



Touch Centralized Controller
MCM-A300N

Air Conditioner installation manual



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EN ES FR IT PT DE EL RU AR DB68-03943A(1)

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Safety precautions

This installation manual is for installing the Touch Centralized Controller. Read the installation manual thoroughly before installing the product. (Refer to the appropriate manual for installing other optional parts.)

 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 .

SEVERE WARNING SIGNS

Consult qualified installer or service center for installation.

- ▶ There is a risk of product malfunction, water leakage, electric shock or fire.

Install the product firmly on the place that can withstand the weight of the product.

- ▶ If the installation location is not strong enough, product may fall and get damaged.

Connect the power with rated voltage when installing.

- ▶ If not, there is risk of fire or damage to the product.

Do not attempt to move or re-install the product that is already installed.

- ▶ There is risk of electric shock and fire.

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

- ▶ There is potential risk of product damage, electric shock or fire. When repair is needed, consult qualified installer or service center.

Check if the installation was done properly according to the installation manual.

- ▶ There is risk of electric shock or fire if the product is installed incorrectly.

Make sure that all wiring work is done by qualified person complying regional standards and instructions in this manual.

- ▶ If the installation is done by unqualified person, there is risk of product malfunction, electric shock or fire caused by incorrect installation.

Contact the service center when you need to dispose the product.

CAUTION SIGNS

Do not install the product in a place where it is or might be exposed to inflammable gas leakage.

- ▶ There is risk of fire or explosion.

Do not install the product in a place where it will be exposed to oil or vapor etc.

- ▶ If the product is used in a place where it is exposed to oil, vapor or sulphur dioxide, parts of the product may get damaged or product may function abnormally.

Make sure that water does not get into the product.

- ▶ There is risk of electric shock and fire.

Make sure there is no tension to the cable during installation.

- ▶ Cable may get cut and cause fire.

Install the product in a place with temperature between 0 °C~39 °C with no direct sunlight.

- ▶ There is risk of electric shock or abnormal operation.

Do not install the product in a place where special spray or acid/alkali solution is used.

- ▶ There is risk of electric shock or abnormal operation.

Do not press the button with sharp object.

- ▶ There is risk of electric shock or damaging the parts.

Do not connect the power cable to the communication cable terminal.

- ▶ There is risk of fire or explosion.

When installing the product in hospitals or other places, make sure that the product does not interrupt with other products.

- ▶ Abnormal operation may occur.

Before installation






Check list before the installation

Installation cables

Cables must be installed not too tightly to the wall where the product will be installed in prior to product installation.

Accessories

Before the installation, check if all the accessories are included with the product. Type and quantity of the accessories may be subject to change without prior notice.

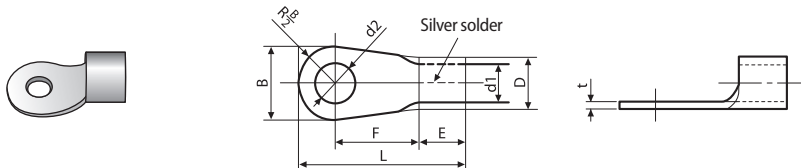
Name	Touch Centralized Controller	Cable tie	M4 Screw	User's manual	Installation manual
Quantity	1	3	4	1	1
Image					



- Touch Centralized Controller must be installed by the installation expert.
- Before installing the Touch Centralized Controller, check if the power is off.
- Communication cable must be installed according to the electrical wiring regulation and make sure that cable is installed through the wall so that it is not exposed to the users. (Use VCTF 2C x 0.75 mm² Communication cable)

Selecting solderless ring terminal

1. Select a solderless ring terminal for a power cable according to the nominal dimensions for cable.
2. Apply insulation coating to the connection part of the solderless ring terminal and the power cable.

