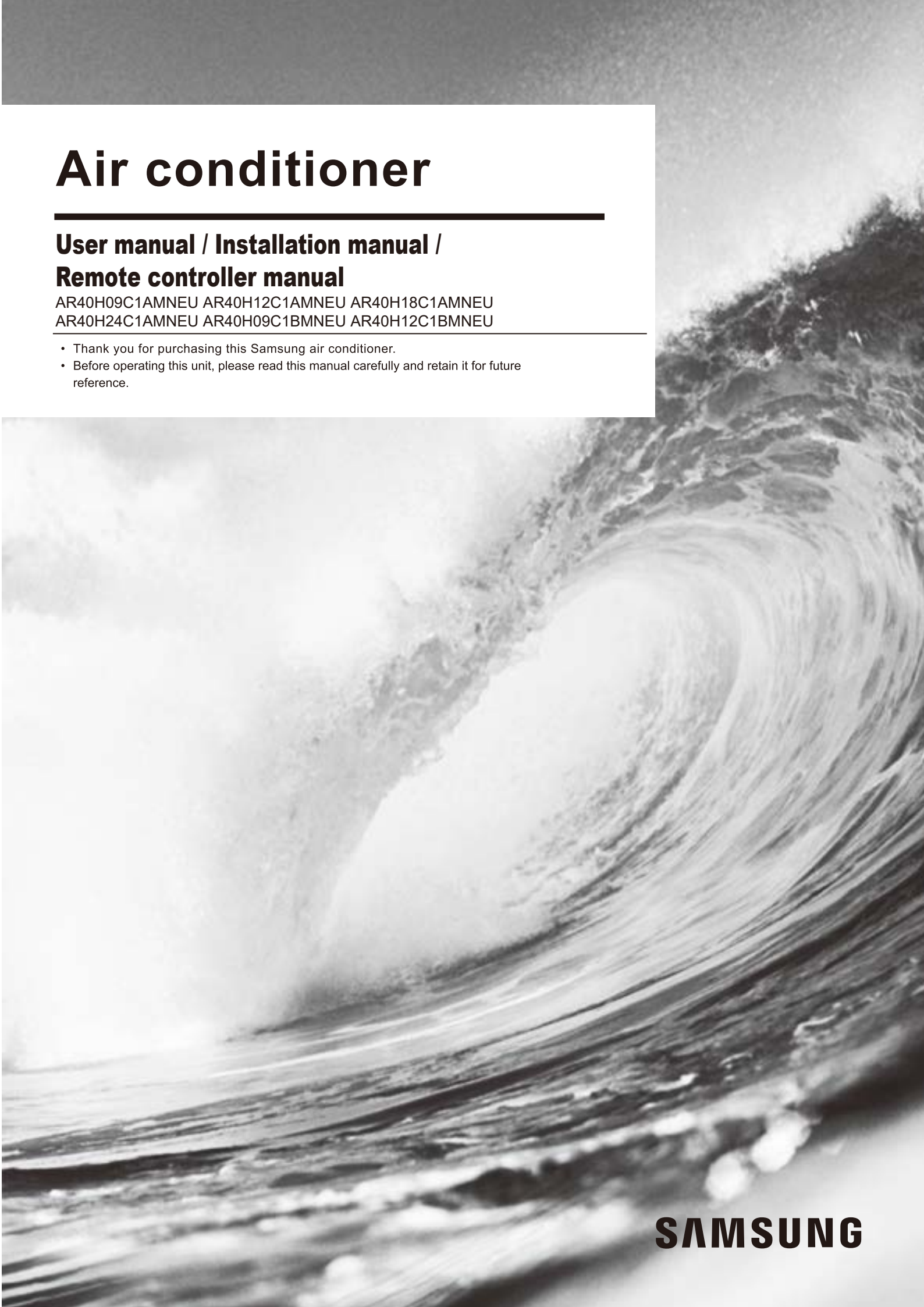


Air conditioner

User manual / Installation manual / Remote controller manual

AR40H09C1AMNEU AR40H12C1AMNEU AR40H18C1AMNEU
AR40H24C1AMNEU AR40H09C1BMNEU AR40H12C1BMNEU

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



SAMSUNG

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Safety Information

WARNING: Read This Manual

Read and follow all safety information and instructions before installation, use, or maintenance of this appliance. Incorrect installation, use, or maintenance of this appliance can result in death, serious injury, or property damage. Keep these instructions with this appliance. This manual is subject to change. For the latest version, visit www.samsung.com.

Because the instructions in this manual cover various models, the characteristics of your air conditioner may differ slightly from those described. If you have any questions, please contact your service provider or visit www.samsung.com.

Notices and notes

To make you aware of safety messages and highlighted information, we use the following notices and notes throughout this manual:

WARNING

Hazards or unsafe practices that may result in severe personal injury or death.

CAUTION

Hazards or unsafe practices that may result in minor personal injury or property damage.

IMPORTANT

Information of special interest

NOTE

Supplementary information that may be useful

FOR GENERAL

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.

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

IMPORTANT

To perform its antimicrobial function this product has been treated with the biocide substance Silver zinc zeolite.

Safety Information

FOR INSTALLATION

WARNING

Use a power cord with this product's power specifications or higher and use the power cord for this appliance only. In addition, do not use an extension cord.

- Extending the power cord may result in electric shock or fire.
- Do not use an electric transformer. This may result in electric shock or fire.
- If the voltage/frequency/rated current condition is different, it may cause fire.

The installation of this appliance must be performed by a qualified technician or service company. Do not attempt to install the air conditioner yourself.

- Failing to do so may result in electric shock, fire, explosion, problems with the product, or injury and may also void warranty on the installed product.

Install an Isolation Switch next to the Air Conditioner (but not on the panels of the Air Conditioner) and circuit breaker dedicated to the air conditioner.

- Failing to do so may result in electric shock or fire.

Fix the outdoor unit firmly so that the electric part of the outdoor unit is not exposed.

- Failing to do so may result in electric shock, fire, explosion, or problems with the product.

Do not install this appliance near a heater, or flammable material.

Do not install this appliance in a humid, oily or dusty location, in a location exposed to direct sunlight and water (or rain). Do not install this appliance in a location where gas may leak.

- This may result in electric shock or fire.

Never install the outdoor unit in a location such as on a high external wall where it could fall.

- If the outdoor unit falls, it may result in injury, death or property damage.

This appliance must be properly grounded. Do not ground the appliance to a gas pipe, plastic, water pipe, or telephone line.

- Failing to do so may result in electric shock, fire, and explosion.
- Make sure to use a socket-outlet with ground.

The product shall be stored in a room with no ignition sources (e.g. open flames, gas appliance, electric heater, etc.).

- Note that the refrigerant has no odour.

CAUTION

Please cover the air conditioner with PE BAG after installation, and remove it when you start to run air conditioner.

Install your appliance on a level and hard floor that can support its weight.

- Failing to do so may result in abnormal vibrations, noise, or problems with the product.

Install the drain hose properly so that water drains correctly.

- Failing to do so may result in water overflowing and property damage. Avoid adding drain to waste pipes as odours may arise in the future.

Safety Information

When installing the outdoor unit, make sure to connect the drain hose so that draining is performed correctly.

- The water generated during heating by the outdoor unit may overflow and result in property damage.
In particular, in winter, if a block of ice falls, it may result in injury, death or property damage.

Do not install the product in a place where thermo-hygrostat is needed (such as server room, machinery room, computer room, etc.)

- Those places do not provide guaranteed operation condition of the product therefore performance can be poor in these places.

FOR POWER SUPPLY

WARNING

When the circuit breaker is damaged, contact your nearest service centre.

Do not pull or excessively bend the power line. Do not twist or tie the power line. Do not hook the power line over a metal object, place a heavy object on the power line, insert the power line between objects, or push the power line into the space behind the appliance.

- This may result in electric shock or fire.

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.

CAUTION

When not using the air conditioner for a long period of time or during a thunder/lightning storm, cut the power at the circuit breaker.

- Failing to do so may result in electric shock or fire.

FOR USING

WARNING

If the appliance is flooded, please contact your nearest service centre.

- Failing to do so may result in electric shock or fire.

If the appliance generates a strange noise, a burning smell or smoke, cut off the power supply immediately and contact the nearest service centre.

- Failing to do so may result in electric shock or fire.

If the air conditioner malfunctions or requires repair, immediately stop its operation and disconnect the entire power system. Then consult the authorized service personnel.

In the event of a gas leak (such as propane gas, LP gas, etc.), ventilate immediately without touching the power line. Do not touch the appliance or power line.

- Do not use a ventilating fan.
- A spark may result in an explosion or fire.

Safety Information

To reinstall the air conditioner, please contact your nearest service centre.

- Failing to do so may result in problems with the product, water leakage, electric shock, or fire.
- Delivery service for the product is not provided. If you reinstall the product in another location, additional construction expenses and an installation fee will be charged.
- Especially, when you wish to install the product in an unusual location such as in an industrial area or near the seaside where it is exposed to salt in the air, please contact your nearest service centre.

Do not touch the circuit breaker with wet hands.

- This may result in electric shock.

Do not turn the air conditioner off with the circuit breaker while it is operating.

- Turning the air conditioner off and then on again with the circuit breaker may cause a spark and result in electric shock or fire.

After unpacking the air conditioner, keep all packaging materials well out of the reach of children, as packaging materials can be dangerous to children.

- If a child places a bag over its head, it may result in suffocation.

Do not touch the airflow blade with your hands or fingers during heating.

- This may result in electric shock or burns.

Do not insert your fingers or foreign substances into the air inlet/outlet of the air conditioner.

- Take special care that children do not injure themselves by inserting their fingers into the product.

Do not strike or pull the air conditioner with excessive force.

- This may result in fire, injury, or problems with the product.

Do not place an object near the outdoor unit that allows children to climb onto the machine.

- This may result in children seriously injuring themselves.

Do not use this air conditioner for long periods of time in badly ventilated locations or near infirm people.

- Since this may be dangerous due to a lack of oxygen, open a window at least once an hour.

Do not use means to accelerate the defrost operation or to clean, other than those recommended by Samsung.

Do not pierce or burn.

Be aware that refrigerants may not contain an odour.

If any foreign substance such as water has entered the appliance, cut off the power supply and contact the nearest service centre.

- Failing to do so may result in electric shock or fire.

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

- Do not use any fuse (such as copper, steel wire, etc.) other than the standard fuse.
- Failing to do so may result in electric shock, fire, problems with the product, or injury.

CAUTION

Do not place objects or devices under the indoor unit.

- Water dripping from the indoor unit may result in fire or property damage.

Safety Information

Check that the installation frame of the outdoor unit is not broken at least once a year.

- Failing to do so may result in injury, death or property damage.

To prevent personal injury, make sure that you change the directions of the horizontal airflow blades after stopping the movements of the vertical airflow blade. (In case of adjusting the horizontal airflow manually)

When the air conditioner does not operate properly for cooling or heating, there is a possibility of refrigerant leakage. If any leakage, stop operation, ventilate the room, and consult your dealer immediately for recharging refrigerant.

The refrigerant is not harmful. However, if it comes in contact with fire, it may generate harmful gases and there is risk of fire.

During transportation of the indoor unit, the pipe lines shall be covered with brackets for protection. Do not move the product with holding the pipe lines.

- It may cause gas leakage.

Do not install the product in a ship or a vehicle (such as a campervan).

- Salt, vibration or other environmental factor may cause the product malfunction, electric shock or fire.

Do not stand on top of the appliance or place objects (such as laundry, lighted candles, lighted cigarettes, dishes, chemicals, metal objects, etc.) on the appliance.

- This may result in electric shock, fire, problems with the product, or injury.

Do not operate the appliance with wet hands.

- This may result in electric shock.

Do not spray volatile material such as insecticide onto the surface of the appliance.

- As well as being harmful to humans, it may also result in electric shock, fire or problems with the product.

Do not drink the water from the air conditioner.

- The water may be harmful to humans.

Do not hit, shake, drop, or attempt to disassemble the remote control.

When replacing the remote control batteries, keep them out of the reach of infants.

- If an infant eats batteries, contact a doctor immediately.

When replacing the remote control batteries, be careful not to get the battery fluid on your skin.

- Battery fluid is harmful to humans.

Do not touch the pipes connected with the product.

- This may result in burns or injury.

Do not cut or burn the refrigerant container or pipings.

Do not point the air direction to the fireplace or heater.

Do not use this air conditioner to preserve precision equipment, food, animals, plants or cosmetics, or for any other unusual purposes.

- This may result in property damage.

Avoid directly exposing humans, animals or plants to the airflow from the air conditioner for long periods of time.

- This may result in harm to humans, animals or plants.

Safety Information

FOR CLEANING

WARNING

Do not clean the appliance by spraying water directly onto it. Do not use benzene, thinner or alcohol to clean the appliance.

- This may result in discolouration, deformation, damage, electric shock or fire.

Before cleaning, servicing, or performing maintenance, make sure to disconnect the product from its power source and wait until the fan stops.

- Failing to do so may result in electric shock or fire.

CAUTION

Take care when cleaning the surface of the heat exchanger of the outdoor unit since it has sharp edges.

- This should be done by a qualified technician. Please contact your installer or service centre.

Do not clean the inside of the air conditioner by yourself.

- For cleaning inside the appliance, contact your nearest service centre.
- When cleaning the filter, refer to the descriptions in the 'Cleaning' section.
- Failing to do so may result in damage, electric shock or fire.
- Make sure to prevent any injury from sharp edges of the surface when handling the heat exchanger.



Correct Disposal of This Product (Waste Electrical & Electronic Equipment)

(Applicable in countries with separate collection systems)

This marking on the product, accessories or literature indicates that the product and its electronic accessories (e.g. charger, headset, USB cable) should not be disposed of with other household waste at the end of their working life. To prevent possible harm to the environment or human health from uncontrolled waste disposal, please separate these items from other types of waste and recycle them responsibly to promote the sustainable reuse of material resources.

Household users should contact either the retailer where they purchased this product, or their local government office, for details of where and how they can take these items for environmentally safe recycling.

Business users should contact their supplier and check the terms and conditions of the purchase contract. This product and its electronic accessories should not be mixed with other commercial wastes for disposal.



Correct disposal of batteries in this product

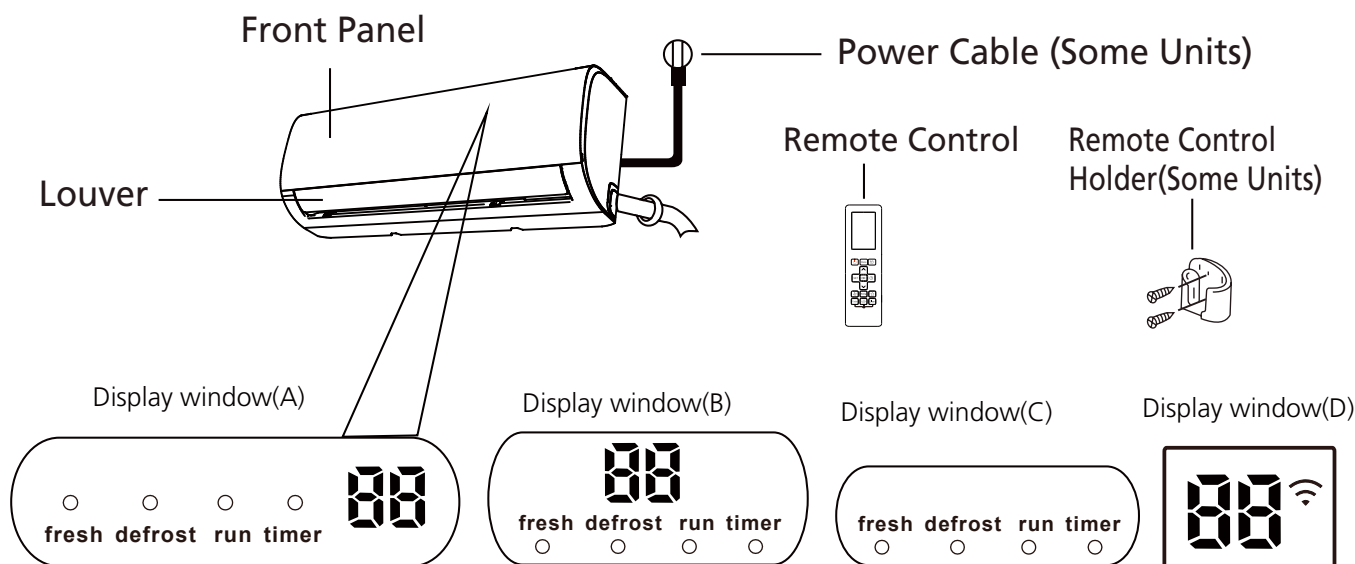
This marking on the battery, manual or packaging indicates that the batteries in this product should not be disposed of with other household waste at the end of their working life. Where marked, the chemical symbols Hg, Cd or Pb indicate that the battery contains mercury, cadmium or lead above the reference levels in EC Directive 2006/66.

Unit Specifications and Features

Indoor unit display

NOTE: Different models have different front panel and display window. Not all the indicators describing below are available for the air conditioner you purchased. Please check the indoor display window of the unit you purchased.

Illustrations in this manual are for explanatory purposes. The actual shape of your indoor unit may be slightly different. The actual shape shall prevail.



"  " when Wireless Control feature is activated (For APP control units).

"  " Displays temperature, operation feature and Error codes:

"  " for 3 seconds when:

- TIMER ON is set (if the unit is OFF, "  " remains on when TIMER ON is set).
- SWING, TURBO, or SILENCE feature is turned on.

"  " for 3 seconds when:

- TIMER OFF is set.
- SWING, TURBO, or SILENCE feature is turned off.

"  " when defrosting.

"  " when Active Clean feature is turned on.

