

Air conditioner

User manual

ARDXKA******

- 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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For battery recycling go to batterynetwork.org
or call 1-800-822-8837



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.samsunghvac.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.samsunghvac.com.

This device complies with Industry Canada license exempt RSS standard(s). 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 Class B digital apparatus complies with Canadian ICES-003.

ENERGY STAR qualified model only

Proper sizing and installation of equipment is critical to achieve optimal performance. Split system air conditioners and heat pumps (excluding ductless systems) must be matched with appropriate coil components to meet ENERGY STAR criteria. Ask your contractor for details or visit www.energystar.gov.



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

Safety Information

Symbol	Meaning
	Flammable gas
	Flammable materials
	Refrigerant safety group
	Read operating manual
	Refer to the operating manual
	Read service manual

Important safety precautions

California Proposition 65 Warning (US)

 **WARNING:** Cancer and Reproductive Harm - www.P65Warnings.ca.gov.

1. 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 the use of the appliance by a person responsible for their safety.

2. Children should be supervised to ensure that they do not play with the appliance.
3. 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 the warranty on the installed product.
4. Install an Isolation Switch next to the Air Conditioner (but not on the panels of the Air Conditioner) and a circuit breaker dedicated to the air conditioner.
 - Failing to do so may result in electric shock or fire.
5. 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.

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.

- Do not use it together with a power strip or other device. Do not extend the power cord.
- Connect power matching to voltage/frequency/rated current conditions.

Safety Information

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.



CAUTION

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 the water drains correctly.

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

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 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 a thermo-hygrostat is needed (such as a server room, machinery room, computer room, etc.)

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

FOR POWER SUPPLY



WARNING

When the circuit breaker is damaged, contact a qualified installer or HVAC service company.

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.



CAUTION

When not using the air conditioner for a long 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.

Safety Information

FOR USING



WARNING

If the product has been immersed in water or shows any abnormal signs, please contact the Customer Service Center.

Do NOT arbitrarily disassemble, repair, or modify it.

If the appliance generates a strange noise, a burning smell, or smoke, cut off the power supply immediately and contact a qualified installer or HVAC service company.

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

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.

To reinstall the air conditioner, please contact a qualified installer or HVAC service company.

- 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 a qualified installer or HVAC service company.

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 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.

Safety Information

If any foreign substance such as water has entered the appliance, cut off the power supply and contact a qualified installer or HVAC service company.

- 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.

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 direction of the horizontal airflow blades after stopping the movements of the vertical airflow blade. (In case of adjusting the horizontal airflow manually)

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

- Salt, vibration, or other environmental factors may cause the product to 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.

Do not touch the pipes connected to the product.

- This may result in burns or injury.

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 discoloration, deformation, damage, 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 a qualified installer or HVAC service company.

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

- For cleaning inside the appliance, contact a qualified installer or HVAC service company.
- 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.

R-32 Refrigerant

WARNING

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

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 odor.

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 odor.

CAUTION

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

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

During the transportation of the indoor unit, the pipelines shall be covered with brackets for protection. Do not move the product by holding the refrigerant or drainpipe connections.

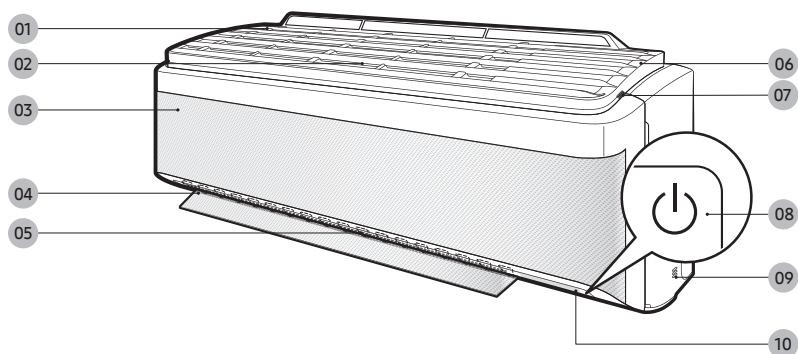
- It may cause gas leakage.

Do not cut or burn the refrigerant container or piping.

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

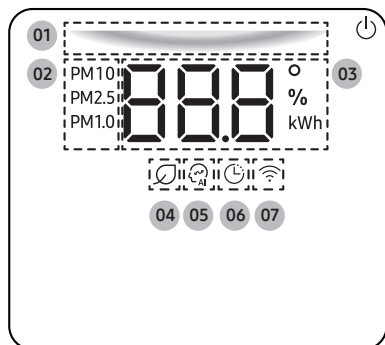
Indoor Unit Overview

The appearance of the actual product may differ slightly from the image below.



- | | |
|--|--|
| 01 Air intake | 06 PM1.0 Filter |
| 02 Air filter | 07 PM10 sensor/
PM 2.5 sensor/
PM1.0 sensor |
| 03 WindFree panel | 08 Power button/Remote control receiver |
| 04 Airflow blade (up and down) | 09 Room temperature sensor |
| 05 Airflow blade (left and right) | 10 Display |

Display



01 Lighting

NOTE

- The dust particle detection status is indicated by colors. Refer to the Purify function details on page 31.

