address	-
		Mode master indoor unit	Mode master indoor unit 1)*	Address	-

Major	Step 1	Step 2	Step 3	Description	Default
General	Indoor unit/ Ventilator option	Address	Main address	00 to 4F	-
			RMC address	00 to FE	-
		Product option 3)*	-	Refer to the installation manual of the connected indoor unit or ventilator.	-
		Installation option 1 3)*	-		-
		Installation option 2 3)*	-		-
		MCU Port	MCU address	00 to 15	-
			MCU Port	A to F	-
	Device Information (Wired Remote Controller)	Micom code	-	Micom code	-
		Program version	-	Modified date	-
		Touch code	-	Touch IC code	-
		Program version	-	Modified date	-
		Graphic image	-	Graphic image code	-
		Program version	-	Modified date	-
	Reset All Service modes	Erase All Service mode data			
		Initialize a remote controller	-	-	-
	Initialize Unit Information	-	-	-	-
	R32	Supervisor mode	-	ON/OFF	OFF
		R32 Sensor Reset	-	-	-
	Power Master Reset 2)*	-	-	-	-
	ODU K3 reset	-	-	-	-
	Outdoor capacity	-	-	ON/OFF	

Installation/Service mode

Major	Step 1	Step 2	Step 3	Description	Default
Indoor	Blade lock 4)*	Blade1	-	Unlock/Lock	Unlock
		Blade2	-	Unlock/Lock	Unlock
		Blade3	-	Unlock/Lock	Unlock
		Blade4	-	Unlock/Lock	Unlock
	Room Temperature Calibration	Reference temperature	-	-9 to 40°C	-
		Calibration value	-	-9.9 to 9.9°C	0°C
	Indoor unit status information	Central control	-	ON/OFF	-
		Drain pump	-	ON/OFF	-
		Electric heater	-	ON/OFF	-
		Hot water coil	-	ON/OFF	-
		External control	-	ON/OFF	-
		RPM compensation	-	ON/OFF	-
		Filter replacement cycle	-	2000 hr/1000 hr	-
		Heating calibration value	-	2°C/5°C	-
		EEV Stop Step in Heating	-	0/80 steps / 80 steps	-
	Discharge temperature	Indoor unit	-	Enable/Disable	-
			Cooling discharge temp.	8 to 18°C (AHU : 8 to 25°C)	-
			Heating discharge temp.	30 to 43°C (AHU : 18 to 43°C)	-
		Fresh duct	Cooling discharge temp.	13 to 25°C	-
			Heating discharge temp.	18 to 30°C	-
	Automatic Air-Volume	Status	-	OFF/Complete/Running	-
		Operation	-	Stop/Run	-
		Voltage	-	220V/230V/240V	-

Major	Step 1	Step 2	Step 3	Description	Default
Ventilator (ERV)	ERV option	By-Pass mode	-	ON/OFF	OFF
		Auto mode	-	ON/OFF	OFF
		External control	-	ON/OFF	OFF
		ERV Fan Step Setting	Ventilation RPM	0 to 31 STEP	-
			Exhaust RPM	0 to 31 STEP	-
		ERV Status Information	-	-	-
	ERV Energy saving operation	ON/OFF Alternation operation	-	ON/OFF alternation operation/ Outdoor air cooling operation for different temp. setting	ON/OFF alternation operation
		Minimum temp. of outdoor air cooling	-	5 to 15°C	15°C
	ERV Plus	Cold air prevention	-	ON/OFF	-
		Humidification when Heating thermo off	-	ON/OFF	-
		Fan operation in Defrost	-	ON/OFF	-
		Humidification when Heating	-	ON/OFF	-
		ERV Plus temp.	Cooling	15 to 30°C	-
			Heating	15 to 30°C	-
		ERV Plus Auto mode temp.	Temp. setting	15 to 30°C	-
			Temp. Difference	5 to 15°C	-
		ERV Plus Heating EEV under control Compensation temperature A setting	-	0 to 10°C	-
		ERV Plus Heating EEV under control Compensation temperature B setting	-	Humidifier not used (0°C)/Use humidifier(10°C)	-
		ERV Plus Fan RPM Setting	Ventilation RPM	10 to 27 STEP	-
			Exhaust RPM	10 to 27 STEP	-

Installation/Service mode

- 1)* Setting is available when there is only 1 indoor unit connection and while the indoor unit operation is not operating.
- 2)* 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.
- 3)* The total option codes are 24 digits. You can set six digits at a time and it is distinguished by page number. Press the **OK** button to move to the next page. [See the image 

NOTE

- Address is displayed in hexadecimal. Please refer to the following table.