"  " when 46°F (8°C) heating feature is turned on.

Display Code Meanings

Operating temperature

When your air conditioner is used outside of the following temperature ranges, certain safety protection features may activate and cause the unit to disable.

Inverter Split Type

	COOL mode	HEAT mode	DRY mode
Room Temperature	16°C - 30°C (60°F - 86°F)	0°C - 30°C (32°F - 86°F)	10°C - 32°C (50°F - 90°F)
Outdoor Temperature	-10°C - 46°C (14°F - 115°F)	-15°C - 24°C (5°F - 75°F)	-10°C - 46°C (14°F - 115°F)
	-15°C - 50°C (5°F - 122°F) (For models with low temp. cooling systems.)		
	0°C - 52°C (32°F - 126°F) (For special tropical models)		0°C - 52°C (32°F - 126°F) (For special tropical models)

FOR OUTDOOR UNITS WITH AUXILIARY ELECTRIC HEATER

When outside temperature is below 0°C (32°F), we strongly recommend keeping the unit plugged in at all time to ensure smooth ongoing performance.

NOTE: Room relative humidity less than 80%. If the air conditioner operates in excess of this figure, the surface of the air conditioner may attract condensation. Please sets the vertical air flow louver to its maximum angle (vertically to the floor), and set HIGH fan mode.

To further optimize the performance of your unit, do the following:

- Keep doors and windows closed.
- Limit energy usage by using TIMER ON and TIMER OFF functions.
- Do not block air inlets or outlets.
- Regularly inspect and clean air filters.

A guide on using the infrared remote is not included in this literature package. Not all the functions are available for the air conditioner, please check the indoor display and remote control of the unit you purchased.

Other Features

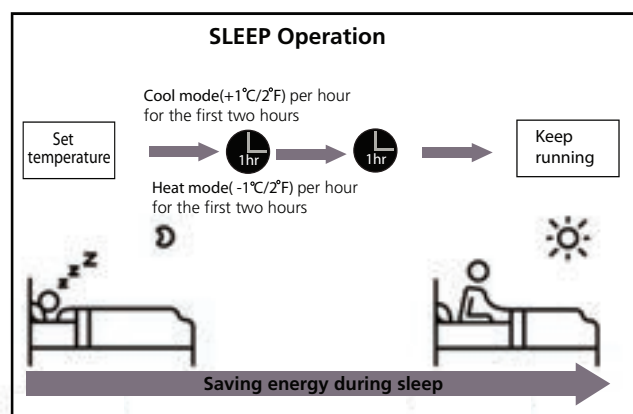
- **Auto-Restart(some units)**
If the unit loses power, it will automatically restart with the prior settings once power has been restored.
- **Wireless Control (some units)**
Wireless control allows you to control your air conditioner using your mobile phone and a wireless connection.
For the USB device access, replacement, maintenance operations must be carried out by professional staff.
- **Louver Angle Memory(some units)**
When turning on your unit, the louver will automatically resume its former angle.
- **Refrigerant Leakage Detection (some units)**
The indoor unit will automatically display "EC" or "ELOC" or flash LEDS (model dependent) when it detects refrigerant leakage.

• Sleep Operation

The SLEEP function is used to decrease energy use while you sleep (and don't need the same temperature settings to stay comfortable). This function can only be activated via remote control. And the Sleep function is not available in FAN or DRY mode.

Press the **SLEEP** button when you are ready to go to sleep. When in COOL mode, the unit will increase the temperature by 1°C (2°F) after 1 hour, and will increase an additional 1°C (2°F) after another hour. When in HEAT mode, the unit will decrease the temperature by 1°C (2°F) after 1 hour, and will decrease an additional 1°C (2°F) after another hour.

The sleep feature will stop after 8 hours and the system will keep running with final situation.



• Setting Angle of Air Flow

Setting vertical angle of air flow

While the unit is on, use the **SWING/DIRECT** button on remote control to set the direction (vertical angle) of airflow. Please refer to the Remote Control Manual for details.

NOTE ON LOUVER ANGLES

When using COOL or DRY mode, do not set louver at too vertical an angle for long periods of time. This can cause water to condense on the louver blade, which will drop on your floor or furnishings.

When using COOL or HEAT mode, setting the louver at too small an angle can reduce the performance of the unit due to restricted air flow.

NOTE: According to the relative standards requirement, please sets the vertical air flow louver to its maximum angle under heating capacity test.

Setting horizontal angle of air flow

The horizontal angle of the airflow must be set manually. Grip the deflector rod (See **Fig.B**) and manually adjust it to your preferred direction. For some units, the horizontal angle of the airflow can be set by remote control. please refer to the Remote Control Manual.

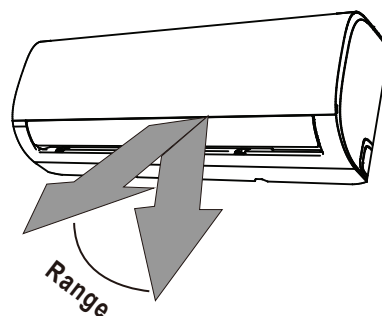
Manual Operation(without remote)

! CAUTION

The manual button is intended for testing purposes and emergency operation only. Please do not use this function unless the remote control is lost and it is absolutely necessary. To restore regular operation, use the remote control to activate the unit. Unit must be turned off before manual operation.

To operate your unit manually:

1. Open the front panel of the indoor unit.
2. Locate the **MANUAL CONTROL button** on the right-hand side of the unit.
3. Press the **MANUAL CONTROL button** one time to activate FORCED AUTO mode.
4. Press the **MANUAL CONTROL button** again to activate FORCED COOLING mode.
5. Press the **MANUAL CONTROL button** a third time to turn the unit off.
6. Close the front panel.



NOTE: Do not move louver by hand. This will cause the louver to become out of sync. If this occurs, turn off the unit and unplug it for a few seconds, then restart the unit. This will reset the louver.

Fig. A

! CAUTION

Do not put your fingers in or near the blower and suction side of the unit. The high-speed fan inside the unit may cause injury.

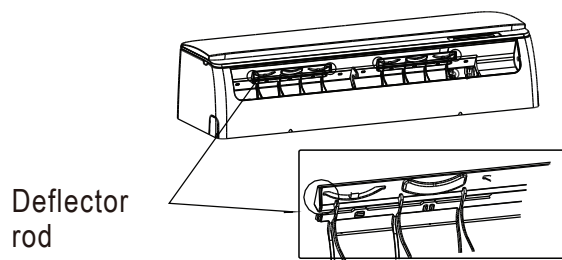
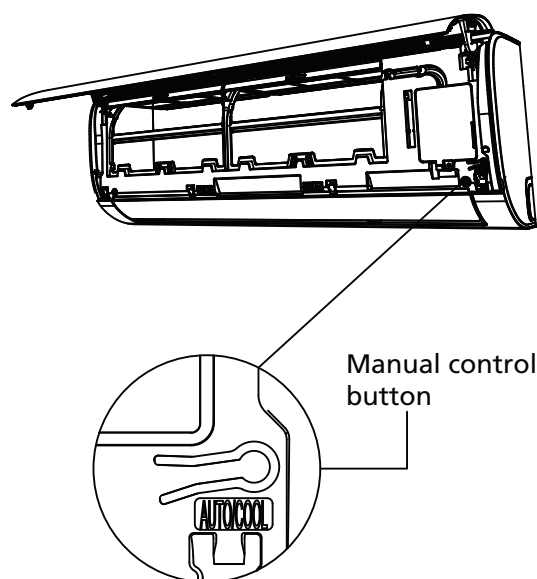


Fig. B



Care and Maintenance

Cleaning Your Indoor Unit

BEFORE CLEANING OR MAINTENANCE

ALWAYS TURN OFF YOUR AIR CONDITIONER SYSTEM AND DISCONNECT ITS POWER SUPPLY BEFORE CLEANING OR MAINTENANCE.

CAUTION

Only use a soft, dry cloth to wipe the unit clean. If the unit is especially dirty, you can use a cloth soaked in warm water to wipe it clean.

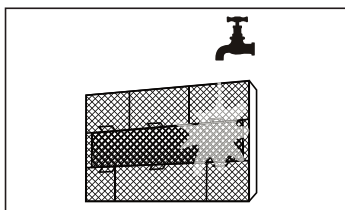
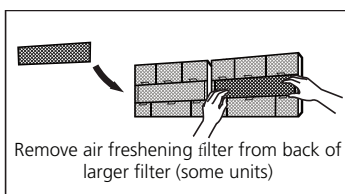
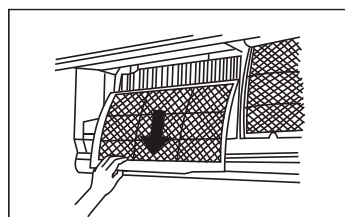
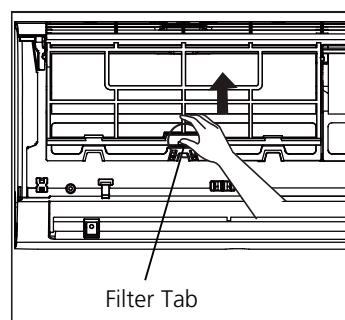
- **Do not** use chemicals or chemically treated cloths to clean the unit
- **Do not** use benzene, paint thinner, polishing powder or other solvents to clean the unit. They can cause the plastic surface to crack or deform.
- **Do not** use water hotter than 40°C (104°F) to clean the front panel. This can cause the panel to deform or become discolored.

Cleaning Your Air Filter

A clogged air conditioner can reduce the cooling efficiency of your unit, and can also be bad for your health. Make sure to clean the filter once every two weeks.

1. Lift the front panel of the indoor unit.
2. First press the tab on the end of filter to loosen the buckle, lift it up, then pull it towards yourself.
3. Now pull the filter out.
4. If your filter has a small air freshening filter, unclip it from the larger filter. Clean this air freshening filter with a hand-held vacuum.
5. Clean the large air filter with warm, soapy water. Be sure to use a mild detergent.

6. Rinse the filter with fresh water, then shake off excess water.
7. Dry it in a cool, dry place, and refrain from exposing it to direct sunlight.
8. When dry, re-clip the air freshening filter to the larger filter, then slide it back into the indoor unit.
9. Close the front panel of the indoor unit.



CAUTION

Do not touch air freshening (Plasma) filter for at least 10 minutes after turning off the unit.



CAUTION

- Before changing the filter or cleaning, turn off the unit and disconnect its power supply.
- When removing filter, do not touch metal parts in the unit. The sharp metal edges can cut you.
- Do not use water to clean the inside of the indoor unit. This can destroy insulation and cause electrical shock.
- Do not expose filter to direct sunlight when drying. This can shrink the filter.

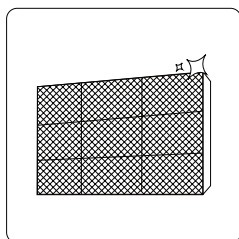


CAUTION

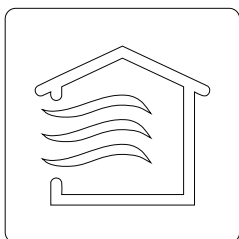
- Any maintenance and cleaning of outdoor unit should be performed by an authorized dealer or a licensed service provider.
- Any unit repairs should be performed by an authorized dealer or a licensed service provider.

Maintenance – Long Periods of Non-Use

If you plan not to use your air conditioner for an extended period of time, do the following:



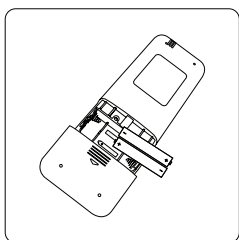
Clean all filters



Turn on FAN function until unit dries out completely



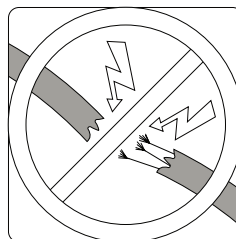
Turn off the unit and disconnect the power



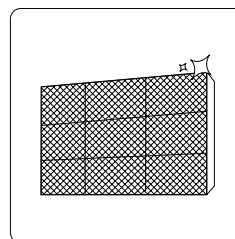
Remove batteries from remote control

Maintenance – Pre-Season Inspection

After long periods of non-use, or before periods of frequent use, do the following:



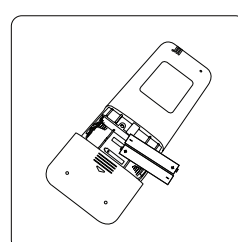
Check for damaged wires



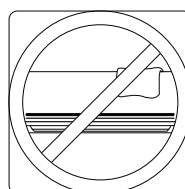
Clean all filters



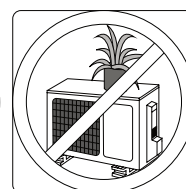
Check for leaks



Replace batteries



Make sure nothing is blocking all air inlets and outlets



Troubleshooting



SAFETY PRECAUTIONS

If ANY of the following conditions occurs, turn off your unit immediately!

- The power cord is damaged or abnormally warm
- You smell a burning odor
- The unit emits loud or abnormal sounds
- A power fuse blows or the circuit breaker frequently trips
- Water or other objects fall into or out of the unit

DO NOT ATTEMPT TO FIX THESE YOURSELF! CONTACT AN AUTHORIZED SERVICE PROVIDER IMMEDIATELY!

Common Issues

The following problems are not a malfunction and in most situations will not require repairs.

Issue	Possible Causes
Unit does not turn on when pressing ON/OFF button	The Unit has a 3-minute protection feature that prevents the unit from overloading. The unit cannot be restarted within three minutes of being turned off.
The unit changes from COOL/HEAT mode to FAN mode	The unit may change its setting to prevent frost from forming on the unit. Once the temperature increases, the unit will start operating in the previously selected mode again.
	The set temperature has been reached, at which point the unit turns off the compressor. The unit will continue operating when the temperature fluctuates again.
The indoor unit emits white mist	In humid regions, a large temperature difference between the room's air and the conditioned air can cause white mist.
Both the indoor and outdoor units emit white mist	When the unit restarts in HEAT mode after defrosting, white mist may be emitted due to moisture generated from the defrosting process.
The indoor unit makes noises	A rushing air sound may occur when the louver resets its position.
	A squeaking sound may occur after running the unit in HEAT mode due to expansion and contraction of the unit's plastic parts.
Both the indoor unit and outdoor unit make noises	Low hissing sound during operation: This is normal and is caused by refrigerant gas flowing through both indoor and outdoor units.
	Low hissing sound when the system starts, has just stopped running, or is defrosting: This noise is normal and is caused by the refrigerant gas stopping or changing direction.
	Squeaking sound: Normal expansion and contraction of plastic and metal parts caused by temperature changes during operation can cause squeaking noises.

Issue	Possible Causes
The outdoor unit makes noises	The unit will make different sounds based on its current operating mode.
Dust is emitted from either the indoor or outdoor unit	The unit may accumulate dust during extended periods of non-use, which will be emitted when the unit is turned on. This can be mitigated by covering the unit during long periods of inactivity.
The unit emits a bad odor	The unit may absorb odors from the environment (such as furniture, cooking, cigarettes, etc.) which will be emitted during operations.
	The unit's filters have become moldy and should be cleaned.
The fan of the outdoor unit does not operate	During operation, the fan speed is controlled to optimize product operation.
Operation is erratic, unpredictable, or unit is unresponsive	Interference from cell phone towers and remote boosters may cause the unit to malfunction. In this case, try the following: • Disconnect the power, then reconnect. • Press ON/OFF button on remote control to restart operation.

NOTE: If problem persists, contact a local dealer or your nearest customer service center. Provide them with a detailed description of the unit malfunction as well as your model number.

Troubleshooting

When troubles occur, please check the following points before contacting a repair company.

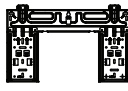
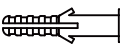
Problem	Possible Causes	Solution
Poor Cooling Performance	Temperature setting may be higher than ambient room temperature	Lower the temperature setting
	The heat exchanger on the indoor or outdoor unit is dirty	Clean the affected heat exchanger
	The air filter is dirty	Remove the filter and clean it according to instructions
	The air inlet or outlet of either unit is blocked	Turn the unit off, remove the obstruction and turn it back on
	Doors and windows are open	Make sure that all doors and windows are closed while operating the unit
	Excessive heat is generated by sunlight	Close windows and curtains during periods of high heat or bright sunshine
	Too many sources of heat in the room (people, computers, electronics, etc.)	Reduce amount of heat sources
	Low refrigerant due to leak or long-term use	Check for leaks, re-seal if necessary and top off refrigerant
	SILENCE function is activated (optional function)	SILENCE function can lower product performance by reducing operating frequency. Turn off SILENCE function.

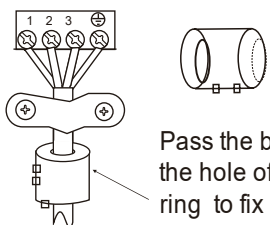
Problem	Possible Causes	Solution
The unit is not working	Power failure	Wait for the power to be restored
	The power is turned off	Turn on the power
	The fuse is burned out	Replace the fuse
	Remote control batteries are dead	Replace batteries
	The Unit's 3-minute protection has been activated	Wait three minutes after restarting the unit
	Timer is activated	Turn timer off
The unit starts and stops frequently	There's too much or too little refrigerant in the system	Check for leaks and recharge the system with refrigerant.
	Incompressible gas or moisture has entered the system.	Evacuate and recharge the system with refrigerant
	The compressor is broken	Replace the compressor
	The voltage is too high or too low	Install a manostat to regulate the voltage
Poor heating performance	The outdoor temperature is extremely low	Use auxiliary heating device
	Cold air is entering through doors and windows	Make sure that all doors and windows are closed during use
	Low refrigerant due to leak or long-term use	Check for leaks, re-seal if necessary and top off refrigerant
Indicator lamps continue flashing	The unit may stop operation or continue to run safely. If the indicator lamps continue to flash or error codes appear, wait for about 10 minutes. The problem may resolve itself. If not, disconnect the power, then connect it again. Turn the unit on. If the problem persists, disconnect the power and contact your nearest customer service center.	
Error code appears and begins with the letters as the following in the window display of indoor unit: • E(x), P(x), F(x) • EH(xx), EL(xx), EC(xx) • PH(xx), PL(xx), PC(xx)		

NOTE: If your problem persists after performing the checks and diagnostics above, turn off your unit immediately and contact an authorized service center.