02 PM10/PM2.5/PM1.0 identification display

03 Temperature indicator (numeric) / Filter reset indicator (F) / Auto Clean indicator (AC) / Defrost indicator (DF) / PM10/PM2.5/PM1.0 concentration display

04 AI Energy indicator

05 AI Auto indicator

06 Timer indicator / Good Sleep indicator

07 Wi-Fi indicator

NOTE

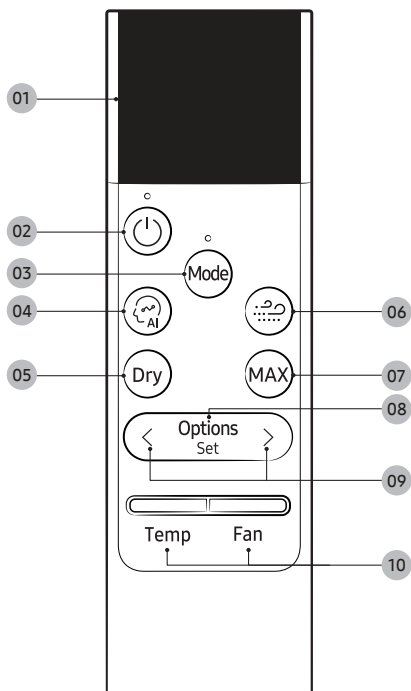
- When the Wi-Fi is turned on, the indicator blinks three times and then turns on.

NOTE

- If the Wi-Fi indicator blinks for 10 seconds when the operation starts, it means that the air conditioner is not connected to Wi-Fi. See "SmartThings app" on page 50 and connect the air conditioner to Wi-Fi.
- When connected to Wi-Fi, the air conditioner can gather and learn your user patterns so that it can run in AI Auto mode.

Remote Control Overview

Most operating instructions in this manual require using the remote control.



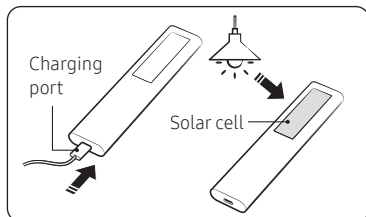
- 01 Display
- 02 Power button
- 03 Mode button
- 04 AI Auto button
- 05 Dry button
- 06 WindFree button
- 07 MAX button
- 08 Options/Set/Auto Clean button
 - Press and hold the button for 3 seconds to turn on or off the Auto Clean function.
- 09 Direction button
- 10 Temperature/Fan speed button
 - Push the button up or down to adjust the temperature or fan speed.
 - To set the airflow direction to Horizontal All or Horizontal Fix, press the **[Temp]** button.
 - To set the airflow direction to Vertical All or Vertical Fix, press the **[Fan]** button.

NOTE

- Press any button to wake up the display.
- The display switches off if no remote control button is pressed for 5 seconds.
- Low Ambient mode does not work on air conditioners, even if it is enabled under the Heating Range.
- The grey circles on the remote control buttons shown in the user manual indicate the regions that should be pressed for the buttons to work.

E.g. < Options Set >

Charging the remote control



- Fully charge the remote control before use.
- If "Low battery" appears on the remote control display, charge the remote control by using the USB port (C-Type) at the bottom of the remote control.
If you keep the remote control facing down, it is charged via the solar cell, allowing the battery to last longer.
- While the remote control is being charged, 'Charging' is displayed on the display. After charging is complete, 'Complete' appears, and then the display turns off. Then, remove the charging cable.
- If the remote control will not be used for an extended time, make sure to charge the remote control by using the USB port before storage.

NOTE

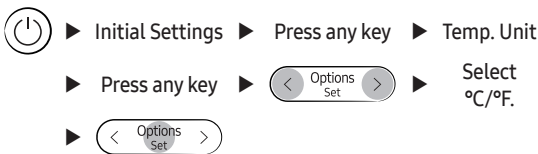
- The product does not come with a remote control charging cable or charger.

Remote Control Operation

You can use the air conditioner easily by selecting a mode and then controlling the temperature, fan speed, and air direction.

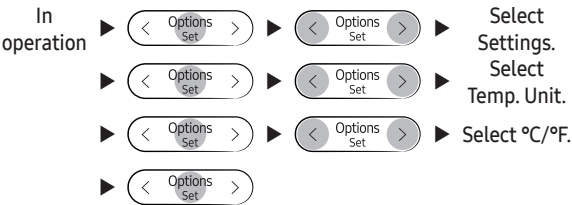
Initial Settings

Before using the remote control for the first time, you should set the temperature unit to Celsius or Fahrenheit.



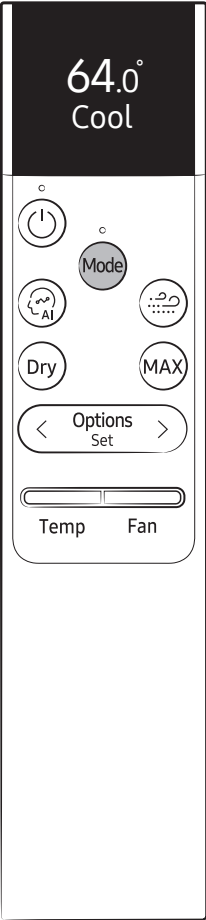
 NOTE

- After the temperature unit is set, the remote control turns off. Press the  button to turn it on.
- The temperature indications on the indoor unit are not switched.
- To change the temperature unit, change the setting as follows:



Remote Control Operation

At a Glance



Selecting an operation mode

To change the current mode between AI Auto, Cool, Dry, Purify, and Heat, press the  (Mode) button.

