



EN Split Type Room Air Conditioner
CN 分體式冷氣機

User Manual page 1
用戶使用手冊 page 32



PHILCO® 

MODEL: PMSC09VE / PMSC12VE

Philco is a pending or registered trademark of Electrolux Consumer Products, Inc. and used under a license from Electrolux Consumer Products, Inc.

IMPORTANT NOTE:

重要提示:



A2L

This appliance is using R32 mildly flammable refrigerant.
此設備使用輕度易燃製冷劑R32。



Read this manual carefully before installing or operating your new air conditioning unit.
Make sure to save this manual for future reference.
Please check the applicable models, technical data from the nameplate pasted on the unit.
在安裝或操作新空調機組之前，請仔細閱讀本手冊。請妥善保管本手冊以備將來參考。
適用的型號、技術資料見機身銘牌。



Appliance filled with flammable gas R32.

Caution, risk of fire



Before use the appliance, read the owner's manual first.



Before install the appliance, read the installation manual first.



Before repair the appliance, read the service manual first.

The Refrigerant

- To realize the function of the air conditioner unit, a special refrigerant circulates in the system. The used refrigerant is the fluoride R32, which is specially cleaned. The refrigerant is flammable and inodorous. Furthermore, it can leads to explosion under certain conditions. But the flammability of the refrigerant is very low. It can be ignited only by fire.
- Compared to common refrigerants, R32 is a nonpolluting refrigerant with no harm to the ozonosphere. The influence upon the greenhouse effect is also lower. R32 has got very good thermodynamic features which lead to a really high energy efficiency. The units therefore need a less filling.

WARNING

- Do not use means to accelerate the defrosting process or to clean, other than those recommended by the manufacturer. Should repair be necessary, contact your nearest authorized Service Centre. Any repairs carried out by unqualified personnel may be dangerous.
- The appliance shall 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.
- Spaces where refrigerant pipes shall be compliance with local gas regulations.
- Servicing shall be performed only as recommended by the manufacturer.
- The appliance shall be stored in a well-ventilated area where the room size corresponds to the room area as specified for operation.
- All working procedure that affects safety means shall only be carried by competent persons.



WARNING

Annex CC(informative)

Transportation, marking and storage for units that employ flammable refrigerants

The following information is provided for units that employ flammable refrigerants.

CC.1 Transport of equipment containing flammable refrigerants

Attention is drawn to the fact that additional transportation regulations may exist with respect to equipment containing flammable gas. The maximum number of pieces of equipment or the configuration of the equipment, permitted to be transported together will be determined by the applicable transport regulations.

CC.2 Marking of equipment using signs

Signs for similar appliances used in a work area generally are addressed by local regulations and give the minimum requirements for the provision of safety and/or health signs for a work location.

All required signs are to be maintained and employers should ensure that employees receive suitable and sufficient instruction and training on the meaning of appropriate safety signs and the actions that need to be taken in connection with these signs.

The effectiveness of signs should not be diminished by too many signs being placed together.

Any pictograms used should be as simple as possible and contain only essential details.

CC.3 Disposal of equipment using flammable refrigerants

See local regulations.

CC.4 Storage of equipment/appliances

The storage of equipment should be in accordance with the manufacturer’s instructions

CC.5 Storage of packed(unsold) equipment

Storage package protection should be constructed such that mechanical damage to the equipment inside the package will not cause a leak of the refrigerant charge. The maximum number of pieces of equipment permitted to be stored together will be determined by local regulations.

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.

If it needs to install, move or maintain the air conditioner, please contact dealer or local service center to conduct it at first. Air conditioner must be installed, moved or maintained by appointed unit. Otherwise, it may cause serious damage or personal injury or death.



This marking indicates that this product should not be disposed with other household wastes. To prevent possible harm to the environment or human health from uncontrolled waste disposal, recycle it responsibly to promote the sustainable reuse of material resources. To return your used device, please use the return and collection systems or contact the retailer where the product was purchased. They can take this product for environmental safe recycling.

CONTENTS

EN	User Manual	1
----	-------------	---

01	Operation Notices	1
02	Operation Guide	4
03	Maintenance	11
04	Malfunction	13
05	Safety operation	16
06	Installation Notice	18
07	Installation	22
08	Attachment	26
09	Maintenance	27

ZH-HK	使用說明書	33
-------	-------	----

Precautions



Operation and Maintenance

- This appliance can be used by children aged of 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.
- Do not connect air conditioner to multi-purpose socket. Otherwise, it may cause fire hazard.
- Do disconnect power supply when cleaning air conditioner. Otherwise, it may cause electric shock.
- 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.
- Do not wash the air conditioner with water to avoid electric shock.
- Do not spray water on indoor unit. It may cause electric shock or malfunction.
- After removing the filter, do not touch fins to avoid injury.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard
- Maintenance must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.
- Do not repair air conditioner by yourself. It may cause electric shock or damage.
- Please contact dealer when you need to repair air conditioner.
- Do not extend fingers or objects into air inlet or air outlet, It may cause personal injury or damage.
- Do not block air outlet or air inlet. It may cause malfunction.
- Do not spill water on the remote controller. Otherwise the remote controller may be broken.
- When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.
 1. Power cord is overheating or damaged.
 2. There's abnormal sound during operation.
 3. Circuit break trips off frequently.
 4. Air conditioner gives off burning smell.
 5. Indoor unit is leaking.
- If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock or fire hazard.
- When turning on or turning off the unit by emergency operation switch, please press this switch with an insulating object other than metal.
- Do not step on top panel of outdoor unit, or put heavy objects. It may cause damage or personal injury.

Attachment

- Installation must be performed by qualified professionals. Otherwise, it may cause personal injury or damage.
- Must follow the electric safety regulations when installing the unit.
- According to the local safety regulations, use qualified power supply circuit and circuit break.
- Do install the circuit break. If not, it may cause malfunction.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring.
- Air conditioner should be properly grounded. incorrect grounding may cause electric shock.
- Including an circuit break with suitable capacity, please note the following table. Air switch should be included magnet buckle and heating buckle function, it can protect the circuit-short and overload.
- Don't use unqualified power cord.
- Make sure the power supply matches with the requirement of air conditioner.
- Unstable power supply or incorrect wiring or malfunction. Please install proper supply cables before using the air conditioner.
- Properly connect the live wire, neutral wire and grounding wire of power socket.
- Be sure to cut off the power supply before proceeding any work related to electricity and safety.
- Do not put through the power before finishing installation.
- If the supply cord is damage, it must be replaced by the manufacture, its service agent or similarly qualified persons in order to avoid a hazard.
- The temperature of refrigerant circuit will be high, please keep the interconnection cable away from, the copper tube.
- The appliance shall be installed in accordance with local wiring regulations.
- Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.
- The air conditioner is the first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
- The yellow-green wire in air condition is grounding wire, which can't be used for other purposes.
- The grounding resistance should comply with local electric safety regulation.
- The appliance must be positioned so that the plug is accessible.
- All wires of indoor unit and outdoor unit should be connected by a professional.
- If the length of power connection wire is insufficient, please contact the supplier for anew one. Avoid extending the wire by yourself.
- For the air conditioner with plug, the plug should be reachable after finishing installation.
- For the air conditioner without plug, can circuit break must be installed in the line.
- If you need to relocate the air conditioner to another place, only the qualified person can perform the work. Otherwise, it may cause personal injury or damage.
- Select a location which is out of reach for children and far away from animals or plants. If it is unavoidable, please add the fence for safety purpose.
- The indoor unit should be installed close to the wall.

Working temperature range

	Indoor side DB/WB(°C)	Outdoor side DB/WB(°C)
Maximum cooling	32/23	52/-
Maximum heating	27/-	24/18

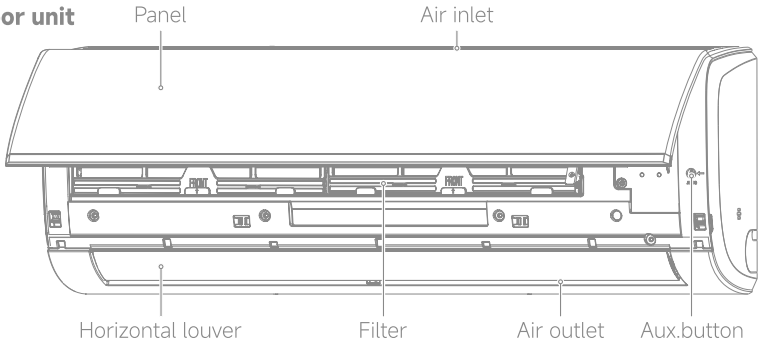
Notes:

The operating temperature range(outdoor temperature) for cooling is 15°C~52°C;

The operating temperature range(outdoor temperature) for heating is -15~24°C.

Parts Name

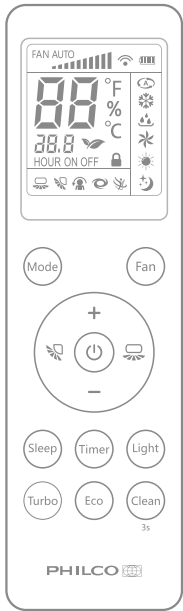
Indoor unit



Note:

Actual product may be different from above graphics, please refer to actual products.

Remote controller

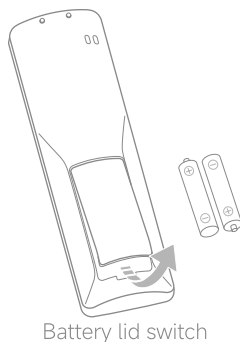


Display



Installation batteries

- Press the back side of remote controller, as shown in the fig, and then push out the cover of battery box along the arrow direction.
- Install two 7#(AAA1.5V) dry batteries, and make sure the position of “+” polar and “-” polar are correct.
- Reinstall the cover of battery box.



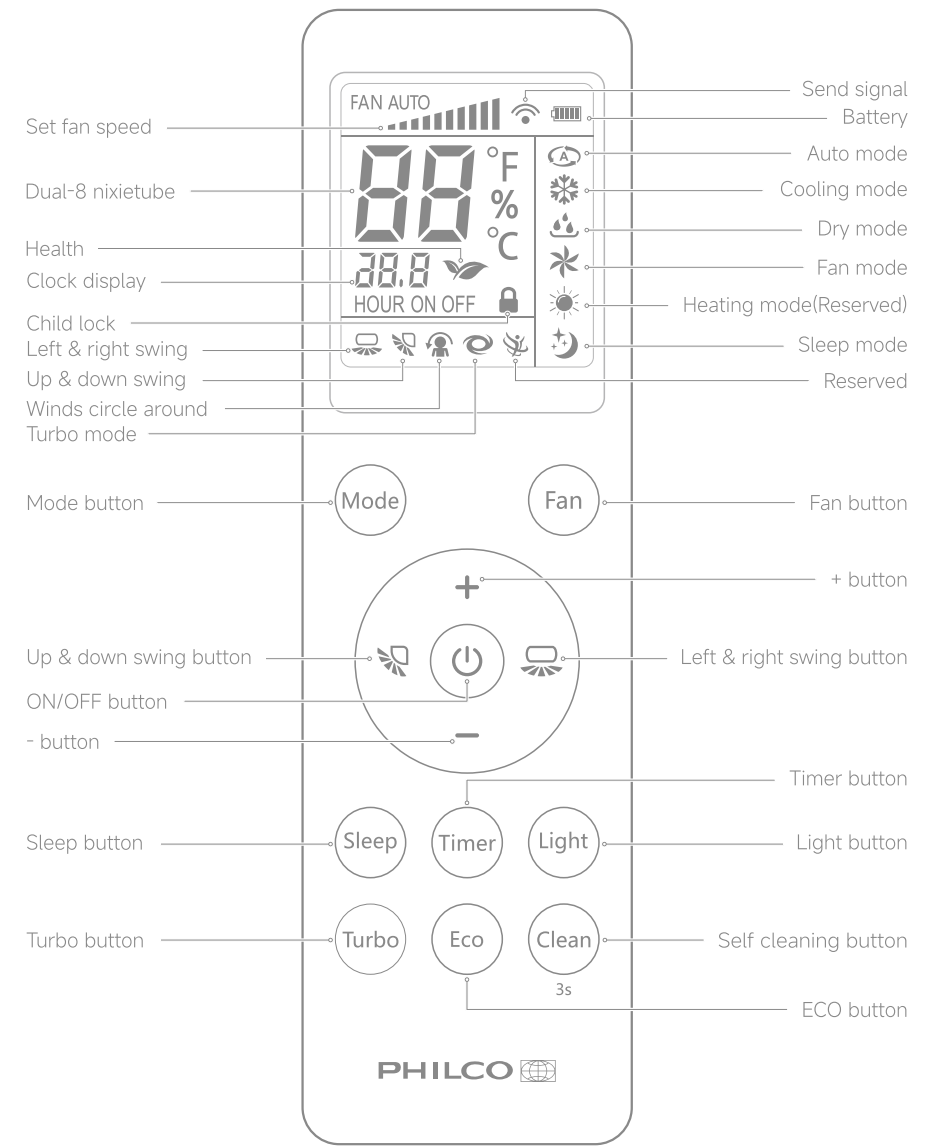
Operation guide

- After connecting the power, press “” button on the remote controller to turn on the air conditioner.
- Press “**Mode**” button to select your required mode: Auto, Cooling, Dry, Fan, Heating.
- Press “+” or “-” button to set your required temperature(Temperature can't be adjust under auto mode).
- Press “**Fan**” button to set your required fan speed: auto, low, medium-low, medium, medium-high, high, turbo, stepless speed.
- Press “” or “” button to select fan blowing angle.

Note:

- During operation, point the remote control signal sender at the receiving window on indoor unit.
- The distance between signal sender and receiving window should be no more than 8m , and there should be no obstacles between them.
- Signal may be interfered easily in the room where there is fluorescent lamp or wireless telephone; remote controller should be close to indoor unit during operation.
- Replace new batteries of the same model when replacement is required.
- When you don't use remote controller for a long time, please take out the batteries.
- If the display on remote controller is fuzzy or there's no display, please replace batteries.

Remote Controller



Buttons on Remote Controller

- After connecting the power, the air conditioner will be make a sound.
- Power indicator is ON. After that, you can operate the air conditioner by using remote controller.
- In state of turning on, pressing the button on the remote controller, the air conditioner will make a “beep” sound, which means the signal has been sent to the air conditioner. The display will show the corresponding setting function icons.

- In state of turning off, light and clock icon will be displayed on the display of remote controller (If timer on, timer off and light functions are set, the corresponding icons will be displayed on the display of remote controller at the same time).

On/Off button

Press this button can turn on or turn off the air conditioner.

Mode button

Press this button to select your required operation mode.



- When selecting auto mode, air conditioner will operate automatically according to ex-factory setting. Setting temperature can't be adjusted and will not be displayed as well. Press "**Fan**" button can adjust fan speed. Press " " or " " button can adjust fan blowing angle.
- When selecting cool mode, air conditioner will operate under cooling mode. Press "**+**" or "**-**" button to adjust setting temperature. Press "**Fan**" button to adjust fan speed. Press " " or " " button to adjust fan blowing angle.
- When selecting dry mode, the air conditioner will operate in fan1, fan speed can't be adjusted. Press " " or " " button to adjust fan blowing angle.
- When selecting fan mode, the air conditioner will only blow, no cooling and no heating. Press "**Fan**" button to adjust fan speed. Press " " or " " button to adjust fan blowing angle.
- When selecting heat mode, the air conditioner will operate in heating mode. Press "**+**" or "**-**" button to adjust setting temperature. Press "**Fan**" button to adjust fan speed. Press " " or " " button to adjust fan blowing angle. (Cooling only unit won't receive heat mode signal. If setting heating mode with remote controller, press ON/OFF button can't start up the unit).

Note:

- To preventing cold air, after starting up heating mode, indoor unit will delay 1~5minutes to blow air (auto delay time is depend on indoor ambient temperature).
- Setting temperature range from remote controller: 16~31°C;
fan speed: auto, low, medium-low, medium, medium-high, high, turbo, stepless speed.

Fan button

Press this button can set fan speed circularly as: auto(AUTO), Low(), Medium-Low(), Medium(), Medium-High(), High(), Stepless speed.