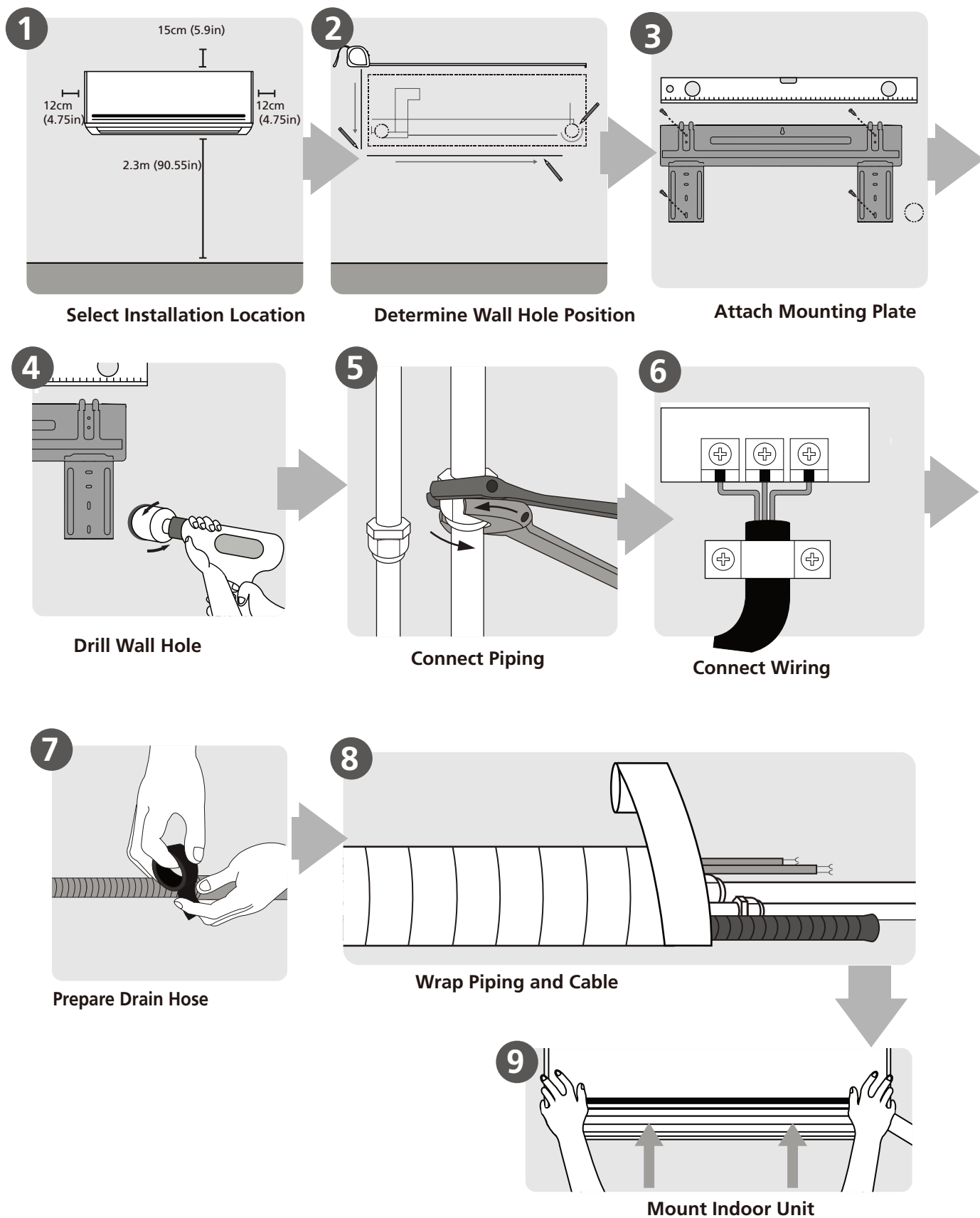
Accessories

The air conditioning system comes with the following accessories. Use all of the installation parts and accessories to install the air conditioner. Improper installation may result in water leakage, electrical shock and fire, or cause the equipment to fail. The items are not included with the air conditioner must be purchased separately.

Name of Accessories	Q'ty(pc)	Shape	Name of Accessories	Q'ty(pc)	Shape
Manual	2~3		Remote controller	1	
Drain joint (for cooling & heating models)	1		Battery	2	
Seal (for cooling & heating models)	1		Remote controller holder(optional)	1	
Mounting plate	1		Fixing screw for remote controller holder(optional)	2	
Anchor	5~8 (depending on models)		Small Filter (Need to be installed on the back of main air filter by the authorized technician while installing the machine)	1~2 (depending on models)	
Mounting plate fixing screw	5~8 (depending on models)				

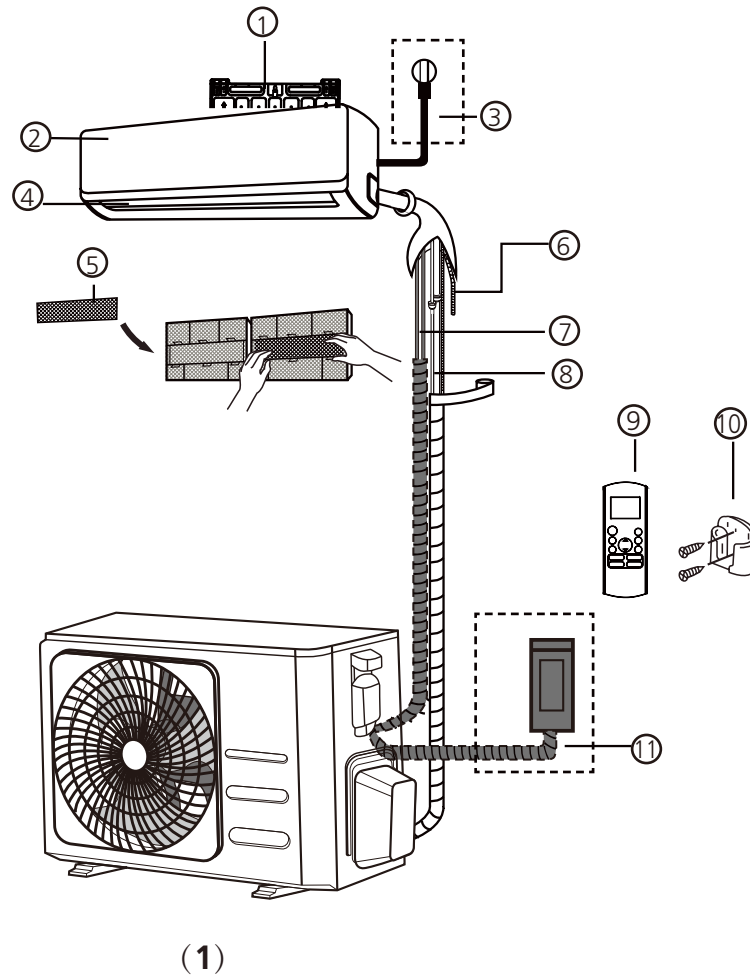
Name	Shape	Quantity(PC)
Connecting pipe assembly	Liquid side	Φ 6.35 (1/4in)
		Φ 9.52 (3/8in)
	Gas side	Φ 9.52 (3/8in)
		Φ 12.7 (1/2in)
		Φ 16 (5/8in)
		Φ 19 (3/4in)
Magnetic ring and belt (if supplied ,please refer to the wiring diagram to install it on the connective cable.)	 Pass the belt through the hole of the Magnetic ring to fix it on the cable	Varies by model

Installation Summary - Indoor Unit



Unit Parts

NOTE: The installation must be performed in accordance with the requirement of local and national standards. The installation may be slightly different in different areas.



- | | | |
|----------------------------|---|---|
| ① Wall Mounting Plate | ⑤ Functional Filter (On Back of Main Filter - Some Units) | ⑨ Remote Controller |
| ② Front Panel | ⑥ Drainage Pipe | ⑩ Remote controller Holder (Some Units) |
| ③ Power Cable (Some Units) | ⑦ Signal Cable | ⑪ Outdoor Unit Power Cable (Some Units) |
| ④ Louver | ⑧ Refrigerant Piping | |

NOTE ON ILLUSTRATIONS

Illustrations in this manual are for explanatory purposes. The actual shape of your indoor unit may be slightly different. The actual shape shall prevail.

⚠ CAUTION

For the product that uses the R-32 refrigerant, Install the indoor unit on the wall 1.8 m or higher from the floor.

Indoor Unit Installation

Installation Instructions – Indoor unit

PRIOR TO INSTALLATION

Before installing the indoor unit, refer to the label on the product box to make sure that the model number of the indoor unit matches the model number of the outdoor unit.

Step 1: Select installation location

Before installing the indoor unit, you must choose an appropriate location. The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations meet the following standards:

- ☑ Good air circulation
- ☑ Convenient drainage
- ☑ Noise from the unit will not disturb other people
- ☑ Firm and solid—the location will not vibrate
- ☑ Strong enough to support the weight of the unit
- ☑ A location at least one meter from all other electrical devices (e.g., TV, radio, computer)

DO NOT install unit in the following locations:

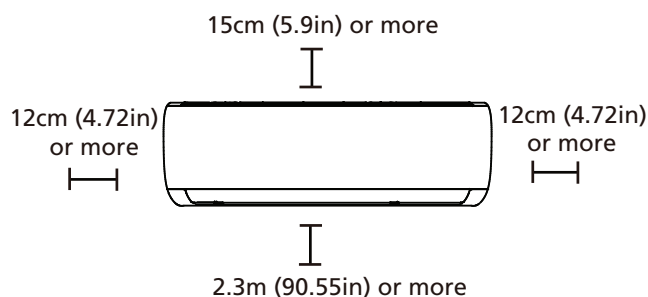
- ⊘ Near any source of heat, steam, or combustible gas
- ⊘ Near flammable items such as curtains or clothing
- ⊘ Near any obstacle that might block air circulation
- ⊘ Near the doorway
- ⊘ In a location subject to direct sunlight

NOTE ABOUT WALL HOLE:

If there is no fixed refrigerant piping:

While choosing a location, be aware that you should leave ample room for a wall hole (see **Drill wall hole for connective piping** step) for the signal cable and refrigerant piping that connect the indoor and outdoor units. The default position for all piping is the right side of the indoor unit (while facing the unit). However, the unit can accommodate piping to both the left and right.

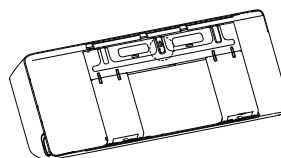
Refer to the following diagram to ensure proper distance from walls and ceiling:



Step 2: Attach mounting plate to wall

The mounting plate is the device on which you will mount the indoor unit.

- Take out the mounting plate at the back of the indoor unit.



- Secure the mounting plate to the wall with the screws provided. Make sure that mounting plate is flat against the wall.

NOTE FOR CONCRETE OR BRICK WALLS:

If the wall is made of brick, concrete, or similar material, drill 5mm-diameter (0.2in-diameter) holes in the wall and insert the sleeve anchors provided. Then secure the mounting plate to the wall by tightening the screws directly into the clip anchors.

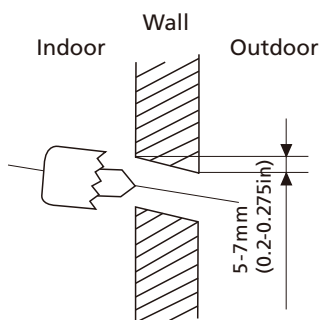
Step 3: Drill wall hole for connective piping

1. Determine the location of the wall hole based on the position of the mounting plate. Refer to **Mounting Plate Dimensions**.
2. Using a 65mm (2.5in) or 90mm(3.54in) (depending on models)core drill, drill a hole in the wall. Make sure that the hole is drilled at a slight downward angle, so that the outdoor end of the hole is lower than the indoor end by about 5mm to 7mm (0.2-0.275in). This will ensure proper water drainage.
3. Place the protective wall cuff in the hole. This protects the edges of the hole and will help seal it when you finish the installation process.



CAUTION

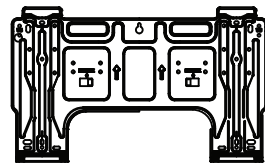
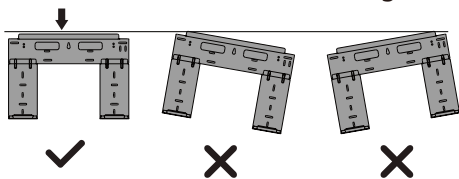
When drilling the wall hole, make sure to avoid wires, plumbing, and other sensitive components.



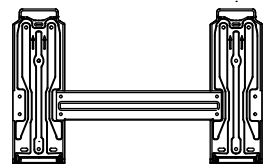
MOUNTING PLATE DIMENSIONS

Different models have different mounting plates. For the different customization requirements, the shape of the mounting plate may be slightly different. But the installation dimensions are the same for the same size of indoor unit. See Type A and Type B for example:

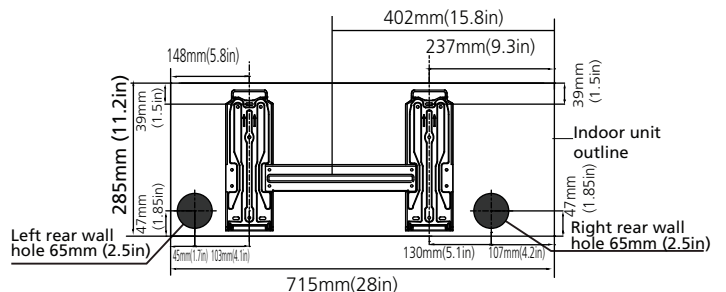
Correct orientation of Mounting Plate



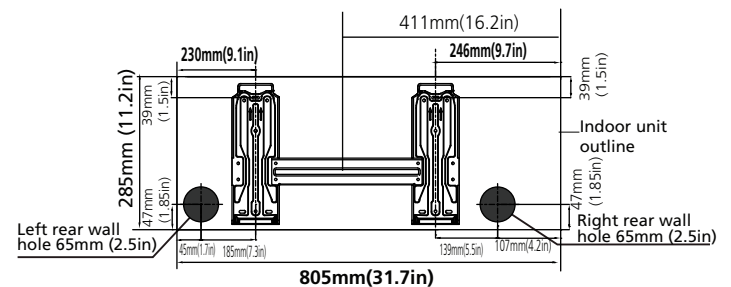
Type A



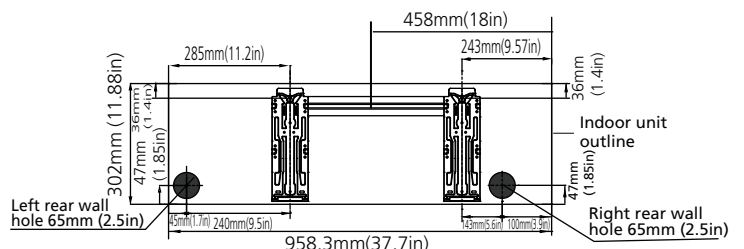
Type B



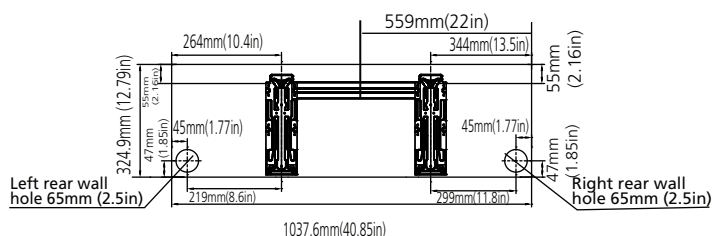
Model A



Model B



Model C



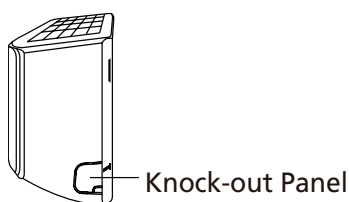
Model D

NOTE: When the gas side connective pipe is Φ 16mm(5/8in) or more, the wall hole should be 90mm(3.54in).

Step 4: Prepare refrigerant piping

The refrigerant piping is inside an insulating sleeve attached to the back of the unit. You must prepare the piping before passing it through the hole in the wall.

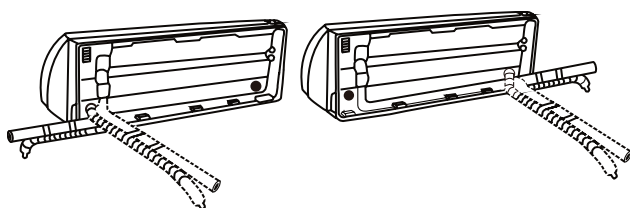
1. Based on the position of the wall hole relative to the mounting plate, choose the side from which the piping will exit the unit.
2. If the wall hole is behind the unit, keep the knock-out panel in place. If the wall hole is to the side of the indoor unit, remove the plastic knock-out panel from that side of the unit. This will create a slot through which your piping can exit the unit. Use needle nose pliers if the plastic panel is too difficult to remove by hand.



3. If existing connective piping is already embedded in the wall, proceed directly to the **Connect Drain Hose** step. If there is no embedded piping, connect the indoor unit's refrigerant piping to the connective piping that will join the indoor and outdoor units. Refer to the **Refrigerant Piping Connection** section of this manual for detailed instructions.