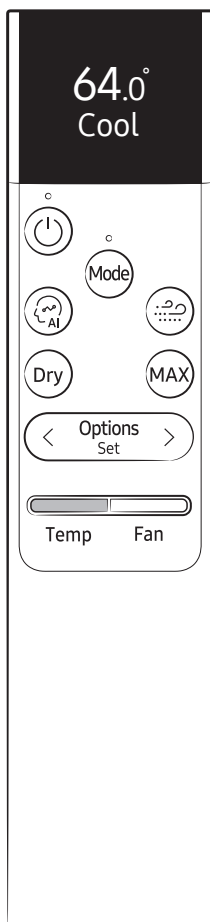
You can use AI Auto mode after Wi-Fi is connected.

NOTE

You can use the Cool, Dry, and Heat modes in the following operation range.

Mode	Cool	Dry	Heat
Indoor temperature	61 °F to 90 °F (16 °C to 32 °C)	65 °F to 90 °F (18 °C to 32 °C)	81 °F or less (27 °C or less)
Outdoor temperature	14 °F to 115 °F (-10 °C to 46 °C)	14 °F to 115 °F (-10 °C to 46 °C)	-5.1 °F to 76 °F ¹⁾ (-20.6 °C to 24 °C)
Indoor humidity	Relative humidity of 80 % or less ²⁾	-	-

- ¹⁾ If the outdoor temperature drops to -13 °F(-25 °C) the heating capacity may decrease by as much as 60-70 %.
- ²⁾ If the air conditioner operates in Cool mode in a high-humidity environment for an extended time, condensation may occur.
- For more information about outdoor temperature in the Free Joint Multi multi-zone systems, refer to the manual for the Free Joint Multi multi-zone systems.



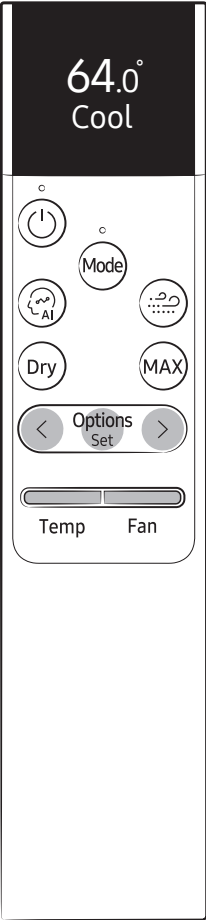
To set the temperature

To control the temperature in each mode, push the [Temp] button up or down:

Mode	Temperature control
AI Auto/ Cool/Heat	Adjust by 1 °F (0.5 °C) from 61 °F to 86 °F (16 °C to 30 °C).
Dry	Adjust by 1 °F (0.5 °C) from 65 °F to 86 °F (18 °C to 30 °C).
Purify	No temperature control.

Remote Control Operation

At a Glance



To adjust the fan speed

Select from the following fan speeds in each mode:

Mode	Available fan speeds
AI Auto	No fan speed control. (Auto fan, default controller setting)      (Manual fan)
Cool/Heat/Purify	    
Dry	No fan speed control.

To adjust the airflow direction

Keep the airflow in a constant direction by stopping the movements of the vertical and horizontal airflow blades.

- In operation ▶ Press  button ▶ Select Horizontal All or Horizontal Fix.
- or
- In operation ▶ Press  button ▶ Select Vertical All or Vertical Fix.

- NOTE**
- Always use the remote control to adjust the airflow blades. Do not move the blades by hand as they may not operate normally.
 - If you adjust the vertical airflow blade by hand, it may not close completely when you turn off the air conditioner.
 - You cannot control the vertical airflow direction in Cool mode when the Good Sleep function is on.
 - You can also select the airflow direction from the Options menu:

- In operation ▶  ▶  ▶ Select Direction. ▶
- Select Vertical. ▶  ▶ Select Vertical All or Vertical Fix.
- or
- Select Horizontal. ▶  ▶ Select Horizontal All or Horizontal Fix.

Power Smart Features

Wind
Free
On

Wind
Free
Off

WindFree Cooling function

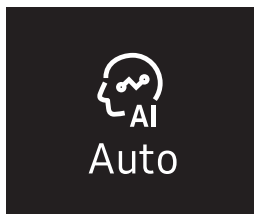
Use the WindFree Cooling function to enjoy a mild breeze coming through fine holes in the WindFree panel instead of air coming directly through the airflow blades.

In Cool/Dry/Purify mode ► 

NOTE

- To cancel this function, press the  (WindFree) button again.
- When the WindFree Cooling function is on, the air conditioner automatically controls the temperature and fan speed to keep your room mild and comfortable.
- When the WindFree Cooling function is canceled, the air conditioner returns to the original fan speed, and air comes out of the airflow blades.
- In Cool mode, the recommended set temperature during the WindFree Cooling operation is 76 °F to 79 °F (24 °C to 26 °C).
- You can use the WindFree Cooling function in Cool, Dry, or Purify mode.
- You cannot select the Quiet function during the WindFree Cooling operation.
- Selecting the WindFree Cooling function cancels the MAX, Eco, and airflow direction adjustment functions.

