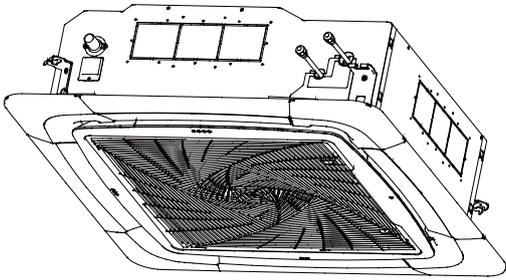


CASSETTE TYPE AIR CONDITIONER OPERATION MANUAL AND INSTALLATION MANUAL



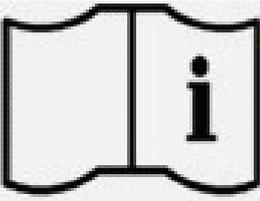
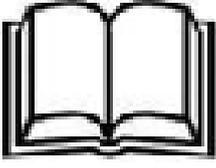
AB140S5SR1FA

Contents

Cautions	3
Remote Controller Operation Manual ..	6
Troubleshooting	8
Maintenance	11
Customer Need-to-know	12
Installation Procedure	13
Test Run	24
Move and scrap the air conditioning....	24
Accessories.....	25

No.0150570827

- This product must only be installed or serviced by qualified personnel. Please read this manual carefully before installation.
Keep this operation manual for future reference.
Original instructions

	<p>Read the precautions in this manual carefully before operating the unit.</p>		<p>This appliance is filled with R32.</p>
	<p>Service indicator; Read technical manual</p>		<p>Read the operator's manual</p>

Keep this manual where the user can easily find it.

WARNING

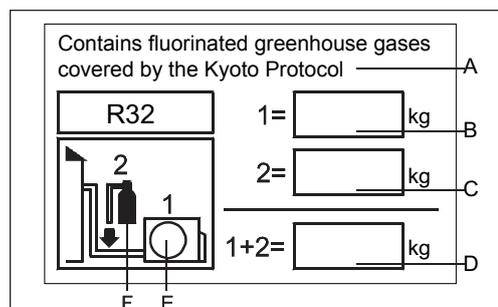
- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer.
- The appliance must be stored in a room without continuously operating ignition sources (for example: open flames, an operating gas appliance or an operating electric heater).
- Do not pierce or burn.
- Be aware that refrigerants may not contain an odour.
- If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.
- This appliance can be used by children aged 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.
- The wiring method should be in line with the local wiring standard.
- All the cables shall have got the European authentication certificate. During installation, when the connecting cables break off, it must be assured that the grounding wire is the last one to be broken off. The explosion-proof breaker of the air conditioner should be all-pole switch. Distance between its two contacts should not be no less than 3mm. Such means for disconnection must be incorporated in the wiring.
- Make sure installation is done according to local wiring regulation by professional persons.
- Make sure ground connection is correct and reliable.
A leakage explosion-proof breaker must be installed.
- Do not use a refrigerant other than the one indicated on the outdoor unit(R32) when installing, moving or repairing. Using other refrigerants may cause trouble or damage to the unit, and personal injury.
- The installation and service of this product shall be carried out by professional personnel, who have been trained and certified by national training organizations that are accredited to teach the relevant national competency standards that may be set in legislation.
- Mechanical connectors used indoors shall comply with ISO 14903. When mechanical connectors are reused indoors, sealing parts shall be renewed. When flared joints are reused indoors, the flare part shall be re-fabricated.
- This appliance is intended to be used by expert or trained users in shops, in light industry and on farms, or for commercial use by lay persons.
- Disconnect the appliance from its power source during service and when replacing parts

DISPOSAL REQUIREMENTS:

Your air conditioning product is marked with this symbol. This means that electrical and electronic products shall not be mixed with unsorted household waste. Do not try to dismantle the system yourself: the dismantling of the air conditioning system, treatment of the refrigerant, of oil and of other part must be done by a qualified installer in accordance with relevant local and national legislation. Air conditioners must be treated at a specialized treatment facility for reuse, recycling and recovery. By ensuring this product is disposed of correctly, you will help to prevent potential negative consequences for the environment and human health. Please contact the installer or local authority for more information. Battery must be removed from the remote controller and disposed of separately in accordance with relevant local and national legislation.



IMPORTANT INFORMATION REGARDING THE REFRIGERANT USED



This product contains fluorinated greenhouse gases covered by the Kyoto Protocol. Do not vent into the atmosphere.
Refrigerant type: R32 GWP:675

GWP=global warming potential

Please fill in with indelible ink,

*1 the factory refrigerant charge of the product

*2 the additional refrigerant amount charged in the field and

* 1+2 the total refrigerant charge

on the refrigerant charge label supplied with the product. The filled out label must be adhered in the proximity of the product charging port (e.g. onto the inside of the stop valve cover).

A contains fluorinated greenhouse gases covered by the Kyoto Protocol

B factory refrigerant charge of the product: see unit name plate

C additional refrigerant amount charged in the field

D total refrigerant charge

E outdoor unit

F refrigerant cylinder and manifold for charging

⚠ WARNING

If the supply cord is damaged, it must be replaced by the manufacturer, its service agent or similarly qualified persons in order to avoid a hazard.

This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.

Children should be supervised to ensure that they do not play with the appliance.

This appliance can be used by children aged from 8 years and above and persons with reduced physical, sensory or mental capabilities or lack of experience and knowledge if they have been given supervision or instruction concerning use of the appliance in a safe way and understand the hazards involved. Children shall not play with the appliance. Cleaning and user maintenance shall not be made by children without supervision.

The appliances are not intended to be operated by means of an external timer or separate remote-control system.

Keep the appliance and its cord out of reach of children less than 8 years.

Cautions

Disposal of the old air conditioner

Before disposing an old air conditioner that goes out of use, please make sure it's inoperative and safe. Unplug the air conditioner in order to avoid the risk of child entrapment.

It must be noticed that air conditioner system contains refrigerants, which require specialized waste disposal. The valuable materials contained in an air conditioner can be recycled. Contact your local waste disposal center for proper disposal of an old air conditioner and contact your local authority or your dealer if you have any question. Please ensure that the pipework of your air conditioner does not get damaged prior to being picked up by the relevant waste disposal center, and contribute to environmental awareness by insisting on an appropriate, anti-pollution method of disposal.

Disposal of the packaging of your new air conditioner

All the packaging materials employed in the package of your new air conditioner may be disposed without any danger to the environment.

The cardboard box may be broken or cut into smaller pieces and given to a waste paper disposal service. The wrapping bag made of polyethylene and the polyethylene foam pads contain no fluorochloric hydrocarbon.

All these valuable materials may be taken to a waste collecting center and used again after adequate recycling.

Consult your local authorities for the name and address of the waste materials collecting centers and waste paper disposal services nearest to your house.

Safety Instructions and Warnings

Before starting the air conditioner, read the information given in the User's Guide carefully. The User's Guide contains very important observations relating to the assembly, operation and maintenance of the air conditioner.

The manufacturer does not accept responsibility for any damages that may arise due to non-observation of the following instruction.

- Damaged air conditioners are not to be put into operation. In case of doubt, consult your supplier.
- Use of the air conditioner is to be carried out in strict compliance with the relative instructions set forth in the User's Guide.
- Installation shall be done by professional people. Don't install unit by yourself.
- For the purpose of safety, the air conditioner must be properly grounded in accordance with specifications.
- Always remember to unplug the air conditioner before opening inlet grill. Always grip plug firmly and pull straight out from the outlet.
- All electrical repairs must be carried out by qualified electricians. Inadequate repairs may result in a major source of danger for the user of the air conditioner.
- Do not damage any parts of the air conditioner that carry refrigerant by piercing or perforating the air conditioner's

tubes with sharp or pointed items, crushing or twisting any tubes, or scraping the coatings off the surfaces. If the refrigerant spurts out and gets into eyes, it may result in serious eye injuries.

- Do not obstruct or cover the ventilation grille of the air conditioner. Do not put fingers or any other things into the inlet/outlet and swing louver.
- Do not allow children to play with the air conditioner. In no case should children be allowed to sit on the outdoor unit. When the indoor unit is turned on, the PCB will test if swing motor is O.K., and then fan motor will start up. So there is a few seconds to wait.
- In cooling mode, the flaps will swing automatically to a fixed position for anti-condensating.
- This appliance is not intended for use by persons (including children) with reduced physical, sensory or mental capabilities, or lack of experience and knowledge, unless they have been given supervision or instruction concerning use of the appliance by a person responsible for their safety.
- Children should be supervised to ensure that they do not play with the appliance.

Specifications

The refrigerating circuit is leak-proof.

For all the models in this manual, the all-pole disconnection connection method should be applied in the power supply. Such means for disconnection must be incorporated in the fixed wiring.

Cooling	Indoor temperature	max. DB/WB min. DB/WB	32/23°C 18/14°C
	Outdoor temperature	max. DB/WB min. DB/WB	43/26°C 10/6°C
Heating	Indoor temperature	max. DB/WB min. DB/WB	27°C 15°C
	Outdoor temperature	max. DB/WB min. DB/WB	24/18°C -15°C

If the supply cord is damaged, it must be replaced by the manufacturer or its service agent or a similar qualified person. If the fuse on PC board is broken please change it with the type of T 5A /250VAC.

The wiring method should be in line with the local wiring standard.

The waste battery shall be disposed properly.

The indoor unit installation height is at least 2.5m.

The air breaker and the power switch should be installed in a conveniently reachable place for user.

1. Even the machine line cable should be: H05RN-F 4G 2.5mm².

All the cables shall have got the European authentication certificate. During installation, when the connecting cables break off, it must be assured that the grounding wire is the last one to be broken off.

2. Appliances which are intended to be maintained by qualified service personnel and located either in machine rooms and the like or at a level not less than 2,5 m or in secured rooftop areas.

Cautions

Carefully read the following information in order to operate the air conditioner correctly.

Below are listed three kinds of Safety Cautions and Suggestions.

⚠ WARNING: Incorrect operations may result in severe consequences of death or serious injuries.

⚠ CAUTION: Incorrect operations may result in injuries or machine damages; in some cases may cause serious consequences.

