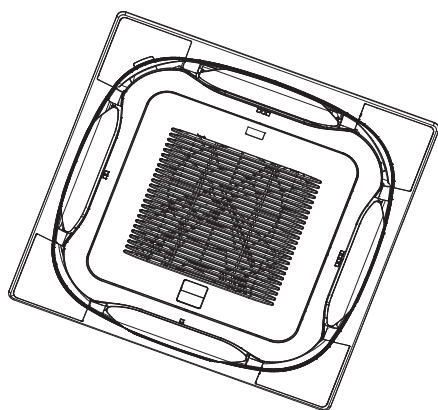




INSTALLATION MANUAL

Decoration Panel Provided with Filter Auto Cleaning Function

Self Cleaning decoration panel



BYCQ140E2GW1
BYCQ140E2GFW1
BYCQ140E2GFW1B

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The English text is the original instruction. Other languages are translations of the original instructions.

1. Safety precautions

Please read these "Safety precautions" carefully before installing air conditioning equipment and be sure to install it correctly. After completing installation, conduct a trial operation to check for faults and explain to the customer how to operate the air conditioner and take care of it with the aid of the operation manual. Ask the customer to store the installation manual along with the operation manual for future reference.

This air conditioner comes under the term "appliances not accessible to the general public".

Meaning of WARNING and CAUTION notices.



WARNING.... Failure to follow these instructions properly may result in personal injury or loss of life.



CAUTION..... Failure to observe these instructions properly may result in property damage or personal injury, which may be serious depending on the circumstances.



WARNING

- Ask your dealer or qualified personnel to carry out installation work.
Do not attempt to install the air conditioner yourself. Improper installation may result in water leakage, electric shocks or fire.
- Perform installation work in accordance with the instructions in this installation manual. Do not modify the product.
Improper installation may result in water leakage, electric shocks, or fire.
- Be sure to use only the specified accessories and parts for installation work.
Failure to use the specified parts may result in the unit falling, water leakage, electric shocks or fire.
- Make sure that specified wires are used and that there is no strain on the terminal connections or wires.
Improper connections or securing of wires may result in abnormal heat radiation or fire.
- Be sure to switch off the unit before touching any electrical parts.
- Arrange the lead wires of the provided harness so that the EL. COMPO. BOX lid of the indoor unit will not rise, and attach the lid securely.
Heat radiation, electric shocks, or fire may result if the EL. COMPO. BOX lid is not attached properly.
- Tear up and dispose of the plastic bag.
Children playing with the plastic bag may be suffocated.

CAUTION

- Install the indoor and outdoor units, power cord, remote controller wiring, and transmission wiring at least 1 m away from TV or radio sets. This is for the prevention of TV and radio interference. (Depending on the incoming signal strength, a distance of 1 meter may not be sufficient to eliminate noise.)
- Pay the utmost attention to the transportation of the product. Hold the handles on the package to carry the product. Do not carry the package with the polypropylene band on the package held, which will be dangerous because the polypropylene band may be deformed.
- Do not touch the fin of the heat exchanger. Touching the fin improperly may result in injury.
- Do not turn the product power off immediately after the operation of the product comes to a stop. Always wait for at least 5 minutes before turning the product power off. Otherwise, water leakage and malfunctions may result.
- Do not install the air conditioner in the following locations:
 1. Where there is a high concentration of mineral oil spray or vapour (e.g. a kitchen).
Plastic parts will deteriorate, parts may fall off and water leakage could result.
 2. Where corrosive gas, such as sulphurous acid gas, is produced.
Corroding of copper pipes or soldered parts may result in refrigerant leakage.
 3. Near machinery emitting electromagnetic radiation.
Electromagnetic radiation may disturb the operation of the control system and result in a malfunction of the unit.
 4. Where flammable gas may leak, where there is carbon fibre or ignitable dust suspensions in the air, or where volatile flammables such as paint thinner or gasoline are handled.
Operating the unit in such conditions may result in fire.

[Instructions peculiar to this product]

Do not install the product in the following places.

Oil, cigarette tar, and steam will result in sticky dust on the filter, which may not be cleaned properly. Furthermore, sticky dust may cause malfunctions.

Places with oily smoke: Restaurants, factories, etc.

Places with excessive cigarette smoke: Smoking room, etc.

Places with excessive moisture or steam: Restaurants, factories, etc.

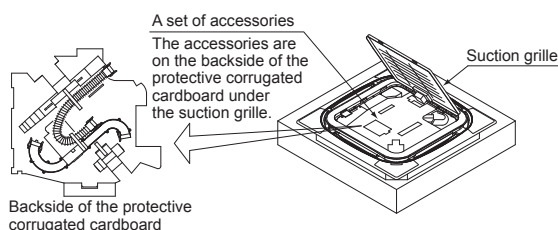
- The air conditioner is not intended for use in a potentially explosive atmosphere.

Note

- Have the customer actually operate the air conditioner while referring to the operation manual and explain the right operation of the air conditioner with useful tips given.
- Refer to the operation manual along with the installation manual provided with the indoor unit.

2. Accessory

Check that the following accessories provided with the air conditioner are correct in number. See the following illustration, which shows where the accessories are kept.



Name	Spacer (1)	Flexible hose (2)	S-shaped pipe (3)	Harness (4)	Clamp (5)
Quantity	1 pc.	1 pc.	1 pc.	1 pc.	2 pc.
Shape					

Name	Connecting pipe (6)	Attachment (7)	Seal (8)	Harness (9)
Quantity	1 pc.	1 pc.	1 pc.	1 pc.
Shape				

Name	Support plate (10)	Screws (11)	Tie wrap (12)	Others
Quantity	4 pc.	4 pc.	4 pc.	1 pc.
Shape				- Operation manual - Installation manual

Pay the utmost attention to the following items when conducting installation work, and recheck the items on completion of the work.

a. Test items on completion of work

Test items	In case of failure	Result
Is the air conditioner free of wiring and connection mistakes or omissions?	Operation failure and wire burnout	
Are you sure that there is no space between the ceiling and sealing material?	Water leakage	
Are the fixing knobs (in two points) of the dust box secured tightly?	Vibration, noise, and dust collection failure	
Are the fixed knobs (in five points) of the air filter secured tightly?	Vibration, noise, and dust collection failure	
Is the fall prevention cord for the dust box and grille hooked to the mounting bracket?	Fall	
Did you attach the EL. COMPO. BOX lid, dust box, flexible hose, S-shaped pipe, suction grille, and decoration corner covers?	Noise and dust collection failure	

* Be sure to recheck the items provided in the section "1. Safety precautions" on page 1.

b. Test items before delivery

Test items	Result
Was the test operation of the air conditioner finished?	
Did you explain the operation method of the air conditioner to the customer while showing the customer the operation manual? *	
Did you make mode settings for filter auto cleaning (automatic control operation settings or timer operation settings with an operation time zone specified) and provide information on the set mode operation of the air conditioner to the customer?	
Did you deliver the operation manual to the customer? (Be sure to hand the customer the operation manual as well as the installation manual.)	
Did you hand the customer the connecting pipe and attachment and ask the customer to keep them?	

*** Point of operation explanation**

In addition to the general usage of the air conditioner, it is necessary to explain the descriptions of the WARNING and CAUTION marked items in the operation manual and have the customer read the descriptions carefully, because these items indicate information that, if not heeded, is likely to result in loss of life, serious injury, or property damage.

3. Installation site

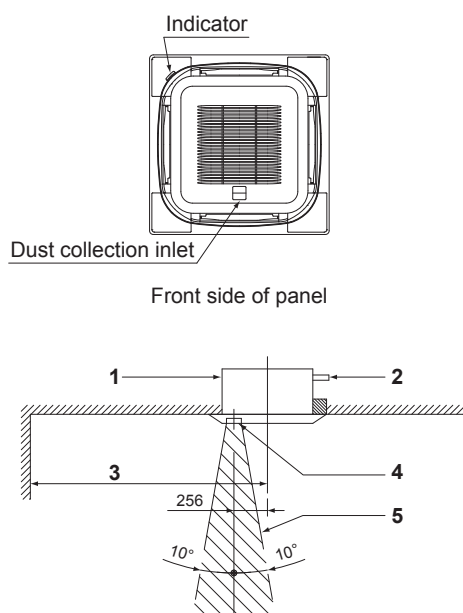
This product offers selectable air outlet directions. A closure kit (an optional accessory) is required to achieve three-way flow patterns. Two-way flow patterns are not available to this product.