Power Smart Features



AI Auto mode

Use AI Auto mode to automatically operate any of the Cool, Dry, Heat, and WindFree Cooling modes depending on the learned user patterns gathered from an external server via the Wi-Fi module. The favorite temperature and operation mode are also set based on the current temperatures (indoor/outdoor) and the gathered user patterns.



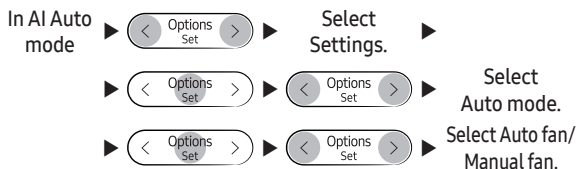
or



Select Auto.

NOTE

- You can use this mode after Wi-Fi is connected.
- In AI Auto mode, the  (AI Auto) and  (Wi-Fi) indicators appear on the display of the indoor unit.
- If the gathered user patterns are not sufficient, the set temperature is set based on the user's activity time and indoor/outdoor temperatures.
- The set temperature is controlled within the range of 72 °F to 82.4 °F (22 °C to 28 °C) (Cool) / 68 °F to 82.4 °F (20 °C to 28 °C) (Heat) in AI Auto mode. You can also change it manually.
- An automatically changed set temperature is shown on the indoor unit display, which switches to the current temperature after 4 to 5 seconds.
- When you press  (Mode) in AI Auto mode, the mode is canceled.
- If you change the set temperature in AI Auto mode, the air conditioner operates with the changed set temperature.
- Adjust the fan speed or fix it at your desired speed. It can be done as follows:



- If you select Auto Fan, the fan speed is automatically adjusted.
- If you select Manual Fan, you can choose a fan speed from Auto, Low, Med, High, and Turbo.

If not connected to Wi-Fi

- The air conditioner automatically switches to Cool, Dry, or Heat mode, depending on the temperature and humidity of the room. Optimum mode, appropriate for the current air quality of the room, operates automatically to quickly provide pleasant air.
- Fan speed is automatically adjusted, depending on the temperature and humidity of the room.

AI Energy mode

- Use AI Energy mode to save electricity consumed by the operating air conditioner. This mode can be turned on or off from the SmartThings app only.
- The amount of saved electricity is calculated while in AI Auto mode only.
- AI Energy indicator () lights up on the display of the indoor unit.
- The amount of saved electricity is calculated from the moment when the air conditioner is turned on.
- The amount of saved electricity will vary, depending on the ambient environment (e.g., indoor/outdoor temperature and humidity), set temperature, and operation mode.
- Note that the amount of saved electricity also may differ even under the same operating environment conditions, depending on how it was measured.
- To have powerful cooling or heating, turn off AI Energy mode in the SmartThings app.

Power Smart Features

64.0°
Cool

Cool mode

Use Cool mode to stay cool in hot weather.



NOTE

- After selecting Cool mode, select the desired function, temperature, and fan speed.
 - To cool more quickly, select a lower temperature and a faster fan speed.
 - To save energy, select a higher temperature and a slower fan speed.
 - As the room temperature nears the set temperature, the compressor motor will slow down to save energy.

Dry mode

Use Dry mode in rainy or humid weather to maximize moisture removal from the air.



NOTE

- The proper set temperature range for dehumidifying operation is 76 °F to 79 °F (24 °C to 26 °C). If you feel that the current humidity seems high, use a lower set temperature.
- You cannot use Dry mode for heating. Dry mode is designed to produce a cooling side effect.

75.0°
Heat

Heat mode

Use Heat mode to stay warm.



NOTE

- While the air conditioner warms up, the fan may not operate for about 3 to 5 minutes at the beginning to prevent cold blasts.
- If the air conditioner heats insufficiently, use an additional heating appliance in combination with the air conditioner.

Automatic defrost

When the outdoor temperature is low and the humidity is high, frost may develop on the outdoor heat exchanger, which may decrease heating efficiency. When these conditions are met while Heat mode is on, the air conditioner runs the Defrost function for 5 to 12 minutes to remove frost from the outdoor heat exchanger.

NOTE

- When the Defrost function is on, the **df** (Defrost) indicator appears on the indoor unit display, steam is produced on the outdoor unit, and the airflow blades do not move. (Note that on the Free Joint Muti systems, the blades move to the lowest position. After the defrost operation is complete, the blades return to the angle set by the user.)
- You cannot select other functions with the remote control until the Defrost function is finished.

Variety Smart Features

MAX
On

MAX
Off

MAX function

Use the MAX function to quickly cool or heat your room. This function is the most powerful cooling and heating function provided by the air conditioner. You can select this function in Cool or Heat mode.

In Cool or Heat mode ► 

NOTE

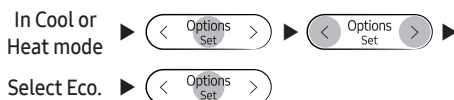
- You can change the airflow direction, but you cannot change the set temperature and the fan speed.
- When you select the MAX function in Heat mode, you may not be able to increase the fan speed for 3 to 5 minutes while the unit heats up.
- Selecting the MAX function cancels the WindFree Cooling, Eco, Good Sleep, and Quiet functions.