⚠ INSTRUCTIONS: These information can ensure the correct operation of the machine.

Symbols used in the illustrations

⊘: Indicates an action that must be avoided.

⚠: Indicates that important instructions must be followed.

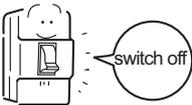
⚡: Indicates a part which must be grounded.

⚡: Beware of electric shock (This symbol is displayed on the main unit label.)

After reading this handbook, hand it over to those who will be using the unit.

The user of the unit should keep this manual at hand and make it available to those who will be performing repairs or relocating the unit. Also, make it available to the new user when the user changes hands.

Be sure to conform with the following important Safety Cautions.

⚠ WARNING	
<ul style="list-style-type: none"> • If any abnormal phenomena is found (e. g. smell of firing), please cut off the power supply immediately, and contact the dealer to find out the handling method. In such case, to continue using the conditioner will damage the conditioner, and may cause electrical shock or fire hazard. 	<ul style="list-style-type: none"> • When need maintenance and repairment, call dealer to handle it. Incorrect maintenance and repairment may cause water leak, electrical shock and fire hazard. 
<ul style="list-style-type: none"> • Don't blow the human body with the cooling air too long, and don't let the room temperature decrease too low either. Otherwise the one will feel unpleasant or harm ones' health. 	<ul style="list-style-type: none"> • Don't put fingers or any other things into the inlet/outlet and swing louver while the conditioner is in operation. Because the highspeed fan is very dangerous and may cause injuries. 
<ul style="list-style-type: none"> • Call the dealer to take measures to prevent the refrigerant from leaking. If conditioner is installed in a small room be sure to take every measure in order to prevent suffocation accident even in case of refrigerant leakage. 	<ul style="list-style-type: none"> • Please let the dealer be responsible for installing the conditioner. Incorrect installation may cause water leak, electrical shock and fire hazard. • When conditioner is deinstalled or reinstalled dealer should be responsible for them. Incorrect installation may cause water leaking, electrical shock and fire hazard.
⚠ CAUTION	
<ul style="list-style-type: none"> • Conditioner should not be used for any other purpose other than airconditioning. Don't use air-conditioner for any other special purposes, e.g. the preservation and protection of food, animals, plants, precision apparatus as well as work of art, otherwise the qualities of these stuffs may be damaged. 	<ul style="list-style-type: none"> • When air-conditioner is co-used with other heat-radiator the frequent replacement of room atmosphere should be required. Inefficient ventilation may cause suffocation. 
<ul style="list-style-type: none"> • Don't dismantle the outlet of the outdoor unit. The exposure of fan is very dangerous which may harm human beings. 	<ul style="list-style-type: none"> • After a long time use of air-conditioner the base should be checked for any damages. If the damaged base is not repaired, the unit may fall down and cause accidents.
<ul style="list-style-type: none"> • Don't dismantle the outlet of the outdoor unit. The exposure of fan is very dangerous which may harm human beings. 	<ul style="list-style-type: none"> • No goods or nobody is permitted to placed on or stand on outdoor unit. The falling of goods and people may cause accidents.

Cautions

⚠ CAUTION

- Don't dismantle the outlet of the outdoor unit.
The exposure of fan is very dangerous which may harm human beings. 
- Pets and plants should not be blown directly in the air flow.
Otherwise will suffer damage. 
- Don't operate the air-conditioner with damp hands.
Otherwise will be shocked. 
- Only use correctly-typed fuse.
May not use wire or any other materials replacing fuse, otherwise may cause faults or fire accidents. 
- Air-conditioner should be cleaned only after power supply is cut off to keep from shock or hurt. 
- Don't clean air-conditioner with water.
Otherwise may cause shock. 

- After a long time use of air-conditioner the base should be checked for any damages.
If the damaged base is not repaired, the unit may fall down and cause accidents. 
- No goods or nobody is permitted to placed on or stand on outdoor unit.
The falling of goods and people may cause accidents. 
- Don't place any burning unit in the air flow of air-conditioner, which may cause incomplete combustion. 
- No inflammable spray fluid should be permitted to be placed or used near to air-conditioner otherwise may cause fire accidents. 
- When use the fumigating insecticide don't open air-conditioner.
Otherwise the poisonous chemicals may settle in air-conditioner which harm the health of chemical-allergic people. 

⚠ INSTRUCTIONS:

Please ask the dealer or specialist to install, never try by the users themselves. After the installation please be sure of the following conditions.

⚠ WARNING:

Please call dealer to install the air-conditioner.

Incorrect installation may cause water leaking, shock and fire hazard.

⚠ CAUTION:

- Air-conditioner can't be installed in the environment with inflammable gases because the inflammable gases near to airconditioner may cause fire hazard.
- Installed electrical-leaking circuit breaker.
It easily cause electrical shock without circuit breaker.
- Connect earthing wire.
Earthing wire should not be connected to the gas pipe, water pipe, lightning rod or phone line, incorrect earthing may cause shock.



Earthing

- Use discharge pipe correctly to ensure efficient discharge.
Incorrect pipe use may cause water leaking.

[Location]

- Air-conditioner should be located in well-vented and easily-accessible place.
- Air-conditioner should not be located in the following places:
 - (a) Places with machine oils or other oil vapours.
 - (b) Seaside with high salt content in the air.
 - (c) Near to hot spring with high content of sulfide gases.
 - (d) Area with frequent fluctuation of voltage e.g. factory, etc.
 - (e) In vehicles or ships.
 - (f) Kitchen with heavy oil vapour or humidity.
 - (g) Near to the machine emitting electric-magnetic waves.
 - (h) Places with acid, alkali vapour. TV, radio, acoustic appliances etc are at least 1 m far away to the indoor unit, outdoor unit, power supply wire, connecting wire, pipes, otherwise images may be disturbed or noises be created.

[Wiring]

Air-conditioner should be equipped with special power supply wire.

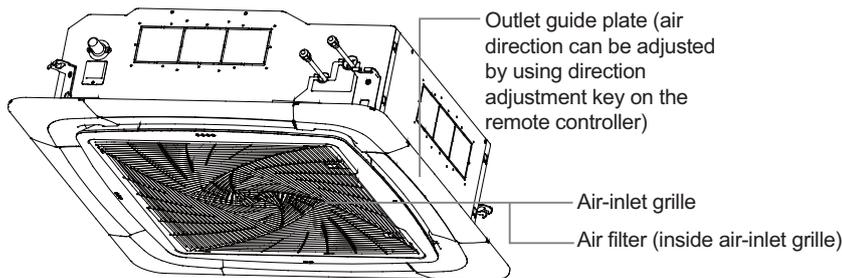
[Operating noise]

- Chose the following locations:
 - (a) Capable of supporting air-conditioner weight, don't increase operating noise and vibration.
 - (b) Hot vapour from outdoor unit outlet and operating noise don't disturb neighbour.
No obstacles around the outdoor unit outlet.

Remote Controller Operation Manual

Component names and applicable models

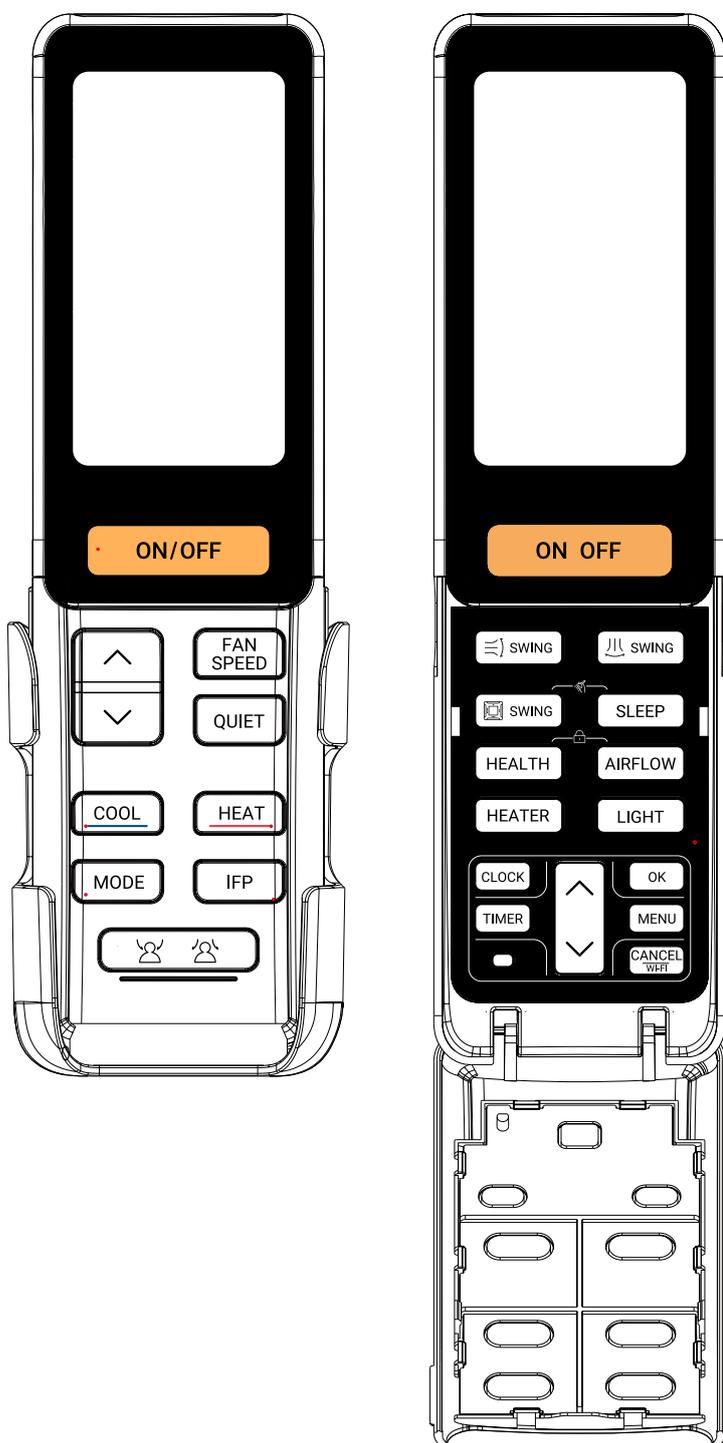
Indoor unit



External View of Remote Controller

Remote Controller function description

This remote Controller is a general remote Controller, and some functions are valid according to the adaptable model.