Note:

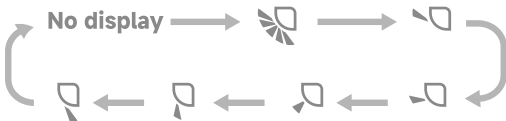
- In AUTO speed, air conditioner will select proper fan speed automatically according to ambient temperature.
- Fan speed under dry mode is Low. After entering the stepless speed mode, users can adjust the fan speed according to the button "**+**" or "**-**".

Turbo Button

Press “Turbo” button to turn Turbo mode on or off. In this mode, the fan runs at maximum speed, and the compressor operates at a higher rotation speed, helping the unit reach the set temperature more quickly.

button

Press this button can select up&down swing angle. Fan blow angle can be selected circularly as below:

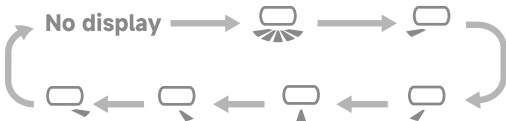


Note:

- When convert “NO display” into “” status, if press this button after 2s, swing status directly turns into “NO display”; if press this button within 2s, swing status changes according to the above order. Power-on default is free-swing mode.
- To activate the fixed-angle swing function, point the remote away from the indoor unit, turn it off, then press and hold the “Mode” + “” combination for 3 seconds while the “” indicator is blinking. When selecting “” with remote controller, it’s auto swing. Up&down swing louver of air conditioner will swing up&down automatically at the maximum angle.
- When selecting “”, “”, “”, “”, “” with remote controller, it’s the fixed position swing. Up&down swing louver of air conditioner will stop at the position as shown by the icon to swing. There is no this function for some remote control.
- When the “” swing angle is selected, the “” icon will simultaneously appear on the remote control, which means the airflow will not blow directly on people.

button

Press this button can select up&down swing angle. Fan blow angle can be selected circularly as below:



Note:

- When convert “NO display” into “” status, if press this button after 2s, swing status directly turns into “NO display”; if press this button within 2s, swing status changes according to the above order. Power-on default is free-swing mode.
- To activate the fixed-angle swing function, point the remote away from the indoor unit, turn it off, then press and hold the “Mode” + “” combination for 3 seconds while the “” indicator is blinking. When selecting “” with remote controller, it’s auto swing. Left&right swing louver of air conditioner will swing left&right automatically at the maximum angle.
- When selecting “”, “”, “”, “”, “” with remote controller, it’s the fixed position swing. Left&right swing louver of air conditioner will stop at the position as shown by the icon to swing. There is no this function for some remote control.

Notice:

- If there is no this function for units, press this button ,then main unit will sound, but it also runs under original status.

+ and – button

- Press “+” or “–” button once to increase or decrease 1°C of temperature. Holding “+” or “–” button, temperature on remote controller will change quickly. On releasing button after setting is finished, temperature indicator on indoor unit will change accordingly. (Temperature can't be adjusted under auto mode)
- When setting TIMER ON, TIME OFF, press “+” or “–” button to adjust time. (Refer to “Timer” buttons)

Sleep button

- Press this button to turn on or turn off the sleep function under cooling, dry, heating mode.
- In cooling sleep mode, the set temperature rises automatically by 1°C after 1 hour and another 1°C after 2 hours, with a maximum limit of 31°C.
- In heating sleep mode, the set temperature drops automatically by 1°C after 1 hour and another 1°C after 2 hours, with a minimum limit of 16°C.

Note:

- This function is off as defaulted after power on.
- It will be cleared after changing mode.
- It is no use under “Fan” mode and “Auto” mode.
- If there is no this function for units, press this button, then main unit will sound, but it also runs under original status.

Timer button

This button can set the time for timer on(timer off). After pressing this button, “HOUR ON(HOUR OFF)” on remote controller blinks. Press “+” or “–” button within 5s to set timer on(timer off) time. Each pressing of “+” or “–” button, the time will increase or decrease 0.5 hour. Hold “+” or “–” button, the time will change quickly until reaching your required time. Press “Timer” to confirm it. The word “HOUR ON(HOUR OFF)” will stop blinking. “HOUR ON(HOUR OFF)” and “8.0” on remote controller will be displayed.

Cancel Timer on(off)

In the condition of timer on(off) is started up, press “Timer” button to cancel it.

Note:

- Time set range: 0.5~24 hours.
- When timer on has set, the controller display as the unit is on.
- Timing of the initial set hour is 0.0 hour.

Light button

Press this button can turn on or turn off the light for indoor unit's display.

ECO button

In cool mode, press this button and the unit will operate under ECO mode. The indoor unit operates at the set temperature of 27°C

Note:

- Change mode will exit the ECO mode.
- In ECO mode, remote controller display “EC”. Set temperature can't be adjusted.
- In ECO mode, air conditioner will operate at auto fan speed, fan can't be adjusted.

Function introduction for combination buttons

Child lock function

Press “+” or “-” simultaneously for 3s to turn on or turn off child lock function. When child lock function is on, “” icon is displayed on remote controller. If you operate the remote controller, the “” icon will blink three times without sending signal to the unit.

Temperature display switchover function

In the off mode, press “Mode” and “-” buttons simultaneously to switch temperature display between °C and °F.

Low temperature heating function setting (Not Applicable for this model)

- In heating mode, pressing “Mode” and “+” button at the same time will enter/exit the low temperature heating function.
- “LA” would be showed on the remote controller after entered into the low temperature heating function.
- When switching from one mode to another mode, low temperature heating function was canceled. Turn off and then turn on air conditioner that will remain the low temperature heating function. When in an energized state/when power on, the low temperature heating function would be canceled.
- In the low temperature heating mode, “Sleep” and “Low temperature heating” function cannot start at the same time. When low temperature heating mode has already started, meanwhile you press the “Sleep” button, the air conditioner will exit low temperature heating mode and enter the sleep mode.

Note:

- In the low temperature heating mode, the fan speed was default to Auto and non-adjustable.
- In the low temperature heating mode, “Turbo” and “Quiet” can’t be set. If enter the low temperature heating mode, the turbo and quiet function that were started before will be canceled. As well as when exit the low temperature heating mode, it will not resume.
- When exit from the low temperature heating mode, the speed and temperature will turn into the original condition before it started. You can set up other function.

Independent Remote Control

- In the off mode, press and hold the “Sleep” and “Light” keys simultaneously for more than 3 seconds to initiate pairing.
- The “Clock Display” section on the remote control will flash to indicate the pairing code, which can be adjusted using the “+” and “-” buttons(selectable from 0/1/2/3/4). The indoor unit panel will synchronously display the pairing code.
- The configuration is automatically finalized after 5 seconds of inactivity, and the indoor unit panel returns to normal display. The pairing code is fixed and permanently shown on the remote’s standard interface.

Notes

- After successful pairing, configuring a timer function will override the pairing code display. The pairing code will resume display once the timer expires or is cancelled.
- Performing pairing after a timer has been set will clear the existing timer configuration.
- The remote control requires re-pairing after battery replacement.
- If the indoor unit has not been paired or its pairing code is set to “0”, it will accept remote control signals with any valid pairing code.

- If the remote control's pairing code is set to "0", it can operate any indoor unit regardless of its pairing code. (Set a unique pairing code for each indoor unit to prevent cross-control interference between units.)
- When the indoor unit receives a pairing code display command from the remote("  " and " **Light** " keys held for more than 3 seconds), it will display the pairing code for 5 seconds.
- Numbered stickers(1, 2) are provided with the indoor unit manual and may be affixed to the unit during installation.
- When pairing, hold the remote control as close as possible to the indoor unit display panel to avoid interfering with other indoor units.

Self-Cleaning Function (Indoor Unit Only)

In the off mode, press and hold the " **Clean** " button for more than 3 seconds to activate the self-cleaning function.

"SC" will flash on the remote control for 5 seconds, after which the set temperature will be displayed.

Notes

- The self-cleaning process will terminate if a shutdown fault occurs during operation.
- The unit will automatically exit self-cleaning mode upon completion of one full cleaning cycle.
- To stop self-cleaning and return to the shutdown interface, press the power button twice.
- Self-cleaning is unavailable when the indoor temperature exceeds 30°C or the outdoor temperature exceeds 43°C.
- Self-cleaning is unavailable when the indoor temperature is below 16°C or the outdoor temperature is below 0°C.
- When the self-cleaning function is activated on any indoor unit, all indoor units will start self-cleaning. During the process, the heat exchanger of the indoor unit may produce noise due to thermal expansion and contraction, which is a normal phenomenon. The higher the indoor relative humidity, the better the self-cleaning effect.

Health Function

- In cool mode, press and hold the "  " and " **Clean** " keys simultaneously for more than 3 seconds to toggle the cold plasma function on or off.
- This function is enabled by default and retains its previous status when the mode is switched.
- When the remote control powers on the unit, the cold plasma function will recall the status set before the last shutdown.
- When the health function is activated, an "  " icon will appear on the remote control.

Dry Function

- When the unit operates in Cooling or Dehumidification mode, press and hold the " **Fan** " and "  " buttons simultaneously for over 3 seconds to activate the dry function. After the dry function is enabled, "SF" flashes on the remote control for 5 seconds, then the display switches to the set temperature. This dry function only works for one single cycle. After turning off the indoor unit, the dry function activates and "SF" is shown on the remote. It will automatically stop after running for 10 minutes, and the "SF" text on the remote disappears. If the unit is restarted while the dry function is running, the dry function will be canceled right away.
- The dry function can only be canceled instead of reactivated during its operation.
- The dry function is disabled by default once the remote control is powered on.

Clean and maintenance

⚠ WARNING

Turn off the air conditioner and disconnect the power before cleaning the air conditioner to avoid electric shock.

Do not wash the air conditioner with water to avoid electric shock.

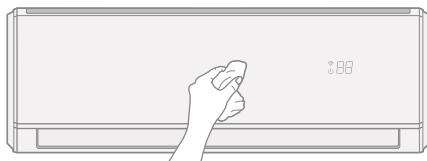
Do not use volatile liquid to clean the air conditioner.

Clean surface of indoor unit

When the surface of indoor unit is dirty, it is recommended to use a soft dry cloth or wet cloth to wipe it.

Note:

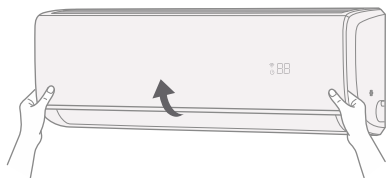
Do not remove the panel when cleaning it.



Clean filter

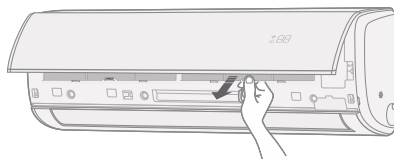
1. Open panel

Pull out the panel to a certain angle as shown in the fig.



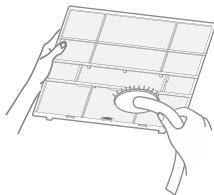
2. Remove filter

Remove the filter as indicated in the fig.



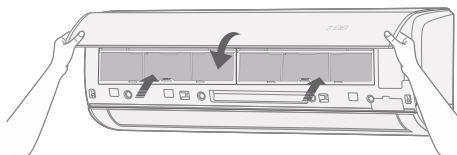
3. Clean filter

Use dust catcher or water to clean the filter. When the filter is very dirty, use the water (below 45 °C) to clean it, and then put it in a shady and cool place to Dry.



4. Install the filter

Install the filter and then close the panel cover tightly.



Note:

- The filter should be cleaned every three months. If there is much dust in the operation environment, clean frequency can be increased.
- After removing the filter, do not touch fins to avoid injury.
- Do not use fire or hair dryer to dry the filter to avoid deformation or fire hazard.

Cleaning before use-season

- Check whether air inlets and air outlets are blocked.
- Check whether air switch, plug and socket are in good condition.
- Check whether filter is clean.
- Check whether drainage pipe is damaged.

Cleaning after use-season

- Disconnect power supply.
- Clean filter and indoor unit's panel.

Notice for recovery

- Most of packing materials are recyclable materials. Please dispose them in appropriate.
- If you want to dispose the air conditioner, please contact local dealer or consultant service center for the correct disposal method.

Malfunction analysis

General phenomenon analysis

Please check below items before asking for maintenance.

If the malfunction still can't be eliminated, please contact local dealer or qualified professionals.

Phenomenon	Check items	Solution
Indoor unit can't receive remote controller's signal or remote controller has no action.	Whether it's interfered severely(such as static electricity, stable voltage)?	Pull out the plug. Reinsert the plug after about 3min, and then turn on the unit again.
	Whether remote controller is within the signal receiving range?	Signal receiving range is 8m.
	Whether there are obstacles?	Remove obstacles.
	Whether remote controller is pointing at the receiving window?	Select proper angle and point the remote controller at the receiving window on indoor unit.
	Is sensitivity of remote controller low; fuzzy display and no display?	Check the batteries. If the power of batteries is too low, please replace them.
	No display when operating remote controller?	Check whether remote controller appears to be damaged. If yes, replace it.
	Fluorescent lamp in room?	Take the remote controller close to indoor unit. Turn off the fluorescent lamp and then try it again.
No air emitted from indoor unit.	Air inlet or air outlet of indoor unit is blocked?	Eliminate obstacles.
	Under heating mode, indoor temperature is reached to set temperature?	After reaching to set temperature, indoor unit will stop blowing out air.
	Heating mode is turned on just now?	In order to prevent blowing out cold air, indoor unit will be started after delaying for several minutes, which is a normal phenomenon.
Air conditioner can't operate	Power failure?	Wait unit power recovery.
	Is plug loose?	Reinsert the plug.
	Circuit break trips off or fuse is burn out?	Ask professional to replace circuit break or fuse.
	Wiring has malfunction?	Ask professional to replace it.
	Unit has restarted immediately after stopping operation?	Wait for 3min and then turn on the unit again.
	Whether the function setting for remote controller is correct?	Reset the function.

Phenomenon	Check items	Solution
Mist is emitted from indoor unit's air outlet.	Indoor temperature and humidity is high?	Because indoor air is cooled rapidly. After a while, indoor temperature and humidity will be decrease and mist will disappears.
Set temperature can't be adjusted	Unit is operating under auto mode?	Temperature can't be adjusted under auto mode. Please switch the operation mode if you need to adjust temperature.
	Your required temperature exceeds the temperature range?	Set temperature range: 16°C~31°C
Cooling(heating) effect is not good	Voltage is too low?	Wait until the voltage resumes normal.
	Filter is dirty?	Clean the filter.
	Set temperature is in proper range?	Adjust temperature to proper range.
	Door and window are open?	Close door and window.
Odours are emitted	Whether there's odour source, such as furniture and cigarette, etc.	Clean the filter. Eliminate the odour source.
Air conditioner operates normally suddenly	Whether there's interference, such as thunder, wireless device, etc.	Disconnect power, put back power, and then turn on the unit again.
Outdoor unit has vapor	Heating mode is turned on?	During defrosting under heating mode, it may generate vapor, which is a normal phenomenon.
"Water flowing" noise	Air conditioner is turned on or turned off just now?	The noise is the sound of refrigerant flowing inside the unit, which is a normal phenomenon.
Cracking noise	Air conditioner is turned on or turned off just now?	This is the sound of friction caused by expansion and/or contraction of panel or other parts due to the change of temperature.

Error Code

When air conditioner status is abnormal, temperature indicator on indoor unit will blink to display corresponding error code. Please refer to below list for identification of error code.



Note:

- Above indicator diagram is only for reference. Please refer to actual product for the actual indicator and position.
- Below listed error codes are only part error codes. Please refer to error code list in service manual for more information.

Error code	Name
CL	Filter clean remind
H0	High exhaust temp. protection
H1	Overcapacity protection
H2	Compressor overload protection
H3	Anti-frost protection
H4	System high pressure protection
H5	System low pressure protection
H6	Lack refrigerant/valve stop protection
C8	Auxiliary heat adhesion protection
E0	Indoor temp. sensor open/short circuit
FF	Defrost or heating oil return
C3	Indoor unit report outdoor unit fault

If there are other errors codes, please contact qualified professionals for service

Contact us

When below phenomenon occurs, please turn off air conditioner and disconnect power immediately, and then contact the dealer or qualified professionals for service.

- Power cord is overheating or damaged.**
- Air conditioner gives off burning smell.**
- There's abnormal sound during operation.**
- Circuit break trips off frequently.**
- Indoor unit is leaking.**

Do not repair or refit the conditioner by yourself. If the air conditioner operates under abnormal conditions, it may cause malfunction, electric shock or fire hazard.