Eco function

This function is not supported for Free Joint Multi multi-zone systems.

Use the Eco function to reduce electricity consumption while staying cool or warm. You can select this function in Cool or Heat mode.



NOTE

- When the Eco function starts, the vertical air swing begins.
- You can change the set temperature, airflow direction, and fan speed.
- The allowed set temperatures while the Eco function is on are:

Mode	Minimum set temperature	Maximum set temperature
Cool	76 °F (24 °C)	86 °F (30 °C)
Heat	47 °F (8 °C)	86 °F (30 °C)

- If you change the set temperature to be outside the allowed range for the current mode, the set temperature is automatically reset to be within the range.
- When you turn off the Eco function, the air swing continues. Use the airflow direction adjustment function to turn it off.
- Selecting the Eco function cancels the WindFree Cooling, Good Sleep, MAX, and Quiet functions.

Variety Smart Features



Quiet function

Use the Quiet function to reduce the unit's operating noise. You can select this function in Cool or Heat mode.

In Cool or Heat mode ►  ►  ►

Select Quiet. ► 

NOTE

- You can change the set temperature and the airflow direction, but you cannot change the fan speed.
- Selecting the Quiet function cancels the WindFree Cooling, Eco, Good Sleep, and MAX functions.

Purify

Purify function

Use the Purify function to filter out dust and fine dust from the indoor air.



CAUTION

- Do not touch the PM1.0 filter on the top of the indoor unit while the Purify function is on.
Touching the PM1.0 filter while the Purify function is running may result in electric shock.

NOTE

- Even if the outdoor unit is not turned on, you can select the Purify function to operate the Purify-only function.
- When the Purify-only function is in use, the compressor stops operation, and no cold air comes out.
- It is possible to run the Purify-only function when Fan mode is in use.
- It is possible to run the Purify function when Auto/Cool/Dry/Heat mode is in use.
 - Of the PM10, PM2.5, and PM1.0 cleanliness, the worst value is displayed on the indoor unit display.
 - When the Purify function is enabled, there is little difference in electricity consumption and operating noise.
 - To start or cancel the Purify function, follow the procedure above again.

Variety Smart Features

NOTE

- When the Purify function is selected, the PM10, PM2.5, or PM1.0 concentration is displayed on the indoor unit display.
 - The ranges of PM10, PM2.5, and PM1.0 concentration values displayed on the display are from 05 to 999, and the concentration values are displayed in units of 1.
 - Indoor air is clean. [05 ↔ 999] Indoor air is contaminated.

Cleanliness	PM10		PM2.5/PM1.0	
	Color	Concentration (µg/m³)	Color	Concentration (µg/m³)
Very poor	Red	151 or more	Red	76 or more
poor	Yellow	81 to 150	Yellow	36 to 75
Moderate	Green	31 to 80	Green	16 to 35
Good	Blue	30 or less	Blue	15 or less

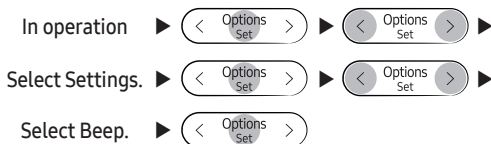
- PM1.0 cleanliness levels comply with Samsung's guidelines.
- The dust concentration may vary depending on the environmental conditions (for example, when the product is near a construction site, road, or fabric sofa, or when a vacuum cleaner is used or bedding and clothes are arranged near the product, etc.).
- The dust concentration may be high when the product is used in an environment with shag carpet, an animal hospital, a clothing store, a place with high humidity, smoke, or a lot of insects, etc.
- The dust concentration may increase when the product is used in an environment with a humidifier, an electric pressure cooker, a sprayer, etc. in operation.
- The dust concentration may be high continuously when the product is used in a place where yellow dust is present, or outside air is introduced (for example, near a building air conditioner, an apartment ventilation system, or a window with a draft).
- Because the dust concentration values may differ in the same environment depending on the measurement method, use the displayed values as a reference.
- The PM10, PM2.5, and PM1.0 concentration values displayed may differ from those measured by other company's instruments or products.
- The PM10, PM2.5, and PM1.0 concentration values displayed may be temporarily elevated in an environment affected by electromagnetic waves or electrical noises.



Beep

Beep function

Use the Beep function to turn on or off the beep that sounds when you press a button on the remote control.



Variety Smart Features



Auto
Clean

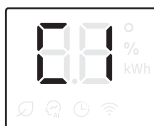
Auto Clean function

Use the Auto Clean function if the indoor unit produces odors.

Activating Auto Clean

To activate Auto Clean, press the  (Options) button for at least 3 seconds.

The indoor unit display shows:



If the air conditioner is off, Auto Clean starts immediately. If the air conditioner is running, Auto Clean starts as soon as the air conditioner turns off.