3-1 Select the installation site that meets the following conditions with the consent of the customer

- The surface of the ceiling is not remarkably inclined.
- Installation and service workspace is secured (see the following illustrations).
- The panel indicators are seen with ease.
- The indoor and outdoor units, power cord, transmission wiring, and remote controller wiring are at least 1 m away from TV or radio sets.
(The above is for the prevention of TV and radio interference. Depending on the incoming signal strength, a distance of 1 meter may not be sufficient to eliminate noise.)

3-2 Required installation space

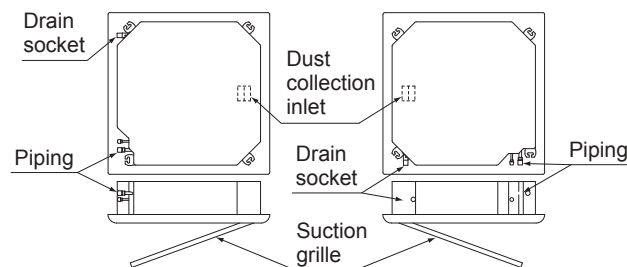
Install the indoor unit according to the installation manual and the following illustrations.



- 1 Indoor unit
- 2 Drain socket
- 3 At least 1500 mm away from the wall. This space will be at least 500 mm with the air outlet closed and blocking pad installed.
- 4 Dust collection inlet
- 5 A space is required for dust collection with a vacuum cleaner used

3-3 Mounting directions of suction grille

Select one of the following mounting directions of the suction grille on the panel.



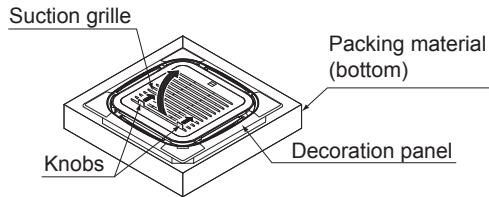
4. Preparations for panel

Note

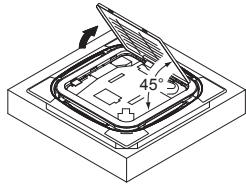
- Perform all the required work in "4. Preparations for panel" on page 3 with the panel kept in the packing material (on the bottom side).
- Do not put the panel downward or upright or leave the panel on protruding parts.
Otherwise, scratch damage to the surface of the panel may result.
- Do not touch the swing flap and do not put any force on the swing flap. This will result in malfunction of the unit.

4-1 Removal of suction grille from panel, protective corrugated cardboard, and set of accessories

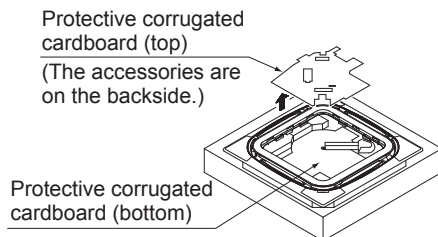
- (1) Press the knobs of the suction grille and lift up the knobs.



- (2) Open the suction grille to an angle of approximately 45° and remove the suction grille from the panel.

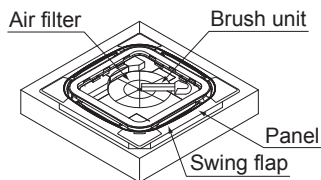


- (3) Take out the protective corrugated cardboard.
Take out the protective corrugated cardboard (on top of the panel) together with the accessories attached to the backside of the protective corrugated cardboard.

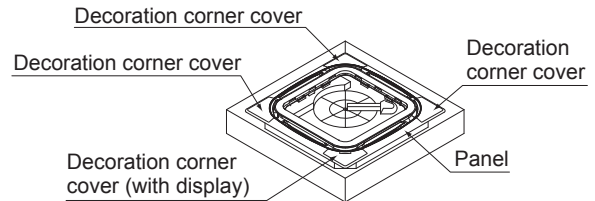


Note

Do not impose force on the swing flap, brush unit, or air filter when handling the panel.



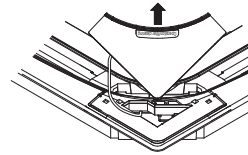
4-2 Removal of decoration corner covers



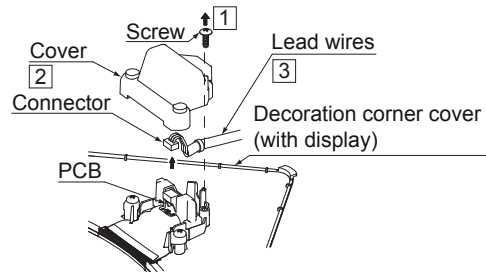
- (1) Raise and remove the decoration corner cover (with the display) in the direction of the arrow.

Note

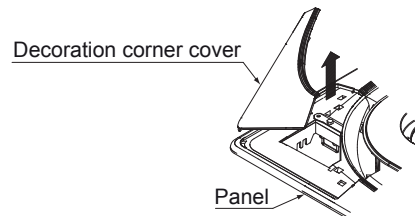
Do not impose force on the lead wires.



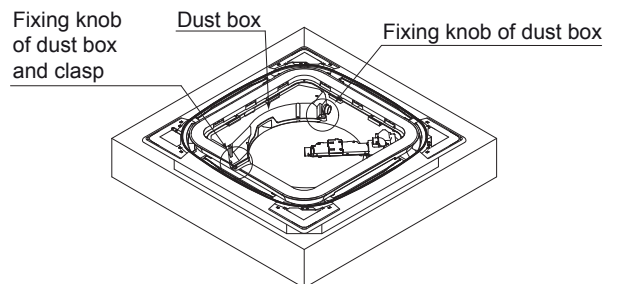
- (2) Remove the screws on the backside of the decoration corner cover (with the display), open the cover, and remove the connector attached to the front end of the lead wires from the PCB.



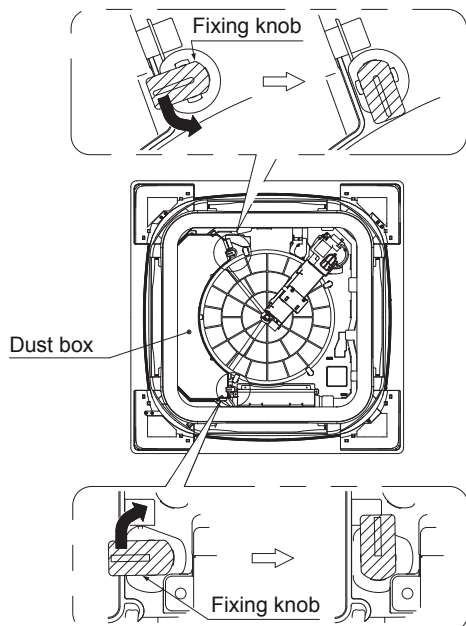
- (3) Remove each of the remaining decoration corner covers (i.e., three covers) in the direction of the arrow.



4-3 Removal of dust box

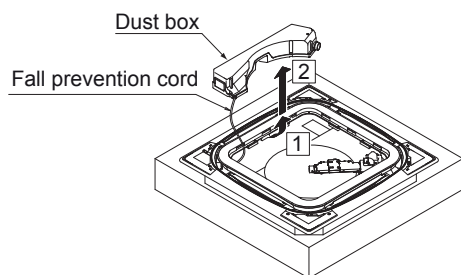


(1) Turn the two fixing knobs of the dust box.

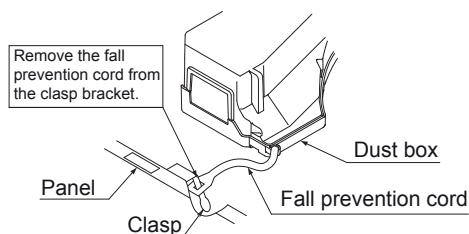


(The front side of the panel is shown for ease of explanation.)

(2) Remove the dust box from the panel while paying attention not to cut the fall prevention cord.