Safety operation of flammable refrigerant

Qualification requirement for installation and maintenance man

All the work men who are engaging in the refrigeration system should bear the valid certification awarded by the authoritative organization and the qualification for dealing with the refrigeration system recognized by this industry. If it needs other technician to maintain and repair the appliance, they should be supervised by the person who bears the qualification for using the flammable refrigerant.

It can only be repaired by the method suggested by the equipment's manufacturer

Installation notes

The air conditioner is not allowed to use in a room that has running fire(such as fire source, working coal gas ware, operating heater).

It is not allowed to drill hole or burn the connection pipe.

The air conditioner must be installed in a room that is larger than the minimum room area. The minimum room area is shown on the nameplate.

Leak test is a must after installation.

Maintenance notes

Check whether the maintenance area or the room area meet the requirement of the nameplate.

- It's only allowed to be operated in the rooms that meet the requirement of the nameplate.

Check whether the maintenance area is well-ventilated.

-The continuous ventilation status should be kept during the operation process.

Check whether there is fire source or potential fire source in the maintenance area.

-The naked flame is prohibited in the maintenance area; and the "no smoking" warning board should be hanged.

Check whether the appliance mark is in good condition.

-Replace the vague or damaged warning mark.

Fuse Size

Indoor unit: T3.15AH; 250VAC

Min. Power Cord Specification - Indoor			
Model	Material	Gauge	Diameter
9K/12K	Copper	H05RN-F	4*0.75mm ²

Welding

If you should cut or weld the refrigerant system pipes in the process of maintaining, please follow the steps as below:

- Shut down the unit and cut power supply
- Eliminate the refrigerant

- c. Vacuuming
- d. Clean it with N2 gas
- e. Cutting or welding
- f. Carry back to the service spot for welding

The refrigerant should be recycled into the specialized storage tank.

Make sure that there isn't any naked flame near the outlet of the vacuum pump and it's well-ventilated.

Filling the refrigerant

Use the refrigerant filling appliances specialized for R32. Make sure that different kinds of refrigerant won't contaminate with each other.

The refrigerant tank should be kept upright at the time of filling refrigerant.

Stick the label on the system after filling is finished(or haven't finished).

Don't overfilling.

After filling is finished, please do the leakage detection before test running; another time of leak detection should be done when it's removed.

Safety instructions for transportation and storage

Please use the flammable gas detector to check before unload and open the container.

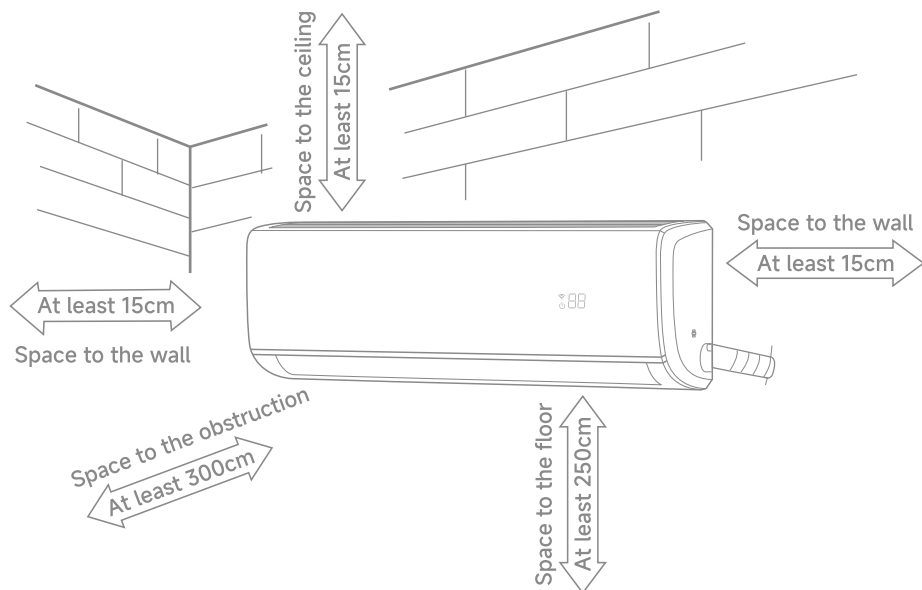
No fire source and smoking.

According to the local rules and laws.

Refrigerant Charge

The product specific value is subject to the rating plate.

Installation drawing



Safety precautions for installing and relocating the unit

To ensure safety, please be mindful of the following precautions.

⚠ WARNING

- When installing or relocating the unit, be sure to keep the refrigerant circuit free from air or substances other than the specified refrigerant.

Any presence of air or other foreign substance in the refrigerant circuit will cause system pressure rise or compressor rupture, resulting in injury.

- When installing or moving this unit, do not charge the refrigerant which is not comply with that on the nameplate or unqualified refrigerant.

Otherwise, it may cause abnormal operation, wrong action, mechanical malfunction or even serious safety accident.

- When refrigerant needs to be recovered during relocating or repairing the unit, be sure that the unit is running in cooling mode. Then, fully close the valve at high pressure side(liquid valve). About 30-40 seconds later, fully close the valve at low pressure side(gas valve), immediately stop the unit and disconnect power. Please note that the time for refrigerant recovery should not exceed 1 minute.

If refrigerant recovery takes too much time, air may be sucked in and cause pressure rise or compressor rupture, resulting in injury.

- **During refrigerant recovery, make sure that liquid valve and gas valve are fully closed and power is disconnected before detaching the connection pipe.**

If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture, resulting in injury.

- **When installing the unit, make sure that connection pipe is securely connected before the compressor starts running.**

If compressor starts running when stop valve is open and connection pipe is not yet connected, air will be sucked in and cause pressure rise or compressor rupture resulting in injury.

- **Prohibit installing the unit at the place where there may be leaked corrosive gas or flammable gas.**

If there leaked gas around the unit, it may cause explosion and other accidents.

- **Do not use extension cords for electrical connections. If the electric wire is not long enough, please contact a local service center authorized and ask for a proper electric wire.**

Poor connections may lead to electric shock or fire.

- **Use the specified types of wires for electrical connections between the indoor and outdoor units. Firmly clamp the wires so that their terminals receive no external stresses.**

Electric wires with insufficient capacity, wrong wire connections and insecure wire terminals may cause electric shock or fire.

Installation prepare

Tools

1. Level meter	6. Torque wrench	11. Pressure meter
2. Screw driver	7. Open-end wrench	12. Universal meter
3. Impact drill	8. Pipe cutter	13. Inner hexagon spanner
4. Drill head	9. Leakage detector	14. Measuring tape
5. Pipe expander	10. Vacuum pump	

Selection of location

Basic requirement

Installing the unit in the following places may cause malfunction. If it is unavoidable, please consult the local dealer.

- The place with strong heat sources, vapors, flammable or explosive gas, or volatile objects spread in the air.
- The place with high-frequency devices(such as welding machine, medical equipment).
- The place near coast area.
- The place with oil or fumes in the air.
- The place with sulfureted gas.
- Other places with special circumstances.
- The appliance shall not be installed in the laundry.

Indoor unit

- There should be no obstruction near air inlet and air outlet.
- Select a location where the condensation water can be dispersed easily and won't affect other people.
- Select a location which is convenient to connect the outdoor unit and near the power socket.
- Select a location which is out of reach for children.
- The location should be able to withstand the weight of indoor unit and won't increase noise and vibration.
- The appliance must be installed 2.5m above floor.
- Don't install the indoor unit right above the electric appliance.
- Please try your best to keep away from fluorescent lamp.

Outdoor unit

- Select a location where the noise and out flow air emitted by the outdoor unit will not affect neighborhood.
- The location should be well ventilated and dry, in which the outdoor unit won't be exposed directly to sunlight or strong wind.
- The location should be able to withstand the weight of outdoor unit.
- Make sure that the installation follows the requirement of installation dimension diagram.
- Select a location which is out of reach for children and far away from animals or plants. If it is unavoidable, please add the fence for safety purpose.

Safety precaution

- Must follow the electric safety regulations when installing the unit.
- According to the local safety regulation, use qualified power supply circuit and air switch.
- Make sure the power supply matches with the requirement of air conditioner. Unstable power supply, incorrect wiring, or malfunction may occur. Please install proper power supply cables before using the air conditioner.
- Properly connect the live wire, neutral wire and grounding wire of power socket.
- Be sure to cut off the power supply before proceeding any work related to electricity and safety.
- Do not connect the power before finishing installation.
- 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.
- The temperature of refrigerant circuit will be high, please keep the interconnection cable away from the copper tube.
- The appliance shall be installed in accordance with local wiring regulation.
- Installation must be performed in accordance with the requirement of NEC and CEC by authorized personnel only.



Please notice that the unit is filled with flammable gas R32. Inappropriate treatment of the unit involves: the risk of severe damages of people and material. Details to this refrigerant are found in chapter "refrigerant"

Grounding requirement

- The air conditioner is the first class electric appliance. It must be properly grounding with specialized grounding device by a professional. Please make sure it is always grounded effectively, otherwise it may cause electric shock.
- The yellow-green wire in air conditioner is grounding wire, which can't be used for other purposes.
- The grounding resistance should comply with local electric safety regulations.
- The appliance must be positioned so that the plug is accessible.
- An all-pole disconnection switch having a contact separation of at least 3mm in all poles should be connected in fixed wiring. For models with a power plug, make sure the plug is within reach after installation.

Installation of indoor unit

Step 1: Choosing installation location

Recommend the installation location to the client and then confirm it with the client.

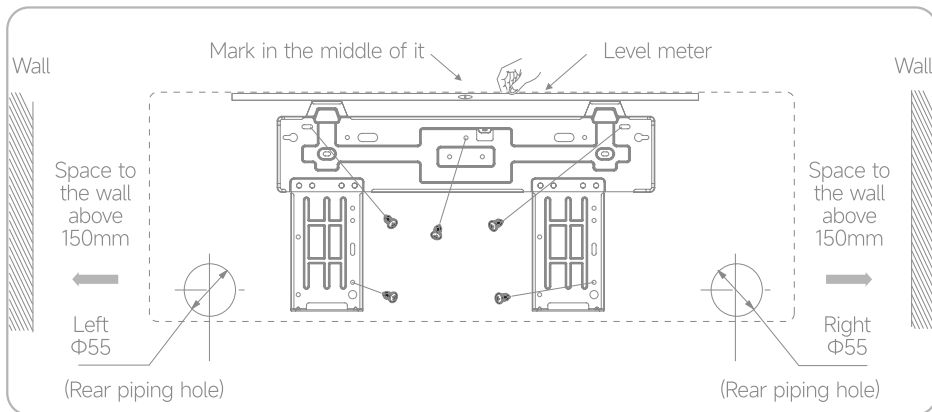
Step 2: Install wall-mounting frame

- Hang the wall-mounting frame on the wall; adjust it in horizontal position with the level meter and then point out the screw fixing holes on the wall.
- Drill the screw fixing holes on the wall with impact drill(the specification of drill head should be the same as the plastic expansion particle) and then fill the plastic expansion particles in the holes.
- Fix the wall-mounting frame on the wall with tapping screws(ST4.2X25TA) and then check if the frame is firmly installed by pulling the frame. If the plastic expansion particle is loose, please drill another fixing hole nearby.

Step 3: Open piping hole

- Choosing the position of piping hole according to the direction of outlet pipe. The position of piping hole should be a little lower than the wall-mounted frame, shown as below.

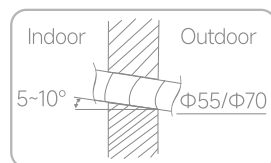
Dimension: 792×279×195



- Open a piping hole with the diameter of $\Phi 55/\Phi 70$ on the selected outlet pipe position. In order to drain smoothly, slant the piping hole on the wall slightly downward to the outdoor side with the gradient of $5\sim 10^\circ$.

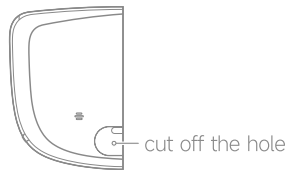
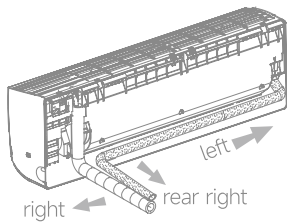
Note:

- Pay attention to dust prevention and take relevant safety measures when opening the hole.
- The plastic expansion particles are not provided. And should be bought locally.



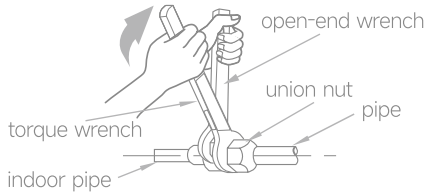
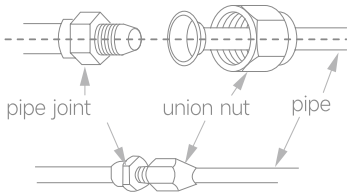
Step 4: Outlet pipe

- The pipe can be led out in the direction of right, near right or left.
- When select leading out the pipe from left or right, please cut off the corresponding hole on the bottom case.



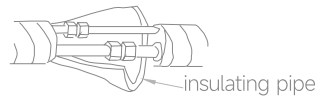
Step 5: Connect the pipe of indoor unit

- Aim the pipe joint at the corresponding bellmouth.
- Pretightening the union nut with hand.
- Adjust the torque by referring to the following sheet. Place the open-end wrench on the pipe joint and place the torque wrench on the union nut. Tighten the union nut with torque wrench.



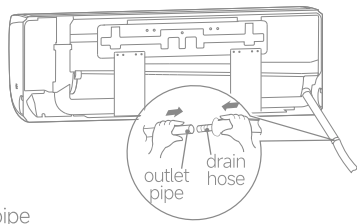
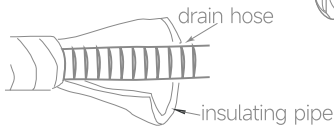
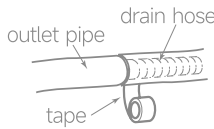
Hex nut diameter	Φ 6	Φ 9.52	Φ 12	Φ 16	Φ 19
Tightening torque(N.m)	15~30	30~40	45~55	60~65	70~75

- Wrap the indoor pipe and joint of connection pipe with insulating pipe, and then wrap it with tape.



Step 6: Install drain hose

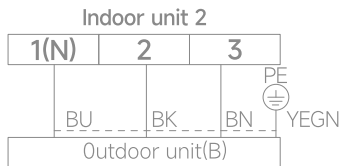
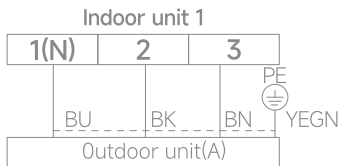
- Connect the drain hose to the outlet pipe of indoor unit.
- Bind the joint with tape.



- Add insulating pipe in the indoor drain hose in order to prevent condensation.
- The plastic expansion particles are not provided.

Step 7: Connect wire of indoor unit

- Open the panel, remove the screw on the wiring cover and then take down the cover.



- Make the power connection wire go through the cable-cross hole at the back of indoor unit and then pull it out from the front side.
- Remove the wire clip, connect the power connection wire to the wiring terminal according to the color, tighten the screw and then fix the power connection wire with wire clip.
- Put wiring cover back and then tighten the screw.
- Close the hole.

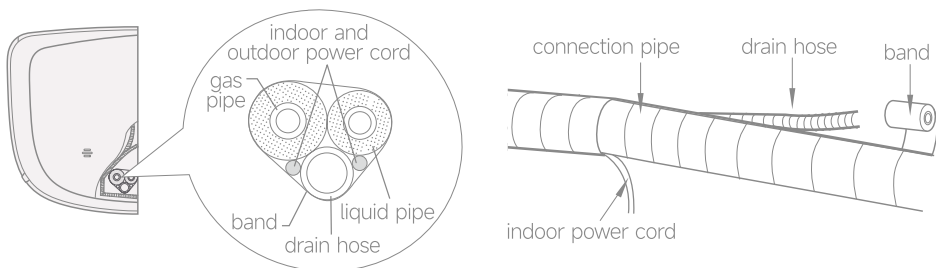
Note:

- All wires of indoor unit and outdoor unit should be connected by a professional.
- If the length of power connection wire is insufficient, please contact the supplier for a new one. Avoid extending the wire by yourself.
- For the air conditioner with plug, the plug should be reachable after finishing installation.
- For the air conditioner without plug, an air switch must be installed in the line.