NOTE ON PIPING ANGLE

Refrigerant piping can exit the indoor unit from four different angles: Left-hand side, Right-hand side, Left rear, Right rear.



CAUTION

Be extremely careful not to dent or damage the piping while bending them away from the unit. Any dents in the piping will affect the unit's performance.

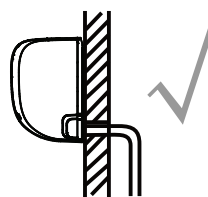
Step 5: Connect drain hose

By default, the drain hose is attached to the left-hand side of unit (when you're facing the back of the unit). However, it can also be attached to the right-hand side. To ensure proper drainage, attach the drain hose on the same side that your refrigerant piping exits the unit. Attach drain hose extension (purchased separately) to the end of drain hose.

- Wrap the connection point firmly with Teflon tape to ensure a good seal and to prevent leaks.
- For the portion of the drain hose that will remain indoors, wrap it with foam pipe insulation to prevent condensation.
- Remove the air filter and pour a small amount of water into the drain pan to make sure that water flows from the unit smoothly.

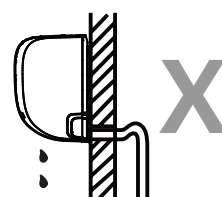
NOTE ON DRAIN HOSE PLACEMENT

Make sure to arrange the drain hose according to the following figures.



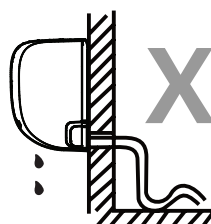
CORRECT

Make sure there are no kinks or dent in drain hose to ensure proper drainage.



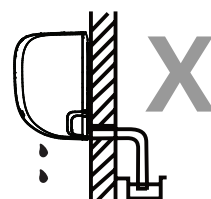
NOT CORRECT

Kinks in the drain hose will create water traps.



NOT CORRECT

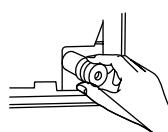
Kinks in the drain hose will create water traps.



NOT CORRECT

Do not place the end of the drain hose in water or in containers that collect water. This will prevent proper drainage.

PLUG THE UNUSED DRAIN HOLE



To prevent unwanted leaks you must plug the unused drain hole with the rubber plug provided.



BEFORE PERFORMING ANY ELECTRICAL WORK, READ THESE REGULATIONS

1. All wiring must comply with local and national electrical codes, regulations and must be installed by a licensed electrician.
2. All electrical connections must be made according to the Electrical Connection Diagram located on the panels of the indoor and outdoor units.
3. If there is a serious safety issue with the power supply, stop work immediately. Explain your reasoning to the client, and refuse to install the unit until the safety issue is properly resolved.
4. Power voltage should be within 90-110% of rated voltage. Insufficient power supply can cause malfunction, electrical shock, or fire.
5. If connecting power to fixed wiring, a surge protector and main power switch should be installed.
6. If connecting power to fixed wiring, a switch or circuit breaker that disconnects all poles and has a contact separation of at least 1/8in (3mm) must be incorporated in the fixed wiring. The qualified technician must use an approved circuit breaker or switch.
7. Only connect the unit to an individual branch circuit outlet. Do not connect another appliance to that outlet.
8. Make sure to properly ground the air conditioner.
9. Every wire must be firmly connected. Loose wiring can cause the terminal to overheat, resulting in product malfunction and possible fire.
10. Do not let wires touch or rest against refrigerant tubing, the compressor, or any moving parts within the unit.
11. If the unit has an auxiliary electric heater, it must be installed at least 1 meter (40in) away from any combustible materials.
12. To avoid getting an electric shock, never touch the electrical components soon after the power supply has been turned off. After turning off the power, always wait 10 minutes or more before you touch the electrical components.



WARNING

BEFORE PERFORMING ANY ELECTRICAL OR WIRING WORK, TURN OFF THE MAIN POWER TO THE SYSTEM.

Make sure that cabling is not subject to wear, corrosion, excessive pressure, vibration, sharp edges, or adverse environmental effects. Take into account the effects of aging or continual vibration from sources such as compressors or fans.

Step 6: Connect signal and power cables

The signal cable enables communication between the indoor and outdoor units. You must first choose the right cable size before preparing it for connection.

Cable Types

- **Indoor Power Cable** (if applicable): H05VV-F or H05V2V2-F
- **Outdoor Power Cable:** H07RN-F or H05RN-F
- **Signal Cable:** H07RN-F

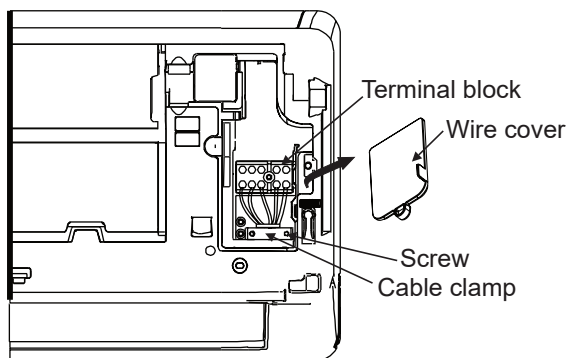
Minimum Cross-Sectional Area of Power and Signal Cables (For reference)

Rated Current of Appliance (A)	Nominal Cross-Sectional Area (mm ²)
> 3 and ≤ 6	0.75
> 6 and ≤ 10	1
> 10 and ≤ 16	1.5
> 16 and ≤ 25	2.5
> 25 and ≤ 32	4
> 32 and ≤ 40	6

CHOOSE THE RIGHT CABLE SIZE

The size of the power supply cable, signal cable, fuse, and switch needed is determined by the maximum current of the unit. The maximum current is indicated on the nameplate located on the side panel of the unit. Refer to this nameplate to choose the right cable, fuse, or switch.

1. Open front panel of the indoor unit.
2. Using a screwdriver, open the wire box cover on the right side of the unit. This will reveal the terminal block.



! WARNING

ALL WIRING MUST BE PERFORMED STRICTLY IN ACCORDANCE WITH THE WIRING DIAGRAM LOCATED ON THE BACK OF THE INDOOR UNIT'S FRONT PANEL .

For the product that uses the R-32 refrigerant, be cautious not to generate a spark by keeping the following requirements:

- Do not remove the fuses with power on.
- Do not disconnect the power plug from the wall outlet with power on.
- It is recommended to locate the outlet in a high position. Place the cords so that they are not tangled.

3. Unscrew the cable clamp below the terminal block and place it to the side.
4. Facing the back of the unit, remove the plastic panel on the bottom left-hand side.
5. Feed the signal wire through this slot, from the back of the unit to the front.
6. Facing the front of the unit, connect the wire according to the indoor unit's wiring diagram, connect the u-lug and firmly screw each wire to its corresponding terminal.

! CAUTION

DO NOT MIX UP LIVE AND NULL WIRES

This is dangerous, and can cause the air conditioning unit to malfunction.

7. After checking to make sure every connection is secure, use the cable clamp to fasten the signal cable to the unit. Screw the cable clamp down tightly.

8. Replace the wire cover on the front of the unit, and the plastic panel on the back.



NOTE ABOUT WIRING

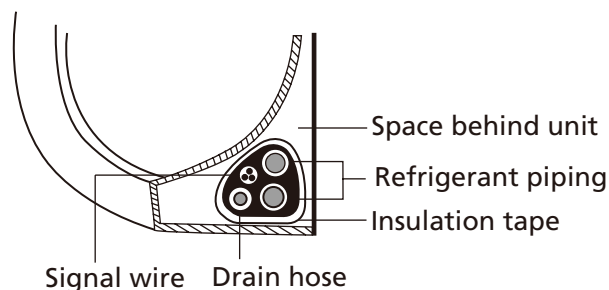
THE WIRING CONNECTION PROCESS MAY DIFFER SLIGHTLY BETWEEN UNITS AND REGIONS.

Step 7: Wrap piping and cables

Before passing the piping, drain hose, and the signal cable through the wall hole, you must bundle them together to save space, protect them, and insulate them.

1. Bundle the drain hose, refrigerant pipes, and signal cable as shown below:

Indoor Unit



DRAIN HOSE MUST BE ON BOTTOM

Make sure that the drain hose is at the bottom of the bundle. Putting the drain hose at the top of the bundle can cause the drain pan to overflow, which can lead to fire or water damage.

DO NOT INTERTWINE SIGNAL CABLE WITH OTHER WIRES

While bundling these items together, do not intertwine or cross the signal cable with any other wiring.

2. Using adhesive vinyl tape, attach the drain hose to the underside of the refrigerant pipes.
3. Using insulation tape, wrap the signal wire, refrigerant pipes, and drain hose tightly together. Double-check that all items are bundled.

DO NOT WRAP ENDS OF PIPING

When wrapping the bundle, keep the ends of the piping unwrapped. You need to access them to test for leaks at the end of the installation process (refer to **Electrical Checks and Leak Checks** section of this manual).

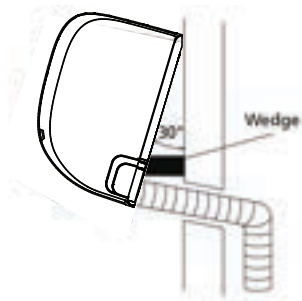
Step 8: Mount indoor unit

If you installed new connective piping to the outdoor unit, do the following:

1. If you have already passed the refrigerant piping through the hole in the wall, proceed to Step 4.
2. Otherwise, double-check that the ends of the refrigerant pipes are sealed to prevent dirt or foreign materials from entering the pipes.
3. Slowly pass the wrapped bundle of refrigerant pipes, drain hose, and signal wire through the hole in the wall.
4. Hook the top of the indoor unit on the upper hook of the mounting plate.
5. Check that unit is hooked firmly on mounting by applying slight pressure to the left and right-hand sides of the unit. The unit should not jiggle or shift.
6. Using even pressure, push down on the bottom half of the unit. Keep pushing down until the unit snaps onto the hooks along the bottom of the mounting plate.
7. Again, check that the unit is firmly mounted by applying slight pressure to the left and the right-hand sides of the unit.
3. Connect drain hose and refrigerant piping (refer to **Refrigerant Piping Connection** section of this manual for instructions).
4. Keep pipe connection point exposed to perform the leak test (refer to **Electrical Checks and Leak Checks** section of this manual).
5. After the leak test, wrap the connection point with insulation tape.
6. Remove the bracket or wedge that is propping up the unit.
7. Using even pressure, push down on the bottom half of the unit. Keep pushing down until the unit snaps onto the hooks along the bottom of the mounting plate.

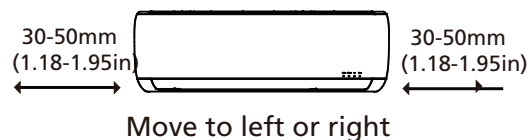
If refrigerant piping is already embedded in the wall, do the following:

1. Hook the top of the indoor unit on the upper hook of the mounting plate.
2. Use a bracket or wedge to prop up the unit, giving you enough room to connect the refrigerant piping, signal cable, and drain hose.



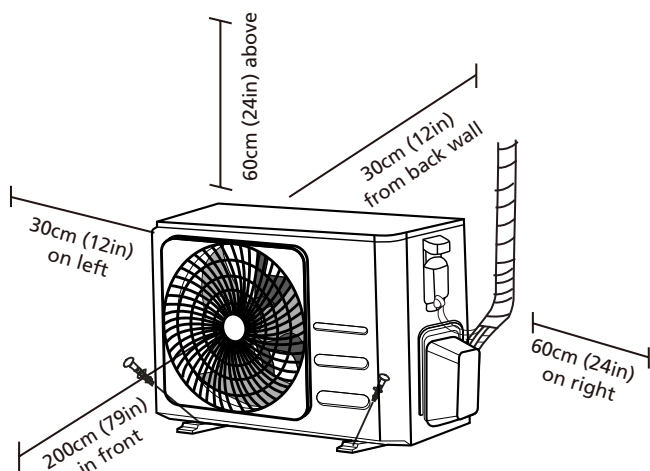
UNIT IS ADJUSTABLE

Keep in mind that the hooks on the mounting plate are smaller than the holes on the back of the unit. If you find that you don't have ample room to connect embedded pipes to the indoor unit, the unit can be adjusted left or right by about 30-50mm (1.18-1.95in), depending on the model.



Outdoor Unit Installation

Install the unit by following local codes and regulations, there may be differ slightly between different regions.



Installation Instructions – Outdoor unit

Step 1: Select installation location

Before installing the outdoor unit, you must choose an appropriate location. The following are standards that will help you choose an appropriate location for the unit.

Proper installation locations meet the following standards:

- ☑ Meets all spatial requirements shown in Installation Space Requirements above.
- ☑ Good air circulation and ventilation
- ☑ Firm and solid—the location can support the unit and will not vibrate
- ☑ Noise from the unit will not disturb others
- ☑ Protected from prolonged periods of direct sunlight or rain
- ☑ Where snowfall is anticipated, take appropriate measures to prevent ice buildup and coil damage.

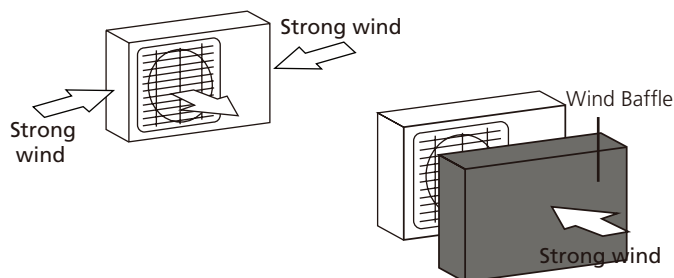
DO NOT install unit in the following locations:

- ⊘ Near an obstacle that will block air inlets and outlets
- ⊘ Near a public street, crowded areas, or where noise from the unit will disturb others
- ⊘ Near animals or plants that will be harmed by hot air discharge
- ⊘ Near any source of combustible gas
- ⊘ In a location that is exposed to large amounts of dust
- ⊘ In a location exposed to a excessive amounts of salty air

SPECIAL CONSIDERATIONS FOR EXTREME WEATHER

If the unit is exposed to heavy wind:

Install unit so that air outlet fan is at a 90° angle to the direction of the wind. If needed, build a barrier in front of the unit to protect it from extremely heavy winds. See Figures below.



If the unit is frequently exposed to heavy rain or snow:

Build a shelter above the unit to protect it from the rain or snow. Be careful not to obstruct air flow around the unit.

If the unit is frequently exposed to salty air (seaside):

Use outdoor unit that is specially designed to resist corrosion.

Step 2: Install drain joint(Heat pump unit only)

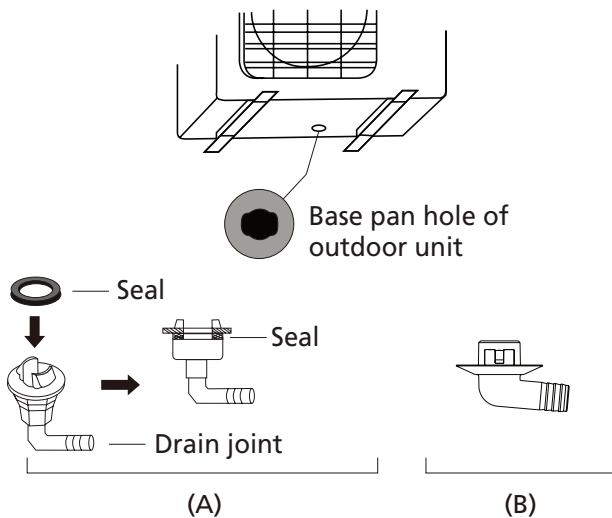
Before bolting the outdoor unit in place, you must install the drain joint at the bottom of the unit. Note that there are two different types of drain joints depending on the type of outdoor unit.

If the drain joint comes with a rubber seal (see **Fig. A**), do the following:

1. Fit the rubber seal on the end of the drain joint that will connect to the outdoor unit.
2. Insert the drain joint into the hole in the base pan of the unit.
3. Rotate the drain joint 90° until it clicks in place facing the front of the unit.
4. Connect a drain hose extension (not included) to the drain joint to redirect water from the unit during heating mode.

If the drain joint doesn't come with a rubber seal (see **Fig. B**), do the following:

1. Insert the drain joint into the hole in the base pan of the unit. The drain joint will click in place.
2. Connect a drain hose extension (not included) to the drain joint to redirect water from the unit during heating mode.

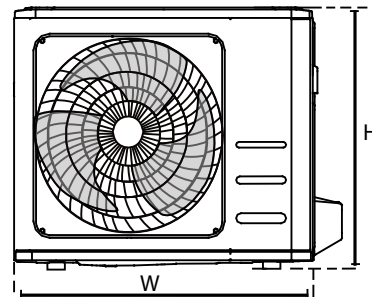
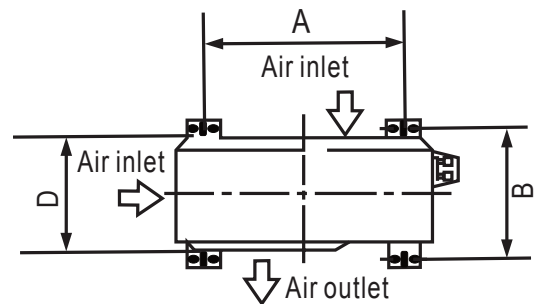


Step 3: Anchor outdoor unit

The outdoor unit can be anchored to the ground or to a wall-mounted bracket with bolt(M10). Prepare the installation base of the unit according to the dimensions below.

UNIT MOUNTING DIMENSIONS

The following is a list of different outdoor unit sizes and the distance between their mounting feet. Prepare the installation base of the unit according to the dimensions below.