Hexadecimal	Decimal
00	0
01	1
02	2
03	3
04	4
05	5
06	6
07	7
08	8
09	9
0A	10
0B	11
0C	12
0D	13
0E	14
0F	15

Hexadecimal	Decimal
10	16
11	17
12	18
13	19
14	20
15	21
16	22
17	23
18	24
19	25
1A	26
1B	27
1C	28
1D	29
1E	30
1F	31

Hexadecimal	Decimal
20	32
21	33
22	34
23	35
24	36
25	37
26	38
27	39
28	40
29	41
2A	42
2B	43
2C	44
2D	45
2E	46
2F	47

Hexadecimal	Decimal
30	48
31	49
32	50
33	51
34	52
35	53
36	54
37	55
38	56
39	57
3A	58
3B	59
3C	60
3D	61
3E	62
3F	63

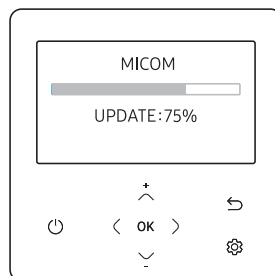
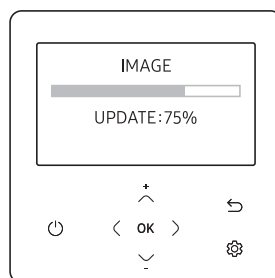
Hexadecimal	Decimal
40	64
41	65
42	66
43	67
44	68
45	69
46	70
47	71
48	72
49	73
4A	74
4B	75
4C	76
4D	77
4E	78
4F	79

The example of Wired Remote Controller option setting method

- 1 Press the $\wedge$ and $\vee$ buttons at the same time for more than 3 seconds.
- 2 Enter the password, "0202," and then press the **OK** button.
- 3 Press the $\wedge$ and $\vee$ buttons to select "Indoor Unit option," and then press the **OK** button.
- 4 Press the $\wedge$ and $\vee$ buttons to select "Cool/Heat selection," and then press the **OK** button.
 - The menu with the $\triangleright$ shape can be selected using the $\triangleright$ button.
- 5 Press the $\wedge$ and $\vee$ buttons to select "Cool Only," and then press the **OK** button to finish the setting.
- 6 Press the $\hookrightarrow$ button to move to the Home screen.

How to download to microSD Card

- 1 Download the wired remote controller image, change the file name to "IMAGE.BIN," and then download to microSD Card.
- 2 Download the wired remote controller program, change the file name to "MICOM.BIN," and then download to microSD Card.
- 3 Insert the microSD Card with the Wired Remote Controller active, and then reset the system.
For system reset, press the $\angle$ and ⚙ buttons at the same time for more than 5 seconds.
- 4 The download to microSD Card is performed as follows:
 - Download proceeds in the order of IMAGE and MICOM.
 - When the update fails, the Wired Remote Controller is reset automatically and the update proceeds again.
- 5 When the download is finished, tracking starts automatically.
When tracking is completed, remove the microSD Card.



CAUTION

- Be sure to use the microSD Card after formatting in FAT16 or FAT32.
- The microSD Card supports the SD or SDHC with the capacity of 1 GB to 32 GB.
- The update is performed only when the file version in the microSD Card differs from the one of the Wired Remote Controller.
- When the screen is frozen for more than 3 minutes after completing the microSD card update by 100%, product inspection is required.
- Delete the files except for the ones for download.
(Only IMAGE.BIN and MICOM.BIN are required.)

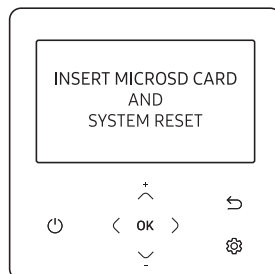
Installation/Service mode

When the microSD Card is removed during download

- 1 When you remove the microSD Card during download, the "INSERT MICROSD CARD AND SYSTEM RESET" screen appears and the download is stopped.
- 2 When you insert the microSD Card and press the  and  buttons for system reset, download starts again after finishing the reset.

NOTE

- When you reset the Wired Remote Controller while the microSD Card is removed, the above message appears on the screen in standby mode.
- When you reset the Wired Remote Controller while the microSD Card is removed and then inserted, the following actions are performed.
 - If the reinserted microSD Card contains all the files for update, update proceeds regardless of the version of the file.
 - If the reinserted microSD Card contains any missing files for update, the above message appears in standby mode.



Memo

SAMSUNG