The air switch should be all-pole parting and the contact parting distance should be more than 3mm.

Step 8: Bind up pipe

- Bind up the connection pipe, power cord and drain hose with the band.
- Reserve a certain length of drain hose and power cord for installation when binding them. When binding to a certain degree, separate the indoor power and then separate the drain hose.



- Bind them evenly.
- The liquid pipe and gas pipe should be bound separately at the end.

Note:

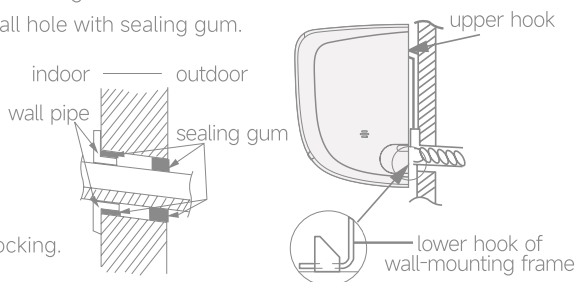
- The power cord and control wire can't be crossed or winding.
- The drain hose should be bound at the bottom.

Step 9: Hang the indoor unit

- Put the bound pipes in the wall pipe and then make them pass through the wall hole.
- Hang the indoor unit on then wall-mounting frame.
- Stuff the gap between pipes and wall hole with sealing gum.
- Fix the wall pipe.
- Check if the indoor units is installed firmly and closed to the wall.

Note:

- Do not bend the drain hose too excessively in order to prevent blocking.



Check after installation

Check according to the following requirement after finishing installation.

Items to be checked	Possible malfunction
Has the unit been installed firmly?	The unit may drop, shake or emit noise.
Have you done the refrigerant leakage test?	It may cause insufficient cooling(heating) capacity.
Is heat insulation of pipeline sufficient?	It may cause condensation and water dripping.
Is water drained well?	
Is the voltage of power supply according to the voltage marked on the nameplate?	It may cause malfunction or damaging the parts.
Is electric wiring and pipeline installed correctly?	
Is the unit grounded securely?	It may cause electric leakage.
Does the power cord follow the specification?	It may cause malfunction and damaging the parts.
Is there any obstruction in the air inlet and outlet?	It may cause insufficient cooling(heating) capacity.
The dust and sundries caused during installation are removed?	It may cause malfunction and damaging the parts.
The gas valve and liquid valve of connection pipe are open completely?	It may cause insufficient cooling(heating) capacity.

Test operation

Preparation of test operation

- The client approves the air conditioner.
- Specify the important notes for air conditioner to the client.

Method of test operation

- Connect the power, press "ON/OFF" button on the remote controller to start operation.
- Press " Mode " button to select Auto, Cooling, Dry, Fan, Heating to check whether the operation is normal or not.
- If the ambient temperature is lower than 16°C, the air conditioner can't start cooling.

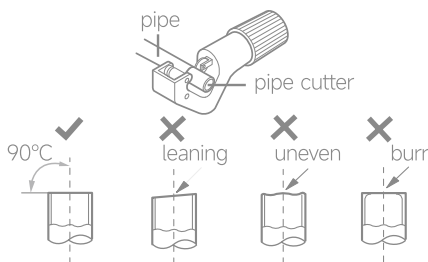
Pipe expanding method

Improper pipe expanding is the main cause of refrigerant leakage. Please expand the pipe according to the following steps:

A: cut the pipe

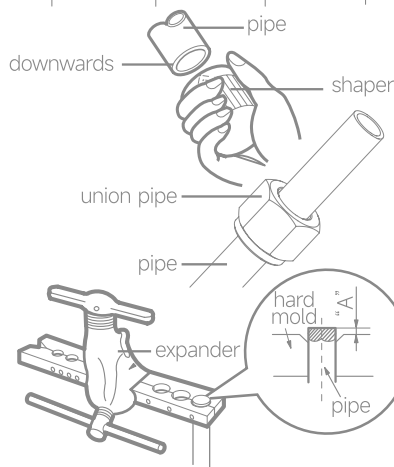
Confirm the pipe length according to the distance of indoor unit and outdoor unit.

Cut the required pipe with pipe cutter.



B: Remove the burrs

Remove the burrs with shaper and prevent the burrs from getting into the pipe.



C: Put on suitable insulating pipe

D: Put on the union nut

Remove the union nut on the indoor connection pipe and outdoor valve;
install the union nut on the pipe.

E: Expand the port

Expand the port with expander.

Note:

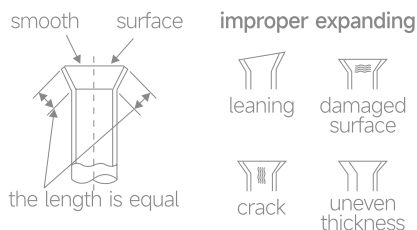
"A" is different according to the diameter, please refer to the sheet below:

Outer diameter(mm)	A(mm)	
	Max	Min
Φ6-6.35(1/4")	1.3	0.7
Φ9.52(3/8")	1.6	1.0
Φ12-12.7(1/2")	1.8	1.0
Φ15.8-16(5/8")	2.4	2.2

F: Inspection

Check the quality of expanding port.

If there is any blemish, expand the port again according to the step above.



Maintenance safety precautions

Information on servicing

Checks to the area

Prior to beginning work on systems containing flammable refrigerants, safety checks are necessary to ensure that the risk of ignition is minimised. For repair to the refrigerating system, the following precautions shall be complied with prior to conducting work on the system.

Work procedure

Work shall be undertaken under a controlled procedure so as to minimise the risk of a flammable gas or vapour being present while the work is being performed.

General work area

All maintenance staff and others working in the local area shall be instructed on the nature of work being carried out. Work in confined spaces shall be avoided. The area around the workspace shall be sectioned off. Ensure that the conditions within the area have been made safe by control of flammable material.

Checking for presence of refrigerant

The area shall be checked with an appropriate refrigerant detector prior to and during work, to ensure the technician is aware of potentially flammable atmospheres. Ensure that the leak detection equipment being used is suitable for use with flammable refrigerants, i.e. non-sparking, adequately sealed or intrinsically safe.

Presence of fire extinguisher

If any hot work is to be conducted on the refrigeration equipment or any associated parts, appropriate fire extinguishing equipment shall be available to hand. Have a dry powder or CO₂ fire extinguisher adjacent to the charging area.

No ignition sources

No person carrying out work in relation to a refrigeration system which involves exposing any pipe work that contains or has contained flammable refrigerant shall use any sources of ignition in such a manner that it may lead to the risk of fire or explosion. All possible ignition sources, including cigarette smoking, should be kept sufficiently far away from the site of installation, repairing, removing and disposal, during which flammable refrigerant can possibly be released to the surrounding space. Prior to work taking place, the area around the equipment is to be surveyed to make sure that there are no flammable hazards or ignition risks. "No Smoking" signs shall be displayed.

Ventilated area

Ensure that the area is in the open or that it is adequately ventilated before breaking into the system or conducting any hot work. A degree of ventilation shall continue during the period that the work is carried out. The ventilation should safely disperse any released refrigerant and preferably expel it externally into the atmosphere.

Checks to the refrigeration equipment

Where electrical components are being changed, they shall be fit for the purpose and to the correct specification. At all times the manufacturer's maintenance and service guidelines shall be followed. If in doubt consult the manufacturer's technical department for assistance.

The following checks shall be applied to installations using flammable refrigerants:

- The charge size is in accordance with the room size within which the refrigerant containing parts are installed;
- The ventilation machinery and outlets are operating adequately and are not obstructed;
- If an indirect refrigerating circuit is being used, the secondary circuit shall be checked for the presence of refrigerant;
- Marking to the equipment continues to be visible and legible. Markings and signs that are illegible shall be corrected;
- Refrigeration pipe or components are installed in a position where they are unlikely to be exposed to any substance which may corrode refrigerant containing components, unless the components are constructed of materials which are inherently resistant to being corroded or are suitably protected against being so corroded.

Checks to electrical devices

Repair and maintenance to electrical components shall include initial safety checks and component inspection procedures. If a fault exists that could compromise safety, then no electrical supply shall be connected to the circuit until it is satisfactorily dealt with. If the fault cannot be corrected immediately but it is necessary to continue operation, an adequate temporary solution shall be used. This shall be reported to the owner of the equipment so all parties are advised.

Initial safety checks shall include:

- That capacitors are discharged: this shall be done in a safe manner to avoid possibility of sparking;
- That there no live electrical components and wiring are exposed while charging, recovering or purging the system;
- That there is continuity of earth bonding.

Repairs to sealed components

During repairs to sealed components, all electrical supplies shall be disconnected from the equipment being worked upon prior to any removal of sealed covers, etc. If it is absolutely necessary to have an electrical supply to equipment during servicing, then a permanently operating form of leak detection shall be located at the most critical point to warn of a potentially hazardous situation.

Particular attention shall be paid to the following to ensure that by working on electrical components, the casing is not altered in such a way that the level of protection is affected.

This shall include damage to cables, excessive number of connections, terminals not made to original specification, damage to seals, incorrect fitting of glands, etc.

Ensure that apparatus is mounted securely.

Ensure that seals or sealing materials have not degraded such that they no longer serve the purpose of preventing the ingress of flammable atmospheres. Replacement parts shall be in accordance with the manufacturer's specifications.

Note:

The use of silicon sealant may inhibit the effectiveness of some types of leak detection equipment. Intrinsically safe components do not have to be isolated prior to working on them.

Repair to intrinsically safe components

Do not apply any permanent inductive or capacitance loads to the circuit without ensuring that this will not exceed the permissible voltage and current permitted for the equipment in use.

Intrinsically safe components are the only types that can be worked on while live in the presence of a flammable atmosphere. The test apparatus shall be at the correct rating.

Replace components only with parts specified by the manufacturer. Other parts may result in the ignition of refrigerant in the atmosphere from a leak.

Cabling

Check that cabling will not be subject to wear, corrosion, excessive pressure, vibration sharp edges or any other adverse environmental effects. The check shall also take into account the effects of aging or continual vibration from sources such as compressors or fans.

Detection of flammable refrigerants

Under no circumstances shall potential sources of ignition be used in the searching for or detection of refrigerant leaks. A halide torch (or any other detector using a naked flame) shall not be used.

Leak detection methods

The following leak detection methods are deemed acceptable for systems containing flammable refrigerants.

Electronic leak detectors shall be used to detect flammable refrigerants, but the sensitivity may not be adequate, or may need re-calibration. (Detection equipment shall be calibrated in a refrigerant-free area.) Ensure that the detector is not a potential source of ignition and is suitable for the refrigerant used. Leak detection equipment shall be set at a percentage of the LFL of the refrigerant and shall be calibrated to the refrigerant employed and the appropriate percentage of gas (25 % maximum) is confirmed.

Leak detection fluids are suitable for use with most refrigerants but the use of detergents containing chlorine shall be avoided as the chlorine may react with the refrigerant and corrode the copper pipe-work.

If a leak is suspected, all naked flames shall be removed/ extinguished.

If a leakage of refrigerant is found which requires brazing, all of the refrigerant shall be recovered from the system. or isolated (by means of shut off valves) in a part of the system remote from the leak. Oxygen free nitrogen (OFN) shall then be purged through the system both before and during the brazing process.

Removal and evacuation

When breaking into the refrigerant circuit to make repairs - or for any other purpose conventional procedures shall be used. However, it is important that best practice is followed since flammability is a consideration. The following procedure shall be adhered to:

- Remove refrigerant;
- Purge the circuit with inert gas;
- Evacuate;

- Purge again with inert gas;
- Open the circuit by cutting or brazing.

The refrigerant charge shall be recovered into the correct recovery cylinders. The system shall be “flushed” with OFN to render the unit safe. This process may need to be repeated several times. Compressed air or oxygen shall not be used for this task. Flushing shall be achieved by breaking the vacuum in the system with OFN and continuing to fill until the working pressure is achieved, then venting to atmosphere, and finally pulling down to a vacuum. This process shall be repeated until no refrigerant is within the system. When the final OFN charge is used, the system shall be vented down to atmospheric pressure to enable work to take place. This operation is absolutely vital if brazing operations on the pipe-work are to take place.

Ensure that the outlet for the vacuum pump is not close to any ignition sources and there is ventilation available.

Charging procedures

In addition to conventional charging procedures, the following requirements shall be followed.

- Ensure that contamination of different refrigerants does not occur when using charging equipment. Hoses or lines shall be as short as possible to minimise the amount of refrigerant contained in them.
- Cylinders shall be kept upright.
- Ensure that the refrigeration system is earthed prior to charging the system with refrigerant.
- Label the system when charging is complete(if not already).
- Extreme care shall be taken not to overfill the refrigeration system.

Prior to recharging the system it shall be pressure tested with OFN. The system shall be leak tested on completion of charging but prior to commissioning. A follow up leak test shall be carried out prior to leaving the site.

Decommissioning

Before carrying out this procedure, it is essential that the technician is completely familiar with the equipment and all its detail. It is recommended good practice that all refrigerants are recovered safely. Prior to the task being carried out, an oil and refrigerant sample shall be taken in case analysis is required prior to re-use of reclaimed refrigerant. It is essential that electrical power is available before the task is commenced.

- Become familiar with the equipment and its operation.
- Isolate system electrically.
- Before attempting the procedure ensure that:
 - Mechanical handling equipment is available, if required, for handling refrigerant cylinders;
 - All personal protective equipment is available and being used correctly;
 - The recovery process is supervised at all times by a competent person;
 - Recovery equipment and cylinders conform to the appropriate standards.
- Pump down refrigerant system, if possible.
- If a vacuum is not possible, make a manifold so that refrigerant can be removed from various parts of the system.
- Make sure that cylinder is situated on the scales before recovery takes place
- Start the recovery machine and operate in accordance with manufacturer’s instructions.
- Do not overfill cylinders(No more than 80 % volume liquid charge).
- Do not exceed the maximum working pressure of the cylinder, even temporarily.

j) When the cylinders have been filled correctly and the process completed, make sure that the cylinders and the equipment are removed from site promptly and all isolation valves on the equipment are closed off.

k) Recovered refrigerant shall not be charged into another refrigeration system unless it has been cleaned and checked.

Labelling

Equipment shall be labelled stating that it has been de-commissioned and emptied of refrigerant. The label shall be dated and signed. Ensure that there are labels on the equipment stating the equipment contains flammable refrigerant.

Recovery

When removing refrigerant from a system, either for servicing or decommissioning, it is recommended good practice that all refrigerants are removed safely.

When transferring refrigerant into cylinders, ensure that only appropriate refrigerant recovery cylinders are employed. Ensure that the correct number of cylinders for holding the total system charge is available. All cylinders to be used are designated for the recovered refrigerant and labelled for that refrigerant (i.e. special cylinders for the recovery of refrigerant). Cylinders shall be complete with pressure relief valve and associated shut-off valves in good working order. Empty recovery cylinders are evacuated and, if possible, cooled before recovery occurs.

The recovery equipment shall be in good working order with a set of instructions concerning the equipment that is at hand and shall be suitable for the recovery of flammable refrigerants. In addition, a set of calibrated weighing scales shall be available and in good working order. Hoses shall be complete with leak-free disconnect couplings and in good condition. Before using the recovery machine, check that it is in satisfactory working order, has been properly maintained and that any associated electrical components are sealed to prevent ignition in the event of a refrigerant release. Consult manufacturer if in doubt.

The recovered refrigerant shall be returned to the refrigerant supplier in the correct recovery cylinder, and the relevant Waste Transfer Note arranged. Do not mix refrigerants in recovery units and especially not in cylinders.

If compressors or compressor oils are to be removed, ensure that they have been evacuated to an acceptable level to make certain that flammable refrigerant does not remain within the lubricant. The evacuation process shall be carried out prior to returning the compressor to the suppliers. Only electric heating to the compressor body shall be employed to accelerate this process. When oil is drained from a system, it shall be carried out safely.



EN Split Type Room Air Conditioner
CN 分體式冷氣機

User Manual page 1
用戶使用手冊 page 32



PHILCO® 

MODEL: PMSC09VE / PMSC12VE

Philco is a pending or registered trademark of Electrolux Consumer Products, Inc. and used under a license from Electrolux Consumer Products, Inc.