(3) Remove the fall prevention cord for the dust box from the clasp bracket of the panel.



5. Preparations for indoor unit



WARNING

Check that the indoor and outdoor units are turned power off before conducting wiring work.

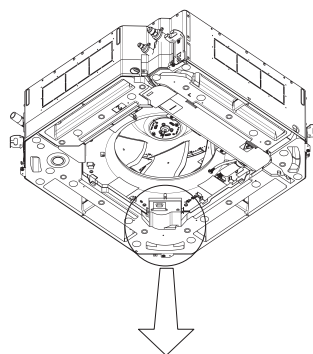
Otherwise, an electric shock may be received.



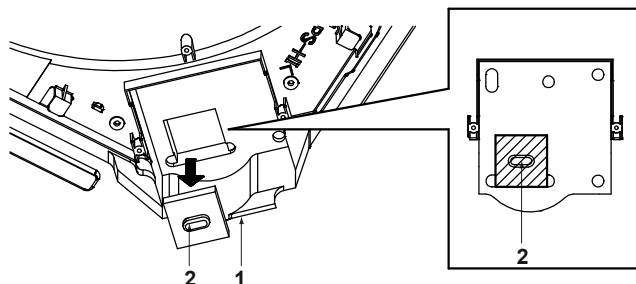
CAUTION

- Conduct the following work after installing the indoor unit.
- Install the indoor unit according to the installation manual provided with the indoor unit.

5-1 Attaching spacer (accessory (1))



(1) Remove the bypass hole closing cap.

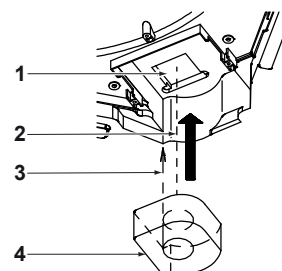


1 Indoor unit

2 Remove the bypass hole closing cap

(2) Peel off the release paper of the double-stick tape on the backside of the spacer (accessory (1)).

(3) Attach the spacer (accessory (1)) on the air bypass hole. Check that the air bypass hole is not blocked after the spacer is attached.



1 Air bypass hole

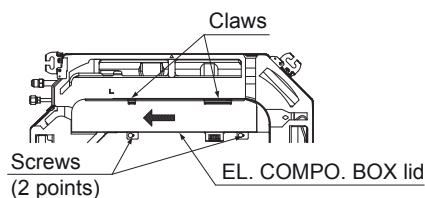
2 Pasted to align with the air bypass hole

3 Align the corners

4 Spacer (accessory (1))

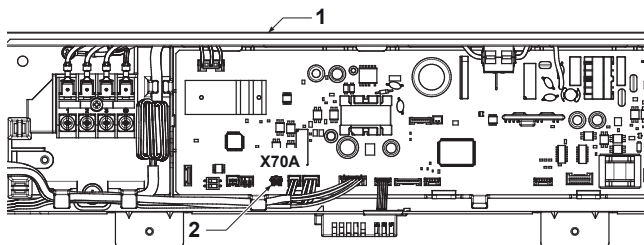
5-2 Attaching harness (accessory (4))

(1) Remove the EL. COMPO. BOX lid from the indoor unit.



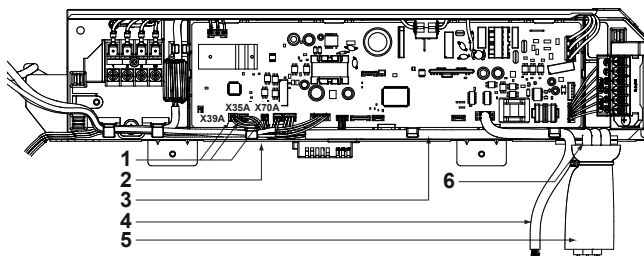
Loosen the screws (in two points) and slide the EL. COMPO. BOX lid in the direction of the arrow to unhook the lid from the claws.

- (2) Remove jumper connector from X70A.



- 1 EL. COMPO. BOX
2 Jumper connector

- (3) Connect the harness (accessory (4)) to the connectors (X35A, X39A and X70A) and secure it by hooks on the unit side.



- 1 Connector
Be sure to connect them securely
2 EL. COMPO. BOX
3 Harness on the unit side
4 Harness (accessory (9))
5 Glass tube
6 Harness (accessory (4))

Note

Make sure that the connectors are securely connected, or otherwise the swing flap, brush unit, or air filter will not work.

5-3 Attaching EL. COMPO. BOX lid

Attach the EL. COMPO. BOX lid in the order opposite to the procedure in "5-2 Attaching harness (accessory (4))" on page 4 (1).

Note

Make sure that the wires or glass tube will not be caught by the EL. COMPO. BOX lid.

CAUTION

Do NOT over tight screws during assembling process to avoid any damage.

WARNING

Arrange the electric wires neatly and attach the EL. COMPO. BOX lid securely.

The electric wires being caught or the rising of the EL. COMPO. BOX lid may result in an electric shock or fire.

6. Attaching panel to indoor unit

Install the indoor unit by referring to the installation manual provided with the indoor unit.

Note

Do not impose force on the swing flap, brush unit, or air filter when taking out the panel from the packing material (on the bottom side).

6-1 Checks before attaching panel

- Check the directions of the indoor unit and the engraved marks on the panel as shown below.
The piping block to the **PIPING SIDE** and the drain socket to the **DRAIN SIDE**.
- Stand the temporary latching bracket upright.
- Draw out the lead wires (on the panel side) from the opening.

6-2 Attaching panel

- (1) Tentatively put the two temporary latching brackets of the suction port of the panel (on the internal circumference side) to the hooks of the indoor unit.

Note

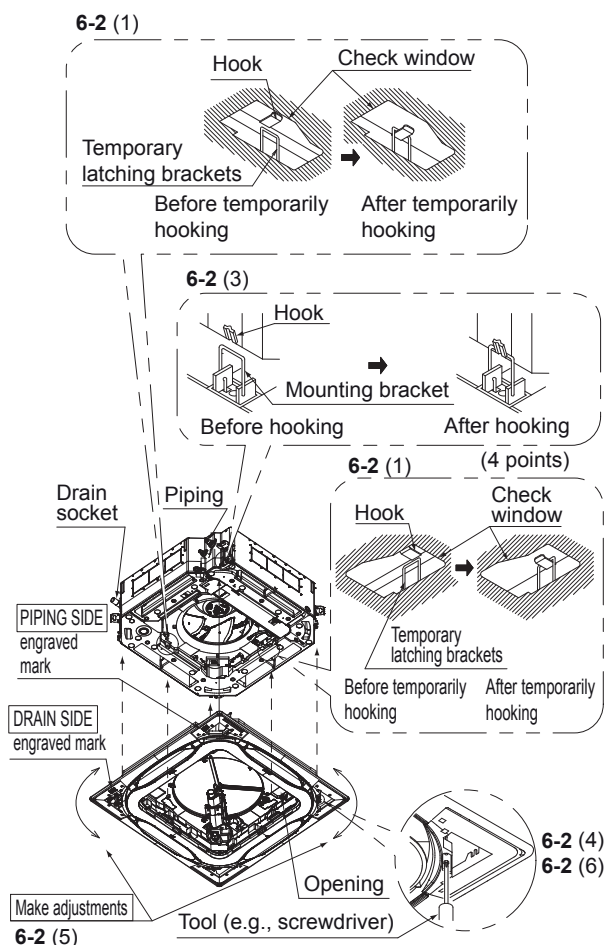
Remove your hands after confirming through the check window that the temporary latching brackets are engaged with the hooks.

- (2) Draw out from the opening the harness attached in "5. Preparations for indoor unit" on page 4.
Furthermore, pull out the lead wires disconnected from the corner decoration cover (with the display) in "4. Preparations for panel" on page 3 from the corner hole carefully so that the lead wires will not be caught by the mounting bracket.
- (3) Put the mounting brackets (in four points) on the corners of the panel to the hooks of the circumference of the indoor unit. (Hook the mounting bracket engraved with the **PIPING SIDE** first, followed by the mounting bracket on the opposite angle side.)
At that time, pay attention that the harness and lead wires (on the panel side) will not be caught between the panel and indoor unit.