NOTE

- You can also activate Auto Clean from the Options menu:



- Once Auto Clean is selected, it is always activated whenever the air conditioner turns off.
- Auto Clean runs for 10 to 30 minutes depending on internal dry conditions. The indoor unit display shows the cleaning progress from 1% to 99%.
- If you start another function while Auto Clean is progressing, Auto Clean pauses and will resume when the other function stops.
- When Auto Clean is complete, the air conditioner turns off.
- Auto Clean runs after the Timed off or Good Sleep function runs. Auto Clean does not run after the Heat or Purify mode operates.

Canceling Auto Clean

To cancel Auto Clean while it is running, follow the procedure below:

 ► Press and hold for 3 or more seconds.

or

 ►  ► Select Auto Clean. ►



NOTE

- Canceling Auto Clean does not deactivate it.

Deactivating Auto Clean

To deactivate Auto Clean, follow the procedure below while the air conditioner is in operation:

 ► Press and hold for 3 or more seconds.

or

 ►  ► Select Auto Clean. ►



Variety Smart Features



Freeze Wash function

This function is not supported by Free Joint Multi multi-zone systems.

Use the Freeze Wash function to wash away airborne contaminants or dust on the surface of the indoor heat exchanger by freezing and thawing operation.

In operation stop condition,



NOTE

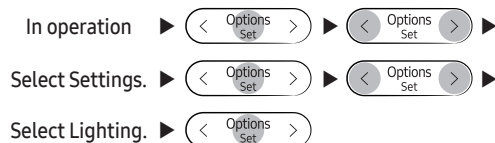
- The Freeze Wash function runs from 30 to 80 minutes (the outdoor unit will operate) depending on either temperature or humidity in the room, through the following cycle: freezing → defrosting → drying of the indoor unit heat exchanger.
- The indoor unit display shows the cleaning progress (1-99 %).
- To use another function while in Wash operation, press the  (Power) button on the remote control to stop the operation.
- When the room temperature is low or its humidity is high, the Freeze Wash function may not work.
- Before finishing the Freeze Wash function, the airflow blade is closed, and the drying operation starts.
- During the Freeze Wash cycle, creaking noises might be heard from the indoor unit. This is normal and will stop at the end of the Freeze Wash cycle.
- The area around the indoor unit may appear blurred or condensation may form while the Freeze Wash function is in operation.
- You may see frost or water on the surface of the outdoor unit's valve while the Freeze Wash function is in operation.
- It is recommended to use the Wash function once every 2 weeks. Otherwise, dust or dirt that is difficult to remove may accumulate in the heat exchanger.



Lighting

Display lighting function

Use the Display lighting function to turn on or off the lighting of the indoor unit display.



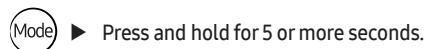
NOTE

- If you change the current mode or function when the Display lighting function is on, the display lighting turns on for 5 seconds and then turns off again.
- To turn off the Display lighting function, run the method above again or turn the product off and on.

AP

Wi-Fi function (SmartThings app)

Turn on the Wi-Fi function to pair your smartphone with the air conditioner.



NOTE

- When you turn on the Wi-Fi function, your smartphone pairs with the air conditioner, and **AP** appears on the remote control display for a few seconds.
- Once your smartphone is connected to the air conditioner, you can control it via the wireless Internet using the SmartThings app installed on your smartphone.
- For more information about how to prepare your smartphone for connection and how to control the air conditioner using the SmartThings app, see "SmartThings app" on page 50.
- To turn on or off the Wi-Fi, press and hold the  (Mode) and  buttons for 5 seconds.
 - To launch the SmartThings app, press and hold the  button for 5 seconds, which enables you to connect the air conditioner.

Time scheduling

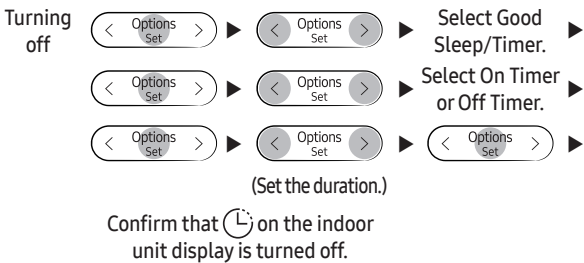
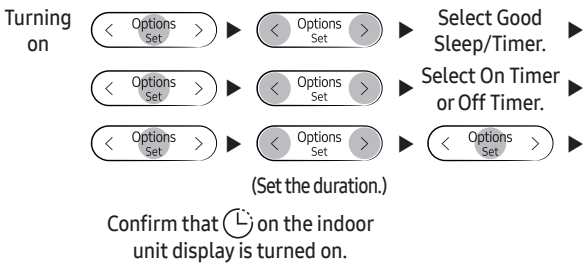
On
Timer

Off
Timer

Smart Features

Timed on/ Timed off function

Use the Timed on/off function to turn the air conditioner on or off after a duration. Scheduling durations before the air conditioner turns on or off helps the air conditioner run economically.