IMPORTANT NOTE:

重要提示:



A2L

This appliance is using R32 mildly flammable refrigerant.
此設備使用輕度易燃製冷劑R32。



Read this manual carefully before installing or operating your new air conditioning unit.
Make sure to save this manual for future reference.
Please check the applicable models, technical data from the nameplate pasted on the unit.
在安裝或操作新空調機組之前，請仔細閱讀本手冊。請妥善保管本手冊以備將來參考。
適用的型號、技術資料見機身銘牌。



設備內充注易燃氣體 R32。

注意，火災風險



使用設備前，請先閱讀使用說明書。



安裝設備前，請先閱讀安裝說明書。



維修設備前，請先閱讀維修說明書。

製冷劑

- 為實現冷氣機組的功能，系統內會循環一種特殊製冷劑。所使用的製冷劑為氟化物 R32，已經過專門清潔處理。該製冷劑易燃且無氣味。此外，在某些條件下可能導致爆炸。但製冷劑的可燃性很低。只有明火才能點燃。
- 與常見製冷劑相比，R32 是一種無污染製冷劑，且不會危害臭氧層。其對溫室效應的影響也較低。R32 具有非常良好的熱力學特性，可帶來相當高的能源效率。因此，機組所需的充注量較少。

警告

- 除製造商建議的方法外，請勿使用其他方式加速除霜過程或進行清潔。如需維修，請聯絡就近的授權服務中心。非合資格人員進行維修都可能存在危險。
- 本設備應存放在沒有持續運作點火源的房間內。（例如：明火、運作中的燃氣設備或運作中的電暖器。）
- 請勿刺穿或焚燒。
- 請注意，製冷劑可能不含氣味。
- 設有製冷劑管的空間應符合當地燃氣法規。
- 維修應僅按照製造商建議的方式進行。
- 本設備應存放在通風良好的區域，其房間尺寸應符合操作規定的房間面積。
- 所有影響安全措施的工作程序只能由合格人員執行。



警告

附錄 CC（資料性）

使用易燃製冷劑機組的運輸、標示與儲存

以下資訊適用於使用易燃製冷劑的機組。

CC.1 含易燃製冷劑設備的運輸

請注意，含有易燃氣體的設備可能另有額外運輸法規。允許一起運輸的設備最大件數或設備配置，將由適用的運輸法規決定。

CC.2 使用標誌對設備進行標示

工作區域中類似器具所使用的標誌通常由當地法規規範，並規定工作場所提供安全及／或健康標誌的最低要求。

所有必要標誌均應予以保養，雇主應確保員工接受適當且充分的指導與培訓，以了解相關安全標誌的含義以及與這些標誌相關時需要採取的行動。

不應因過多標誌放置在一起而降低標誌的有效性。

任何使用的圖示應盡可能簡單，且僅包含必要細節。

CC.3 使用易燃製冷劑設備的處置

請參閱當地法規。

CC.4 設備／器具的儲存

設備的儲存應依照製造商的說明。

CC.5 已包裝（未售出）設備的儲存

儲存包裝防護的構造應確保包裝內設備受到機械損壞時，不會導致製冷劑充注量洩漏。允許共同儲存的設備最大數量將由當地法規決定。

本設備不適合身體、感官或精神能力降低者，或缺乏經驗與知識者（包括兒童）使用，除非有負責其安全的人員就本設備的使用進行監督或指導。

應監督兒童，確保其不玩弄本設備。

如需安裝、移動或保養冷氣機，請先聯絡經銷商或當地服務中心處理。冷氣機必須由指定單位進行安裝、移動或保養。否則，可能造成嚴重損壞、人身傷害或死亡。



此標誌表示本產品在全國範圍內不應與其他家庭廢棄物一起處置。為防止不受控的廢棄物處置對環境或人體健康造成可能危害，請負責任地回收，以促進材料資源的永續再利用。若要歸還您使用過的裝置，請使用退回與收集系統，或聯絡購買本產品的零售商。他們可以將本產品進行環境安全回收。

目錄

EN User Manual	1
----------------	---

ZH-HK 使用說明書	32
-------------	----

01 操作注意事項	37
02 操作指南	40
03 保養	46
04 故障	47
05 安全操作	49
06 安裝注意事項	51
07 安裝	54
08 附件	58
09 保養	59

注意事項

**警告**

操作與保養

- 本設備可由 8 歲及以上兒童，以及身體、感官或精神能力降低者，或缺乏經驗與知識者使用，但必須在監督或指導下安全使用，並了解相關風險。
- 兒童不得玩弄本設備。
- 在無人監督的情況下，兒童不得進行清潔和保養。
- 請勿將冷氣機連接至多用途插座。否則，可能導致火災危險。
- 清潔冷氣機時，必須先切斷電源。否則，可能導致觸電。
- 如果電源線損壞，必須由製造商、其服務代理商或具有類似資格的人員更換，以避免危險。
- 請勿用水清洗冷氣機，以免觸電。
- 請勿向室內機噴水。可能導致觸電或故障。
- 拆下濾網後，請勿觸摸翅片，以免受傷。
- 請勿使用火或吹風機烘乾濾網，以免變形或發生火災危險。
- 保養必須由合資格技術人員執行。否則，可能導致人身傷害或損壞。
- 請勿自行維修冷氣機。可能導致觸電或損壞。
- 需要維修冷氣機時，請聯絡經銷商。
- 請勿將手指或物品伸入進風口或出風口，否則可能導致人身傷害或損壞。
- 請勿堵塞出風口或進風口。可能導致故障。
- 請勿將水灑在遙控器上。否則，遙控器可能損壞。
- 如出現以下情況，請立即關閉冷氣機並切斷電源，然後聯絡經銷商或合資格技術人員進行維修：
 1. 電源線過熱或損壞。
 2. 運轉期間有異常聲音。
 3. 斷路器頻繁跳掣。
 4. 冷氣機散發燒焦味。
 5. 室內機漏水。
- 如果冷氣機在異常情況下運作，可能導致故障、觸電或火災危險。
- 使用緊急操作開關開啟或關閉機組時，請使用非金屬的絕緣物品按下此開關。
- 請勿踩踏室外機頂板，或放置重物。否則可能造成損壞或人身傷害。

附件

- 安裝必須由合資格技術人員執行。否則，可能導致人身傷害或損壞。
- 安裝機組時必須符合當地電器安全規例。
- 請依照當地安全規例，使用合格的供電電路和斷路器。
- 務必安裝斷路器。否則可能導致故障。
- 固定佈線中應連接一個全極隔離開關，所有極的觸點間距至少為 3 毫米。
- 冷氣機應正確接地。接地不正確可能導致觸電。
- 包括具有合適容量的斷路器，請注意下表。空氣開關應具備短路及過載保護功能，可保護電路短路和過載。

- 請勿使用不合格的電源線。
- 請確保電源符合冷氣機的要求。
- 電源不穩定、接線不正確或故障。使用冷氣機前，請安裝合適的供電電纜。
- 請正確連接電源插座的火線、中性線和接地線。
- 在進行任何與電器和安全相關的工作前，務必切斷電源。
- 安裝完成前，請勿接通電源。
- 如果電源線損壞，必須由製造商、其服務代理商或具備類似資格的人員更換，以避免危險。
- 製冷劑迴路的溫度會很高，請讓連接電纜遠離銅管。
- 本電器應依照當地電器規例安裝。
- 安裝必須依照 NEC 和 CEC 的要求執行，且只能由授權人員進行。
- 冷氣機為一級電器。必須由專業人員使用專用接地裝置正確接地。請確保其始終有效接地，否則可能導致觸電。
- 冷氣機中的黃綠線為接地線，不得用於其他用途。
- 接地電阻應符合當地電器安全規例。
- 本電器必須放置在插頭可觸及的位置。
- 室內機和室外機的所有電線應由專業人員連接。
- 如果電源連接線長度不足，請聯絡供應商更換新線。避免自行延長電線。
- 對於帶插頭的冷氣機，安裝完成後插頭應可觸及。
- 對於不帶插頭的冷氣機，線路中必須安裝斷路器。
- 如果需要將冷氣機移至其他地方，只有合格人員才能執行該工作。否則，可能導致人身傷害或損壞。
- 請選擇兒童觸及不到且遠離動物或植物的位置。如不可避免，請加裝圍欄以確保安全。
- 室內機應靠近牆壁安裝。

工作溫度範圍

	室內側 DB/WB(°C)	室外側 DB/WB(°C)
最高製冷	32/23	52/-
最高製熱	27/-	24/18

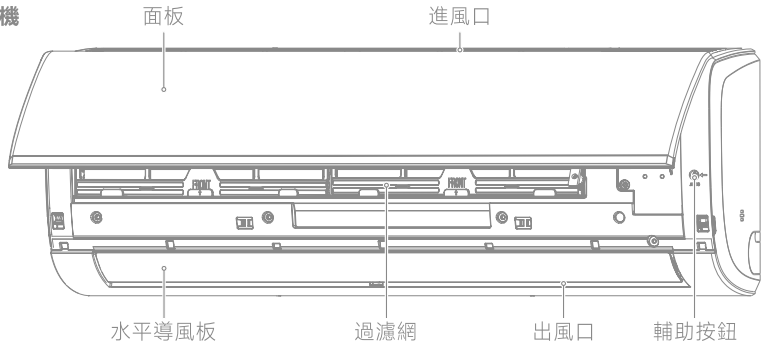
注意：

製冷運轉溫度範圍（室外溫度）為15°C ~ 52°C；

暖氣的運轉溫度範圍（室外溫度）：-15~24°C。

部件名稱

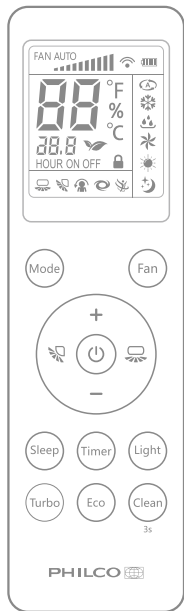
室內機



注意：

實際產品可能與上圖不同，請以實際產品為準。

遙控器

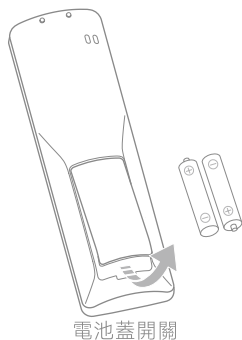


顯示



安裝電池

- 如圖所示，按下遙控器背面，然後沿箭咀方向推出電池盒蓋。
- 安裝兩顆 7#(AAA1.5V) 乾電池，並確保“**+**”極和“**-**”極的位置正確。
- 重新裝上電池盒蓋。



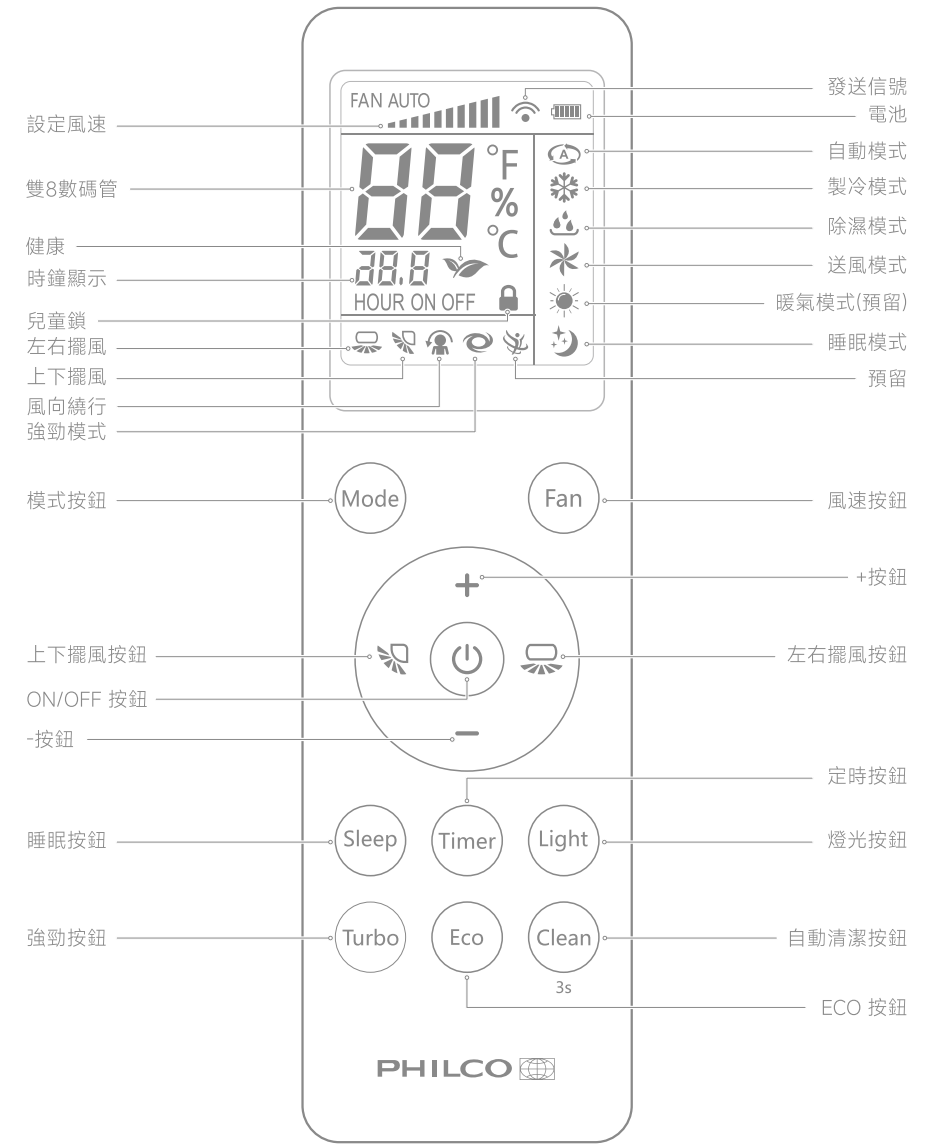
操作指南

- 接通電源後，可按下遙控器上的“ ”按鈕以開啟冷氣機。
- 按下“**Mode**”按鈕以選擇所需模式：自動、冷氣、除濕、送風、暖氣。
- 按下“**+**”或“**-**”按鈕以設定所需溫度，（自動模式下無法調整溫度）。
- 按下“**Fan**”按鈕以設定所需的風扇速度：自動、低速、中低速、中速、中高速、高速、強勁、無段變速。
- 可按下“ ”或“ ”按鈕以選擇風扇送風角度。

注意：

- 運作期間，請將遙控器信號發射器對準室內機上的接收窗口。
- 信號發射器與接收窗口之間的距離應不超過 8 米，且兩者之間不應有障礙物。
- 在有螢光燈或無線電話的房間內，信號容易受到干擾；運作期間遙控器應靠近室內機。
- 需要更換時，請更換相同型號的新電池。
- 長時間不使用遙控器時，請取出電池。
- 如果遙控器上的顯示模糊或沒有顯示，請更換電池。

遙控器



遙控器上的按鈕

- 接通電源後，冷氣機會發出聲音。
- 電源指示燈亮起。之後，您可以使用遙控器操作冷氣機。
- 在開機狀態下，按下遙控器上的按鈕，冷氣機會發出「嗶」聲，表示信號已發送至冷氣機。顯示屏將顯示相應的設定功能圖示。
- 在關機狀態下，燈光和時鐘圖示將顯示在遙控器顯示屏上（如果已設定定時開機、定時關機和燈光功能，相應圖示也會同時顯示在遙控器顯示屏上）。

ON/OFF 按鈕

按此按鈕可開啟或關閉冷氣機。

模式按鈕

按此按鈕選擇您所需的運轉模式。



☀ 此功能不適用於此型号

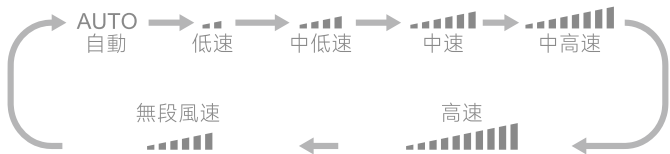
- 選擇自動模式時，冷氣機將根據出廠設定自動運轉。設定溫度無法調整，也不會顯示。按“Fan”按鈕可調整風速。按下“”或“”按鈕，即可調整風扇送風角度。
- 選擇製冷模式時，冷氣機將在製冷模式下運轉。按下“+”或“-”按鈕以調整設定溫度。按“Fan”按鈕調整風速。按下“”或“”按鈕，以調整風扇送風角度。
- 選擇除濕模式時，冷氣機將以風速1運轉，風速無法調整。按下“”或“”按鈕，以調整風扇送風角度。
- 選擇送風模式時，冷氣機僅送風，不製冷也不製暖。按“Fan”按鈕調整風速。按下“”或“”按鈕，以調整風扇送風角度。
- 選擇暖氣模式時，冷氣機將在暖氣模式下運轉。按下“+”或“-”按鈕以調整設定溫度。按“Fan”按鈕調整風速。按下“”或“”按鈕，以調整風扇送風角度。（單冷機型不會接收暖氣模式信號。如果使用遙控器設定暖氣模式，按ON/OFF按鈕無法啟動機組）。