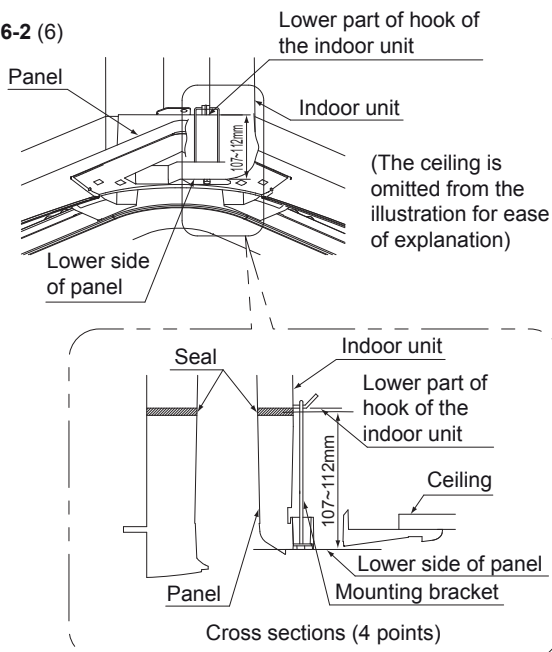
Note

Remove your hands after confirming that the mounting brackets are engaged with the hooks.

- (4) Tighten the four hexagon head screws right under the mounting bracket for approximately 5 mm. (The panel will move upward.)
- (5) Turn the panel in the directions of the arrows so that the opening on the ceiling will be perfectly covered by the panel.
- (6) Furthermore, tighten the screw (4) until the distance from the lower part of the hook of the indoor unit to the lower part of the panel becomes 107 to 112 mm.

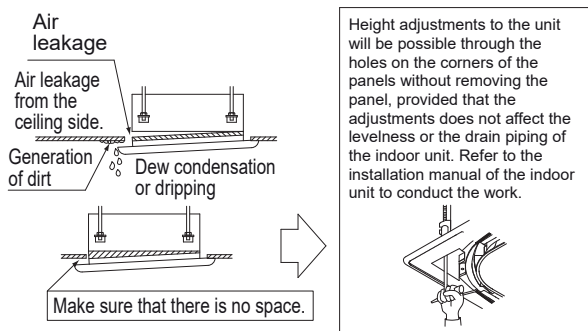


6-2 (6)



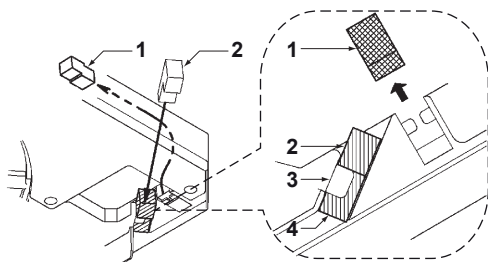
Note

- Tighten the screws securely, or otherwise a defect as shown below may result.
- Readjust the height of the indoor unit if there is a space between the ceiling and panel with the screws tightened securely.



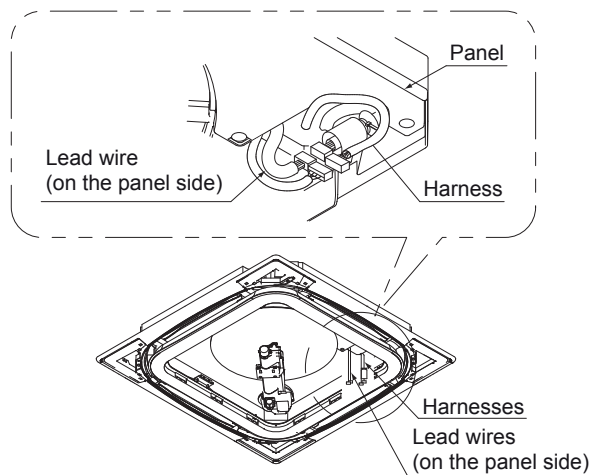
6-3 Checking panel

- (1) Remove sealing of panel.

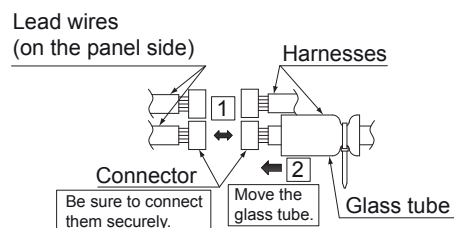


- 1 Remove seal of panel
- 2 Insert the seal until the seal comes in contact with the claw
- 3 Claw
- 4 Sealing (accessory (8))

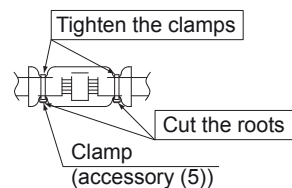
- (2) Draw the harness and lead wires (on the panel side).



- (3) Connect the connectors of the lead wires and move the glass tube to cover the connector part.



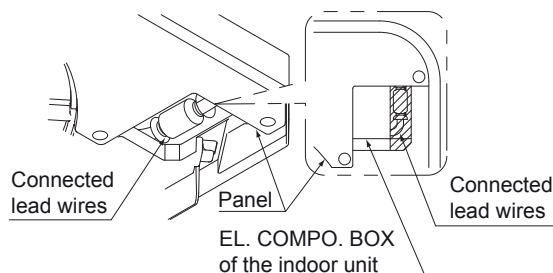
- (4) Tighten and secure both ends of the glass tube with the clamps on the glass tube together with provided clamps (accessories (5)). Cut the redundant portions of the clamps from their roots after the both ends are secured.



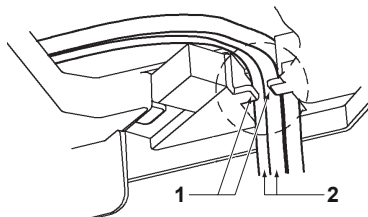
- (5) Return the connected lead wires to the space between the indoor unit and panel.
(Accommodate the lead wires in the shaded part shown in the illustration.)

Note

Accommodate the lead wires carefully so that the lead wires will not come in contact with the air filter.

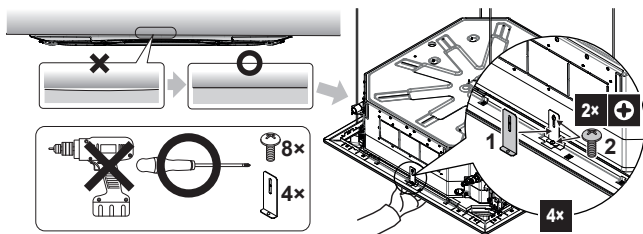


(6) Guide the lead wires through the hook.

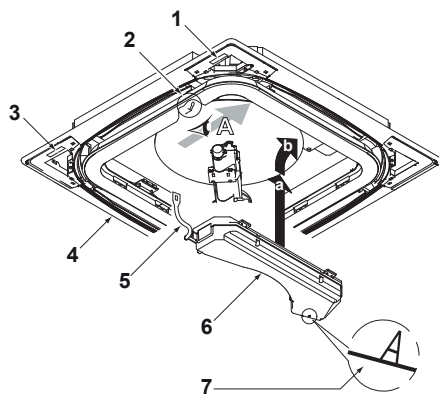


- 1 Hook
- 2 Guide the wires through the hook

(7) Fix the gap between the panel and the unit.

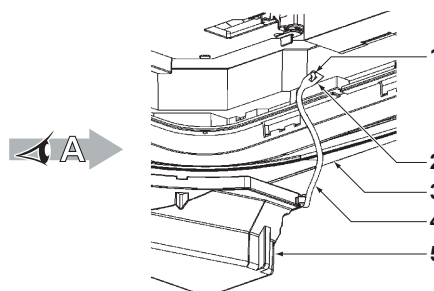


6-4 Attaching dust box



- 1 Engraved mark on piping side
- 2 Panel clasp
- 3 Engraved mark on drain side
- 4 Panel
- 5 Fall prevention cord
- 6 Dust box
- 7 Mount the dust box with the side where the mark is engraved faced downward.

(1) Hook the fall prevention cord for the dust box to the panel clasp as shown in the illustration.