! IN COLD CLIMATES

In cold climates, make sure that the drain hose is as vertical as possible to ensure swift water drainage. If water drains too slowly, it can freeze in the hose and flood the unit.

Outdoor Unit Dimensions (mm) W x H x D	Mounting Dimensions	
	Distance A (mm)	Distance B (mm)
681x434x285 (26.8" x 17.1" x 11.2")	460 (18.1")	292 (11.5")
700x550x270 (27.5" x 21.6" x 10.6")	450 (17.7")	260 (10.2")
700x550x275 (27.5" x 21.6" x 10.8")	450 (17.7")	260 (10.2")
720x495x270 (28.3" x 19.5" x 10.6")	452 (17.8")	255 (10.0")
728x555x300 (28.7" x 21.8" x 11.8")	452 (17.8")	302 (11.9")
765x555x303 (30.1" x 21.8" x 11.9")	452 (17.8")	286 (11.3")
770x555x300 (30.3" x 21.8" x 11.8")	487 (19.2")	298 (11.7")
805x554x330 (31.7" x 21.8" x 12.9")	511 (20.1")	317 (12.5")
800x554x333 (31.5" x 21.8" x 13.1")	514 (20.2")	340 (13.4")
845x702x363 (33.3" x 27.6" x 14.3")	540 (21.3")	350 (13.8")
890x673x342 (35.0" x 26.5" x 13.5")	663 (26.1")	354 (13.9")
946x810x420 (37.2" x 31.9" x 16.5")	673 (26.5")	403 (15.9")
946x810x410 (37.2" x 31.9" x 16.1")	673 (26.5")	403 (15.9")

- If there is an obstacle in front of the air vent, keep the outdoor unit at a distance of at least 700 mm from the obstacle.

If you will install the unit on the ground or on a concrete mounting platform, do the following:

1. Mark the positions for four expansion bolts based on dimensions chart.
2. Pre-drill holes for expansion bolts.
3. Place a nut on the end of each expansion bolt.
4. Hammer expansion bolts into the pre-drilled holes.
5. Remove the nuts from expansion bolts, and place outdoor unit on bolts.
6. Put washer on each expansion bolt, then replace the nuts.
7. Using a wrench, tighten each nut until snug.



WARNING

WHEN DRILLING INTO CONCRETE, EYE PROTECTION IS RECOMMENDED AT ALL TIMES.

If you will install the unit on a wall-mounted bracket, do the following:



CAUTION

Make sure that the wall is made of solid brick, concrete, or of similarly strong material. **The wall must be able to support at least four times the weight of the unit.**

1. Mark the position of bracket holes based on dimensions chart.
2. Pre-drill the holes for the expansion bolts.
3. Place a washer and nut on the end of each expansion bolt.
4. Thread expansion bolts through holes in mounting brackets, put mounting brackets in position, and hammer expansion bolts into the wall.
5. Check that the mounting brackets are level.
6. Carefully lift unit and place its mounting feet on brackets.
7. Bolt the unit firmly to the brackets.
8. If allowed, install the unit with rubber gaskets to reduce vibrations and noise.

Step 4: Connect signal and power cables

The outside unit's terminal block is protected by an electrical wiring cover on the side of the unit. A comprehensive wiring diagram is printed on the inside of the wiring cover.



WARNING

BEFORE PERFORMING ANY ELECTRICAL OR WIRING WORK, TURN OFF THE MAIN POWER TO THE SYSTEM.

1. Prepare the cable for connection:

USE THE RIGHT CABLE

Please choose the right cable refer to "Cable types" in page 25.

CHOOSE THE RIGHT CABLE SIZE

The size of the power supply cable, signal cable, fuse, and switch needed is determined by the maximum current of the unit. The maximum current is indicated on the nameplate located on the side panel of the unit.

- Using wire strippers, strip the rubber jacket from both ends of cable to reveal about 40mm (1.57in) of the wires inside.
- Strip the insulation from the ends of the wires.
- Using a wire crimper, crimp u-lugs on the ends of the wires.

PAY ATTENTION TO LIVE WIRE

While crimping wires, make sure you clearly distinguish the Live ("L") Wire from other wires.

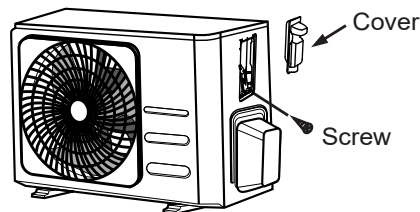


WARNING

ALL WIRING WORK MUST BE PERFORMED STRICTLY IN ACCORDANCE WITH THE WIRING DIAGRAM LOCATED INSIDE OF WIRE COVER OF THE OUTDOOR UNIT .

- Unscrew the electrical wiring cover and remove it.
- Unscrew the cable clamp below the terminal block and place it to the side.
- Connect the wire according to the wiring diagram, and firmly screw the u-lug of each wire to its corresponding terminal.
- After checking to make sure every connection is secure, loop the wires around to prevent rain water from flowing into the terminal.
- Using the cable clamp, fasten the cable to the unit. Screw the cable clamp down tightly.

- Insulate unused wires with PVC electrical tape. Arrange them so that they do not touch any electrical or metal parts.
- Replace the wire cover on the side of the unit, and screw it in place.



NOTE: If the cable clamp looks like the following, please select the appropriate through-hole according to the diameter of the wire.



Three size hole: Small, Large, Medium



When the cable is not fasten enough, use the buckle to prop it up, so it can be clamped tightly.

Refrigerant Piping Connection

When connecting refrigerant piping, **do not** let substances or gases other than the specified refrigerant enter the unit. The presence of other gases or substances will lower the unit's capacity, and can cause abnormally high pressure in the refrigeration cycle. This can cause explosion and injury.

Note on Pipe Length

The length of refrigerant piping will affect the performance and energy efficiency of the unit. Nominal efficiency is tested on units with a pipe length of 5 meters (16.5ft). For the products of Thailand, Indonesia, Mexico, China Taiwan, etc, the standard pipe length is 7.5m (25ft). A minimum pipe run of 3 metres is required to minimise vibration & excessive noise.

Refer to the table below for specifications on the maximum length and drop height of piping.

Maximum Length and Drop Height of Refrigerant Piping per Unit Model

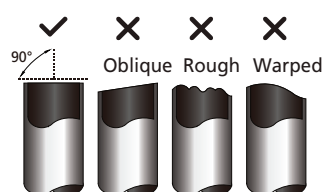
Model	Capacity (BTU/h)	Max. Length (m)	Max. Drop Height (m)
R410A,R32 Inverter Split Air Conditioner	< 15,000	25 (82ft)	10 (33ft)
	≥ 15,000 and < 24,000	30 (98.5ft)	20 (66ft)
	≥ 24,000 and < 36,000	50 (164ft)	25 (82ft)
R22 Fixed-speed Split Air Conditioner	< 18,000	10 (33ft)	5 (16ft)
	≥ 18,000 and < 21,000	15 (49ft)	8(26ft)
	≥ 21,000 and < 35,000	20 (66ft)	10(33ft)
R410A, R32 Fixed-speed Split Air Conditioner	< 18,000	20 (66ft)	8(26ft)
	≥ 18,000 and < 36,000	25 (82ft)	10(33ft)

Connection Instructions – Refrigerant Piping

Step 1: Cut pipes

When preparing refrigerant pipes, take extra care to cut and flare them properly. This will ensure efficient operation and minimize the need for future maintenance.

1. Measure the distance between the indoor and outdoor units.
2. Using a pipe cutter, cut the pipe a little longer than the measured distance.
3. Make sure that the pipe is cut at a perfect 90° angle.



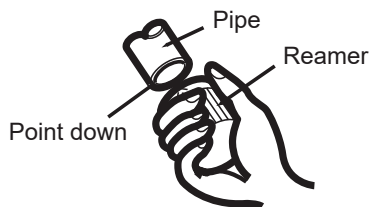
DO NOT DEFORM PIPE WHILE CUTTING

Be extra careful not to damage, dent, or deform the pipe while cutting. This will drastically reduce the heating efficiency of the unit.

Step 2: Remove burrs

Burrs can affect the air-tight seal of refrigerant piping connection. They must be completely removed.

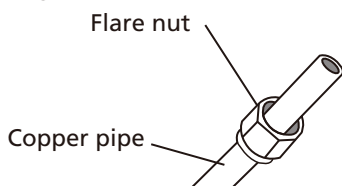
1. Hold the pipe at a downward angle to prevent burrs from falling into the pipe.
2. Using a reamer or deburring tool, remove all burrs from the cut section of the pipe.



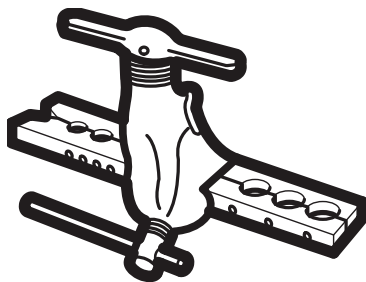
Step 3: Flare pipe ends

Proper flaring is essential to achieve an airtight seal.

1. After removing burrs from cut pipe, seal the ends with PVC tape to prevent foreign materials from entering the pipe.
2. Sheath the pipe with insulating material.
3. Place flare nuts on both ends of pipe. Make sure they are facing in the right direction, because you can't put them on or change their direction after flaring.

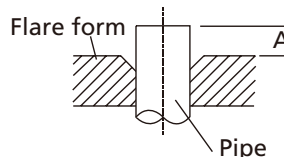


4. Remove PVC tape from ends of pipe when ready to perform flaring work.
5. Clamp flare form on the end of the pipe. The end of the pipe must extend beyond the edge of the flare form in accordance with the dimensions shown in the table below.



PIPING EXTENSION BEYOND FLARE FORM

Outer Diameter of Pipe (mm)	A (mm)	
	Min.	Max.
Ø 6.35 (Ø 0.25")	0.7 (0.0275")	1.3 (0.05")
Ø 9.52 (Ø 0.375")	1.0 (0.04")	1.6 (0.063")
Ø 12.7 (Ø 0.5")	1.0 (0.04")	1.8 (0.07")
Ø 16 (Ø 0.63")	2.0 (0.078")	2.2 (0.086")
Ø 19 (Ø 0.75")	2.0 (0.078")	2.4 (0.094")



CAUTION

- Keep the piping length at a minimum to minimize the additional refrigerant charge due to piping extension.
- When connecting the pipes, make sure that surrounding objects do not interfere with or contact them to protect them from physical damage and to prevent refrigerant leakage due to physical damage.
- Make sure that the spaces where the refrigerant pipes are installed comply with national gas regulations.
- Be sure to perform works such as additional refrigerant charging and pipe welding under the conditions of good ventilation.
- Be sure not to perform welding and piping works for mechanical connections when there is still refrigerant in the pipe.
- When reconnecting the pipes, make sure to perform flared-jointing newly to prevent refrigerant leakage.
- When working on the refrigerant pipes and the flexible refrigerant connectors, be careful that they are not damaged physically by surrounding objects.

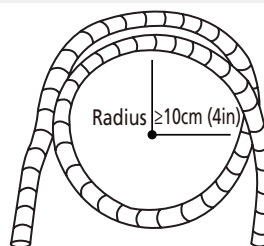
6. Place flaring tool onto the form.
7. Turn the handle of the flaring tool clockwise until the pipe is fully flared.
8. Remove the flaring tool and flare form, then inspect the end of the pipe for cracks and even flaring.

Step 4: Connect pipes

When connecting refrigerant pipes, be careful not to use excessive torque or to deform the piping in any way. You should first connect the low-pressure pipe, then the high-pressure pipe.

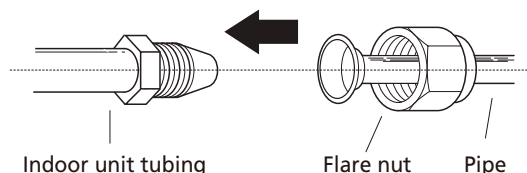
MINIMUM BEND RADIUS

When bending connective refrigerant piping, the minimum bending radius is 10cm.

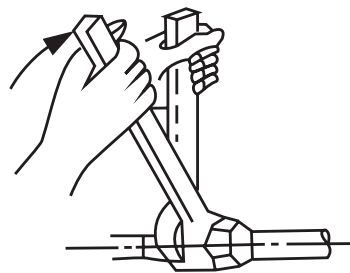


Instructions for Connecting Piping to Indoor Unit

1. Align the center of the two pipes that you will connect.



2. Tighten the flare nut as tightly as possible by hand.
3. Using a spanner, grip the nut on the unit tubing.
4. While firmly gripping the nut on the unit tubing, use a torque wrench to tighten the flare nut according to the torque values in the **Torque Requirements** table below. Loosen the flaring nut slightly, then tighten again.



TORQUE REQUIREMENTS

Outer Diameter of Pipe (mm)	Tightening Torque (N•m)	Flare dimension(B) (mm)	Flare shape
Ø 6.35 (Ø 0.25")	18~20(180~200kgf.cm)	8.4~8.7 (0.33~0.34")	
Ø 9.52 (Ø 0.375")	32~39(320~390kgf.cm)	13.2~13.5 (0.52~0.53")	
Ø 12.7 (Ø 0.5")	49~59(490~590kgf.cm)	16.2~16.5 (0.64~0.65")	
Ø 16 (Ø 0.63")	57~71(570~710kgf.cm)	19.2~19.7 (0.76~0.78")	
Ø 19 (Ø 0.75")	67~101(670~1010kgf.cm)	23.2~23.7 (0.91~0.93")	

⚠ DO NOT USE EXCESSIVE TORQUE

Excessive force can break the nut or damage the refrigerant piping. You must not exceed torque requirements shown in the table above.

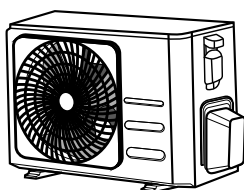
Instructions for Connecting Piping to Outdoor Unit

1. Unscrew the cover from the packed valve on the side of the outdoor unit.
2. Remove protective caps from ends of valves.
3. Align flared pipe end with each valve, and tighten the flare nut as tightly as possible by hand.
4. Using a spanner, grip the body of the valve. Do not grip the nut that seals the service valve.
5. While firmly gripping the body of the valve, use a torque wrench to tighten the flare nut according to the correct torque values.
6. Loosen the flaring nut slightly, then tighten again.
7. Repeat Steps 3 to 6 for the remaining pipe.

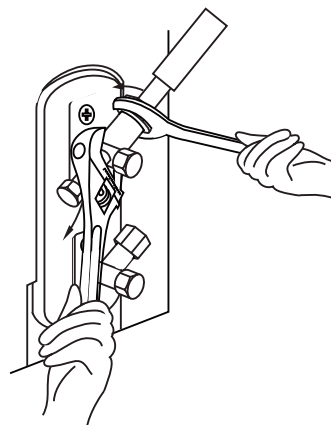


USE SPANNER TO GRIP MAIN BODY OF VALVE

Torque from tightening the flare nut can snap off other parts of valve.



Valve cover



5. While firmly gripping the body of the valve, use a torque wrench to tighten the flare nut according to the correct torque values.

Air Evacuation

Preparations and Precautions

Air and foreign matter in the refrigerant circuit can cause abnormal rises in pressure, which can damage the air conditioner, reduce its efficiency, and cause injury. Use a vacuum pump and manifold gauge to evacuate the refrigerant circuit, removing any non-condensable gas and moisture from the system.

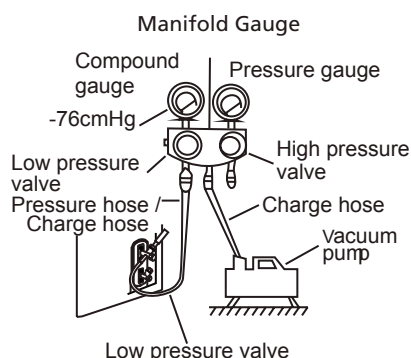
Evacuation should be performed upon initial installation and when unit is relocated.

BEFORE PERFORMING EVACUATION

- ☑ Check to make sure the connective pipes between the indoor and outdoor units are connected properly.
- ☑ Check to make sure all wiring is connected properly.

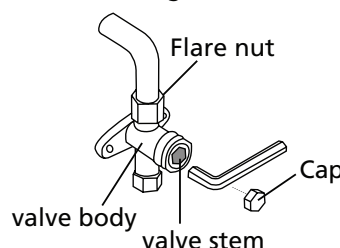
Evacuation Instructions

1. Connect the charge hose of the manifold gauge to service port on the outdoor unit's low pressure valve.
2. Connect another charge hose from the manifold gauge to the vacuum pump.
3. Open the Low Pressure side of the manifold gauge. Keep the High Pressure side closed.
4. Turn on the vacuum pump to evacuate the system.
5. Run the vacuum for at least 15 minutes, or until the Compound Meter reads -76cmHG (-10⁵Pa).



6. Close the Low Pressure side of the manifold gauge, and turn off the vacuum pump.
7. Wait for 5 minutes, then check that there has been no change in system pressure.

8. If there is a change in system pressure, refer to Gas Leak Check section for information on how to check for leaks. If there is no change in system pressure, unscrew the cap from the packed valve (high pressure valve).
9. Insert hexagonal wrench into the packed valve (high pressure valve) and open the valve by turning the wrench in a 1/4 counterclockwise turn. Listen for gas to exit the system, then close the valve after 5 seconds.
10. Watch the Pressure Gauge for one minute to make sure that there is no change in pressure. The Pressure Gauge should read slightly higher than atmospheric pressure.
11. Remove the charge hose from the service port.



12. Using hexagonal wrench, fully open both the high pressure and low pressure valves.
13. Tighten valve caps on all three valves (service port, high pressure, low pressure) by hand. You may tighten it further using a torque wrench if needed.

! OPEN VALVE STEMS GENTLY

When opening valve stems, turn the hexagonal wrench until it hits against the stopper. Do not try to force the valve to open further.