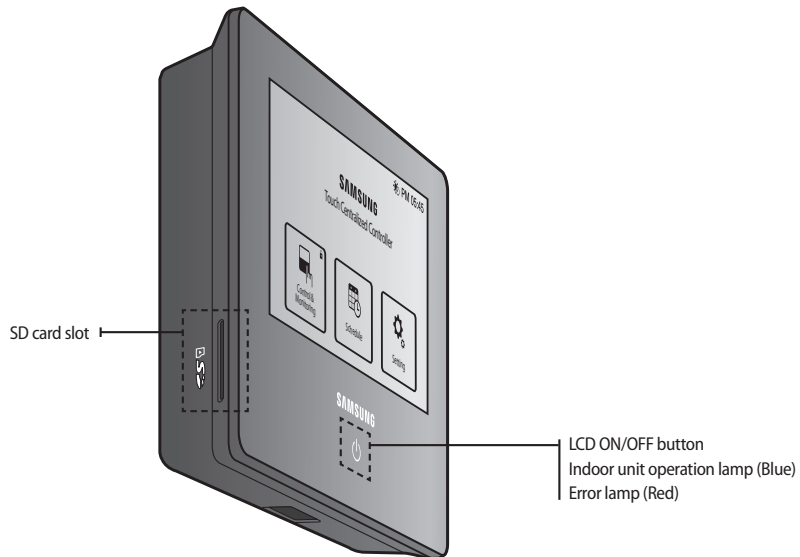


Nominal dimensions for cable (mm ²)		1.5		2.5	
Nominal dimensions for screw (mm)		4	4	4	4
B	Standard dimension (mm)	6.6	8	6.6	8.5
	Allowance (mm)	±0.2		±0.2	
D	Standard dimension (mm)	3.4		4.2	
	Allowance (mm)	+0.3 -0.2		+0.3 -0.2	
d1	Standard dimension (mm)	1.7		2.3	
	Allowance (mm)	±0.2		±0.2	
E	Min. (mm)	4.1		6	
F	Min. (mm)	6		6	
L	Max. (mm)	16		17.5	
d2	Standard dimension (mm)	4.3		4.3	
	Allowance (mm)	+0.2 0		+0.2 0	
t	Min. (mm)	0.7		0.8	

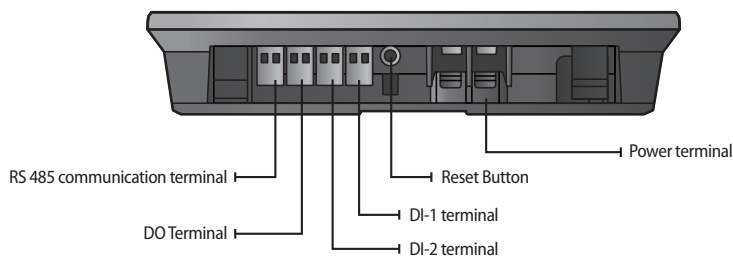
Name of the parts and product dimensions