Functional description

1.ON/OFF Button:

Turning on the units:Press the **ON/OFF** button to turning on the units.

Note: The initial default operation mode is AUTO and then will display the mode before turning off

Press **ON/OFF** button again to turn off the unit.

2. temperature +/- Button:

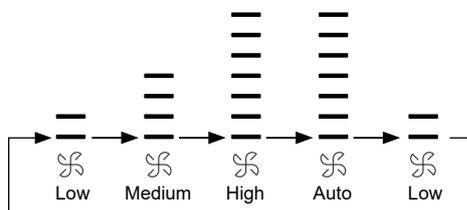
(1)This button is invalid in FAN mode;

(2)Press button once, temperature will increase or decrease

by 0.5°C; pressing and holding the button will make the temperature change quickly.

3. FAN SPEED Button:

Press the **FAN SPEED** button, the cycle sequence is as follows:



4. QUIET

Press **QUIET** button, the controller screen will display " QUIET "

. The fan speed in Quiet function is automatic fan speed, but the specific fan speed grade in auto depends on indoor unit.

Note: This function is valid under the mode of COOL and HEAT.

5. COOL/ HEAT

Press **COOL** button and **HEAT** button to execute COOL mode and HEAT mode .

6. MODE

Press the **MODE** button every time, the cycle sequence is as

follows: → → → → →

7. IFP/

(1) Press **IFP** button, display "IFP", IFP function is set, and press **IFP** button again to cancel.

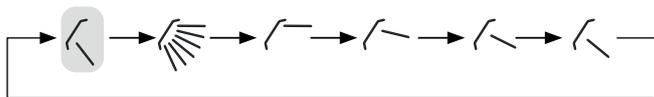
(2) Press button, display that expresses following; press it again, display that expresses evading. Press it the third time to cancel this function.

(3) Airflow angle will adjust automatically along with the location of people. At the same time, , and will disappear.

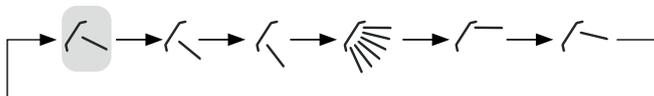
Remote Controller Operation Manual

8. Up-and-down SWING Angle

Each time you press the button , Remote control display cycle sequence:
HEAT MODE:

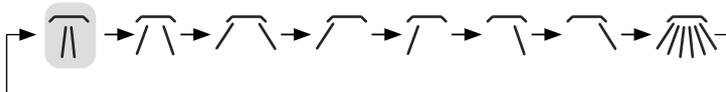


Other modes:



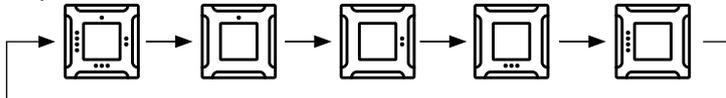
9. Right-and-left SWING Angle adjustment

Each time you press the button , the remote control will display the following cycle:



10. Round-way cassette swing angle adjustment

Each time you press the button , Remote control display cycle sequence:



When pressing  button to select blade, the selected blade flashes. Press "Up-and-down Angle" button to adjust airflow angle of the selected blade.

11. SLEEP

Press the  button, and the remote controller screen will display "Sleep". The SLEEP time is fixed to 8 hours and is not adjustable. Press the  button again, and the sleep function will be cancelled.

Note:

- (1) Sleep function is invalid in FAN mode.
- (2) Sleep function is only valid during the units turning on.

12. HEALTH

- (1) When the controller is switched on, press  button, health function is activated and the remote controller will display "HEALTH".
- (2) When the controller is turned off, press the  button, the controller will be turned on, enter FAN mode and display "HEALTH".
- (3) If the Health function is set and activated, Press Health button will cancel this function.

13. Health AIRFLOW

Press the  button and the remote controller screen displays "AIRFLOW".

Press  again to cancel this function.

14. HEATER

Press the  button, and the remote controller will display "HEATER".

Press  button again, the "HEATER" on the remote controller will disappear, and the HEATER function will be turned off.

Note: Heater function is only valid in AUTO and HEAT mode.

15. LIGHT

Press the  button to activate the light function.

Press the  button again, and the light function is off.

16. CLOCK

Press the  button, the time displayed on the remote controller

flashes. Then Press the  button once, the time increases or decreases by one minute. Holding the button will quickly increase or decrease the time.

To complete the set time, press  /  button again to confirm.

17. TIME

(1) When the controller is on, you can only set the TIMER OFF. And when the controller is off, you can only set the TIMER ON.

When the remote controller is off, press the  button to enter the TIMER ON adjustment state.

Press the  button under the starting state of the remote control to enter the TIMER OFF adjustment state.

When entering the timing adjustment process, timer ON/OFF icon and clock flash at the same time, the initial default value is:

12:00. Press the  button once to increase or decrease the time

by 1 minutes, pressing and holding the button will speed up the adjustment.

After the time adjustment is completed, press the  /  button again to confirm. Then the time will statically display, and start the countdown.

18. MENU

Press the  button, Functional cycle is as follows: TURBO → FRESH → IFP AC OFF → IFP AC ECO → 3D AIR(reserved) →  →  → 10°C heating (Only valid in HEAT mode) → °F / °C → TURBO

1. Press  button, the current function to be set flashes;
2. Press  button again to set/cancel the current setting function in the above sequence. If there is no operation in 5 seconds, it will exit automatically.

19. Wi-Fi Configuration

Press  button 3S to enter Wi-Fi configuration, remote controller displays COOL mode, LOW fan speed and 30°C. Or you can enter the Wi-Fi configuration through setting Cooling mode, Low fan speed and 30°C.

20. SELF-CLEAN

Press the combined button  and , and the remote controller will display "SELF-CLEAN".

Press  button or  button to exit the self-cleaning function.

Note: The "SELF-CLEAN" function is invalid under "SLEEP" function and "TIMER" function.

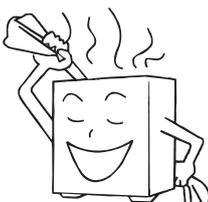
21. LOCK

Press the combination key button  and , and the remote controller screen will display "". All buttons on the remote control are invalid.

Press the combination button  and  again to cancel the lock, "" disappear. All buttons on the controller will restore to be valid.

Troubleshooting

The followings are not malfunction

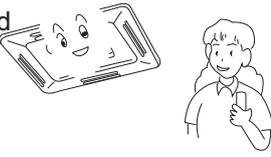
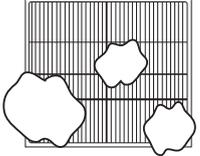
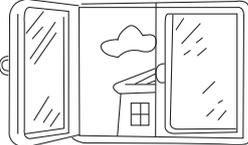
<p>Water flowing sound is heard</p> 	<p>When the air conditioner is started, when the compressor starts or stops during operation or when the air conditioner is stopped, it sometimes sounds "Bi- Bi-" or "Godo-Godo". It is the flowing sound of the refrigerant, not a malfunction.</p>
<p>Cracking sound is heard</p>	<p>This is caused by heat expansion or contraction of plastics</p>
<p>It smells.</p>	<p>Air blown out from the indoor unit sometimes smells. The smell results from smells of furniture, paint, tobacco absorbed by indoor unit.</p>
<p>During operation, white fog comes out of indoor unit.</p> 	<p>When in COOL or DRY mode, a thin water fog can be seen blown out of unit, this is the condensed fog because the suddenly cooled indoor air is blown out.</p>
<p>Automatically switch into FAN mode during cooling.</p>	<p>To prevent frost from being accumulated on the indoor unit heat exchanger, it sometimes automatically switched into the FAN mode, but it will soon back to the cooling mode.</p>
<p>The air conditioner cannot be restarted soon after it stops. Air conditioner does not start?</p> 	<p>This is because of the self-protection function of the system, therefore, it cannot be restarted for about three minutes after it stops. Please wait for three minutes</p>
<p>Air does not blow or the fan speed cannot be changed during drying.</p>	<p>In DRY mode, when room temperature becomes 2°C higher than temperature setting, unit will run intermittently at LO speed regardless of FAN setting</p>
<p>Water or vapor generated from the outdoor unit during heating.</p> 	<p>This happens when the frost accumulated on the outdoor unit is removed (during defrosting operation).</p> <p style="text-align: right;">Defrosting operation</p> 
<p>During heating, indoor fan is still running even unit is stopped.</p>	<p>To get rid of the excess heat, indoor fan will continue running for a while after unit automatically stops.</p>

Please check the following things about your air conditioner before making a service call.

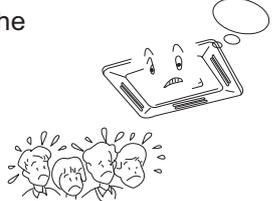
Unit fails to start.		
<p>Is the power supply switch on ?</p>  <p>Power supply switch is not in ON position.</p>	<p>Is city supply power normal ?</p> 	<p>Is the earth leakage breaker in action ?</p> <p>Be sure to turn off the power supply switch immediately and contact the sales dealer.</p>

Troubleshooting

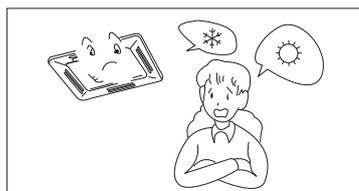
Insufficient cooling or heating

<p>The operation controller adjusted as required</p> 	<p>Air filter too dirty ?</p> 	<p>Horizontal swing louver upward ? (in HEAT mode)</p> 
<p>Any obstacle exists at the air inlet or outlet?</p> 	<p>Door or window left opened ?</p> 	

Insufficient cooling

<p>Any other heat sources in the room?</p> 	<p>Sunlight direct into the room ?</p> 	<p>Too crowded in the room ?</p> 
--	--	--

Cooled air blown out (when heating)



When the air conditioner does not operate properly after you have checked the above-mentioned items or when following phenomenon is observed, stop the operation of the air conditioner and contact your sales dealer.