注意：

- 為防止冷風，啟動暖氣模式後，室內機將延遲1~5分鐘送風（自動延遲時間取決於室內環境溫度）。
- 遙控器設定溫度範圍：16~31℃；風速：自動、低速、中低速、中速、中高速、高速、強勁、無段風速。

風速按鈕

按下此按鈕可循環設定風速為：自動(AUTO)、低速()、中低速()、中速()、中高速()、高速()、無段風速。



注意：

- 在自動風速下，冷氣機將根據環境溫度自動選擇適當的風速。
- 除濕模式下的風速為低速。進入無段變速模式後，使用者可透過按下“+”或“-”按鈕調整風扇速度。

強勁按鈕

按“Turbo”按鈕可進入或退出快速製冷模式，快速製冷模式下風扇速度調至最大，壓縮機轉速提高，快速達到設定溫度。

按鈕

按此按鈕可選擇上下擺風角度。送風角度可按如下方式循環選擇：



注意：

- 當“無顯示”轉換為“”狀態時，若在 2 秒後按下此按鈕，擺風狀態會直接變為“無顯示”；若在 2 秒內按下此按鈕，擺風狀態會依照上述順序變化。
- 上電預設為自由掃風，需在遙控器關機狀態下，長按“Mode”+“”組合按鍵3秒，“”圖標閃爍時即可開啟該定格掃風功能。使用遙控器選擇“”時，會自動擺風。冷氣機的上下擺風葉片將以最大角度自動上下擺動。
- 使用遙控器選擇“, , , , ”時，為固定位置擺風。冷氣機的上下擺風葉片將停在圖示所示的位置進行擺風。部分遙控器沒有此功能。
- 當選擇“”掃風角度時，遙控器將同時顯示“”圖標，表示風不會直接吹到人體

按鈕

按此按鈕可選擇左右擺風角度。送風角度可按如下方式循環選擇：



注意：

- 當“無顯示”轉換為“”狀態時，若在 2 秒後按下此按鈕，擺風狀態會直接變為“無顯示”；若在 2 秒內按下此按鈕，擺風狀態會依照上述順序變化。
- 上電預設為自由掃風，需在遙控器關機狀態下，長按“Mode”+“”組合按鍵3秒，“”圖標閃爍時即可開啟該定格掃風功能。使用遙控器選擇“”時，會自動擺風。冷氣機的左右擺風葉片將以最大角度自動左右擺動。
- 使用遙控器選擇“, , , , ”時，為固定位置擺風。冷氣機的左右擺風葉片將停在圖示所示的位置進行擺風。部分遙控器沒有此功能。

注意：

- 如果機組沒有此功能，按此按鈕後，主機會發出聲音，但仍按原狀態運轉。

+ 和 - 按鈕

- 按一下“+”或“-”按鈕，可將溫度提高或降低 1℃。按住“+”或“-”按鈕時，遙控器上的溫度會快速變化。設定完成後鬆開按鈕，室內機上的溫度指示將相應改變。（自動模式下無法調整溫度）
- 設定定時開機、定時關機時，按“+”或“-”按鈕調整時間。（請參閱“Timer”按鈕）

睡眠按鈕

- 在製冷、除濕、暖氣模式下，按此按鈕可開啟或關閉睡眠功能。
- 製冷模式開啟睡眠時，1 小時後設定溫度自動上升 1℃，2 小時後再自動上升 1℃，升溫後設定溫度上限為 31℃。
- 製熱模式開啟睡眠時，1 小時後設定溫度自動下降 1℃，2 小時後再自動下降 1℃，降溫後設定溫度下限為 16℃。

注意：

- 通電後，此功能預設為關閉。
- 切換模式後將被清除。

- 在“Fan”模式和“Auto”模式下無效。
- 如果機組沒有此功能，按此按鈕後，主機會發出聲音，但仍按原狀態運轉。

定時按鈕

此按鈕可設定定時開機（定時關機）的時間。按下此按鈕後，遙控器上的「HOUR ON (HOUR OFF)」會閃爍。需在 5 秒內按下“+”或“-”按鈕，以設定定時開啟（定時關閉）時間。每按一次“+”或“-”按鈕，時間將增加或減少 0.5 小時。按住“+”或“-”按鈕，時間會快速變更，直到達到您所需的時間。按“Timer”確認。“HOUR ON (HOUR OFF)”字樣將停止閃爍。遙控器上會顯示“HOUR ON(HOUR OFF)”和“8.0”。

取消定時開機(關機)

在定時開機（關機）已啟動的情況下，按“Timer”按鈕可取消。

注意：

- 時間設定範圍：0.5~24小時。
- 設定定時開機後，控制器顯示為機組已開機。
- 初始設定時間為0.0小時。

燈光按鈕

按此按鈕可開啟或關閉室內機顯示屏的燈光。

ECO 按鈕

在製冷模式下，按此按鈕，機組將在 ECO 模式下運轉。室內機設定溫度依照 27℃執行

注意：

- 切換模式將退出 ECO 模式。
- 在 ECO 模式下，遙控器顯示“EC”。設定溫度無法調整。
- 在 ECO 模式下，冷氣機將以自動風速運轉，風速無法調整。

組合按鈕功能介紹

兒童鎖功能

同時按住“+”或“-”3 秒，即可開啟或關閉兒童鎖功能。啟用童鎖功能時，“”圖示會顯示在遙控器上。若操作遙控器，“”圖示將閃爍三次，而不會向機組發送信號。

溫度顯示切換功能

在關機模式下，同時按下“Mode”和“-”按鈕，即可在℃與°F之間切換溫度顯示。

低溫暖氣功能設定 (此功能不適用於此型號)

- 在加熱模式下，同時按下“Mode”和“+”按鈕，即可進入/退出低溫加熱功能。
- 進入低溫暖氣功能後，遙控器上將顯示「LA」。
- 從一種模式切換到另一種模式時，低溫暖氣功能將被取消。關閉再開冷冷氣機後，將保留低溫暖氣功能。在通電狀態/開機時，低溫暖氣功能將被取消。
- 在低溫暖氣模式下，“Sleep”和“Low temperature heating”功能不能同時啟動。低溫暖氣模式已啟動時，如果同時按下“Sleep”按鈕，冷氣機將退出低溫暖氣模式並進入睡眠模式。

注意：

- 在低溫暖氣模式下，風速預設為自動且不可調整。
- 在低溫暖氣模式下，無法設定“Turbo”和“Quiet”。如果進入低溫暖氣模式，之前啟動的強勁和靜音功能將被取消。同樣，退出低溫暖氣模式時，也不會恢復。
- 退出低溫暖氣模式時，風速和溫度將恢復為啟動前的原始狀態。您可以設定其他功能。

獨立遙控

- 在關機模式下，同時按住“Sleep”和“Light”鍵超過3秒以啟動配對。
- 遙控器上的“Clock Display”區域將閃爍以顯示配對碼，可使用“+”和“-”按鈕進行調整（可從0/1/2/3/4中選擇）。室內機面板將同步顯示配對碼。
- 無操作5秒後，配置會自動完成，室內機面板返回正常顯示。配對碼固定並永久顯示在遙控器的標準介面上。

注意：

- 配對成功後，設定定時功能將覆蓋配對碼顯示。定時到期或取消後，配對碼將恢復顯示。
- 設定定時後執行配對將清除現有的定時配置。
- 遙控器更換電池後需要重新配對。
- 如果室內機尚未配對，或其配對碼設定為“0”，則會接受任何有效配對碼的遙控信號。
- 如果遙控器的配對碼設定為“0”，則無論室內機的配對碼為何，都可操作任何室內機。（建議為每台室內機設定專屬配對碼，避免機組之間串控干擾。）
- 當室內機收到來自遙控器的配對碼顯示指令（按住“+”和“Light”鍵超過3秒）時，將顯示配對碼5秒。
- 室內機說明書隨附編號貼紙（1、2），安裝時可貼在機組上。
- 配對時，遙控器盡量靠近內機顯示板，避免影響到其他內機。

自動清潔功能（僅室內機適用）

在關機模式下，按住“Clean”按鈕超過3秒以啟動自動清潔功能。

遙控器上“SC”將閃爍5秒，之後顯示設定溫度。

注意：

- 如果運轉期間發生停機故障，自動清潔程序將終止。
- 機組將在完成一個完整清潔週期後自動退出自動清潔模式。
- 若要停止自動清潔並返回關機介面，請按兩次電源按鈕。
- 當室內溫度超過30°C或室外溫度超過43°C時，無法使用自動清潔功能。
- 室內溫度低於16°C或室外溫度低於0°C時，無法使用自動清潔功能。
- 任意一台內機開啟自動清潔功能時，所有內機都會進行自動清潔，且過程中內機換熱器因熱脹冷縮會出現噪音，屬於正常現象，室內相對濕度越大，自動清潔效果越好。

健康功能

- 在製冷模式下，同時按住“”和“Clean”鍵超過3秒，可開啟或關閉冷等離子功能。
- 此功能預設為啟用，並在切換模式時保留先前狀態。
- 當遙控器開啟機組時，冷等離子功能將恢復上次關機前設定的狀態。
- 當健康功能開啟時，遙控器將顯示“”圖標。

干燥功能

- 製冷或除濕模式開機狀態下，同時按住“Fan”+“”鍵3秒以上，即可設定乾燥功能。乾燥功能開啟後，遙控器閃爍顯示“SF”5秒，5秒後切換顯示設定溫度。乾燥功能單次執行有效。內機關機後乾燥功能啟動，遙控器顯示“SF”，運行10分鐘後自動關閉，遙控器“SF”字樣消失；若乾燥運行途中重新開機，乾燥功能立即取消。
- 乾燥功能執行過程中僅可取消，無法設定。
- 遙控器通電後，預設乾燥功能為關閉狀態。

清潔與保養

⚠ 警告

清潔冷氣機前，請關閉冷氣機並斷開電源，以免觸電。

請勿用水清洗冷氣機，以免觸電。

請勿使用揮發性液體清潔冷氣機。

清潔室內機表面

當室內機表面髒污時，建議使用柔軟的乾布或濕布擦拭。

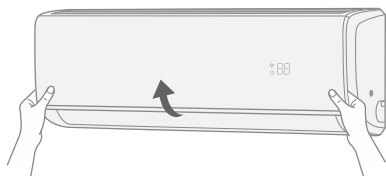
注意：清潔時請勿拆下面板。



清潔濾網

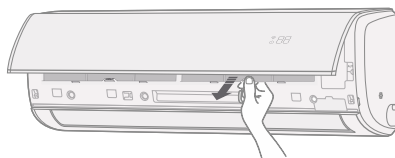
1. 打開面板

如圖所示，將面板拉出至一定角度。



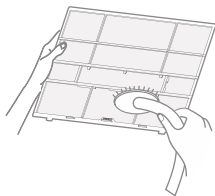
2. 取下濾網

如圖所示取下濾網。



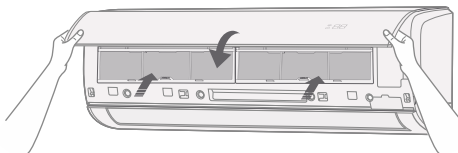
3. 清潔濾網

使用吸塵器或水清潔濾網。當濾網非常髒時，請用水(低於 45 °C)清洗，然後將其放在陰涼處晾乾。



4. 安裝濾網

安裝濾網，然後將面板蓋緊密關閉。



注意：

- 濾網應每三個月清潔一次。如果使用環境灰塵較多，可增加清潔頻率。
- 拆下濾網後，請勿觸摸翅片，以免受傷。
- 請勿使用火或吹風機烘乾濾網，以免變形或發生火災危險。

使用季節前清潔

- 檢查進風口和出風口是否堵塞。
- 檢查空氣開關、插頭和插座是否狀況良好。
- 檢查濾網是否清潔。
- 檢查排水管是否損壞。

使用季節後清潔

- 中斷電源。
- 清潔濾網和室內機面板。

回收注意事項

- 大多數包裝材料為可回收材料。請以適當方式處置。
- 如果您要處置冷氣機，請聯絡當地經銷商或諮詢服務中心，以取得正確的處置方法。

故障分析

一般現象分析

報修前請先檢查以下項目。

如果故障仍無法排除，請聯絡當地經銷商或合資格技術人員。

現象	檢查項目	解決方法
室內機無法接收遙控器信號，或遙控器無反應。	是否受到嚴重干擾（例如靜電、電壓不穩）？	拔出插頭。約 3 分鐘後重新插入插頭，然後再次開啟機組。
	遙控器是否在信號接收範圍內？	信號接收範圍為 8 米。
	是否有障礙物？	移除障礙物。
	遙控器是否對準接收窗？	選擇適當角度，將遙控器對準室內機上的接收窗。
	遙控器靈敏度是否低；顯示模糊或無顯示？	檢查電池。如果電池電量過低，請更換電池。
	操作遙控器時無顯示？	檢查遙控器是否看起來已損壞。如果是，請更換。
	室內有螢光燈？	將遙控器靠近室內機。關閉螢光燈，然後再試一次。
室內機不出風。	室內機的進風口或出風口是否堵塞？	排除障礙物。
	在暖氣模式下，室內溫度是否已達到設定溫度？	達到設定溫度後，室內機將停止送風。
	暖氣模式是否剛剛開啟？	為防止吹出冷風，室內機將延遲數分鐘後啟動，這是正常現象。
冷氣機無法運轉	停電？	等待機組電源恢復。
	插頭是否鬆動？	重新插入插頭。
	斷路器是否跳掣或保險絲燒斷？	請專業人員更換斷路器或保險絲。
	配線是否有故障？	請專業人員更換。
	機組是否在停止運轉後立即重新啟動？	等待 3 分鐘，然後再次開啟機組。
	遙控器的功能設定是否正確？	重新設定功能。
室內機出風口有霧氣吹出。	室內溫度和濕度是否過高？	因為室內空氣快速冷卻。過一會兒，室內溫度和濕度會降低，霧氣會消失。
無法調節設定溫度	機組是否在自動模式下運轉？	自動模式下無法調節溫度。如果需要調節溫度，請切換運轉模式。
	您所需的溫度是否超出溫度範圍？	設定溫度範圍：16 °C~31 °C

現象	檢查項目	解決方法
製冷（暖氣）效果不佳	電壓是否過低？	等待電壓恢復正常。
	濾網是否髒污？	清潔濾網。
	設定溫度是否在適當範圍內？	將溫度調整至適當範圍。
	門窗是否開啟？	關閉門窗。
散發異味	是否有異味來源，例如家具和香煙等？	清潔濾網。 消除異味來源。
冷氣機突然恢復正常運轉	是否有干擾，例如雷電、無線裝置等？	斷開電源，重新接通電源，然後再次開啟機組。
室外機有蒸氣	是否開啟暖氣模式？	在暖氣模式下除霜時，可能會產生蒸氣，這是正常現象。
“水流”噪音	冷氣機剛剛開啟或關閉？	該噪音是製冷劑在機組內流動的聲音，這是正常現象。
爆裂聲	冷氣機剛剛開啟或關閉？	這是由於溫度變化導致面板或其他部件膨脹和/或收縮所引起的摩擦聲。

故障代碼

當冷氣機狀態異常時，室內機上的溫度指示燈會閃爍，以顯示相應的故障代碼。請參閱下表以識別故障代碼。



注意：

- 以上指示燈示意圖僅供參考。實際指示燈及位置請以實際產品為準。
- 下列故障代碼僅為部分故障代碼。更多資訊請參閱維修說明書中的故障代碼列表。

故障代碼	名稱
CL	濾網清潔提醒
H0	排氣溫度過高保護
H1	超負荷保護
H2	壓縮機過載保護
H3	防凍保護
H4	系統高壓保護
H5	系統低壓保護
H6	缺製冷劑/閥門關閉保護
C8	輔助電加熱黏連保護
E0	室內溫度感測器開路/短路
FF	除霜或暖氣回油
C3	室內機回報室外機故障