Name of the parts

Front

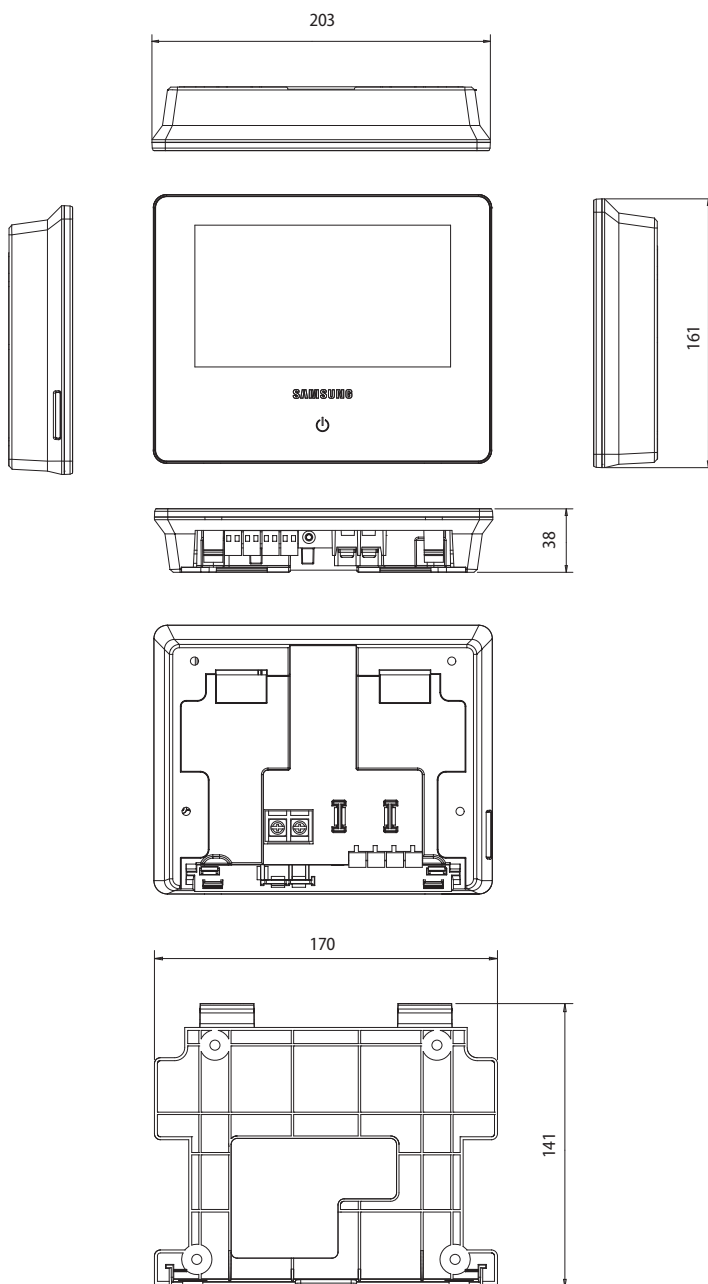


Bottom



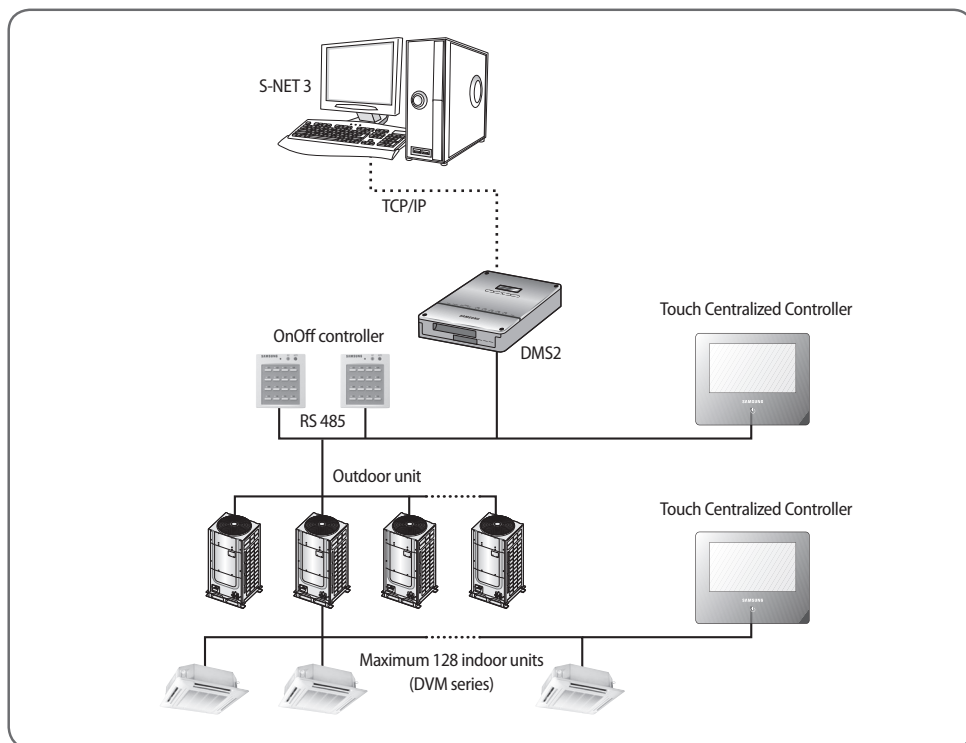
Product dimensions

(Unit : mm)



Installing the Touch Centralized Controller

System diagram



Checking the power connection

1. Press the LCD ON/OFF button to turn on the LCD.
2. Check if the LCD turns on.
 - If the LCD does not turn on, check the connection of the power(AC 100~240 V, 50/60 Hz) terminal and the power connector.

Checking the LED

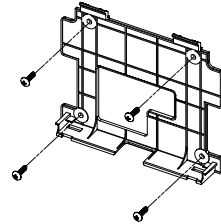
1. There is an error If the Error lamp (Red) turns on.
2. If the Error lamp (Red) turns on, check the connection status of communication/power and the status of communication cable.
3. If the Error lamp (Red) turns on, check if there is any error on the indoor unit that is connected to the Touch Centralized Controller.