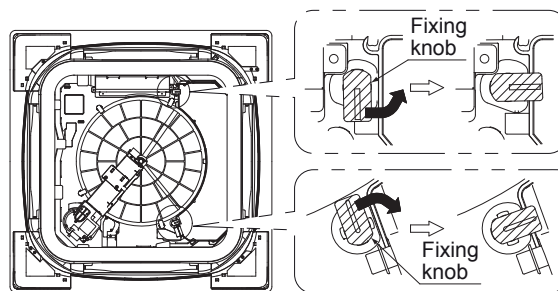
- 1 Clasp
- 2 Hooked fall prevention cord
- 3 Panel
- 4 Fall prevention cord
- 5 Dust box

(2) Attach the dust box in the order opposite to the procedure in "4-3 Removal of dust box" on page 3.

Note

Make sure that the fall prevention cord is not caught by the exhaust opening on the dust box when attaching the dust box. Otherwise, the dust box may not function normally.

(3) Turn the fixing knobs (in two points) of the dust box and secure the dust box.

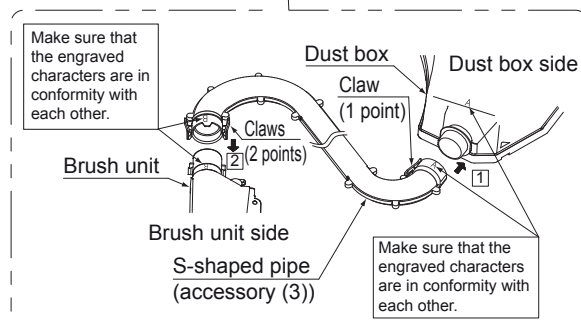
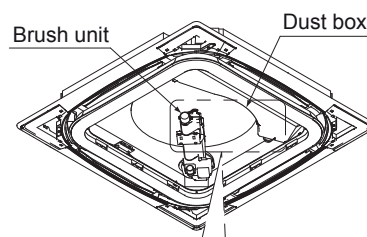


(The front side of the panel is shown for ease of explanation.)

6-5 Mounting S-shaped pipe (accessory (3))

Mount the dust box side (engraved with A) before mounting the brush side (engraved with B).

(Mount them so that the engraved characters will be in conformity.)



Note

Check that the claws are engaged securely. Otherwise, a dust collection failure may result.

7. Attaching suction grille and decoration corner covers

The suction grill can be rotated and attached in two directions, either one of which is selectable.
If a number of units are installed, adjust the directions of the suction grilles if necessary. Make directional changes as well at the request of the customer.

7-1 Attaching suction grille

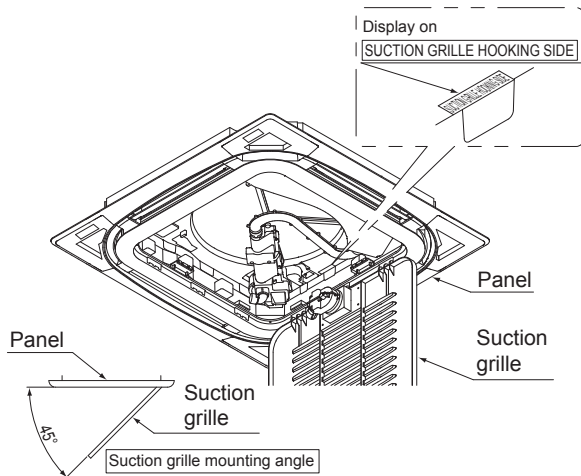
- * Select either the hook (A) or (B), and hook the claws of the suction grille.

Note

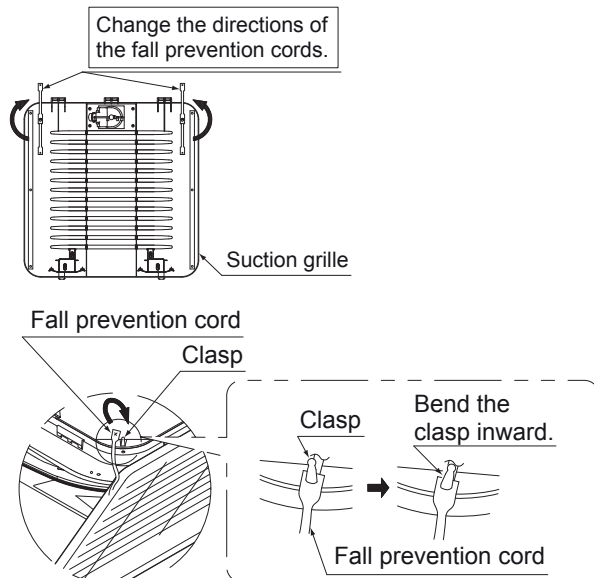
The suction grille may be damaged if the wrong hooking side is selected.

7-2 Hook (A)

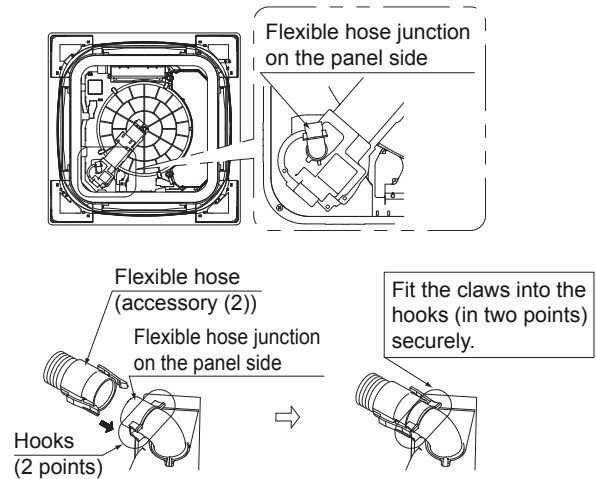
- (1) Set the suction grille to an angle of approximately 45° and put the hooks (in three points) onto the panel.



- (2) As shown in the illustration, hook the fall prevention cords for the suction grille to the corner clasps (on two corners).



- (3) Connect the flexible hose (accessory (2)) onto the panel side.
(The flexible hose (accessory (2)) has no directionality constraint.)



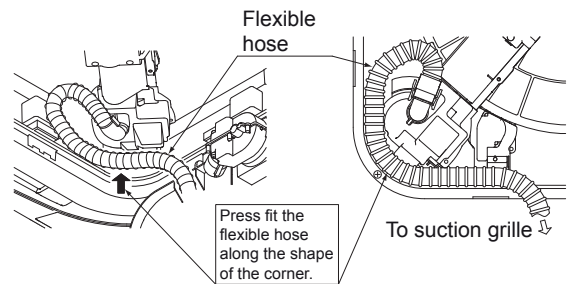
Note

Check that the claws are engaged securely. Otherwise, a dust collection failure may result.

- (4) Press fit the flexible hose connected in (3) into the panel.
(Pay attention so that the hose will not be caught by the suction grille closed.)

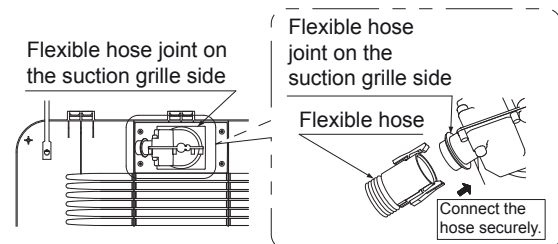
Note

Be sure not to break the flexible hose when press fitting the flexible hose.



- (5) Connect the opposite end of the flexible hose connected in (3) onto the suction grille side.

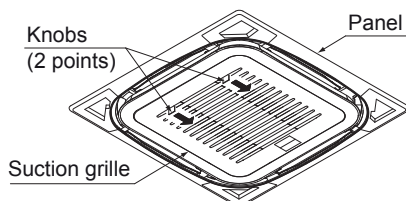
- * Rotate the flexible hose joint on the suction grille side according to the mounting direction of the suction grille as shown in the illustration.



Note

Check that the claws are engaged securely. Otherwise, a dust collection failure may result.