- 1)The fuse or breaker often shuts down.
- 2)Water drops off during cooling or drying operation.
- 3)There is an irregularity in operation or abnormal sound that is audible.

Troubleshooting

For AB140S5SR1FA

LED flash times of indoor PCB		I.R.Receiver digital display	Contents of Malfunction	Possible reasons
LED6	LED1			
0	1	E1	Malfunction of indoor unit ambient temperature sensor	Sensor disconnected,or broken,or at wrong position,or short circuit
0	2	E2	Malfunction of indoor unit piping temperature sensor	Sensor disconnected,or broken,or at wrong position,or short circuit
0	7	E7	Abnormal communication between indoor and outdoor units	Wrong connection,or the wires be disconnected or wrong adress setting of indoor unit or faulty power supply or faulty PCB
0	8	E8	Abnormal communication between wired controller and indoor unit	Wrong connection or wired controller broken,or PCB faulty
0	12	E10	Malfunction of drain system	Pump motor disconnected or at wrong position,or the float switch disconnected or at wrong position, or the short circuit bridge disconnected
0	13	C1	Zero cross sigal wrong	Zero cross sigal detected wrong
0	14	E14	Indoor unit DC fan motor abnormal	DC Fan motor disconnected, or DC Fan broken or circuit broken
0	11	E11	The R32 refrigerant leaks	The R32 refrigerant leaks
0	19	E19	Malfunction of The R32 detector	Detector disconnected,or broken
3	5	E15	Malfunction of outdoor unit	Check the outdoor unit
6	1	F41	System pressure switch off	Check the system pressure

1.The outdoor failure can also be indicated by the indoor unit,the checking method as follows: LED6 flash times stands for ten's place,and LED1 flash times stands for one's place, use this ten-digit number minus 20,then will get the outdoor error code.For example,if the outdoor error code is 15,LED6 will flash 3 times firstly,two seconds later,LED1 will flash 5 times , and four seconds later the process will repeat again.

2.LED6 is a green one on the indoor PCB,LED1 is a yellow o

3.To get much more details about the out door unit failure,please refer to the outdoor unit trouble shooting list.

Maintenance

Clean the unit

Turn off the power supply switch	Do not touch with wet hand.	Do not use hot water or volatile liquid
		

NOTE: For detailed information consult dealer.

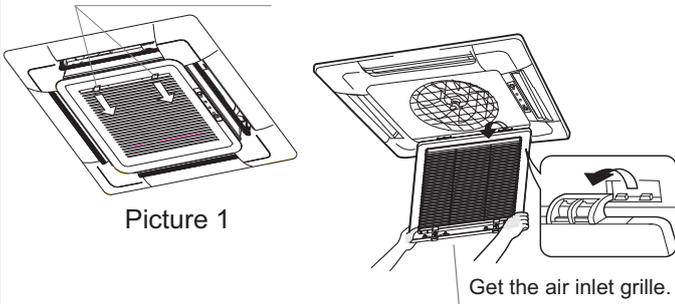
Air filter washing

- Please don't tear down the air filter, or it may lead to trouble.
- If the environment where the aircon works is full of dust, the air filter should be wash more times than ever (it is usually twice a week).

1. Get the air inlet grille

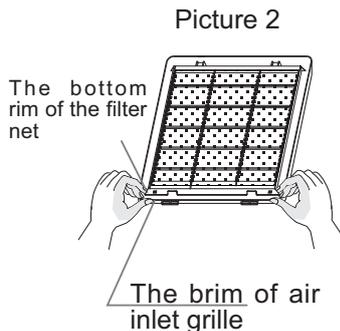
Look at picture 1, press the two embedding switch vertically to make it close to the side grille, then raise it for about 45° to take the air inlet grille down.

Press the embedding switch according to the direction of the arrowhead.



2. Tear down the air filter (Picture 2)

Press the outer brim of the air inlet grille with your thumb, at the same time, pull out the bottom rim of the filter net slightly with your forefinger, so the filter net can part from the embedding switch for us to get it easily.

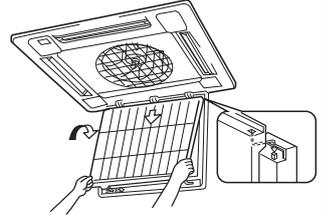


PS: the pictures above are only models, pls obey the real machinery.

Clean the air inlet grille

(1). Open air inlet grille

Pull the two handles at the same time, slowly draw them out. (when closing it, the procedure is reversed.)

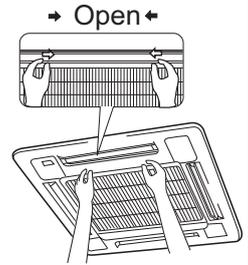


(2). Remove air filter

Referring to "Clean the air filter".

(3). Remove the air inlet grille

Open the air inlet grille for 45°, the lift it up.

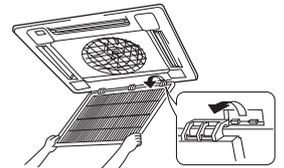


(4). Clean

⚠ Notice

Do not use the hot water over 50°C to clean to avoid discoloration or deformation.

Use soft brush, water and neutral detergent to clean, then throw the water off.



When there is too much dust

Use ventilation fan or directly spray the detergent special for kitchen ware on the air inlet grille, 10 minutes later use water to clean



(5). Install air inlet grille

Referring to procedure 3.

(6). Install the air filter

Referring to "Clean the air filter"

(7). Close air inlet grille

Referring to procedure 1.

⚠ WARNING

This working shall only be carried out by competent persons.

Maintenance

Seasonal Reserve

Post-season Care

Operate the unit with FAN mode on a fair day for about half a day to dry the inside of the unit well.

Stop operation and turn off the power supply switch .Electric power is consumed even the air conditioner is in stop.

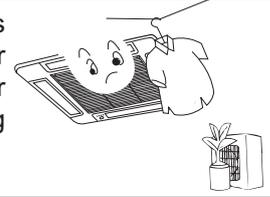


Clean the air filter, indoor unit and outdoor unit, and cover the unit with dustcoat.



Pre-season Care

See that there is no obstacles blocking the air inlet and air outlet of both indoor and outdoor unit to avoid reduce the working efficiency.



Be sure to install the air filter, ensure that the air filter is not dirty. Otherwise may result in machine damages or cause malfunction due the dust inside the unit

To prevent compressor when start in HEAT mode, please cut in the power supply switch 12 hours before starting run, furthermore, always keep the power supply switch on during the using season.



NOTE:

The inner part of indoor unit must be cleaned. Consult dealer, because clean must be done by technician. In cooling operation, discharging system discharge water in room.

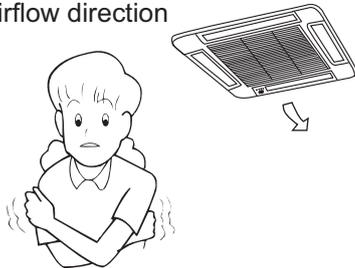
Customer Need-to-know

Customer Need-to-know

- Please install the air conditioner according to the requirements specified in this manual to ensure the air conditioner work well.
- Be careful not to scratch the surface of the case during moving the air conditioner.
- Please keep the installation manual for future reference when maintenance and changing installation place.
- After installation ,please use the air conditioner according to the specification in the operation manual.

Using Directions

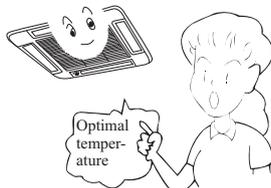
Adjust suitable airflow direction



Avoid direct sunlight and airflow

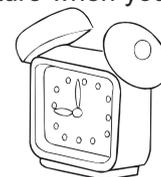


Keep the proper indoor temperature. Too cool or hot is not good for your health. Furthermore, it will result in excessive consumption of electric power.



Effectively use timer.

Using TIMER mode, you can make the room temperature reach a suitable temperature when you wake up or back home.



CAUTIONS:

To ensure proper installation, read "Cautions" carefully before working. After installation, start the unit correctly and show customers how to operate and maintain the unit.

Meanings of Warning and Cautions:

⚠ WARNING: Serious injury or even death might happen, if it is not observed.

⚠ CAUTION: Injury to people or damages to machine might happen, if it is not observed.

⚠ WARNING:

- Installation shall be done by professional people, don't install unit by yourself. Incorrect installation will cause water leakage, electric shock or fire.
- Install unit as per the Manual. Incorrect installation will cause water leakage, electric shock or fire accident.
- Be sure to use specified accessories and parts. Otherwise, water leakage, electric shock, fire accident or unit falling down may happen.
- Unit should be placed on a place strong enough to hold the unit. Or, unit will fall down causing injuries.
- When install the unit, take in consideration of storms, typhoon, earthquake. Incorrect installation may cause unit to fall down.
- All electric work shall be done by experienced people as per local code, regulations and this Manual.
- Use exclusive wire for the unit. Incorrect installation or undersized electric wire may cause electric shock or fire accident.
- All the wires and circuit shall be safe. Use exclusive wire firmly fixed. Be sure that external force will not affect terminal block and electric wire. Poor contact and installation may cause fire accident.
- Arrange wire correctly when connecting indoor and outdoor power supply. Fix terminal cover firmly to avoid overheat, electric shock or even fire accident.
- In case refrigerant leakage occurred during unit installation, keep a good ventilation in the room.
- Poisonous gas will occur when meet with fire.
- Check the unit upon installation. Be sure there is no leakage. Refrigerant will induce poisonous gas when meet heat source as heater, oven, etc.
- Cut power supply before touching terminal block.

⚠ CAUTION:

- Unit shall be grounded. But grounding shall not be connected to gas pipe water pipe, telephone line. Poor grounding will cause electric shock.
- Be sure to install a leakage breaker to avoid electric shock.
- Arrange water drainage according to this Manual. Cover pipe with insulation materials in case dew may occur. Unproper installation of water drainage will cause water leakage and wet your furniture.
- To maintain good picture or reduce noise, keep at least 1 m from T.V. radio, when install indoor and outdoor unit, connecting wire and power line. (If the radio wave is relatively strong, 1 m is not enough to reduce noise).
- Don't install unit in following places:
 - (a) Oil mist or oil gas exists, such as kitchen, or, plastic parts may get aged, or water leakage.
 - (b) Where there is corrosive gas. Copper tube and welded part may be damaged due to corrosion, causing leakage.
 - (c) Where there is strong radiation. This will affect unit's control system, causing malfunction of the unit
 - (d) Where flammable gas, dirt, and volatile matter (thinner, gasoline) exist, These matter might cause fire accident.
- Refer to paper pattern when installing unit.