Note on Adding Refrigerant

Some systems require additional charging depending on pipe lengths. The standard pipe length varies according to the energy efficiency requirements of different countries and regions. For example, in Thailand, Indonesia, Mexico, China Taiwan, etc, the standard pipe length is 7.5m (25ft), while in other countries and regions, it is 5m (16ft).

ADDITIONAL REFRIGERANT PER PIPE LENGTH

Connective Pipe Length (m)	Air Purging Method	Additional Refrigerant	
≤ Standard pipe length	Vacuum Pump	N/A	
> Standard pipe length	Vacuum Pump	Liquid Side: Ø 6.35 (ø 0.25")	Liquid Side: Ø 9.52 (ø 0.375")
		R32: (Pipe length – standard length) x 12g/m (Pipe length – standard length) x 0.13oz/ft	R32: (Pipe length – standard length) x 24g/m (Pipe length – standard length) x 0.26oz/ft
		R290: (Pipe length – standard length) x 10g/m (Pipe length – standard length) x 0.10oz/ft	R290: (Pipe length – standard length) x 18g/m (Pipe length – standard length) x 0.19oz/ft
		R410A: (Pipe length – standard length) x 15g/m (Pipe length – standard length) x 0.16oz/ft	R410A: (Pipe length – standard length) x 30g/m (Pipe length – standard length) x 0.32oz/ft
		R22: (Pipe length – standard length) x 20g/m (Pipe length – standard length) x 0.21oz/ft	R22: (Pipe length – standard length) x 40g/m (Pipe length – standard length) x 0.42oz/ft

For R290 refrigerant unit, the total amount of refrigerant to be charged is no more than:
 387g(<=9000Btu/h), 447g(>9000Btu/h and <=12000Btu/h), 547g(>12000Btu/h and <=18000Btu/h),
 632g(>18000Btu/h and <=24000Btu/h).



CAUTION DO NOT mix refrigerant types.

Precautions on adding the R-32 refrigerant

In addition to the conventional charging procedure, the following requirements shall be kept.

- Make sure that contamination by other refrigerants does not occur for charging.
- To minimize the amount of refrigerant, keep the hoses and lines as short as possible.
- The cylinders shall be kept upright.
- Make sure that the refrigeration system is earthed before charging.
- Label the system after charging, if necessary.
- Extreme care is required not to overcharge the system.
- Before recharging, the pressure shall be checked with nitrogen blowing.
- After charging, check for leakage before commissioning.
- Be sure to check for leakage before leaving the work area.

Electrical and Gas Leak Checks

Before Test Run

Only perform test run after you have completed the following steps:

- **Electrical Safety Checks** – Confirm that the unit's electrical system is safe and operating properly
- **Gas Leak Checks** – Check all flare nut connections and confirm that the system is not leaking
- Confirm that gas and liquid (high and low pressure) valves are fully open

Electrical Safety Checks

After installation, confirm that all electrical wiring is installed in accordance with local and national regulations, and according to the Installation Manual.

BEFORE TEST RUN

Check Grounding Work

Measure grounding resistance by visual detection and with grounding resistance tester. Grounding resistance must be less than 0.1Ω .

DURING TEST RUN

Check for Electrical Leakage

During the **Test Run**, use an electroprobe and multimeter to perform a comprehensive electrical leakage test.

If electrical leakage is detected, turn off the unit immediately and call a licensed electrician to find and resolve the cause of the leakage.



WARNING – RISK OF ELECTRIC SHOCK

ALL WIRING MUST COMPLY WITH LOCAL AND NATIONAL ELECTRICAL CODES, AND MUST BE INSTALLED BY A LICENSED ELECTRICIAN.

Gas Leak Checks

There are two different methods to check for gas leaks.

Soap and Water Method

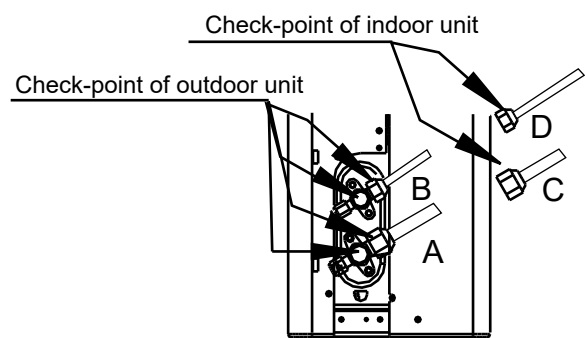
Using a soft brush, apply soapy water or liquid detergent to all pipe connection points on the indoor unit and outdoor unit. The presence of bubbles indicates a leak.

Leak Detector Method

If using leak detector, refer to the device's operation manual for proper usage instructions.

AFTER PERFORMING GAS LEAK CHECKS

After confirming that the all pipe connection points DO NOT leak, replace the valve cover on the outside unit.



A: Low pressure stop valve
B: High pressure stop valve
C & D: Indoor unit flare nuts

- Leak detection fluids are also 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 and any other possible ignition sources should be removed and the room should urgently be ventilated to prevent an explosive gas mixture from being created.
- 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.

Test Run

Test Run Instructions

You should perform the **Test Run** for at least 30 minutes.

1. Connect power to the unit.
2. Press the **ON/OFF** button on the remote controller to turn it on.
3. Press the **MODE** button to scroll through the following functions, one at a time:
 - COOL – Select lowest possible temperature
 - HEAT – Select highest possible temperature
4. Let each function run for 5 minutes, and perform the following checks:

List of Checks to Perform	PASS/FAIL	
No electrical leakage		
Unit is properly grounded		
All electrical terminals properly covered		
Indoor and outdoor units are solidly installed		
All pipe connection points do not leak	Outdoor (2):	Indoor (2):
Water drains properly from drain hose		
All piping is properly insulated		
Unit performs COOL function properly		
Unit performs HEAT function properly		
Indoor unit louvers rotate properly		
Indoor unit responds to remote controller		

DOUBLE-CHECK PIPE CONNECTIONS

During operation, the pressure of the refrigerant circuit will increase. This may reveal leaks that were not present during your initial leak check. Take time during the Test Run to double-check that all refrigerant pipe connection points do not have leaks. Refer to **Gas Leak Check** section for instructions.

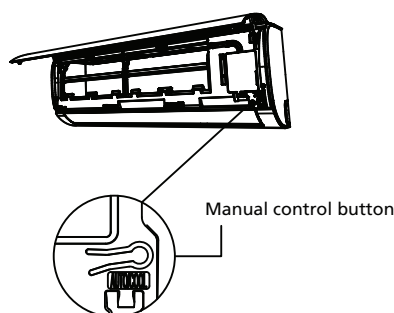
5. After the Test Run is successfully completed, and you confirm that all checks points in List of Checks to Perform have PASSED, do the following:
 - a. Using remote control, return unit to normal operating temperature.
 - b. Using insulation tape, wrap the indoor refrigerant pipe connections that you left uncovered during the indoor unit installation process.

IF AMBIENT TEMPERATURE IS BELOW 16°C

You can't use the remote controller to turn on the COOL function when the ambient temperature is below 16°C. In this instance, you can use the **MANUAL CONTROL** button to test the COOL function.

1. Lift the front panel of the indoor unit.

Note: For some units, there is a supporting rod located on the left or right side. Please use it to prop up the panel.
2. The **MANUAL CONTROL** button is located on the right-hand side of the unit. Press it 2 times to select the COOL function.
3. Perform Test Run as normal.



Packing and unpacking the unit

Instructions for packing and unpacking the unit:

Unpacking:

Indoor unit:

1. Cut the sealing tape on the carton with a knife, one cut on the left, one cut in the middle and one cut on the right.
2. Use the vice to take out the sealing nails on the top of the carton.
3. Open the carton.
4. Take out the middle support plate if it is included.
5. Take out the accessory package, and take out the connecting wire if it is included.
6. Lift the machine out of the carton and lay it flat.
7. Remove the left and right package foam or the upper and lower packaging foam, untie the packaging bag.

Outdoor Unit:

1. Cut the packing belt.
2. Take the unit out of the carton.
3. Remove the foam from the unit.
4. Remove the packaging bag from the unit.

Packing:

Indoor unit:

1. Put the indoor unit into the packing bag.
2. Attach the left and right package foam or the upper and lower packaging foam to the unit.
3. Put the unit into the carton, then put accessory package in.
4. Close the carton and seal it with the tape.
5. Using the packing belt if necessary.

Outdoor unit:

1. Put the outdoor unit into the packing bag.
2. Put the bottom foam into the box.
3. Put the unit into the carton, then put the upper packaging foam on the unit.
4. Close the carton and seal it with the tape.
5. Using the packing belt if necessary.

NOTE: Please keep all packaging items if you may need in the future.

Impedance Information

(Applicable to the following units only)

This appliance MSAFB-12HRN1-QC6 can be connected only to a supply with system impedance no more than 0.373Ω . In case necessary, please consult your supply authority for system impedance information.

This appliance MSAFD-17HRN1-QC5 can be connected only to a supply with system impedance no more than 0.210Ω . In case necessary, please consult your supply authority for system impedance information.

This appliance MSAFD-22HRN1-QC6 can be connected only to a supply with system impedance no more than 0.129Ω . In case necessary, please consult your supply authority for system impedance information.

AIR CONDITIONER

REMOTE CONTROLLER ILLUSTRATION

Thank you very much for purchasing our air conditioner. Please read this owner's manual carefully before using your air conditioner. Make sure to save this manual for future reference.

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SPECIAL NOTE

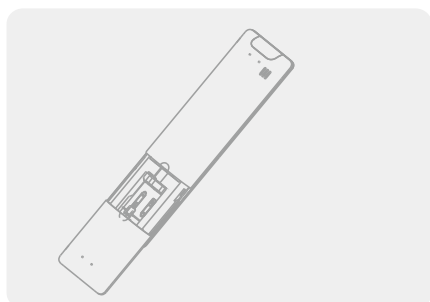
- Button designs on your unit may differ slightly from the example shown.
- If the indoor unit does not have a particular function, pressing that function's button on the remote control will have no effect.
- When there are wide differences between "Remote controller Manual" and "USER'S MANUAL" on function description, the description of "USER'S MANUAL" shall prevail.

Remote Controller Specifications

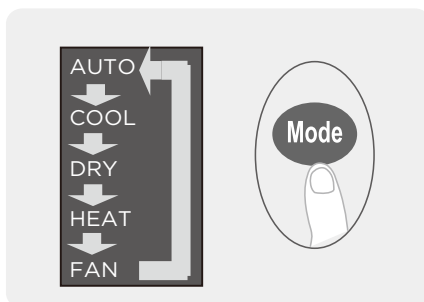
Model	RG10B3(S2S)/BGEF, RG10B3(S2S)/BGCEF
Rated Voltage	3.0V (Dry batteries R03/LR03×2)
Signal Receiving Range	8m
Environment	-5°C~60°C (23°F~140°F)

Quick Start Guide

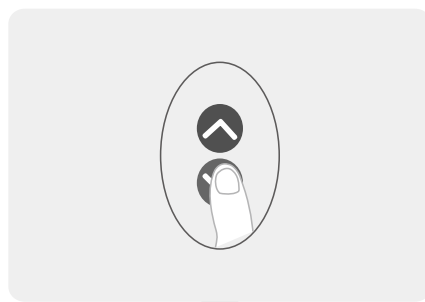
1 FIT BATTERIES



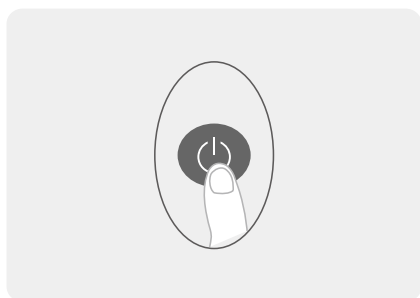
2 SELECT MODE



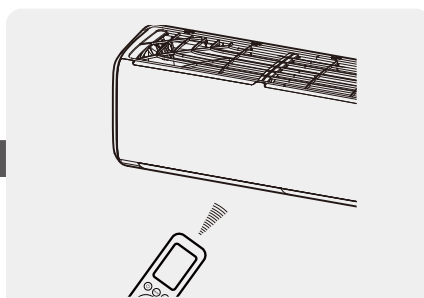
3 SELECT TEMPERATURE



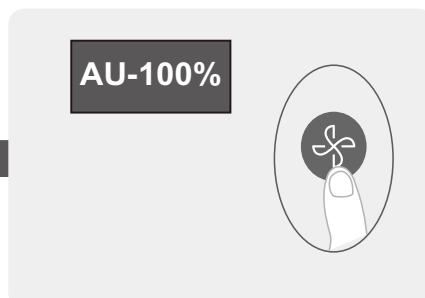
6 PRESS POWER BUTTON



5 POINT REMOTE TOWARD UNIT



4 SELECT FAN SPEED



NOT SURE WHAT A FUNCTION DOES?

Refer to the How to Use Basic Functions and How to Use Advanced Functions sections of this manual for a detailed description of how to use your air conditioner.

SPECIAL NOTE

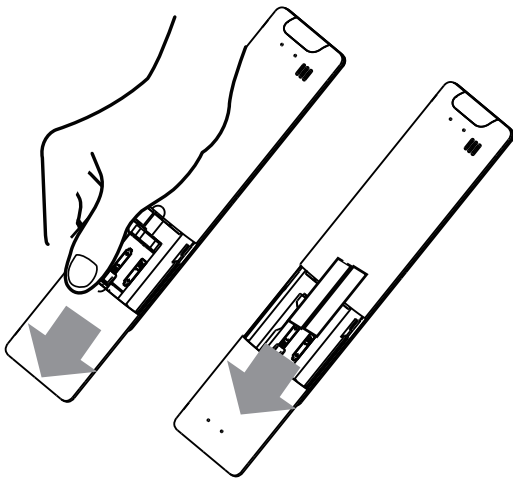
- Button designs on your unit may differ slightly from the example shown.
- If the indoor unit does not have a particular function, pressing the corresponding button on the remote control will have no effect.
- When there are wide differences between “Remote controller Manual” and “USER’S MANUAL” on function description, the description of “USER’S MANUAL” shall prevail.

Handling the Remote Controller

Inserting and Replacing Batteries

Your air conditioning unit may come with two batteries(some units). Put the batteries in the remote control before use.

1. Slide the back cover from the remote control downward, exposing the battery compartment.
2. Insert the batteries, paying attention to match up the (+) and (-) ends of the batteries with the symbols inside the battery compartment.
3. Slide the battery cover back into place.



! BATTERY NOTES

For optimum product performance:

- Do not mix old and new batteries, or batteries of different types.
- Do not leave batteries in the remote control if you don't plan on using the device for more than 2 months.



BATTERY DISPOSAL

Do not dispose of batteries as unsorted municipal waste. Refer to local laws for proper disposal of batteries.

TIPS FOR USING REMOTE CONTROL

- The remote control must be used within 8 meters of the unit.
- The unit will beep when remote signal is received.
- Curtains, other materials and direct sunlight can interfere with the infrared signal receiver.
- Remove batteries if the remote will not be used more than 2 months.

NOTES FOR USING REMOTE CONTROL

The device could comply with the local national regulations.

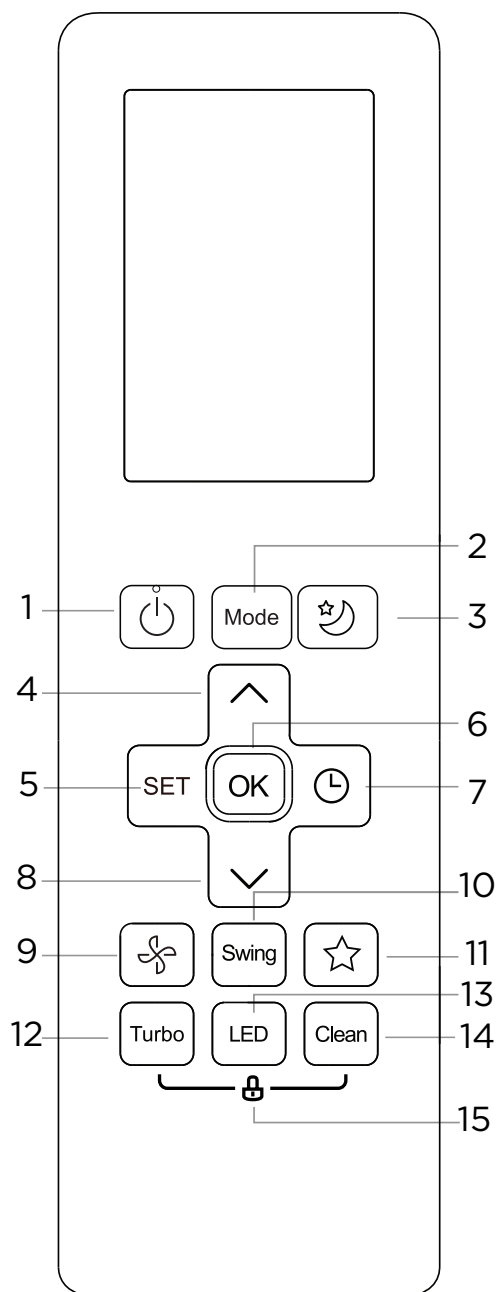
- In Canada, it should comply with CAN ICES-3(B)/NMB-3(B).
- In USA, this device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions:
 - (1) This device may not cause harmful interference, and
 - (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.
- Changes or modifications not approved by the party responsible for compliance could void user's authority to operate the equipment.

Buttons and Functions

Before you begin using your new air conditioner, make sure to familiarize yourself with the remote controller. The following content is a brief introduction of the remote controller. For instructions on how to operate your air conditioner, refer to this manual of How to Use Basic Functions section.