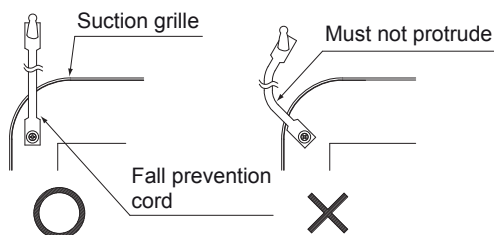
- (6) Push up the suction grille slowly first, and while pressing the two knobs, finally fit the grille into the panel securely.



Note

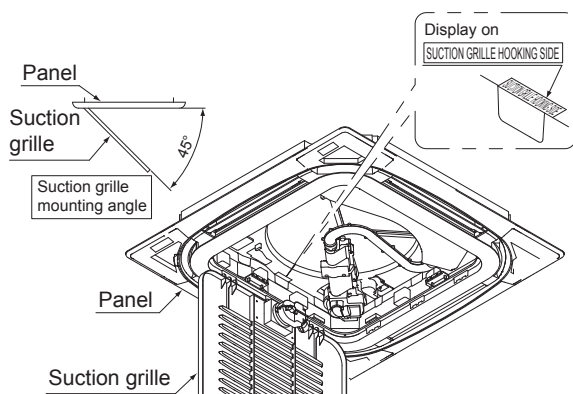
The suction grille can catch the fall prevention cords while the suction grill is closed.

Check that the fall prevention cords do not protrude from the suction grille before closing the suction grille.

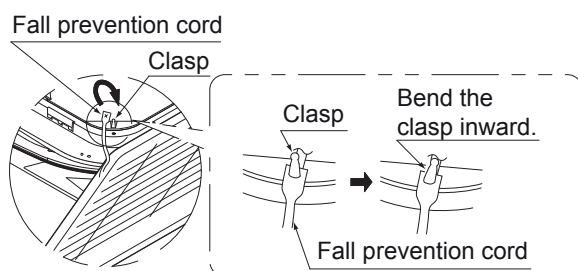
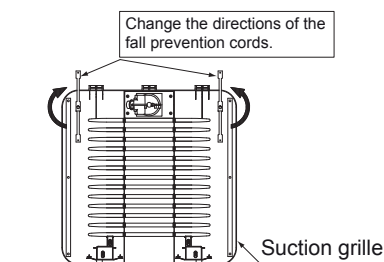


7-3 Hook (B)

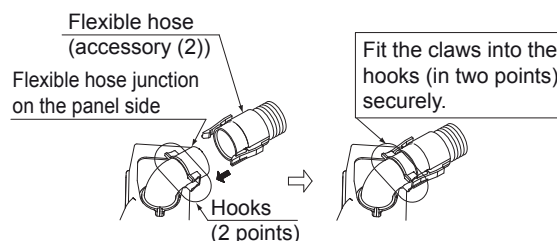
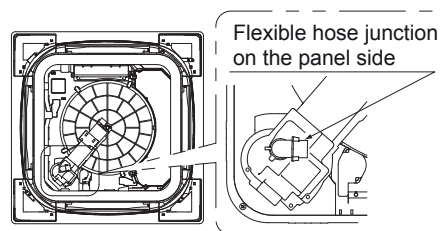
- (1) Set the suction grille to an angle of approximately 45° and put the hooks (in three points) onto the panel.



- (2) As shown in the illustration, hook the fall prevention cords for the suction grille to the corner clasps (on two corners).



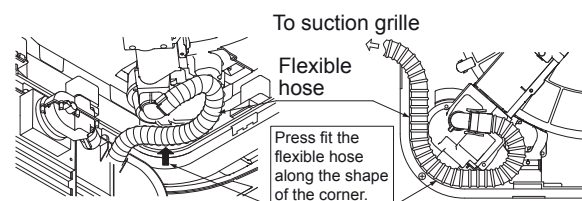
- (3) Connect the flexible hose (accessory (2)) onto the panel side. (The flexible hose (accessory (2)) has no directionality constraint.)



Note

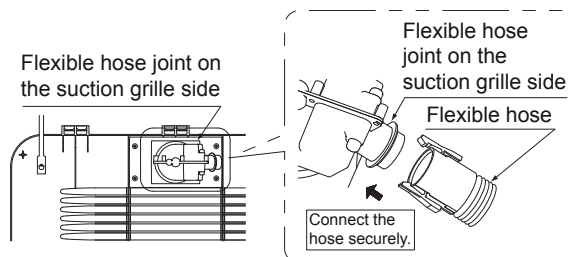
Check that the claws are engaged securely. Otherwise, a dust collection failure may result.

- (4) Press fit the flexible hose connected in (3) into the panel. Pay attention so that the hose will not be caught by the suction grille closed.



- (5) Connect the opposite end of the flexible hose connected in (3) onto the suction grille side.

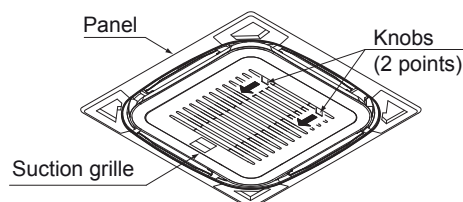
* Rotate the flexible hose joint on the suction grille side according to the mounting direction of the suction grille as shown in the illustration.



Note

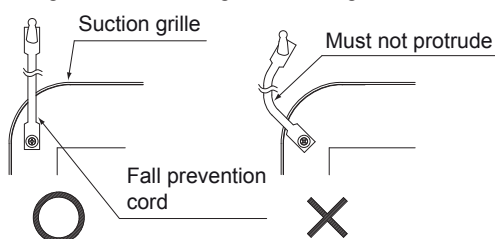
Check that the claws are engaged securely. Otherwise, a dust collection failure may result.

- (6) Push up the suction grille slowly first, and while pressing the two knobs, finally fit the grille into the panel securely.



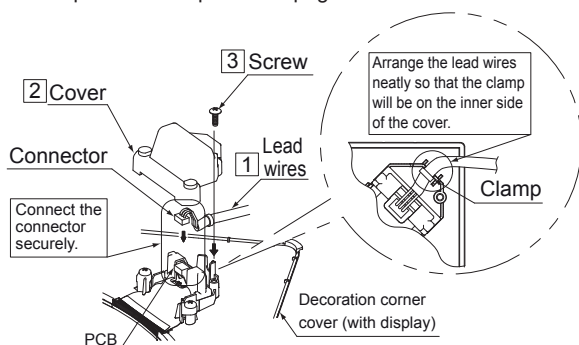
Note

The suction grille can catch the fall prevention cords while the suction grille is closed.
Check that the fall prevention cords do not protrude from the suction grille before closing the suction grille.

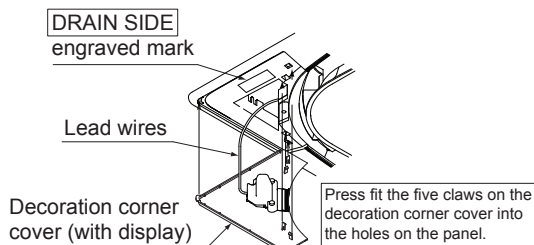


7-4 Attaching decoration corner covers

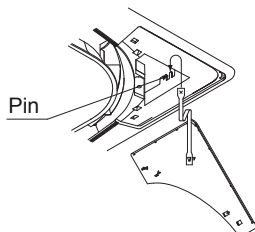
- (1) Connect the decoration corner cover (with the display) securely to the PCB in the order opposite to the procedure in "4. Preparations for panel" on page 3.



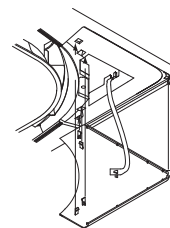
- (2) Attach the decoration corner cover (with the display) to the corner with the **DRAIN SIDE** engraved mark. Push the connected lead wires through the corner hole onto the backside of the ceiling.



- (3) Hook each of the cords of the remaining decoration corner covers (i.e., three covers) onto the corresponding pin on the panel.



- (4) Attach the decoration corner covers (i.e., the three covers) to the panel.



Press fit the five claws on the decoration corner cover into the holes on the panel.

8. Operation mode settings

Any one of the following operation modes can be selected for the filter auto cleaning of the self-clean panel.