NOTE

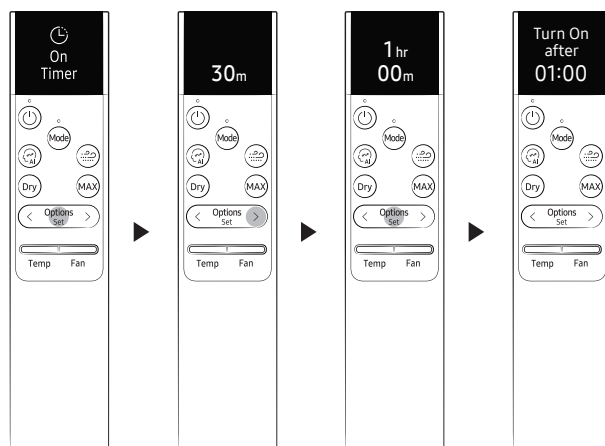
- To cancel the Timed on/off function, set the duration to 00 m.
- If the remote control is off and you select Timer/Good Sleep, [On Timer] appears on the remote control display. If the remote control is on and you select Timer/Good Sleep, [Off Timer] appears.
- You can set the duration to from 30 minutes to 24 hours.
- You cannot set the same duration for both Timed on and Timed off functions.

Combining Timed on and Timed off	
When the air conditioner is off	Example: Timed on 3 hours, Timed off 5 hours The air conditioner turns on 3 hours after the last time you press the < Options Set > (SET) button to start the Timed on/off function, remains on for 2 hours, then turns off again.
When the air conditioner is on	Example: Timed on 3 hours, Timed off 1 hour The air conditioner turns off 1 hour after the last time you press the < Options Set > (SET) button to start the Timed on/off function, remains off for 2 hours, then turns on again.

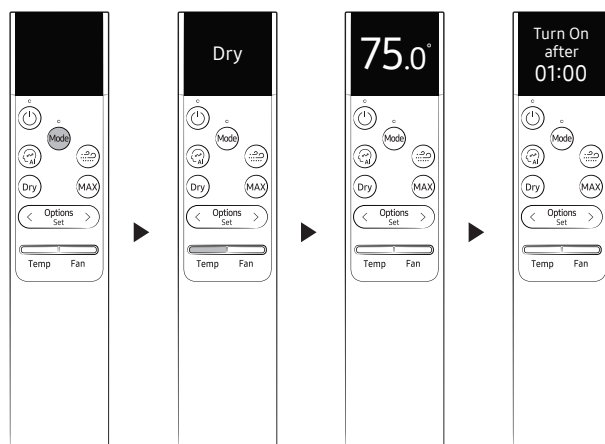
Timed on/ Timed off function

If you set the Timed on function, you can change the mode or temperature while the remote control is off.

Basic selection



Additional selection

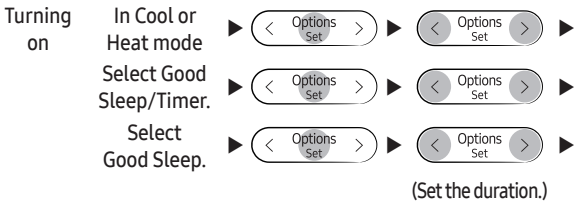


Time scheduling

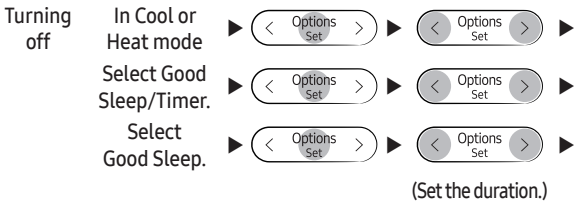


Good Sleep function

Use the Good Sleep function to save energy while you are sleeping. You can select this function in Cool or Heat mode.



Confirm that  on the indoor unit display is turned on.



Confirm that  on the indoor unit display is turned off.

NOTE

- To cancel the Good Sleep function, set the duration to 00 m.
- When you start the Good Sleep function, the  (Timer) indicator appears on the indoor unit display.
- You can set the duration to from 30 minutes to 12 hours.
- The recommended set temperatures while the Good Sleep function is on are:

Mode	Recommended set temperature	Optimal set temperature
Cool	77 °F to 81 °F (25 °C to 27 °C)	79 °F (26 °C)
Heat	70 °F to 73 °F (21 °C to 23 °C)	72 °F (22 °C)

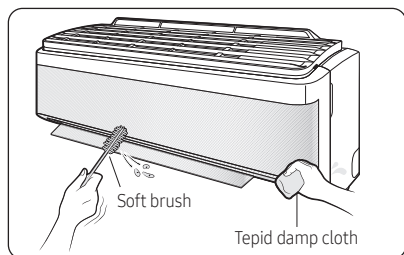
- The Good Sleep function can operate while the WindFree Cooling function is on.
- Selecting the Good Sleep function cancels Eco, MAX, and Quiet functions.

Schedule

Task	How often	By whom	Instruction
Run the Auto Clean function.	As needed	Owner	"Auto Clean function" on page 34.
Run the Freeze Wash function.	Once every two weeks	Owner	"Freeze Wash function" on page 36.
Clean the filter.	Once every two weeks	Owner	"Cleaning the filter" on page 44.
Cleaning the PM 1.0 filter	Once every 3 months	Owner	"Cleaning the PM 1.0 filter" on page 45.
Clean the WindFree panel	At least once a month	Owner	"Cleaning the WindFree panel" on page 46.
Clean the exterior of the indoor unit.	As needed	Owner	"Cleaning the outside of the indoor unit" on page 42.
Clean the exterior of the outdoor unit.	At least once a year	Owner	"Cleaning the heat exchanger on the outdoor unit" on page 42.
Charge the remote control	As needed	Owner	"Charging the remote control" on page 18.
Apply corrosion inhibitor on the outdoor unit. (Only if installed near salt water such as an ocean)	At least once a year	Qualified technician	Contact your service provider.
Clean inside the indoor or outdoor unit.	Once a year	Qualified technician	Contact your service provider.
Inspect the units, electrical connections, refrigerant tubes, and protections.	Once a year	Qualified technician	Contact your service provider.