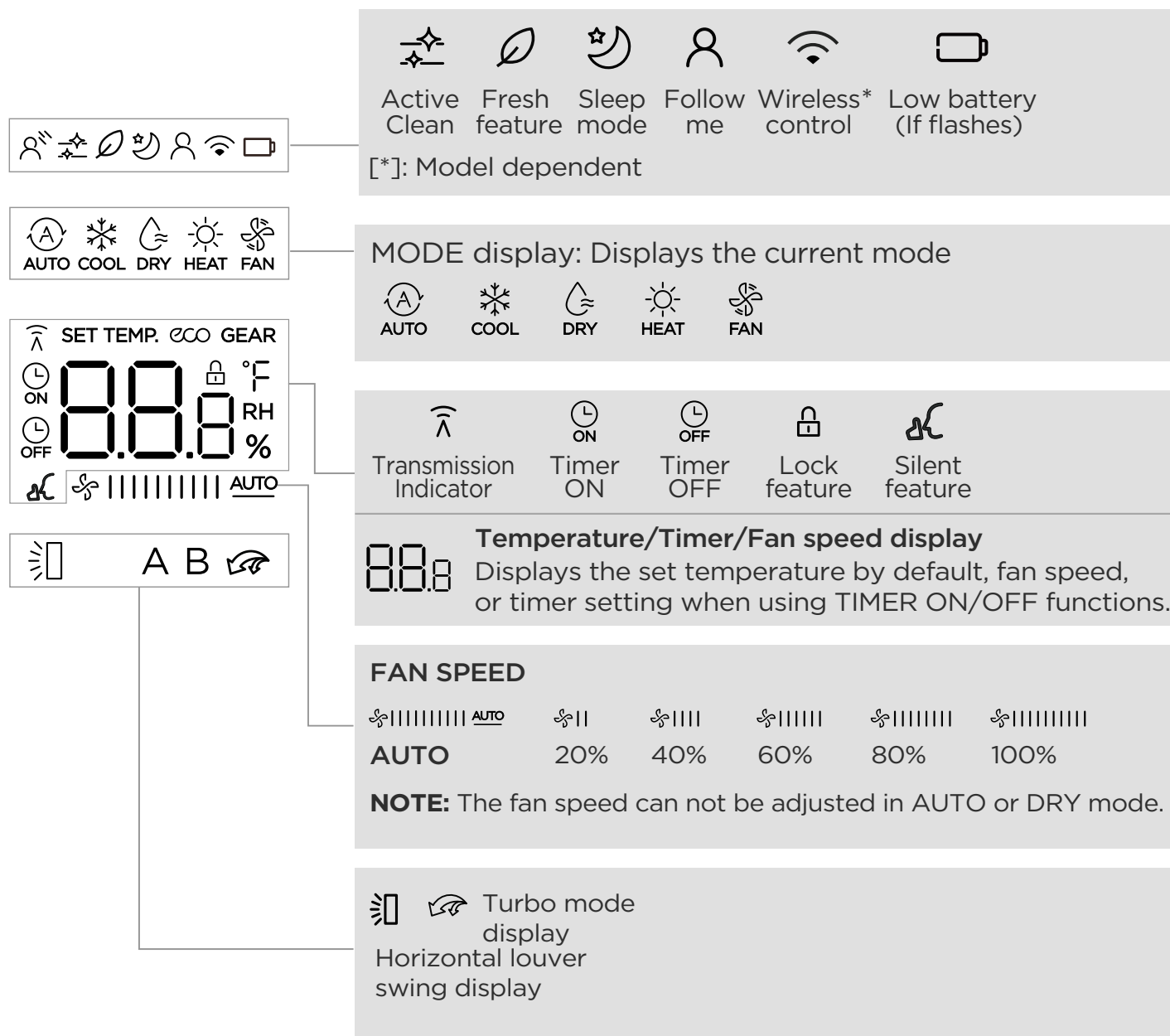


Description

1	⏻ : Power button.
2	Mode: Auto > Cool > Dry > Heat > Fan
3	Sleep: Used to save energy during sleeping hours.
4	Temp Up: Increases temperature in 1°C increments. Max. temperature is 30°C.
5	SET: Follow Me > AP mode* [*]: Model dependent Press the SET button repeatedly until the Wi-Fi light is turned on. When the Wi-Fi light flashes on the remote control, press the OK button toward the air conditioner.
6	OK: Used to confirm the selected functions.
7	Timer: Set timer to turn unit on or off.
8	Temp Down: Decreases temperature in 1°C increments. Min. temperature is 16°C.
9	Fan Speed: AU > 20% > 40% > 60% > 80% > 100%.
10	Swing: The horizontal louver will swing up and down automatically when pressing Swing button. Press again to make it stop.
11	SHORTCUT: Used to restore the current settings or resume previous settings.
12	Turbo: Enables unit to reach preset temperature in shortest possible time.
13	LED: Turns LED display & air conditioner buzzer on and off.
14	Clean: Used to start/stop the Clean function.
15	Lock: Long press both Turbo and Clean buttons simultaneously for 5 seconds to lock the keyboard. Press together these two buttons again for 2 seconds to unlock the keyboard.

Remote Screen Indicators

Information is displayed when the remote controller is power up.



Note: While using the remote controller, only relevant function indicator will be shown. The indicators above are for reference only.

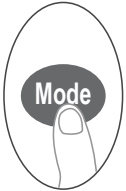
How to Use Basic Functions

NOTE

Before operation, please ensure that the unit is plugged in and the power is available.

AUTO mode

Select AUTO mode



Set your desired temperature



Turn on the air conditioner

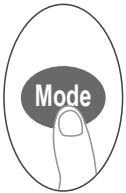


Note:

1. In AUTO mode, the unit will automatically select the COOL, FAN, or HEAT function based on the selected temperature.
2. In AUTO mode, fan speed cannot be set.

COOL or HEAT mode

Select COOL/
HEAT mode



Set the
temperature



Set the
FAN speed



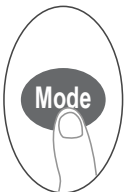
Turn on the air
conditioner



Note: Heat mode is only applicable to the Cooling & Heating models only.

DRY mode

Select DRY mode



Set your desired temperature



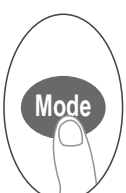
Turn on the air conditioner



Note: In DRY mode, fan speed cannot be set since it has already been automatically controlled.

FAN mode

Select FAN mode



Set the FAN speed



Turn on the air conditioner



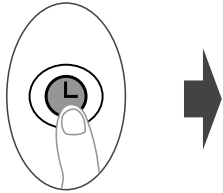
Note: In FAN mode, you can't set the temperature. As a result, no temperature is displayed on the remote's screen.

Setting the TIMER

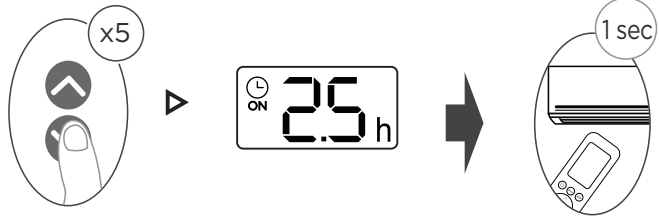
TIMER ON/OFF - Set the amount of time after which the unit will automatically turn on/off.

TIMER ON setting

Press TIMER button to initiate the time ON sequence.

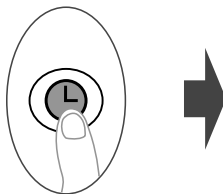


Press Temp. up or down buttons to set the length of time after which you would like the unit to turn ON. Wait for 1 second to activate time to turn on the unit.



TIMER OFF setting

Press TIMER button to initiate the time OFF sequence.



Press Temp. up or down buttons to set the length of time after which you would like the unit to turn OFF. Wait for 1 second to activate time to turn off the unit.

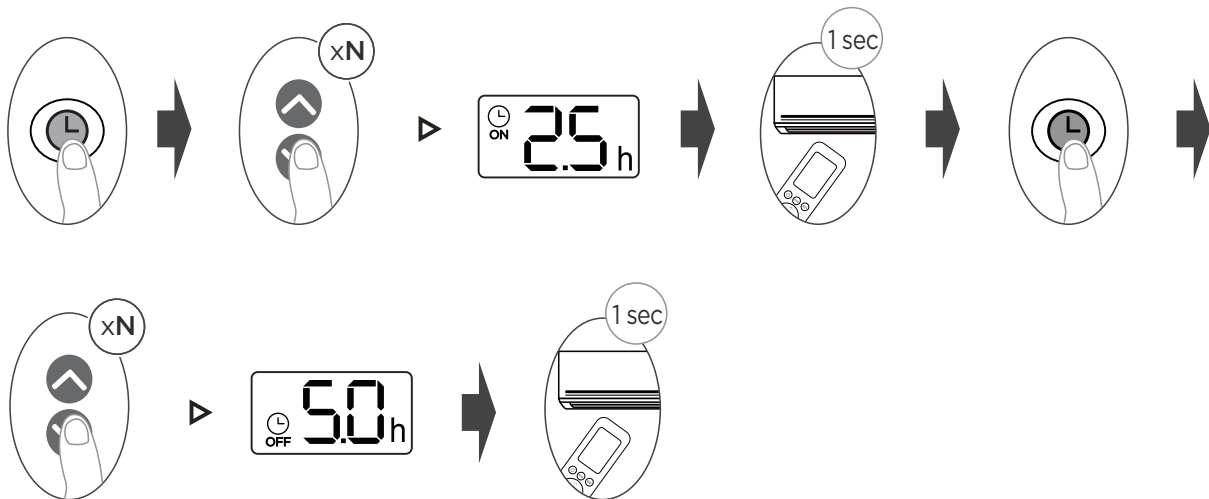


Note:

1. When setting the TIMER ON or TIMER OFF, the time will increase in 30-minute increments with each press, up to 10 hours. After 10 hours and up to 24, it will increase in 1-hour increments (For example, press 5 times to get 2.5h and press 10 times to get 5h). The timer will revert to 0.0 after 24.
2. Cancel either function by setting the timer to 0.0h.

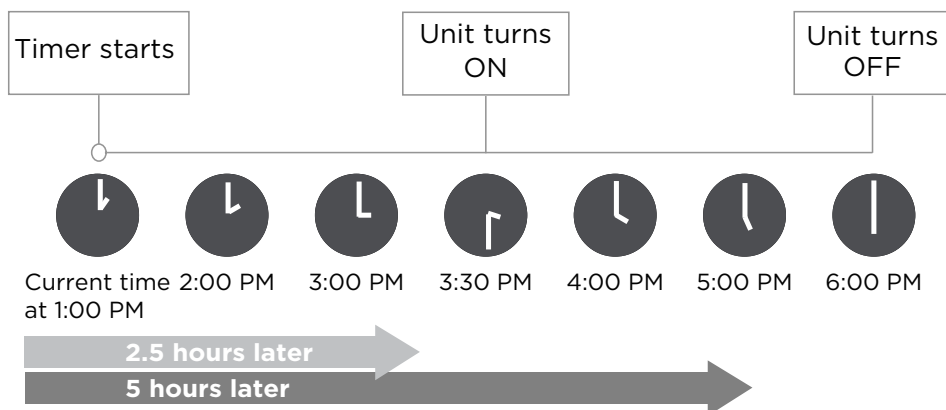
TIMER ON & OFF setting (example)

Keep in mind that the time periods you set for both functions refer to hours after the current time.



Note: “ x N ” means you can press multiple times until it is set to the time you need.

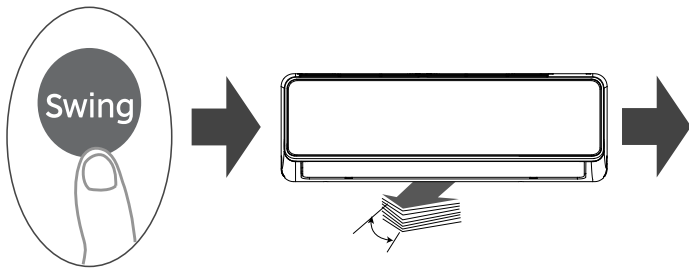
Example: If current time is 1:00 PM, after setting the timer as above steps, the unit will turn on 2.5h later (3:30 PM) and turn off at 6:00 PM.



How to Use Advanced Functions

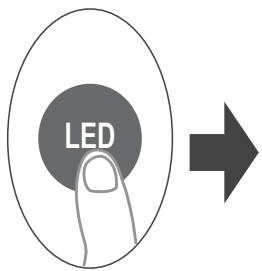
Swing function

Press Swing button

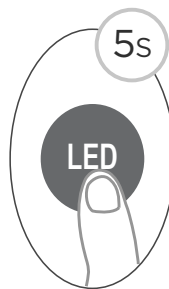


The horizontal louver will swing up and down automatically when pressing Swing button. Press again to make it stop.

LED display



Press this button to turn on and turn off the display on the indoor unit.



Press this button for more than 5 seconds (some units)

After keeping pressing this button for more than 5 seconds, the indoor unit will display the actual room temperature. Pressing the button for more than 5 seconds again will revert back to display the setting temperature.

FP function



The unit will operate at high fan speed (while compressor on) with temperature automatically set to 8°C

Note: This function is for heat pump air conditioner only.

Press this button 2 times during one second under HEAT mode with setting temperature of 16°C to activate FP function. The indoor unit will display “ FP ” on the display window.

Turbo function



When you select Turbo feature in COOL mode, the unit will blow cool air with strongest wind setting to jump-start the cooling process.

When you select Turbo feature in HEAT mode, the unit will blow heat air with strongest wind setting to jump-start the heating process (some units).

SHORTCUT function



Push this button when remote controller is on, the system will automatically revert back to the previous settings including operating mode, setting temperature, fan speed level and sleep feature (if activated).

If pushing more than 2 seconds, the system will automatically restore the current operation settings including operating mode, setting temperature, fan speed level and sleep feature (if activated).

Silent function



Long press Fan button for more than 2 seconds to activate/disable silent function (some units).

Due to low frequency operation of compressor, it may result in insufficient cooling capacity.

Clean function



Press this button to active the clean function.

The Active Clean Technology washes away dust, mold, and grease that may cause odors when it adheres to the heat exchanger by automatically freezing and then rapidly thawing the frost. When this function is turned on, the indoor unit display window appears “CL”, after 20 to 45 or 130 (model dependent) minutes, the unit will turn off automatically and cancel CLEAN function.

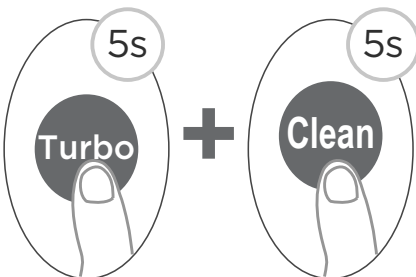
Sleep function



The SLEEP function is used to decrease energy while you sleep (and don't need the same temperature settings to stay comfortable). This function can only be activated via remote control. For the details, please see “sleep operation ” in “ USER’S MANUAL ”.

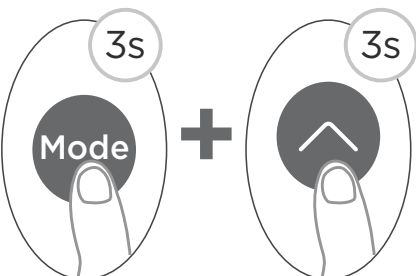
Note: The SLEEP function is not available in FAN or DRY mode.

Lock function



Press together Clean button and Turbo button at the same time more than 5 seconds to activate Lock function. All buttons will not response except pressing these two buttons for 2 seconds again to disable locking.

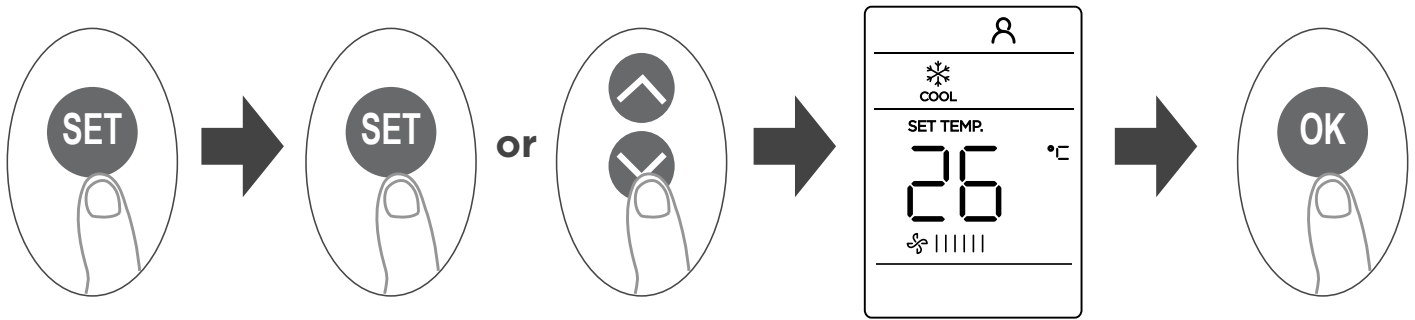
ON/OFF Wireless module



Hold the Mode and “^” button for 3 seconds to turn Wireless module ON/OFF.

The display screen of remote controller will display ON/OF for 3 seconds.

SET function



- Press the SET button to enter the function setting, then press SET button or TEMP ▼ or ▲ TEMP button to select the desired function. The selected symbol will flash on the display area, press the OK button to confirm.
- Press the SET button to scroll through operation functions as follows:
Follow Me (👤) > AP mode* (📶)
[*]: Model dependent.
- To cancel the follow me function, just perform the same procedures as above.
But the AP function cannot be canceled in this way.