如有其他故障代碼，請聯絡合資格技術人員進行維修。

聯絡我們

如出現以下情況，請立即關閉冷氣機並切斷電源，然後聯絡經銷商或合資格技術人員進行維修。

- 電源線過熱或損壞。
- 冷氣機散發燒焦味。
- 運轉期間有異常聲音。
- 斷路器頻繁跳掣。
- 室內機漏水。

請勿自行維修或改裝冷氣機。如果冷氣機在異常情況下運轉，可能會導致故障、觸電或火災危險。

易燃製冷劑的安全操作

安裝及維修人員資格要求

所有從事冷凍系統工作的人員，均應持有權威機構頒發的有效證書，以及本行業認可的處理冷凍系統資格。如果需要其他技術人員保養和修理本電器，應由具備使用可燃製冷劑資格的人員監督。

只能依照設備製造商建議的方法進行維修。

安裝注意

冷氣機不得在有明火的房間內使用（例如火源、使用中的煤氣器具、運轉中的加熱器）。

不得對連接管鑽孔或用火燒灼。

冷氣機必須安裝在面積大於最小房間面積的房間內。最小房間面積標示於銘牌上。

安裝後必須進行洩漏測試。

維修注意

檢查維修區域或房間面積是否符合銘牌要求。

- 僅允許在符合銘牌要求的房間內操作。

檢查維修區域是否通風良好。

- 操作過程中應保持持續通風狀態。

檢查維修區域是否有火源或潛在火源。

- 維修區域內禁止明火；並應懸掛「禁止吸煙」警示牌。

檢查電器標識是否完好。

- 更換模糊或損壞的警示標誌。

保險絲規格

室內機：T3.15AH；250VAC

最小電源線規格 - 室內機			
型號	材料	線徑	直徑
9K/12K	銅	H05RN-F	4*0.75mm ²

焊接

如果在維修過程中需要切割或焊接製冷劑系統管路，請按照以下步驟：

- 關閉機組並切斷電源
- 清除製冷劑
- 抽真空
- 用 N2 氣體清潔
- 切割或焊接
- 帶回維修點進行焊接

製冷劑應回收至專用儲存罐中。

確保真空泵出口附近沒有明火，且通風良好。

充注製冷劑

使用 R32 專用的製冷劑充注器具。確保不同種類的製冷劑不會相互污染。

製冷劑罐在充注製冷劑時應保持直立。

充注完成後（或尚未完成時），在系統上貼上標籤。

請勿過量充注。

充注完成後，請在運行測試前進行洩漏檢測；拆除時還應再進行一次洩漏檢測。

運輸與儲存安全說明

卸貨和開啟容器前，請使用可燃氣體檢測器檢查。

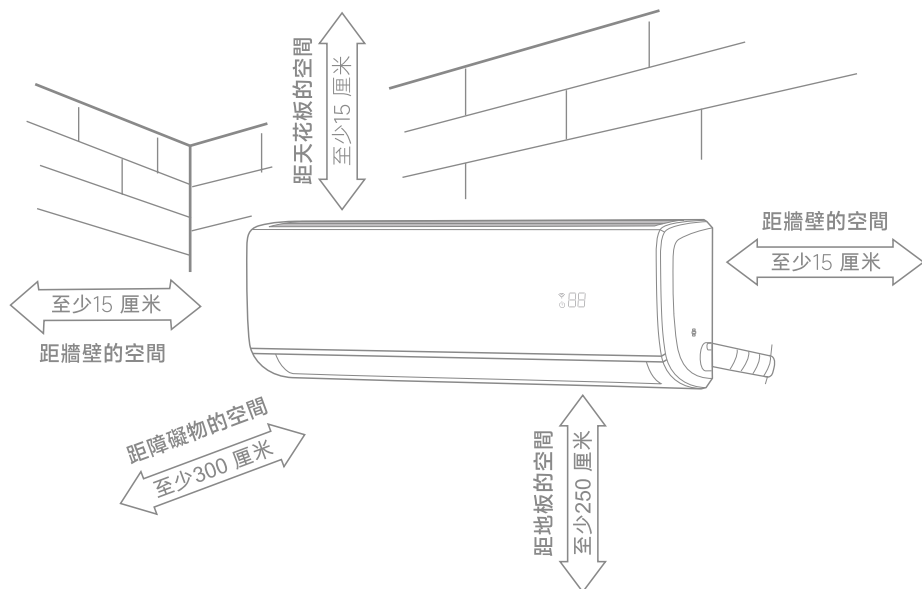
不得有火源，禁止吸煙。

遵守當地規章和法律。

製冷劑充注量

產品具體數值以額定銘牌為準。

安裝圖



安裝和移動機組的安全注意事項

為確保安全，請注意以下預防措施。

⚠ 警告

- 安裝或移機時，務必保持製冷劑迴路中無空氣或指定製冷劑以外的物質。
製冷劑迴路中若存在任何空氣或其他異物，將導致系統壓力升高或壓縮機破裂，從而造成人身傷害。
- 安裝或移動本機時，請勿充注與銘牌不符或不合格的製冷劑。
否則，可能導致運作異常、誤動作、機械故障，甚至嚴重安全事故。
- 移機或維修本機時如需回收製冷劑，務必確保本機以製冷模式運作。然後，完全關閉高壓側閥門（液閥）。約 30-40 秒後，完全關閉低壓側閥門（氣閥），立即停止本機並斷開電源。請注意，製冷劑回收時間不應超過 1 分鐘。
如果製冷劑回收時間過長，可能會吸入空氣並導致壓力升高或壓縮機破裂，從而造成人身傷害。
- 在製冷劑回收期間，拆下連接管之前，請確保液閥和氣閥已完全關閉且電源已斷開。
如果截止閥開啟且連接管尚未連接時壓縮機開始運作，將會吸入空氣並導致壓力升高或壓縮機破裂，從而造成人身傷害。
- 安裝本機時，請確保在壓縮機開始運作前，連接管已牢固連接。
如果截止閥開啟且連接管尚未連接時壓縮機開始運作，將會吸入空氣並導致壓力升高或壓縮機破裂，從而造成人身傷害。

- 禁止將本機安裝在可能有腐蝕性氣體或可燃氣體洩漏的場所。
如果本機周圍有氣體洩漏，可能會引發爆炸及其他事故。
- 請勿使用延長線進行電器連接。如果電線長度不夠，請聯絡當地授權服務中心，索取合適的電線。
連接不良可能導致觸電或火災。
- 室內機與室外機之間的電器連接應使用指定類型的電線。請妥善固定電線，確保接線端子不受外力拉扯。
容量不足的電線、錯誤接線以及不妥善固定電線可能導致觸電或火災。

安裝準備

工具

1. 水平計	6. 扭力扳手	11. 壓力計
2. 螺絲刀	7. 開口扳手	12. 萬用錶
3. 衝擊鑽	8. 管道切割機	13. 內六角扳手
4. 鑽頭	9. 洩漏探測器	14. 量度尺
5. 管道擴大器	10. 真空泵	

位置選擇

基本要求

將本機安裝在以下場所可能會導致故障。如無法避免，請諮詢當地經銷商。

- 有強熱源、蒸氣、可燃或爆炸性氣體，或揮發性物體散佈於空氣中的場所。
- 有高頻設備的場所（如焊接機、醫療設備）。
- 靠近海岸區域的場所。
- 空氣中有油污或煙霧的場所。
- 有硫化氣體的場所。
- 其他具有特殊情況的場所。
- 本電器不得安裝在洗衣房內。

室內機

- 進風口和出風口附近不應有障礙物。
- 選擇一個冷凝水可輕易排放且不會影響他人的位置。
- 選擇一個便於連接室外機且靠近電源插座的位置。
- 選擇一個兒童接觸不到的位置。
- 該位置應能承受室內機重量，且不會增加噪音和振動。
- 本電器必須安裝在距離地面 2.5m 以上的位置。
- 請勿將室內機安裝在電器正上方。
- 請盡量遠離螢光燈。

室外機

- 選擇一個室外機發出的噪音和出風不會影響鄰里的位置。
- 該位置應通風良好且乾燥，室外機不會直接暴露於陽光或強風中。
- 該位置應能承受室外機重量。
- 確保安裝符合安裝尺寸圖的要求。
- 選擇一個兒童接觸不到且遠離動物或植物的位置。如無法避免，請加裝圍欄以確保安全。

安全注意事項

- 安裝機組時必須符合當地電器安全規例。
- 請根據當地安全規定，使用合格的供電迴路和空氣開關。
- 請確保電源符合冷氣機的要求。電源不穩定、接線不正確或故障。使用冷氣機前，請安裝合適的電源線。

- 請正確連接電源插座的火線、中性線和接地線。
- 在進行任何與電器和安全相關的工作前，務必切斷電源。
- 安裝完成前，請勿接通電源。
- 如果電源線損壞，必須由製造商、其服務代理商或具有類似資格的人員更換，以避免危險。
- 製冷劑迴路溫度會很高，請使互連電纜遠離銅管。
- 本電器應依照當地佈線規定進行安裝。
- 安裝必須依照 NEC 和 CEC 的要求執行，且只能由授權人員進行。



請注意，本機內充注有可燃氣體 R32。

對本機處理不當會涉及對人員和財物造成嚴重損害的風險。有關此製冷劑的詳細資訊，請參見“製冷劑”章節。

接地要求

- 冷氣機為一級電器。必須由專業人員使用專用接地裝置正確接地。請確保其始終有效接地，否則可能導致觸電。
- 冷氣機中的黃綠線為接地線，不得用於其他用途。
- 接地電阻應符合當地電器安全規定。
- 本電器必須放置在插頭可觸及的位置。
- 固定佈線中應連接一個全極斷開開關，且所有極的觸點間距至少為 3 毫米。對於帶電源插頭的機型，請確保安裝後插頭在可觸及範圍內。

室內機安裝

步驟 1：選擇安裝位置

向客戶建議安裝位置，然後與客戶確認。

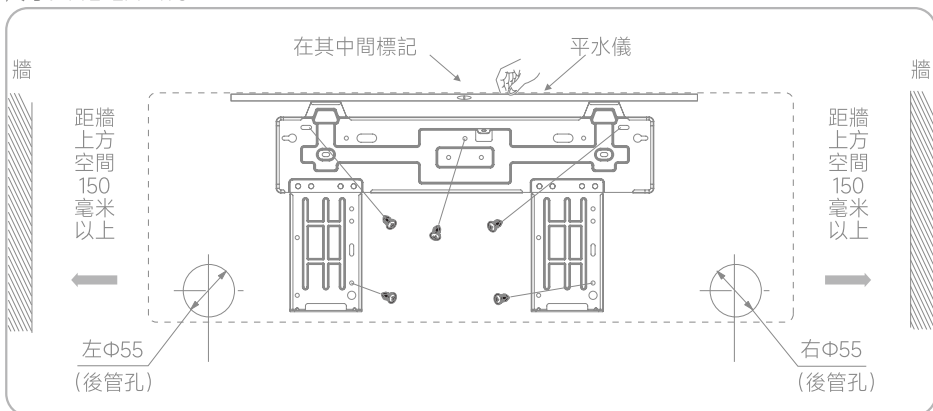
步驟 2：安裝壁掛架

- 將壁掛架掛在牆上；用水平儀將其調整至水平位置，然後在牆上標出螺絲固定孔。
- 用衝擊鑽在牆上鑽出螺絲固定孔（鑽頭規格應與塑膠膨脹粒相同），然後將塑膠膨脹粒塞入孔中。
- 用自攻螺絲（ST4.2X25TA）將壁掛架固定在牆上，然後透過拉動框架檢查其是否安裝牢固。如果塑膠膨脹粒鬆動，請在附近另鑽一個固定孔。

步驟 3：開管孔

· 根據出管方向選擇管孔位置。管孔位置應略低於壁掛架，如下所示。

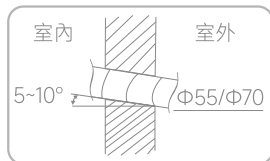
尺寸：792×279×195



- 在選定的出管位置開一個直徑為 $\Phi 55/\Phi 70$ 的管孔。為使排水順暢，請將牆上的管孔以 $5\sim 10^\circ$ 的坡度稍微向室外側下斜。

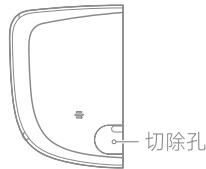
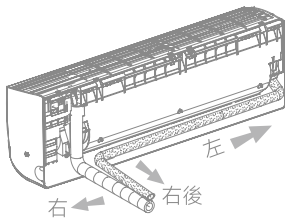
注意：

- 開孔時請注意防塵並採取相關安全措施。
- 不提供塑膠膨脹顆粒，應在當地購買。



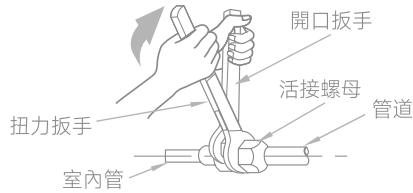
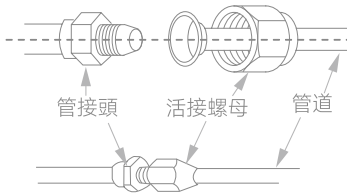
步驟 4：出管

- 管道可從右側、右後側或左側方向引出。
- 選擇從左側或右側引出管道時，請切除底殼上相應的孔。



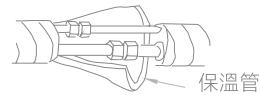
步驟 5：連接室內機管道

- 將管接頭對準相應的喇叭口。
- 用手預緊活接螺母。
- 參照下表調整扭矩。將開口扳手放在管接頭上，並將扭力扳手放在活接螺母上。用扭力扳手擰緊活接螺母。



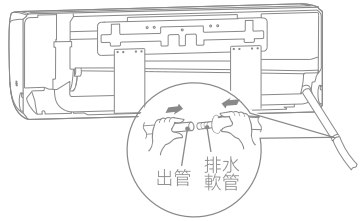
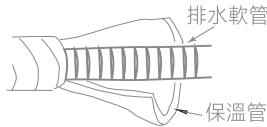
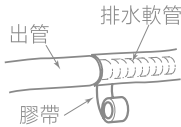
六角螺母直徑	Φ 6	Φ 9.52	Φ 12	Φ 16	Φ 19
擰緊扭矩 (N.m)	15~30	30~40	45~55	60~65	70~75

- 用保溫管包裹室內管和連接管接頭，然後用膠帶包裹。



步驟 6：安裝排水軟管

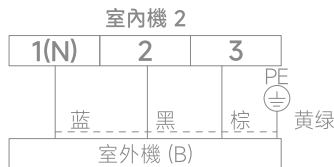
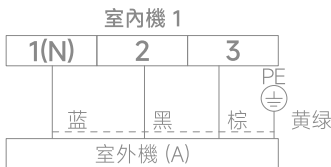
- 將排水軟管連接至室內機の出管。
- 用膠帶綁紮接頭。



- 在室內排水軟管上加裝保溫管，以防止凝露。
- 不提供塑膠膨脹顆粒。

步驟 7：連接室內機電線

- 打開面板，拆下接線蓋上的螺絲，然後取下蓋子。



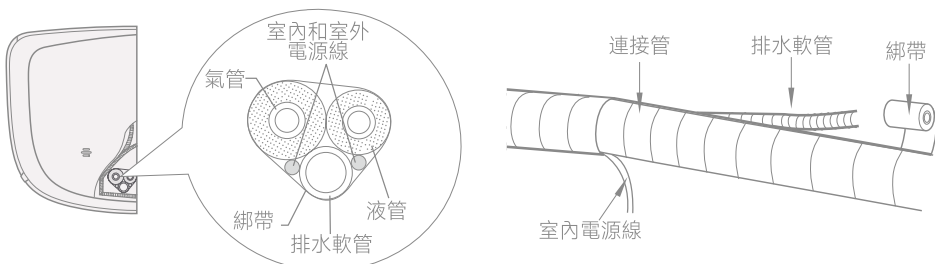
- 使電源連接線穿過室內機背面的過線孔，然後從前側拉出。
- 拆下線夾，按照顏色將電源連接線連接至接線端子；擰緊螺絲，然後用線夾固定電源連接線。
- 裝回接線蓋，然後擰緊螺絲。
- 封閉孔洞。