Cautions for the installation personnel

Don't fail to show customers how to operate unit.

1 BEFORE INSTALLATION <Don't discard any accessories until comp>

- Determine the way to carry unit to installation place.
- Don't remove packing until unit reaches installation place.
- If unpacking is unavoidable, protect unit properly.

2 SELECTION OF INSTALLATION PLACE

(1) Installation place shall meet the following and agreed by customers:

- Place where proper air flow can be ensured.
- No block to air flow.
- Water drainage is smooth.
- Place strong enough to support unit weight.
- Place where inclination is not evident on ceiling.
- Enough space for maintenance.
- Indoor and outdoor unit piping length is within limit. (Refer to Installation Manual for outdoor unit.)
- Indoor and outdoor unit, power cable, inter unit cable are at least 1 m away from T.V. radop. This is helpful to avoid picture disturbance and noise. (Even if 1 m is kept, noise can still appear if radio wave is strong)

(2) Ceiling height

Indoor unit can be installed on ceiling of 2.5-3m in height. (Refer to Field setting and Installation Manual of ornament panel.)

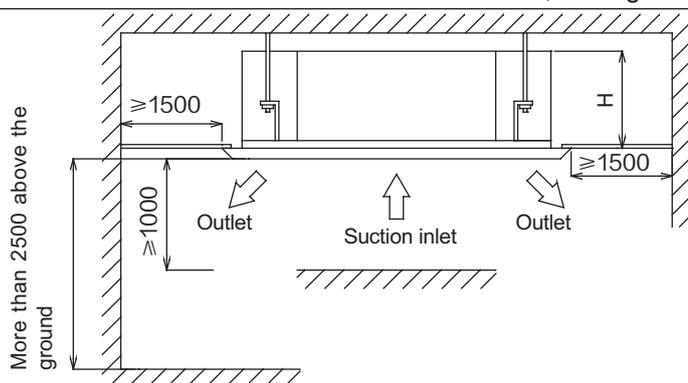
(3) Install suspending bolt.

Check if the installation place is strong enough to hold weight. Take necessary measures in case it is not safe. (Distance between holes are marked on paper pattern. Refer to paper pattern for place need be reinforced)

(4) Selection of installation location of outdoor

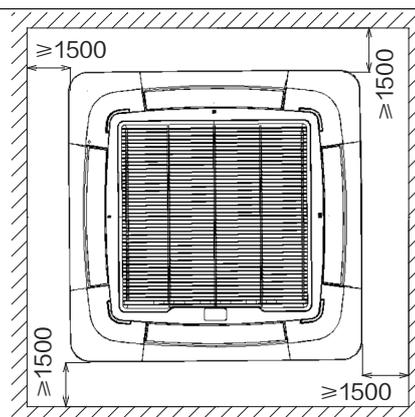
With consent from the user, installation location shall:

- Be sufficient to bear weight of the units, with air circulation.
- Avoid direct radiation from heat sources or other heat sources.
- Facilitate the drainage of condensate. Holes in wall shall also facilitate drainage.
- Be such that noise and heat air will not disturb neighbors.
- Be free of heavy snow in winter.
- Allow air inlets and outlets to be free of barriers.
- Not allow air outlet to directly face strong airflow.
- Facilitate installation at four corners, with 1m space above the unit.
- Be convenient for maintenance and repair.
- For installation of multiple units, sufficient space shall be ensured to avoid short circuit.
- The air conditioner shall not be mounted on a non-dedicated metal frame (e.g. burglar mesh).
- When the outdoor unit is installed on a street side, its height shall not be less than 2.5m.



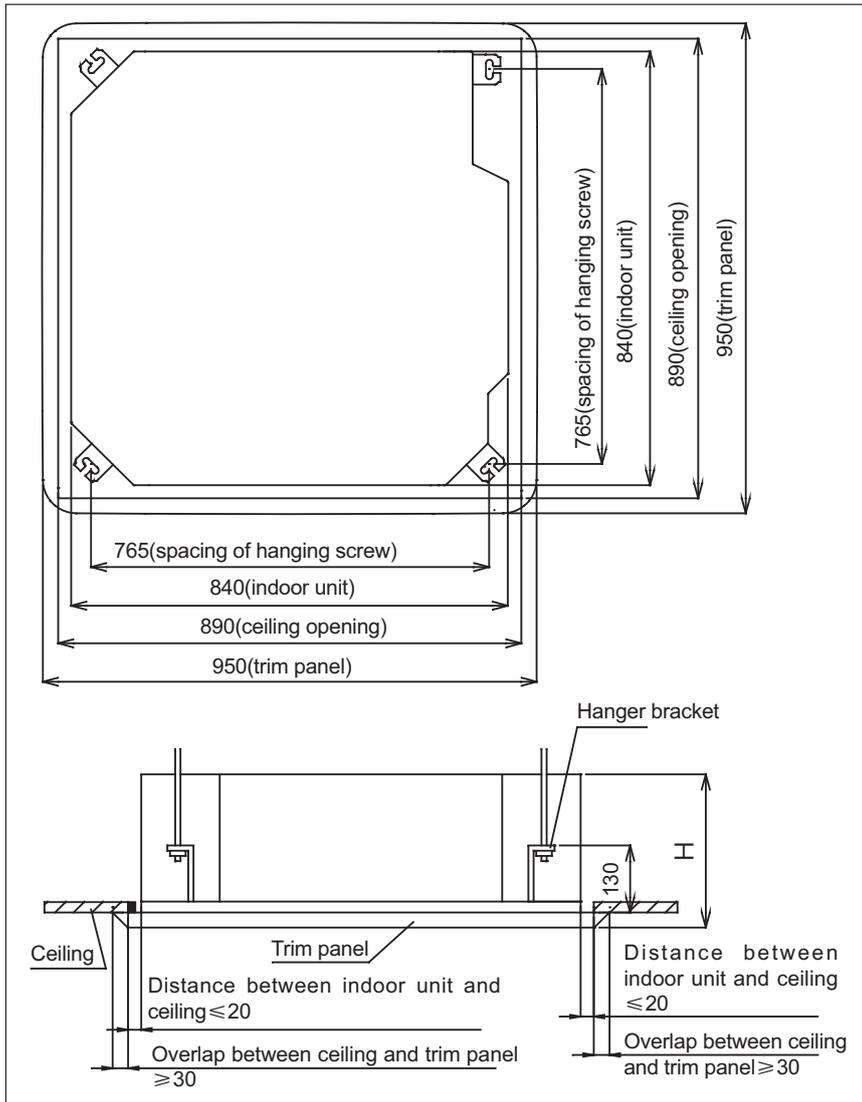
Space required for installation (unit: mm)

Model	H
AB140S5SR1FA	311



③ Preparation before installation

(1) Location relationships between ceiling opening and hanging screw



Model	H
AB140S5SR1FA	341

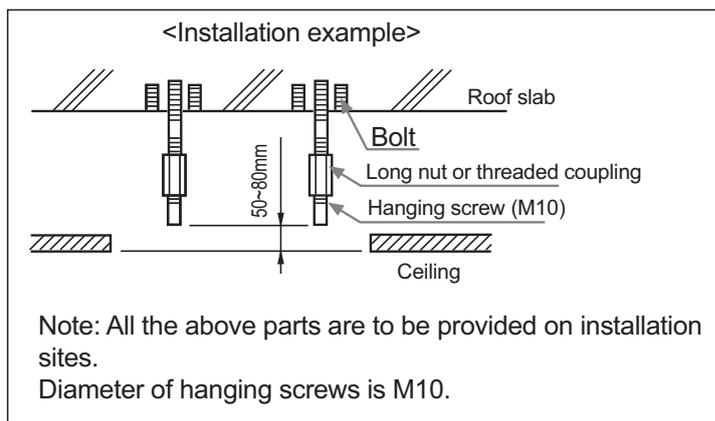
Note:

Overlap between the ceiling and decorative panel shall be 30mm or more. The distance between indoor unit and ceiling shall be 20mm or less. If it's more than 20mm, add ceiling materials at ■ or repair the ceiling.

(2) Complete all pipes (for refrigerants and drainage) and wires (for connection of indoor and outdoor units) to be connected to indoor unit before installation so that they can be connected to indoor unit immediately after installation.

(3) Install hanging screws

- To bearing the unit weight, use foundation bolts on existing ceilings, or embedded bolts, buried bolts or other parts that is provided on site on new ceilings. Before installation is continued, adjust the distance from ceiling.



4 Installation of indoor unit

Installation sequence on new ceiling: (1)→(2)→(3)→(4)→(5)→(6)

Installation sequence on new ceiling: (1)→(3)→(4)→(5)

(1) Temporary installation of indoor unit

- Attach hangers to hanging screws, and make sure to use nuts and washers on both upper and lower ends of hangers so as to fix them firmly. A washer fixing plate (to be provided on site) can prevent the washer from dropping off.

<Work at ceilings>

(2) Adjust units to appropriate installation locations.

Refer to "(3)Preparation before installation."