Operation mode	Description
(1) Scheduled timer operation	Performs filter auto cleaning during the designated period selected from eight periods.
(2) 00:00-to-03:00 operation	Performs filter auto cleaning during the factory-set period of time (00:00 to 03:00).
(3) Auto control operation	Performs filter auto cleaning according to the control reference.

In consultation with the customer, set the desired operation mode by referring to the instructions on **Filter Auto Clean** in the operation manual for the Self Cleaning decoration panel.

At the time of delivery, refer to the contents of descriptions (1) through (3) in the above table and explain the customer when filter auto cleaning will start.

9. Field settings

Make settings in consultation with the customer according to the installation and usage conditions of the air conditioner. The following four settings are possible.

This product performs filter self cleaning once a week as factory default setting.

9-1 Display dust collection

Make settings in order to or not to display the dust collection sign.

9-2 Dust quantity settings

Make settings according to the quantity of dust/size of dust particles in the room, e.g. stores dealing in clothing=small dust particles.

9-3 Panel indicator (green) On/Off

The panel indicator (green) can display the following operating conditions. Make indicator settings according to the request of the customer.

Indicator	Operating conditions	Remarks
Green	Lit	Air-conditioning operation
	Flashing	Filter auto cleaning
		The indicator is turned off before shipping.

The red lamp to inform the customer of the time of dust collection will not be turned off.

9-4 Setting table

Make field settings according to the installation manual of the remote controller. (Settings in bold cells are factory set default.)

Setting item	Mode No.	First code	Second code No.					
			01	02	03	04	05	06
Display Dust Collection sign 1	10 (20)	(3)	Display	No display	—	—	—	—
Dust quantity settings (1)	14 (24)	(9)	Standard quantity of dust - average size particles	Large quantity of dust - average size particles	Standard quantity of dust - small size particles	Large quantity of dust - small size particles	—	—
Panel indicator (green) on/off	14 (24)	(4)	On while in air-conditioning operation and filter cleaning operation.	Possible to turn on while in filter cleaning operation only.	Off while in air-conditioning operation and filter cleaning operation.	—	—	—

(1) Valid from the next cleaning after the setting is made.

10. Test operation

Perform the test operation of the Self Cleaning decoration panel after the test operation of the indoor unit is finished.

The test operation of the Self Cleaning decoration panel is not possible while the indoor unit is in operation.

Note

Perform the test operation of the product after referring to "a. Test items on completion of work".

10-1 Check that the EL. COMPO. BOX lids of the indoor unit, outdoor unit, and self-clean panel, respectively, are closed

10-2 Turn the indoor unit power on

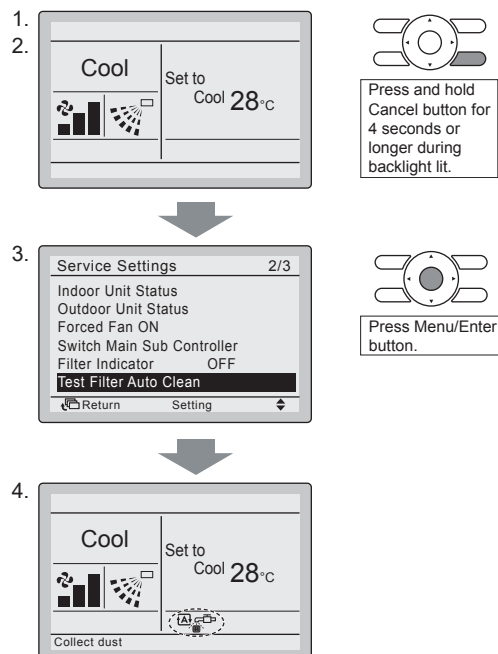
The panel will go into initialization operation after the power is turned on.

10-3 Conduct the test operation of the panel two minutes after the power is turned on

Confirm the cleaning operation of the filter with the remote controller.

Test operation method with remote controller

1. Stop the operation of the panel if the panel is in air-conditioning operation.
2. Continue pressing the Cancel button at least 4 seconds while the backlight is lit. The service settings menu will appear.
3. Select **Test Filter Auto Clean** from the service settings menu, and press the Menu/Enter button.
4. "Collect dust" will appear on the basic screen.
The display will disappear when the test operation is finished.
The required test operation time is approximately 10 minutes (in the case of setting the standard quantity of dust).



Backlight for LCD

Press any button and the backlight will be lit for approximately 30 seconds.

Perform the operation of buttons while the backlight is lit (except the On/Off button).