Maximum allowable number of connections

Classification	When connected to control device layer	When connected to indoor/outdoor unit layer
Outdoor unit	16 units	1 unit
Indoor unit / ERV	128 units	80 units

Installing the Touch Centralized Controller

1. Fix the installation plate of the Touch Centralized Controller on the wall with 4 screws.

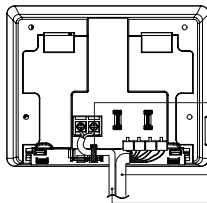


2. Connect the power cable to the power terminal on the back of the Touch Centralized Controller.

Tightening torque (N.m)

M4	1.2~1.5
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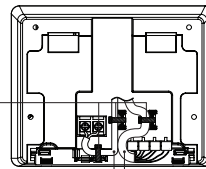
[Arranging the wire in downward direction]



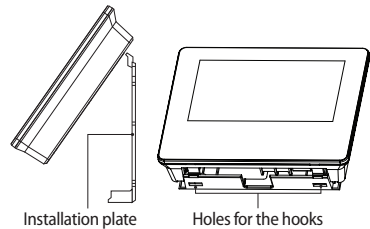
Fix it firmly with a cable tie

Communication cable
Power cable

[Arranging the wire in upward direction (for in-wall wiring)]



3. Connect the communication cable to the 485 communication terminal on the back of the Touch Centralized Controller.
 - If the connection is not done properly, communication may not work properly.
 - Use appropriate tools to connect the cables firmly within rated torque range so that it can withstand external forces.
 - You may connect the communication cable of the F1, F2 terminal of the indoor/outdoor unit or R1, R2 of the outdoor unit.
 - When connecting the Touch Centralized Controller to indoor/outdoor unit layer use F1, F2 terminal and use R1, R2 terminal when connecting it to control device layer.
4. Hang the top part of the Touch Centralized Controller on the installation plate, already installed on the wall, and fasten the hooks on the bottom part of the installation plate.
 - Make sure to fix the Touch Centralized Controller firmly since it may fall to the ground and get damaged if it is not firmly fixed.



• It is recommended to install the product on the wall for safe use and to prevent it from troubles and damages.

Installing the Touch Centralized Controller

Tracking

Through tracking function, Touch Centralized Controller searches for the device that forms a system and registers the installation & status information of those devices.

1. When you go to [Setting] → [Installation settings] → [Network & Tracking] menu and tap [Tracking] button, tracking will begin after user authentication.
2. Tracking will run for maximum 10 minutes.
 - If the number of connected outdoor unit increases, it may take long time for tracking.
3. When the tracking is done, you can check the list of searched devices.
4. You can select Show/Hide (☒) for the device that has completed the tracking.
 - You can also hide the device which is found during the tracking with the Hide function.
5. Indoor units that has disabled centralized control option will be fixed to 'Hide' status and it cannot be changed.

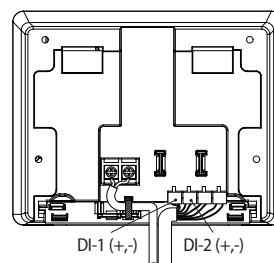
Setting for external contact control through DI port (Optional)

Setting DI pattern

You can set the DI pattern from [Setting] → [System settings] → [DI pattern] menu.

► DI port

Dry contact must be connected.



Control pattern

Pattern	Description of control
1	<ul style="list-style-type: none"> • No external input (Factory default setting) • Nothing will happen when contact signal is inputted to port 1.
2	<ul style="list-style-type: none"> • When DI-1 ON signal is input, emergency stop status will occur. • It will stop all indoor units and order the indoor units not to be controlled by a remote controller. • In the emergency stop status, you cannot use the user control command. In addition, the schedule control will not work. When the contact control signal is changed to OFF, the control command can work normally. (DI-2 will not be used with the pattern 2)
3	<ul style="list-style-type: none"> • When DI-1 ON signal is input, it will stop all indoor units. When OFF signal is input, all indoor units are ON. • When DI-2 ON signal is input, the remote control status of all the indoor units will be enabled and when the OFF signal is input, the remote control status will be disabled.
4	<ul style="list-style-type: none"> • Valid pulse width of the input signal is between 0.5~1.0 second. Signals with pulse width below 0.5 and over 1.0 second will be ignored. • When the pulse contact signal is input to DI-1, ON command will be sent to all indoor units. • When the pulse contact signal is input to DI-2, OFF command will be sent to all indoor units.

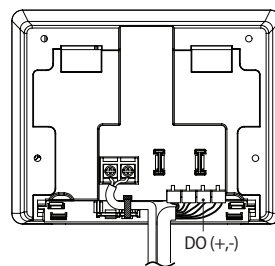
DO port

► DO operation specification

DO output will turn on if any one of the indoor unit is turned on. DO output will turn off if all the indoor units are turned off.

► DO port

(+)terminal outputs 12V, (-) terminal outputs open collector, Drive current under 10 mA.



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