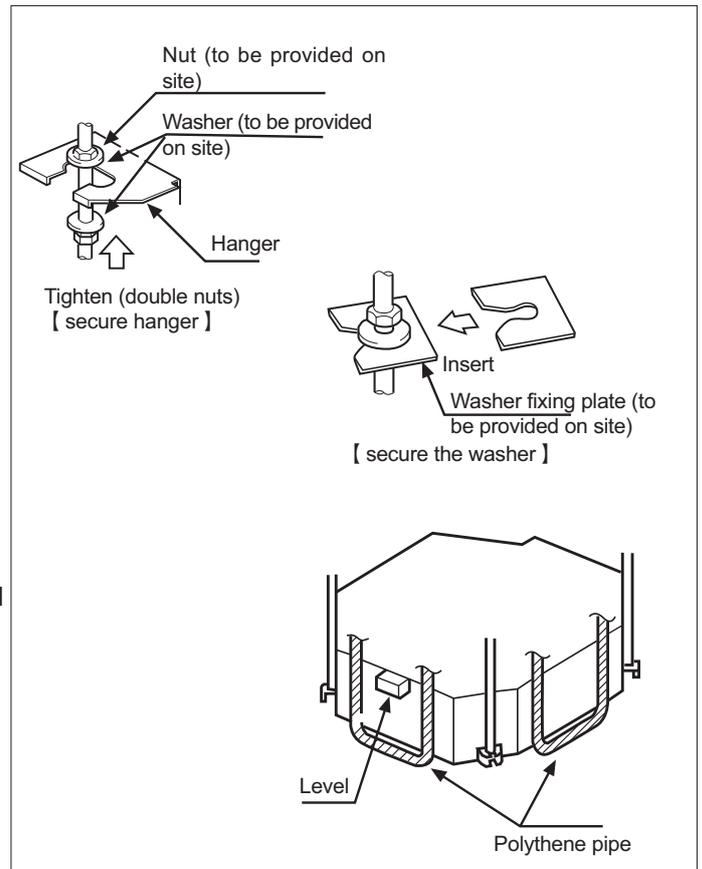
(3) Correct levelness of air conditioner units.

- The indoor unit is equipped with a built-in drainage pump and a float switch. Correct levelness with a level or water-filled polyethylene pipe.

Note: if the unit inclines towards reverse direction of condensate flow, the float switch can not work normally and water leakage will be resulted.

(4) Pull out the original fixing plate that prevents the washer from dropping off, and tighten nuts.

(5) Remove the installation cardboard.



5 Installation of drain pipe

(1) Install drain pipe

- Diameter of the drain pipe shall be greater than or equal to that of the connecting pipe. (PE pipe: size: 25mm; O.D.: 32mm)
- The drain pipe shall be short and have a downward slope of at least 1/100 to prevent pockets.
- If it is impossible to provide sufficient slope to the drain pipe, a drain lift pipe shall be installed.
- To avoid bending of the drain pipe, hangers shall be kept 1-1.5m away from each other.



Use a drain hose and clamp.

Insert the drain hose into the drainage outlet until it reaches the white tape. Then tighten the clamp.

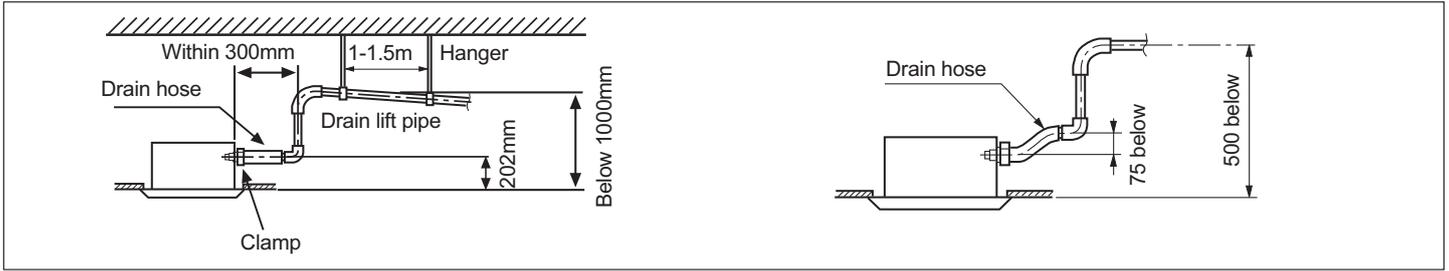
For heat insulation, wind the drain hose with sealing gaskets. Provide heat insulation to indoor drain hose.



<Precautions for drain lift pipe>

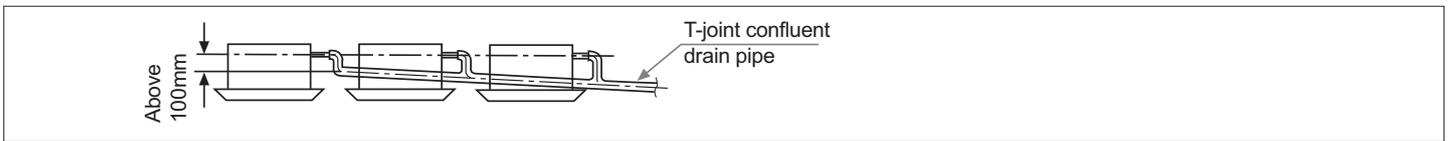
The drain lift pipe shall be installed as low as possible.

The drain lift pipe shall be perpendicular to the unit and not more than 300mm away from the unit



Note:

- The slope of accessory drain pipe shall be within 75mm so that the drainage outlet does not necessarily bear excessive external force.
- If multiple drain pipes join together, install them as follows.



The size of confluent drain pipe selected shall be suitable for operating capacity of the units.

(2) Check drainage is smooth after installation.

- Check drainage by filling in 1200cc water slowly from air outlet or inspection hole.

⑥ Installation Instruction for Embedded Air-Conditioning Panel

1. Before installation

Warning

The trim panel shall be put on buffer materials when unpacked to prevent being scratched by hard objects.

Please confirm the following accessories delivered with the product:



Bolt (M6*20) Qty:4

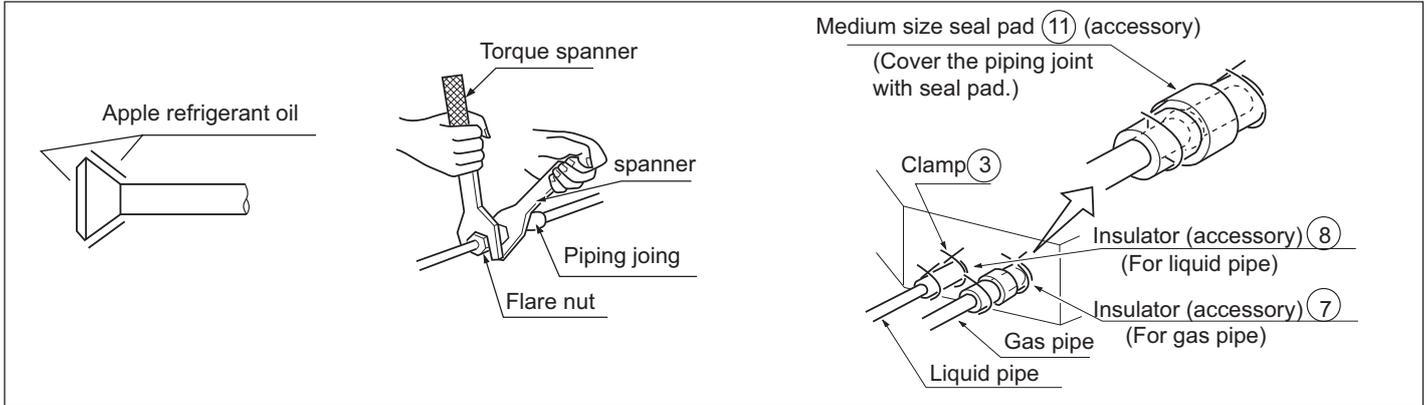
Connect and fix the power supply cable, indoor-outdoor connection cable as following:

Installation Procedure

Indoor unit

⑦ REFRIGERANT PIPING(As for outdoor piping, please refer to installation Manual of outdoor unit.)

- Outdoor is precharged with refrigerant.
- Be sure to see the Fig.1, when connecting and removing piping from unit.
- For the size of the flare nut, please refer to Table 1.
- Apply refrigerant oil at both inside and outside of flare nut. Tighten it band tight 3-4 turns then tighten it.
- Use torque specified in Table 1. (Too much force may damage flare nut, causing gas leakage).
- Check piping joints for gas leakage. Insulate piping as shown in Fig. below.
- Cover joint of gas piping and insulator ⑦ with seal.



Pipe size

Model	Liquid side	Gas side
AB140S5SR1FA	Ø9.52mm	Ø19.05mm

Table 1

Pipe size	Tighten torque	A(mm)	Flare shape
φ6.35	1420~1720N.cm (144~176kgf.cm)	8.3~8.7	
φ9.52	3270~3990N.cm (333~407kgf.cm)	12.0~12.4	
φ12.7	4950~6030N.cm (490~500kgf.cm)	12.4~16.6	
φ15.88	6180~7540N.cm (630~770kgf.cm)	18.6~19.0	
φ19.05	9720~11860 N.cm (990~1210 kgf.cm)	22.9~23.3	

8 Electrical wiring

⚠ WARNING

DANGER OF BODILY INJURY OR DEATH

- TURN OFF ELECTRIC POWER AT CIRCUIT BREAKER OR POWER SOURCE BEFORE MAKING ANY ELECTRIC CONNECTIONS.
- GROUND CONNECTIONS MUST BE COMPLETED BEFORE MAKING LINE VOLTAGE CONNECTIONS.

Precautions for electrical wiring

- Electrical wiring work should be conducted only by authorized personnel.
- Do not connect more than three wires to the terminal block. Always use round type crimped terminal lugs with insulated grip on the ends of the wires.
- Use copper conductor only.

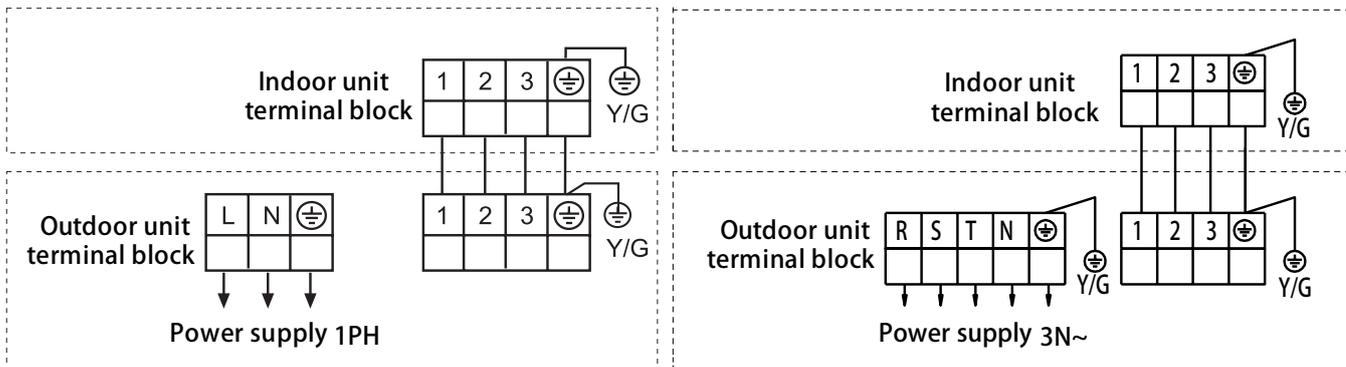
Selection of size of power supply and interconnecting wires

Select wire sizes and circuit protection from table below. (This table shows 20 m length wires with less than 2% voltage drop.)