Follow Me function

The Follow Me function enables the remote control to measure the temperature at its current location and send this signal to the air conditioner in 3-minute intervals. When using AUTO, COOL or HEAT modes, measuring ambient temperature from the remote control (instead of from the indoor unit itself) will enable the air conditioner to optimize the temperature around you and ensure maximum comfort.

- If the memory feature is activated, “On” displays for 3 seconds on the screen.
- If the memory feature is stopped, “OF” displays for 3 seconds on the screen.

AP function (some units)

Use the SET button to choose AP (Access Point) mode to enable wireless configuration. If this function is not available on this unit, it might be possible to enter AP mode by pressing the LED button 7 times in 10 seconds.

NOTE: To exit the AP function:

- Press the Power button on the remote control.
- The network configuration is not successful in 7 minutes.

SmartThings app

Use the SmartThings app on your smartphone to control the air conditioner via the wireless Internet.

To remotely control the air conditioner, you need to connect your smartphone to the air conditioner. If already connected, skip to "Step 6. Controlling the air conditioner with your smartphone".

Step 1. Checking the requirements for connection

Before connecting your smartphone with the air conditioner, make sure that the following requirements are met:

- Wi-Fi access point: 2.4 GHz Wi-Fi access point only
- The air conditioner and your smartphone must be within the coverage of the same Wi-Fi access point and connected to it. After the connection, you can control the air conditioner from any place via various wireless networks such as Wi-Fi, 3G, LTE and 5G.
- The supporting software version of the SmartThings app is subject to change according to the OS supporting policy the manufacturer provides. In addition, as for the SmartThings app or the functions that the app supports, the new application update policy on the existing OS version can be suspended due to usability or security reasons.
- The SmartThings app is subject to change without notice to improve usability or performance. As the mobile phone OS version is updated every year, the SmartThings is also updated continually according to the latest OS.
- If you have enquiries regarding the items mentioned above, please contact us on st.service@samsung.com.

Step 2. Connecting your smartphone to the Wi-Fi network

- 1 Turn on the Wi-Fi access point.
- 2 Tap **Settings** → **Wi-Fi** on your smartphone.
- 3 Tap the **Wi-Fi** switch to activate it, and then select the 2.4 GHz Wi-Fi access point to connect to.
- 4 If needed, enter the password for the access point.
- 5 Tap **Advanced**.
- 6 Tap the **Switch to mobile data** switch to deactivate it.

Step 3. Installing the SmartThings app

If the SmartThings app is not installed on your smartphone, follow the procedure below. If installed, skip to "Step 4. Configuring the SmartThings app".

- 1 Launch **Play Store** or **App Store**.
- 2 Tap the search field, and then search for "SmartThings".
- 3 Tap **INSTALL** for the found SmartThings app item.
- 4 Select **Agree**.

Step 4. Configuring the SmartThings app

After the SmartThings app is installed, follow the procedure below to configure it. If already configured, skip to "Step 5. Connecting your smartphone to the air conditioner".

- 1 Launch the **SmartThings** app.
- 2 When you see pop-up windows asking for location, Wi-Fi, Bluetooth permissions, tap **Start**.
- 3 Tap **Sign In**.
- 4 Sign in to your **Samsung account**.
 - If you have no Samsung account, create your Samsung account.
- 5 Consent to **TERMS AND CONDITIONS**.
- 6 When you see a pop-up window asking for access permission to location information, tap **ALLOW**.

Step 5. Connecting your smartphone to the air conditioner

- 1 Plug in the power cord of the air conditioner, and then turn on the power.
- 2 Launch the **SmartThings** app.
- 3 Tap **Add device** on the home screen of the SmartThings app.
- 4 Tap **Samsung Air conditioner > Room air conditioner**.
- 5 Press "**SET**" button multiple times and then you will see wireless logo on the panel of remote controller, then Press "**OK**". If this function is not available on this unit, you can press "**LED**" button continuously more than 7 times quickly in 10 seconds and then AC panel will show "**AP**".

To notify that registration of the selected air conditioner to your Samsung account is in progress, the **AP** appears on the remote control display. When the connection is finished, the **AP** disappears. A new device card for the selected air conditioner is added to the home screen of the SmartThings app.

Step 6. Controlling the air conditioner with your smartphone

- 1 Launch the **SmartThings** app.
- 2 On the home screen of the SmartThings app, tap the device card for the air conditioner, which was added when you proceeded with "Step 5. Connecting your smartphone to the air conditioner".



WARNING

- RF exposure warning statement – for keeping 20cm distance when installing this module.
- Warning that this module should not be installed and operating simultaneously with other radio without additional evaluation or FCC filing.

Specifications

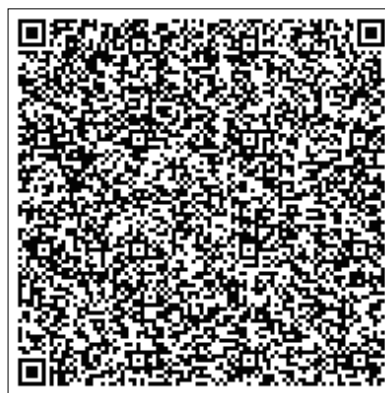
Wi-Fi	
Frequency Range	Transmitter Power (Max)
2412 - 2472 MHz	20 dBm

Open Source Announcement

The software included in this product contains open source software. You may obtain the complete corresponding source code for a period of three years after the last shipment of this product by contacting our support team via <http://opensource.samsung.com> (Please use the "Inquiry" menu.)

It is also possible to obtain the complete corresponding source code in a physical medium such as a CD-ROM; a minimal charge will be required.

The following URL http://opensource.samsung.com/opensource/STDK_ESP32_AR40HMNEU_0/seq/0 leads to the open source license information as related to this product. This offer is valid to anyone in receipt of this information.



Security updates information

Security updates are provided to strengthen the security of your device and protect your personal information. For more information on security updates, visit <https://security.samsungda.com>.

* The website supports only some languages.

Reference

English	Hereby, Samsung declares that this radio equipment is in compliance with Directive 2014/53/EU and with the relevant statutory requirements in the UK. The full text of the EU declaration of conformity and the UK declaration of conformity is available at the following internet address: http://www.samsung.com , go to Support > Search Product Support and enter the model name.
Czech	Společnost Samsung tímto prohlašuje, že toto radiové zařízení splňuje požadavky směrnice 2014/53/EU a příslušné požadavky právních norem platných ve Spojeném království. Úplné znění EU Prohlášení o shodě a UK Prohlášení o shodě je k dispozici na následující internetové adrese: http://www.samsung.com , kde klepněte na odkaz Podpora a do pole Hledat Podporu zadejte název modelu.
Danish	Samsung erklærer hermed, at dette radioudstyr er i overensstemmelse med direktiv 2014/53/EU og med relevante lovmæssige krav i Storbritannien. Hele teksten i EU-overensstemmelseserklæringen og UK-overensstemmelseserklæringen findes på denne webadresse: http://www.samsung.com . Gå til support > Søg efter produktsupport, og angiv modelnavnet.
German	"Samsung erklärt hiermit, dass diese Funkanlage mit der Richtlinie 2014/53/EU und den entsprechenden gesetzlichen Anforderungen im Vereinigten Königreich übereinstimmt. Der gesamte Text der EU-Konformitätserklärung und der Konformitätserklärung für das Vereinigte Königreich ist unter der folgenden Internetadresse verfügbar: http://www.samsung.com zu finden. Gehen Sie zu Support > Produktsupport durchsuchen und geben Sie den Modellnamen ein."
Estonian	Samsung kinnitab käesolevaga, et antud raadioseade vastab direktiivi 2014/53/EL ja asjakohastele seadusjärgsetele nõuetele Suurbritannias. EL-i vastavusdeklaratsiooni ja Suurbritannia vastavusdeklaratsiooni terviktekst on saadaval internetis järgmisel aadressil: http://www.samsung.com , avage menüü Tugi > Otsi toote tuge ja sisestage seejärel mudeli nimi.
Spanish	Por la presente, Samsung declara que este equipo radioeléctrico cumple con la Directiva 2014/53/UE y con los requisitos legales relevantes en el Reino Unido. El texto completo de la declaración de conformidad con la UE y de la declaración de conformidad con Reino Unido está disponible en la siguiente dirección de Internet: http://www.samsung.com , vaya a soporte > Búsqueda de soporte de productos e introduzca el nombre del modelo.
Greek	Συνεπώς, η Samsung δηλώνει ότι αυτός ο ραδιοεξοπλισμός συμμορφώνεται με την Οδηγία 2014/53/ΕΕ και με τις σχετικές νόμιμες απαιτήσεις του Ηνωμένου Βασιλείου. Το πλήρες κείμενο της δήλωσης συμμόρφωσης με την ευρωπαϊκή οδηγία και της δήλωσης συμμόρφωσης με τη βρετανική νομοθεσία είναι διαθέσιμο στη διεύθυνση: http://www.samsung.com . Επιλέξτε Υποστήριξη > Αναζήτηση υποστήριξης προϊόντος και εισαγάγετε το όνομα μοντέλου.
French	Par la présente, Samsung déclare que cet équipement radio est conforme à la directive 2014/53/UE et aux exigences réglementaires applicables au Royaume-Uni. Le texte intégral de la déclaration de conformité de l'UE et de la déclaration de conformité du Royaume-Uni est disponible à l'adresse Internet suivante : http://www.samsung.com , rendez-vous sur la page d'assistance > Rechercher dans l'Assistance et saisissez un nom de modèle.

Italian	Con la presente, Samsung dichiara che questa apparecchiatura radio è conforme alla Direttiva 2014/53/UE e ai relativi requisiti di legge nel Regno Unito. Il testo integrale della dichiarazione di conformità EU e del Regno Unito è disponibile al seguente indirizzo: http://www.samsung.com , selezionare supporto > Cerca Supporto Prodotto e inserire il nome del modello.
Latvian	Ar šo uzņēmums Samsung paziņo, ka šī radioiekārta atbilst Direktīvai 2014/53/ES un attiecīgajām likumiskajām prasībām Apvienotajā Karalistē. Pilns ES atbilstības deklarācijas teksts un Apvienotās Karalistes atbilstības deklarācijas teksts ir pieejams šajā interneta adresē: http://www.samsung.com , atverot Atbalsts > Meklēt produkta atbalstu un ievadot modeļa nosaukumu.
Lithuanian	Šiuo dokumentu „Samsung“ patvirtina, kad radijo įranga atitinka 2014/53/ES direktyvos reikalavimus ir JK susijusius įstatyminius reikalavimus. Visą ES atitikties deklaracijos ir JK atitikties deklaracijos tekstą rasite apsilankę internetinėje svetainėje adresu: http://www.samsung.com , eikite į skirtuką Palaikymas > Ieškoti gaminio palaikymo ir įveskite modelio numerį.
Dutch	Samsung verklaart hierbij dat deze radioapparatuur voldoet aan Richtlijn 2014/53/EU en aan de relevante statutaire vereisten in het VK. De volledige tekst van de EU-Conformiteitsverklaring en de conformiteitsverklaring van het VK vindt u op deze website: http://www.samsung.com , ga naar Ondersteuning > Productondersteuning zoeken en voer de modelnaam in.
Hungarian	A Samsung ezennel kijelenti, hogy ez a rádióberendezés megfelel a 2014/53/EU irányelvnek és az Egyesült Királyságban a vonatkozó jogszabályi követelményeknek. Az EU megfelelőségi nyilatkozat és az Egyesült Királyság megfelelőségi nyilatkozat teljes szövege a következő internet cím alatt található: http://www.samsung.com honlapon olvasható, lépjen a Támogatás > Terméktámogatás keresése menüpontra, és adja meg a modell nevét.
Polish	Niniejszym firma Samsung deklaruje, że ten sprzęt radiowy jest zgodny z wymogami dyrektywy 2014/53/UE oraz odpowiednich ustaw obowiązujących w Wielkiej Brytanii. Pełny tekst deklaracji zgodności z przepisami europejskimi i brytyjskimi jest dostępny na stronie internetowej: http://www.samsung.com w menu Wsparcie > Szukaj, gdzie należy podać nazwę modelu.
Portuguese	A Samsung declara, pelo presente, que este equipamento de rádio está em conformidade com a Diretiva 2014/53/UE e com os requisitos legais relevantes no Reino Unido. O texto integral da declaração de conformidade europeia e da declaração de conformidade do Reino Unido está disponível no seguinte endereço da Internet: http://www.samsung.com , vá a Suporte > Pesquisar Suporte do produto e insira o nome do modelo.
Slovenian	Družba Samsung izjavlja, da je ta radijska oprema v skladu z Direktivo 2014/53/EU in ustreznimi zakonskimi zahtevami v Združenem kraljestvu. Celotno besedilo izjave ES o skladnosti in izjave Združenega kraljestva o skladnosti je na voljo na spodnjem internetnem naslovu: http://www.samsung.com . Pojdite na podpora > Iskanje podpore za izdelek, nato vnesite ime izdelka.

Reference

Slovak	Spoločnosť Samsung týmto vyhlasuje, že toto zariadenie rádiového typu je v súlade so smernicou 2014/53/EÚ a náležitými zákonnými požiadavkami v Spojenom kráľovstve. Celé znenie Vyhlásenia o zhode v EÚ a Vyhlásenia o zhode v Spojenom kráľovstve je k dispozícii na nasledujúcej internetovej adrese: http://www.samsung.com , prejdite na položky Podpora > Vyhľadávanie podpory produktov a zadajte názov modelu.
Finnish	Samsung vakuuttaa, että tämä radiolaitte on direktiivin 2014/53/EU ja Yhdistyneen kuningaskunnan oleellisten lakisääteisten vaatimusten mukainen. EU-vaatimustenmukaisuusvakuutuksen ja Yhdistyneen kuningaskunnan vaatimustenmukaisuusvakuutuksen koko teksti on saatavilla seuraavassa Internet-osoitteessa: http://www.samsung.com . Valitse Tuki > Etsi tuotetukea ja kirjoita mallinimi.
Swedish	Härmed deklarerar Samsung att denna radioutrustning uppfyller direktivet 2014/53/EU och de relevanta lagstadgade kraven i Storbritannien. Den fullständiga texten i EU-deklarationen om överensstämmelse och Storbritanniens deklaration om överensstämmelse finns tillgänglig på följande internetadress: http://www.samsung.com . Gå till stöd > Sök produktsupport och ange modellnamnet.
Bulgarian	С настоящото Samsung декларира, че това радиооборудване е в съответствие с Директива 2014/53/ЕС и със съответните законови изисквания в Обединеното кралство. Пълният текст на ЕС Декларацията за съответствие и Декларацията за съответствие за Обединеното кралство е наличен на следния интернет адрес: http://www.samsung.com , отидете на отидете на поддръжка > Търсене на поддръжка за продукт и въведете името на модела.
Romanian	Prin prezenta, Samsung declară faptul că acest echipament radio respectă Directiva 2014/53/UE și toate cerințele legale relevante din Regatul Unit. Textul complet al declarației de conformitate UE și al declarației de conformitate din Regatul Unit este disponibil la următoarea adresă de internet: http://www.samsung.com , accesați asistența > Căutați asistența produsului și introduceți numele modelului.
Norwegian	Samsung erklærer herved at dette radioutstyret er i samsvar med direktiv 2014/53/EU og med de relevante lovpålagte kravene i Storbritannia. Den fullstendige teksten til EU-samsvarserklæringen og den britiske samsvarserklæringen er tilgjengelig på følgende nettadresse: http://www.samsung.com . Gå til Support > Søk gjennom produktsupport og angi modellnavn.
Turkish	Samsung, bu radyo ekipmanının 2014/53/AB Direktifi ve Birleşik Krallık'taki ilgili yasal gerekliliklere uygun olduğunu beyan eder. AB uygunluk beyanının ve Birleşik Krallık uygunluk beyanının tam metni aşağıdaki internet adresinde mevcuttur: http://www.samsung.com adresinde bulabilirsiniz. Destek > Ürün Desteği Ara'ya gidin ve model adını girin.
Russian	Настоящим компания Samsung заявляет, что данное радиооборудование соответствует Директиве 2014/53/ЕС и соответствующим требованиям законодательства Великобритании. Полный текст декларации о соответствии ЕС и декларации о соответствии Великобритании доступен по следующему веб-адресу: http://www.samsung.com , пройдите в раздел Поддержка > Поиск продукта и введите имя модели.

Ukrainian	Цим компанія Samsung заявляє, що це радіообладнання відповідає вимогам Директиви 2014/53/ЄС і відповідним законодавчим нормам Великобританії. Повний текст декларації про відповідність нормам країн ЄС і Великобританії доступний за такою адресою в інтернеті: http://www.samsung.com ; перейдіть до розділу підтримки, потім — до поля пошуку підтримки для певного виробу та введіть назву моделі.
Serbian	Kompanija Samsung ovim izjavljuje da je ova radio oprema u skladu sa direktivom 2014/53/EU i sa odgovarajućim zakonskim zahtevima u UK. Kompletan sadržaj deklaracija o usaglašenosti za EU i UK dostupan je na sledećoj internet adresi: http://www.samsung.com , idite na Podrška > Pretraga podrške za proizvode i unesite naziv modela.
Croatian	Ovime Samsung izjavljuje da je ova radijska oprema usklađena s Direktivom 2014/53/EU i relevantnim uvjetima propisanim zakonom u Ujedinjenoj Kraljevini. Potpuni tekst EU deklaracije o sukladnosti te UK deklaracije o sukladnosti dostupan je na sljedećoj internetskoj adresi: http://www.samsung.com , ako odaberete Podrška > Traži podršku za proizvod i unesete naziv modela

The design and specifications are subject to change without prior notice for product improvement. Consult with the sales agency or manufacturer for details.

For information on Samsung's environmental commitments and product regulatory obligations, e.g. REACH, visit our sustainability page available via www.samsung.com



This appliance is filled with R-32.