注意：

- 室內機和室外機的所有電線應由專業人員連接。
 - 如果電源連接線長度不足，請聯絡供應商更換新線。避免自行延長電線。
 - 對於帶插頭的冷氣機，安裝完成後插頭應可觸及。
 - 對於不帶插頭的冷氣機，必須在線路中安裝空氣開關。
- 空氣開關應為全極斷開，且觸點斷開距離應大於 3 毫米。

步驟 8：綁紮管道

- 用綁帶將連接管、電源線和排水軟管綁紮在一起。
- 綁紮時，請預留一定長度的排水軟管和電源線以便安裝。綁紮到一定程度時，將室內電源分開，然後將排水軟管分開。



- 將它們均勻綁紮。
- 液管和氣管應在末端分開綁紮。

注意：

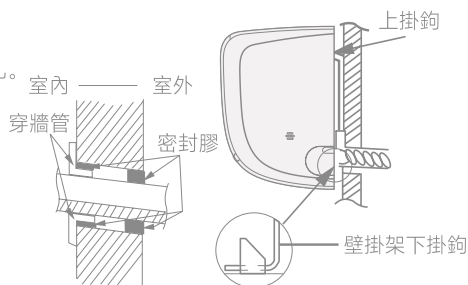
- 電源線和控制線不得交叉或纏繞。
- 排水軟管應綁紮在底部。

步驟 9：懸掛室內機

- 將已綁紮的管道放入穿牆管，然後使其穿過牆孔。
- 將室內機掛在壁掛架上。
- 用密封膠填塞管道與牆孔之間的縫隙。
- 固定穿牆管。
- 檢查室內機是否安裝牢固並貼近牆面。

注意：

- 請勿過度彎曲排水軟管，以免堵塞。



安裝後檢查

安裝完成後，請按照以下要求進行檢查。

需檢查的項目	可能的故障
機組是否已牢固安裝？	機組可能會掉落、晃動或發出噪音。
是否已進行製冷劑洩漏測試？	可能導致製冷（暖氣）能力不足。

需檢查的項目	可能的故障
管路保溫是否充分？	可能導致凝露和滴水。
排水是否順暢？	
電源電壓是否符合銘牌上標示的電壓？	可能導致故障或部件損壞。
電器接線和管路是否安裝正確？	
機組是否可靠接地？	可能導致漏電。
電源線是否符合規格？	可能導致故障和部件損壞。
進風口和出風口是否有任何障礙物？	這可能導致製冷（暖氣）能力不足。
安裝過程中產生的灰塵和雜物是否已清除？	可能導致故障和部件損壞。
連接管的氣閥和液閥是否已完全打開？	這可能導致製冷（暖氣）能力不足。

試運轉

試運轉準備

- 客戶認可冷氣機。
- 向客戶說明冷氣機的重要注意事項。

試運轉方法

- 接通電源，按下遙控器上的“”按鈕開始運轉。
- 按下“**Mode**”按鈕選擇自動、製冷、除濕、送風、暖氣，以檢查運轉是否正常。
- 如果環境溫度低於16 °C，冷氣機無法啟動製冷。

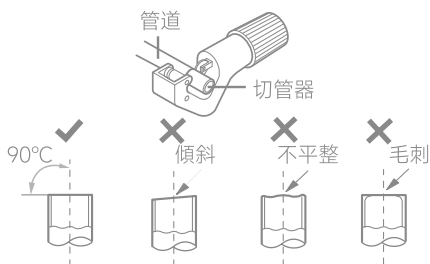
擴管方法

擴管不當是製冷劑洩漏的主要原因。請依照以下步驟進行擴管：

A: 切割管路

根據室內機與室外機之間的距離確認管路長度。

使用切管器切割所需管路。



B: 去除毛刺

使用整形器去除毛刺，並防止毛刺進入管內。

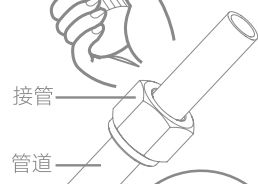


C: 套上合適的保溫管

D: 套上接管螺母

拆下室內連接管和室外閥門上的接管螺母；

將接管螺母安裝到管路上。



E: 擴口

使用擴管器進行擴口。

注意：

“A” 會依直徑而不同，請參考下表：

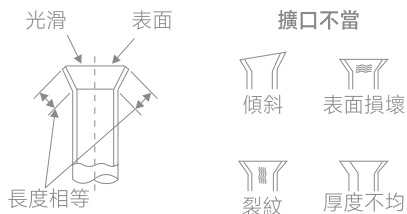


外徑(mm)	A(mm)	
	最大	最小
Φ6-6.35(1/4")	1.3	0.7
Φ9.52(3/8")	1.6	1.0
Φ12-12.7(1/2")	1.8	1.0
Φ15.8-16(5/8")	2.4	2.2

F: 檢查

檢查擴口品質。

如有任何瑕疵，請依照上述步驟重新擴口。



保養安全注意事項

維修資訊

區域檢查

在開始對含有可燃製冷劑的系統進行工作之前，必須進行安全檢查，以確保將點燃風險降至最低。對製冷系統進行維修時，在對系統進行工作之前，應遵守以下預防措施。

工作程序

應在受控程序下進行工作，以便在工作期間將可燃氣體或蒸氣存在的風險降至最低。

一般工作區域

所有保養人員及當地工作的其他人員，均應被告知正在進行的工作性質。

應避免在密閉空間內工作。工作空間周圍區域應予以隔離。確保已透過控制可燃物，使該區域內的條件達到安全狀態。

檢查是否存在製冷劑

工作前及工作期間，應使用適當的製冷劑檢測器檢查該區域，以確保技術人員了解潛在的可燃環境。確保所使用的洩漏檢測設備適用於可燃製冷劑，即無火花、充分密封或本質安全。

滅火器的配置

如果要在製冷設備或任何相關部件上進行任何發熱工作，應備妥適當的滅火設備並置於手邊。在充注區附近配置乾粉或 CO₂ 滅火器。

嚴禁火源

任何對製冷系統進行相關工作的人員，若涉及暴露任何含有或曾含有可燃製冷劑的管路，不得以可能導致火災或爆炸風險的方式使用任何點火源。所有可能的點火源，包括吸煙，均應與安裝、維修、拆除和處置現場保持足夠距離，在這些過程中可燃製冷劑可能會釋放到周圍空間。工作開始之前，應檢查設備周圍區域，以確保沒有可燃危害或點火風險。應張貼“禁止吸煙”標誌。

通風區域

在打開系統或進行任何發熱工作之前，確保該區域位於開放空間或通風充分。在工作進行期間，應持續保持一定程度的通風。通風應安全地驅散任何釋放的製冷劑，並最好將其排至外部大氣中。

製冷設備檢查

更換電器元件時，元件應符合用途並符合正確規格。應始終遵循製造商的保養和維修指南。如有疑問，請諮詢製造商的技術部門以獲得協助。

以下檢查應適用於使用可燃性製冷劑的裝置：

- 充注量與安裝含製冷劑部件的房間大小相符；
- 通風機械和出風口運作充分且未受阻；
- 如果使用間接製冷迴路，應檢查二次迴路是否存在製冷劑；
- 設備上的標示仍然可見且清晰可讀。應修正難以辨認的標示和標誌；
- 製冷管路或元件安裝在不太可能暴露於任何可能腐蝕含製冷劑元件之物質的位置，除非這些元件由本身耐腐蝕的材料製成，或已適當防護以避免此類腐蝕。

電器裝置檢查

電器元件的維修和保養應包括初始安全檢查和元件檢查程序。如存在可能危及安全的故障，則在故障得到令人滿意的處理之前，不得將任何電源連接至該電路。如故障無法立即修正但必須繼續運轉，應採用適當的臨時解決方案。應向設備所有者報告此情況，以便各方知悉。

初始安全檢查應包括：

- 電容器已放電：此操作應以安全方式進行，以避免產生火花的可能性；
- 在對系統充注、回收或吹掃時，沒有帶電電器元件和配線外露；
- 接地連接具有連續性。

密封元件的修理

在維修密封元件期間，於拆除任何密封蓋等之前，應斷開正在工作之設備的所有電源。如果絕對。維修期間若設備必須供電，則應在最關鍵位置設置一種持續運作的洩漏檢測裝置，以警示潛在危險情況。

應特別注意以下事項，以確保在對電器元件工作時，外殼不會以影響防護等級的方式被改變。

這應包括電纜損壞、連接數量過多、端子未按原規格製作、密封件損壞、壓蓋安裝不正確等。

確保設備安裝牢固。

確保密封件或密封材料未到不再能防止可燃環境進入的程度。替換部件應符合製造商的規格。

注意：

使用矽膠密封劑可能會抑制某些類型洩漏偵測設備的有效性。本質安全元件在工作前不必隔離。

本質安全元件的修理

在未確保不會超過使用中設備所允許的容許電壓和電流之前，不得對電路施加任何永久性電感或電容負載。

本質安全元件是在可燃環境存在時唯一可帶電工作的類型。測試裝置應具有正確的額定值。

僅可使用製造商指定的部件替換元件。其他部件可能導致因洩漏而存在於環境中的製冷劑被點燃。

佈線

檢查電纜不會受到磨損、腐蝕、過大壓力、振動、尖銳邊緣或任何其他不利環境影響。檢查還應考慮老化或來自壓縮機、風扇等來源的持續振動之影響。

可燃性製冷劑的偵測

在任何情況下，均不得在搜尋或偵測製冷劑洩漏時使用潛在點火源。不得使用鹵素噴燈（或任何其他使用明火的偵測器）。

洩漏偵測方法

以下洩漏偵測方法被視為適用於含有可燃製冷劑的系統。

應使用電子洩漏偵測器偵測可燃製冷劑，但其靈敏度可能不足，或可能需要重新校準。（偵測設備應在無製冷劑區域進行校準。）確保偵測器不是潛在點火源，並且適用於所使用的製冷劑。洩漏偵測設備應設定為製冷劑 LFL 的某一百分比，並應針對所使用的製冷劑進行校準，且確認適當的氣體百分比（最高 25%）。

洩漏偵測液適用於大多數製冷劑，但應避免使用含氯的清潔劑，因為氯可能與製冷劑反應並腐蝕銅管路。

如懷疑有洩漏，應移除／熄滅所有明火。

如發現需要鈎焊的製冷劑洩漏，應將所有製冷劑從系統中回收，或透過截止閥隔離在系統中遠離洩漏點的部分。隨後應在鈎焊過程之前及期間，將無氧氮氣（OFN）吹掃通過系統。

移除與抽真空

當為進行維修或任何其他目的而打開製冷劑迴路時，應採用常規程序。然而，由於可燃性是一項考量因素，因此遵循最佳實務非常重要。

應遵守以下程序：

- 移除製冷劑；
- 用惰性氣體吹掃迴路；
- 抽真空；
- 再次用惰性氣體吹掃；
- 透過切割或釐焊打開迴路。

製冷劑充注量應回收到正確的回收鋼瓶中。系統應使用 OFN 進行“沖洗”，以使機組安全。此過程可能需要重複數次。不得使用壓縮空氣或氧氣執行此任務。沖洗應透過以 OFN 破除系統中的真空並持續充入直至達到工作壓力，然後排放至大氣，最後抽至真空來完成。應重複此過程，直到系統內無製冷劑為止。使用最後一次 OFN 充入量時，應將系統排放至大氣壓，以便進行工作。如果要在管路上進行釐焊工作，此操作絕對至關重要。

確保真空泵的出口不靠近任何點火源，並且有可用的通風。

充注程序

除常規充注程序外，還應遵守以下要求。

- 使用充注設備時，確保不會發生不同製冷劑的污染。軟管或管線應盡可能短，以盡量減少其中所含的製冷劑量。
- 鋼瓶應保持直立。
- 在向製冷系統充注製冷劑之前，確保製冷系統已接地。
- 充注完成後為系統貼上標籤（如尚未貼上）。
- 應極度小心，避免製冷系統過度充注。

在重新充注系統之前，應使用 OFN 進行壓力測試。系統應在充注完成後但，運行前進行洩漏測試。離開現場前應進行後續洩漏測試。

停用

在執行此程序之前，技術人員必須完全熟悉設備及其所有細節。建議的良好做法是安全回收所有製冷劑。在執行任務之前，應採集油和製冷劑樣品，以備在再使用回收製冷劑前需要進行分析。在開始任務之前，必須有可用的電力。

- a) 熟悉設備及其操作。
- b) 將系統電器隔離。
- c) 在嘗試執行程序之前，確保：
 - 如有需要，備有用於搬運製冷劑鋼瓶的機械搬運設備；
 - 所有個人防護設備均可用並正確使用；
 - 回收過程始終由合格人員監督；
 - 回收設備和鋼瓶符合適用標準。
- d) 如有可能，將製冷系統抽空降壓。
- e) 如果無法抽真空，製作一個歧管，以便從系統的各個部分移除製冷劑。
- f) 在進行回收之前，確保鋼瓶放置在秤上。
- g) 啟動回收機，並按照製造商的說明操作。
- h) 不要過度充裝鋼瓶。（液體充裝量不得超過 80% 體積）。
- i) 不要超過鋼瓶的最大工作壓力，即使是暫時也不可以。

j) 當鋼瓶已正確充裝且過程完成後，確保鋼瓶和設備立即從現場移走，並關閉設備上的所有隔離閥。

k) 回收的製冷劑不得充注到另一個製冷系統中，除非其已經過清潔和檢查。

標籤

設備應貼上標籤，說明其已停用並已清空製冷劑。標籤應註明日期並簽名。確保設備上有標籤，標明設備含有可燃製冷劑。

回收

從系統中移除製冷劑時，無論是為了維修或停用，建議的良好做法是安全移除所有製冷劑。

將製冷劑轉移到鋼瓶中時，確保僅使用適當的製冷劑回收鋼瓶。確保有足夠數量的鋼瓶可容納系統總充注量。所有要使用的鋼瓶均指定用於回收的製冷劑，並已為該製冷劑貼上標籤（即用於回收製冷劑的專用鋼瓶）。鋼瓶應配備完整的洩壓閥及相關截止閥，並處於良好工作狀態。空的回收鋼瓶在回收開始前應抽真空，並且如有可能，應進行冷卻。

回收設備應處於良好工作狀態，手邊應有一套與該設備相關的說明，並且應適用於回收可燃製冷劑。此外，應備有一組已校準且處於良好工作狀態的秤。軟管應完整配備無洩漏的斷開接頭，並處於良好狀態。使用回收機之前，檢查其是否處於令人滿意的工作狀態，是否已妥善保養，並且任何相關電器元件均已密封，以防在製冷劑釋放時發生點火。如有疑問，請諮詢製造商。

回收的製冷劑應使用正確的回收鋼瓶退回製冷劑供應商，並安排相關的廢棄物轉移單。不要在回收裝置中混合製冷劑，尤其不要在鋼瓶中混合。

如果要移除壓縮機或壓縮機油，確保其已抽真空至可接受的程度，以確保可燃製冷劑不會殘留在潤滑劑中。在將壓縮機退回供應商之前，應執行抽真空過程。僅可對壓縮機本體採用電加熱以加速此過程。從系統排放油時，應安全執行。

請記錄下列產品資料

• 型號 MODEL No.:

• 機身編號 SERIAL No.:

• 經銷商名稱 DEALER.:

• 購買日期 DATE OF PURCHASE.:

• 單據編號 INVOICE No.:

本產品不斷改進中，如功能有所更改，恕不另行通知，如有疑問，
請與客戶服務中心聯絡，不便之處，敬請原諒。

The product specifications may be changed without prior notice.
Please contact customer service for details if necessary.

說明書內容以英文版本為準

If there is any inconsistency or ambiguity
between the English version and the Chinese version,
the English version shall prevail.

請即上網登記

Please register now at : www.dchtoolbox.com



保養登記

Warranty Registration



Gilman
since 1841



DCH ToolBox
大昌行電器維修中心

客戶服務中心 ToolBox Customer Service Centre:

香港九龍灣啟祥道20號大昌行集團大廈4樓

4/F, DCH Building, 20 Kai Cheung Road, Kowloon Bay, Hong Kong

客戶服務熱線 Customer Service Hotline: (852) 8210 8210

電郵地址 Service E-mail: 8210service@gilman-group.com

網址 Website: www.gilman-group.com