Model \ Item	Outdoor Phase	Circuit breaker		Power source wire size (minimum) (mm ²)	Earth leakage breaker	
		Switch breaker (A)	Overcurrent protector rated capacity (A)		Switch breaker(A)	Leak current(mA)
AB140S5SR1FA	1	32	20	6.0	32	30

POWER SUPPLY & INDOOR-OUTDOOR CONNECTION:

Make wiring to supply power to the outdoor unit, so that the power for the indoor unit is supplied by outdoor unit terminal blocks.

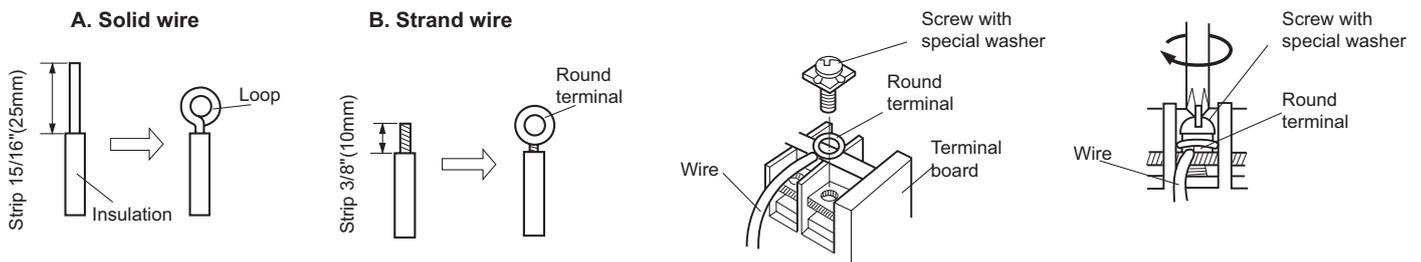


For solid core wiring (or F-cable)

- (1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 15/16"(25mm) to expose the solid wire.
- (2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
- (3) Using pliers, bend the solid wire to form a loop suitable for the terminal screw.
- (4) Shape the loop wire properly, place it on the terminal board and tighten securely with the terminal screw using a screwdriver.

For strand wiring

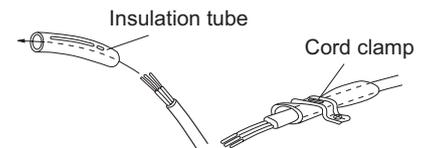
- (1) Cut the wire end with a wire cutter or wire-cutting pliers, then strip the insulation to about 3/8"(10mm) to expose the solid wire.
- (2) Using a screwdriver, remove the terminal screw(s) on the terminal board.
- (3) Using a round terminal fastener or pliers, securely clamp a round terminal to each stripped wire end.
- (4) Position the round terminal wire, and replace and tighten the terminal screw using a screwdriver.



Fix connection cord and power cable at the cord clamp

After passing the connection cord and power cable through the insulation tube, fasten it with the cord clamp.

Use VW-1, 0.5 to 1.0 mm thick, PVC tube as the insulation tube.



CAUTION

- Match the terminal block numbers and connection cord colors with those of the outdoor unit. Erroneous wiring may cause burning the electric parts.
- Connect the connection cords firmly to the terminal block. Imperfect installation may cause a fire.
- Always fasten the outside covering of the connection cord with the cord clamp. If the insulator is chafed, electric leakage may occur.
- Always connect the ground wire.

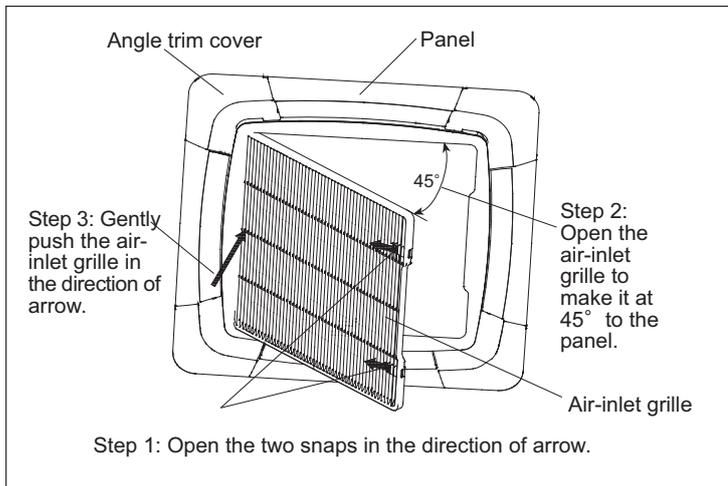
9 Panel installation

(1) Confirming the position of unit hanger

Please confirm the installation position of the hanger for indoor unit is about 130mm above the ceiling. For details, please refer to the Instructions for Installation and Maintenance of indoor unit.

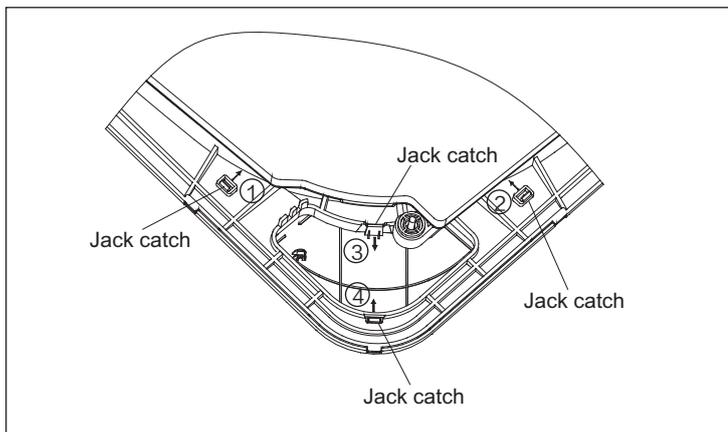
(2) Removing the air-inlet grille

Open the air-inlet grille to make it at an angle of 45° to the trim panel. As shown in the following figure, please remove the air-inlet grille as per the operation requirements.



(3) Installing the panel

1) Please remove the four (4) angle trim panels. Removal method: Flip the jack catches of the angle trim panel in the order of ①②③④, as shown in the following figure. The flipping direction is indicated by the arrows. Then the angle trim panel can be removed.

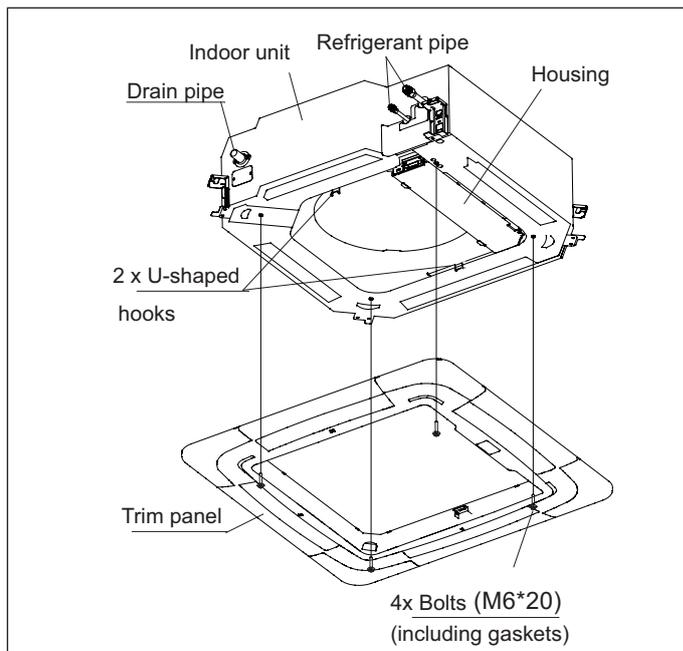


2) Pull out the two (2) U-shaped hooks on the indoor unit from below.

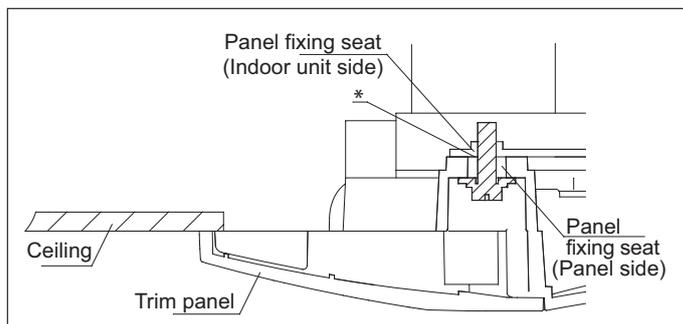
3) Adjust the panel direction to make the angle side engraved with "Pipe side" consistent with the refrigerant pipe of the indoor unit, and make the angle side engraved with "Drain side" consistent with the drain side of the indoor unit. Then hang the 2 hooks in the inner side of the panel on the 2 U-shaped hooks of the indoor unit.

4) Finally fix the panel on the indoor unit with the bolts (M5*25) and gaskets delivered with the unit.

Caution: Gaskets must be used for fixing, or else the panel would be easy to fall off.