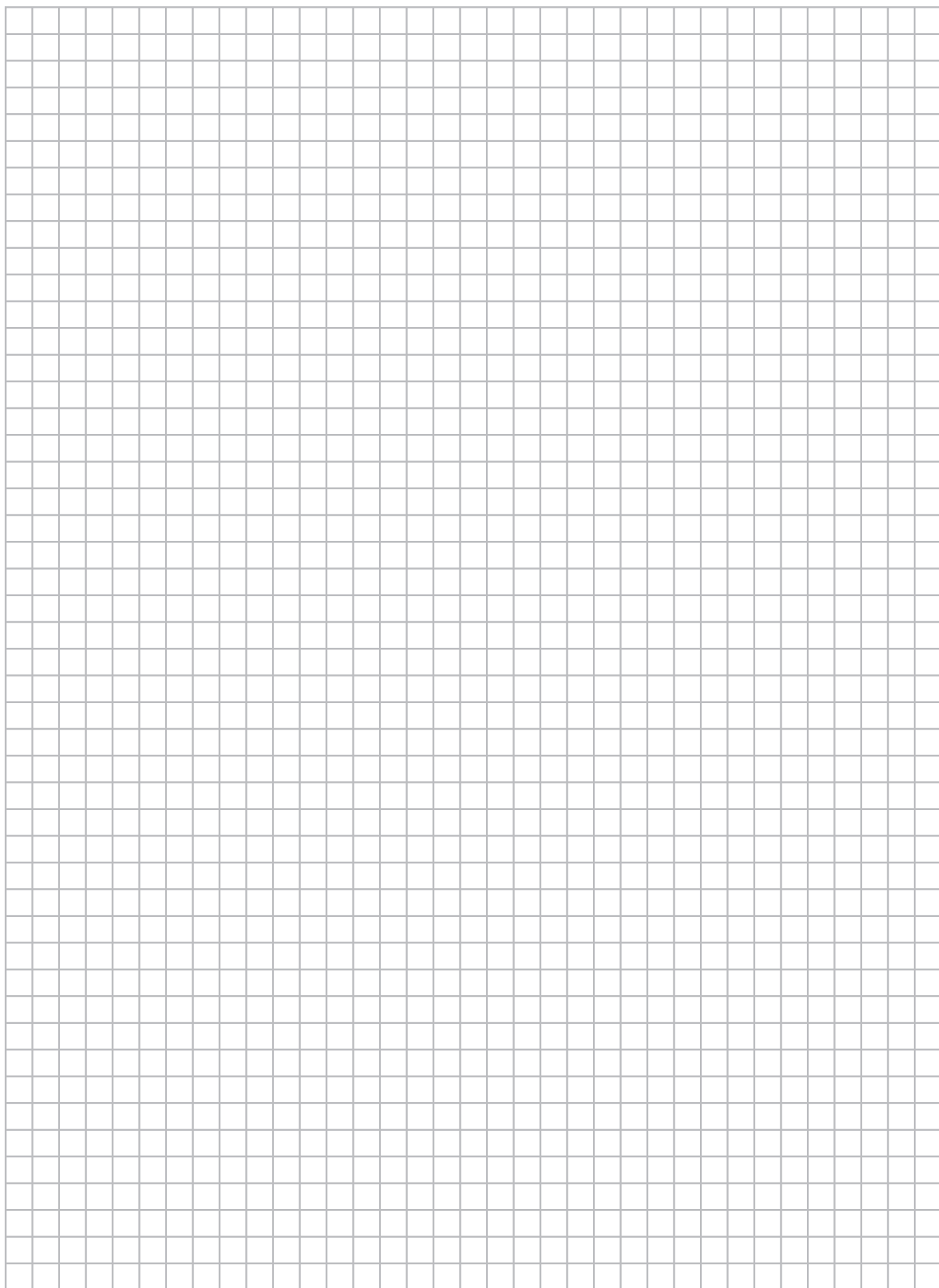
Test items on test operation

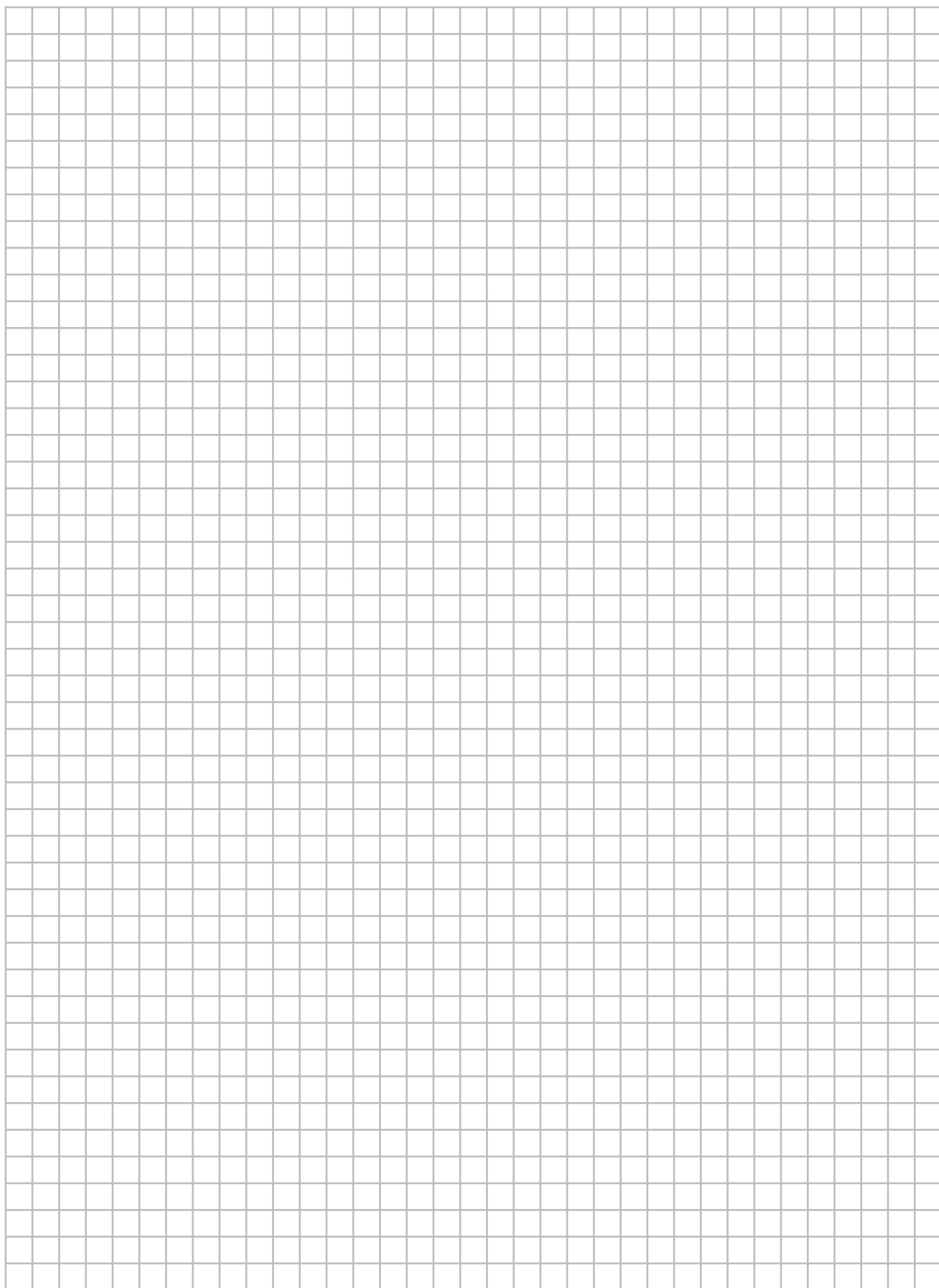
Test items	Remedy	Check result
Is the filter rotating?	Check the connector connections.	
Are the flaps fixed horizontally?		
Is "Collect dust" displayed on the screen of the remote controller?		

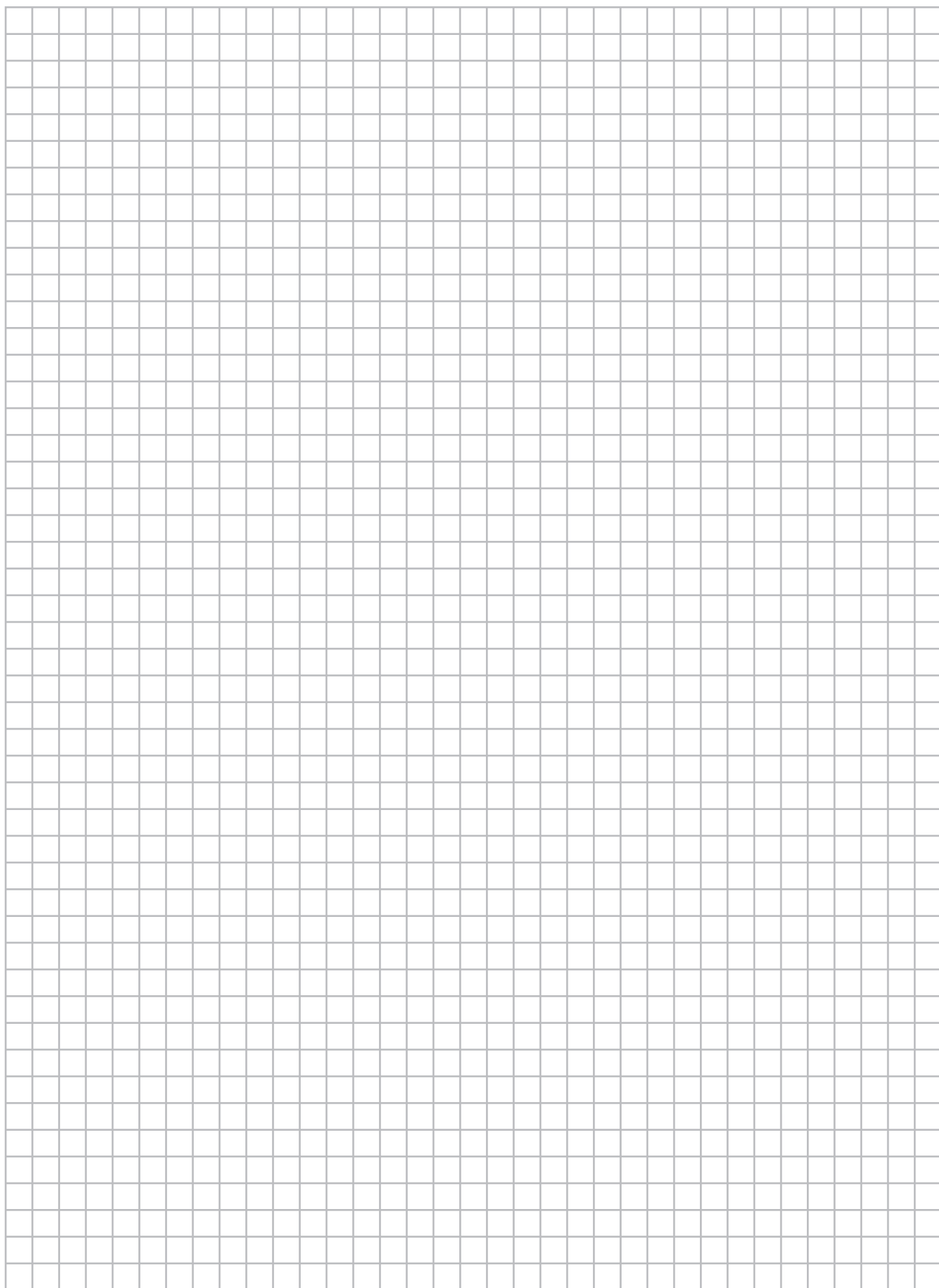
* The remote controller will display "AH" if the self-clean panel has an error.

Note

After the test operation of the product is finished, refer to "b. Test items before delivery" in the installation manual.







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4P558847-1A 2018.12