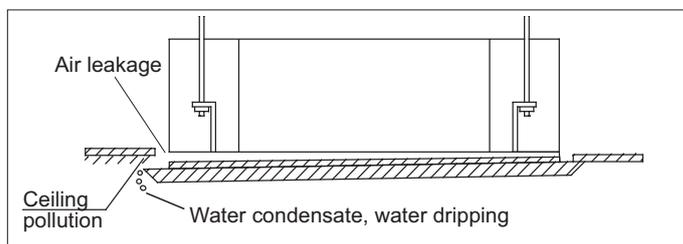


5) When tightening the four (4) bolts, please make sure there is no clearance between the panel fixing seat on the side of the indoor unit and the panel fixing seat on the side of the panel. That is to say: the bolts shall be fully tightened (see * in the figure). If there is a clearance, air leakage or water leakage is likely to occur.

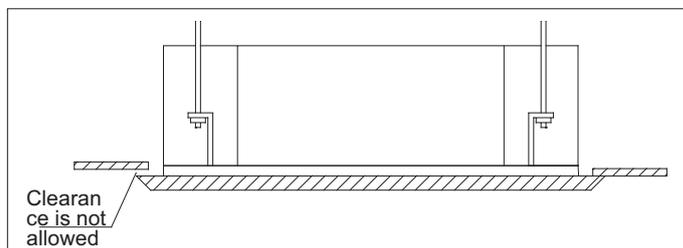


Caution:

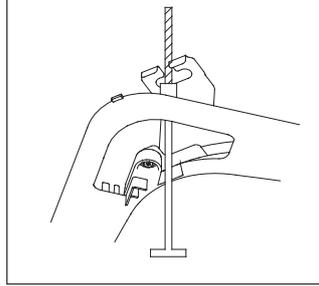
• Improper tightening of bolts would lead to the faults shown in the following figure.



• After tightening the bolts, if there is a clearance between the ceiling and the trim panel, please readjust the height of the indoor unit.

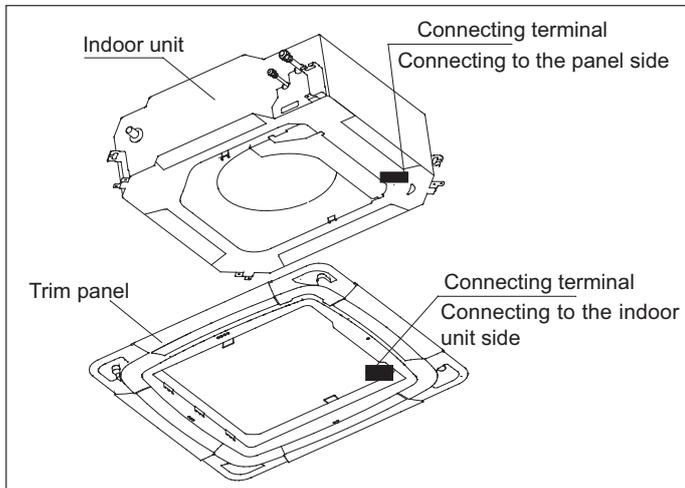


If the elevation level of the indoor unit and drain pipe are not affected, you can adjust the height of the indoor unit through the corner pore on the trim panel. Please keep the unit horizontal in the process of adjustment, or else water leakage is easy to occur.



- Please do not swing the louver blade by hand, or else the blade mechanism would be damaged.

6) Connection of trim panel. Connect the black lead-out terminal of the panel to the black lead-out terminal of the indoor unit housing.



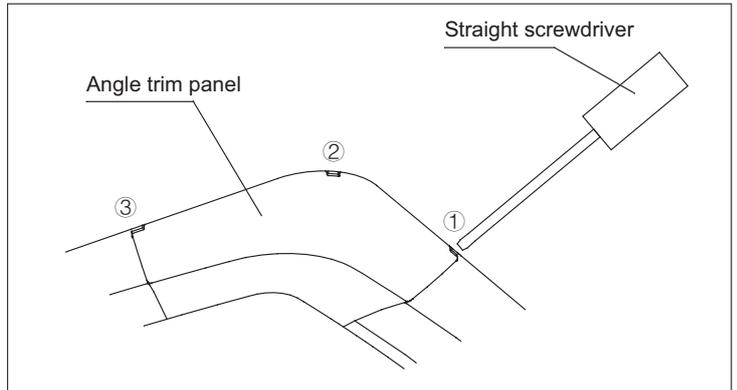
8) Installing the air-inlet grille.

Install the air-inlet grille with the steps opposite to that for removing.

For reference

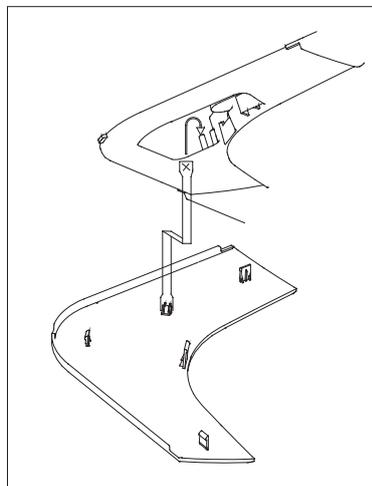
The method for removing angle trim panels when the installation of trim panel is complete:

- 1) Insert a straight screwdriver in the notch ①. Gently turn the screwdriver downward, and slowly insert it in, and then move it up and down to make the angle fall off.
- 2) Make the angle ② and ③ fall off in the same way.
- 3) Take off the angle trim panel by hand.



7) When the installation of panel is complete, please fix the four (4) angle trim panels.

- Hang and tighten the strap of the angle trim panel on the shackle of the trim panel, as shown in the figure.
- Fix the angle trim panel on the trim panel.



Test Run

Check items

1. Indoor unit

- Is operation of each button on the remote control unit normal?
- Does each lamp light normally?
- Do not air flow direction louvers operate normally?
- Is the drain normal?

2. Outdoor unit

- Is there any abnormal noise and vibration during operation?
- Will noise, wind, or drain water from the unit disturb the neighbors?
- Is there any gas leakage?

Customer guidance

Explain the following to the customer in accordance with the operation manual:

- (1) Starting and stopping method, operation switching, temperature adjustment, timer, air flow switching, and other remote control unit operations.
- (2) Air filter removal and cleaning, and how to use air louvers.
- (3) Give the operation and installation manuals to the customer.

Test run

CAUTION

THIS UNIT WILL BE STARTED INSTANTLY WITHOUT "ON" OPERATION WHEN ELECTRIC POWER IS SUPPLIED. BE SURE TO EXECUTE "OFF" OPERATION BEFORE ELECTRIC POWER IS DISCONNECTED FOR SERVICING.

- This unit has a function of automatic restart system after recovering power stoppage.

1. Before starting test run (for Heat pump models)

Confirm whether the power source breaker (main switch) of the unit has been turned on for over 12 hrs to energize the crankcase heater in advance of operation.

2. Test run

Run the unit continuously for about 30 minutes, and check the following.

- Suction pressure at check joint of service valve for gas pipe.
- Discharge pressure at check joint on the compressor discharge pipe.
- Temperature difference between return air and supply air for indoor unit.

Move and scrap the air conditioning

- When moving, to disassemble and re-install the air conditioning, please contact your dealer for technical support.
- In the composition material of air conditioning, the content of lead, mercury, hexavalent chromium, polybrominated biphenyls and polybrominated diphenyl ethers are not more than 0.1% (mass fraction) and cadmium is not more than 0.01% (mass fraction).
- Please recycle the refrigerant before scrapping, moving, setting and repairing the air conditioning; for the air conditioning scrapping, should be dealt with by the qualified enterprises.

Accessories

Accessories supplied with the indoor unit:

No.	Name of parts	Quantity	Descriptions
1	Battery	2	Used for remote controller
2	Remote controller	1	For Air conditioner operation
3	3/8 Brass nut (liquid side)	1	For tightening the Connecting pipe
4	3/4 Brass nut(gas side)	1	
5	Coupler heat insulation(gas side)	1	For indoor side pipe joint(gas side)
6	Coupler heat insulation(liquid side)	1	For indoor side pipe joint(liquid side)
7	Accessories group	1	Drainage fittings group
8	Instructions	1	Air conditioner operation
9	Sticky tape	1	Used to wrap the pipes
10	Cable tie(Large)	4	For fixing the heat insulation
11	Cable tie(Small)	6	For fixing the remote controller cable and connecting cable
12	Screw	4	Spare parts
13	Felt	4	Spare parts

Haier

Customer Care

Visit the website for technical data

Australia: <https://www.haier.com.au/air-conditioning/>

New Zealand: <https://www.haier.co.nz/air-conditioning/>

24/7 customer support and service booking

Australia: 1300 729 948

New Zealand: 0800 424 372



Important notice of disclosure: Copyright © Fisher & Paykel Appliances Ltd 2022. All rights reserved. The product dimensions and specifications in this document apply to the specific products and models described at the date of issue. Under our policy of continuous product improvement, these dimensions and specifications may change at any time. You should therefore check with your dealer or Fisher & Paykel's Customer Care Centre to ensure this document correctly describes the products currently available.

Manufacturer's warranty information: You receive a 5 year Manufacturer's Warranty. Fisher & Paykel Appliances Ltd will repair (or at its option replace) any part which is found to be defective within five years from date of purchase, without cost to you for either parts or labour. Retention of your original proof of purchase is recommended. To make a claim under any Manufacturer's Warranty, call Customer Care. Service under any Manufacturer's Warranty must be provided by an authorised Fisher & Paykel Appliances Service provider. Use other than in accordance with the product's user guide and other than for human comfort use may invalidate any Manufacturer's Warranty. This Manufacturer's Warranty is an extra benefit and does not affect your legal rights. Our goods come with guarantees that cannot be excluded under the Australian Consumer Law. You are entitled to a replacement or refund for a major failure and for compensation for any other reasonably foreseeable loss or damage. You are also entitled to a replacement or replaced if the goods fail to be of acceptable quality and the failure does not amount to a major failure. To view full terms and conditions, visit www.haier.com.au/warranty or www.haier.co.nz/warranty.

The warrantor is:

Fisher & Paykel Australia Pty Ltd, Level 1, 1 Eden Park Drive, Macquarie Park, NSW 2113. Phone Customer Care: 1300 729 948 Email: customer.care@haier.com.au

Fisher & Paykel Appliances Ltd, 78 Springs Road, East Tamaki, Auckland 2013. Phone Customer Care: 0800 424 372. Email: customer.care@haier.co.nz