Cleaning

Cleaning the outside of the indoor unit



- 1 Turn off the air conditioner and wait until the fan stops.
- 2 Disconnect the power supply.
- 3 Use a soft brush or tepid damp cloth to clean the exterior.

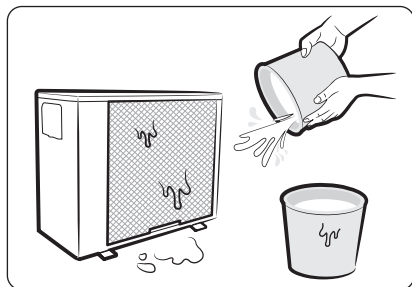
WARNING

- Do not clean the appliance by spraying water directly onto it. Water entering the unit may result in electric shock or fire that could cause death, serious injury, or property damage:

CAUTION

- Do not use an alkaline detergent to clean the indoor unit display.
- Do not use sulphuric acid, hydrochloric acid, or organic solvents such as paint thinner, kerosene, acetone, benzene, or alcohol to clean the unit surfaces.

Cleaning the heat exchanger on the outdoor unit

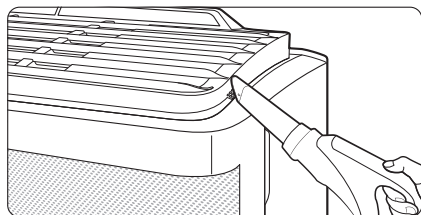


- 1 Turn off the air conditioner and wait until the fan stops.
- 2 Disconnect the power supply.
- 3 Spray water on the heat exchanger to remove dust and other debris.

CAUTION

- Do not use sulphuric acid, hydrochloric acid, or organic solvents such as paint thinner, kerosene, acetone, benzene, or alcohol to clean the unit surfaces.
- If you need to inspect or clean the inside of the heat exchanger on the outdoor unit, contact a local dealer for help.

Cleaning the sensors

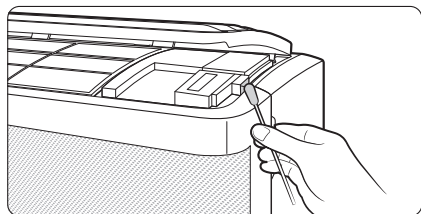


If dust or foreign substances develop on a sensor, it may detect high dust concentration. Use a vacuum cleaner to clean the sensor and its surrounding area.



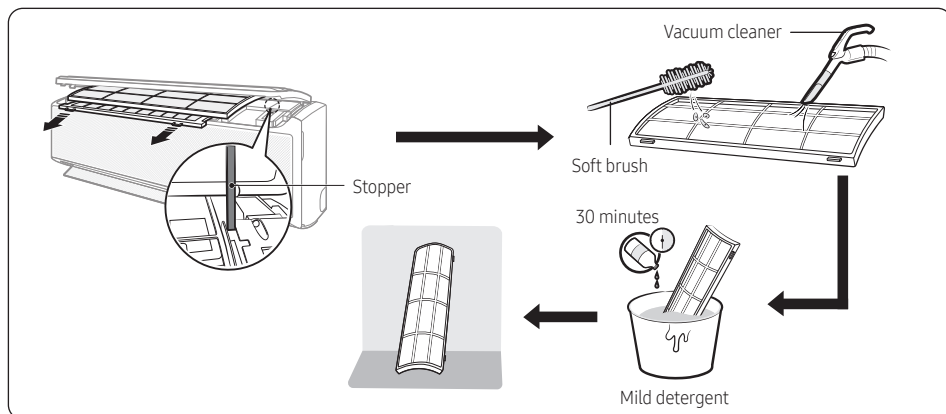
CAUTION

- Do not put any dust into the sensor openings.
- Open the indoor unit cover, fix the support, and wipe the sensors with a cotton swab.

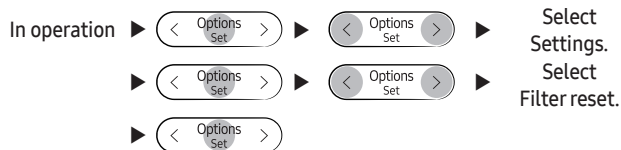


Cleaning the filter

Clean the air filter every two weeks or when the **CF** (filter-cleaning reminder) appears on the indoor unit display. The time between cleanings may vary, depending on the usage and environmental conditions.



- 1 Slide the filter off the unit.
- 2 Use a soft brush or vacuum cleaner to remove any dust or debris on the filter.
- 3 Soak the filter in a solution of water and mild detergent for 30 minutes.
- 4 Rinse the filter and let it air dry in a well-ventilated area that is out of direct sunlight.
- 5 Reinstall the filter.
- 6 Reset the filter-cleaning reminder:

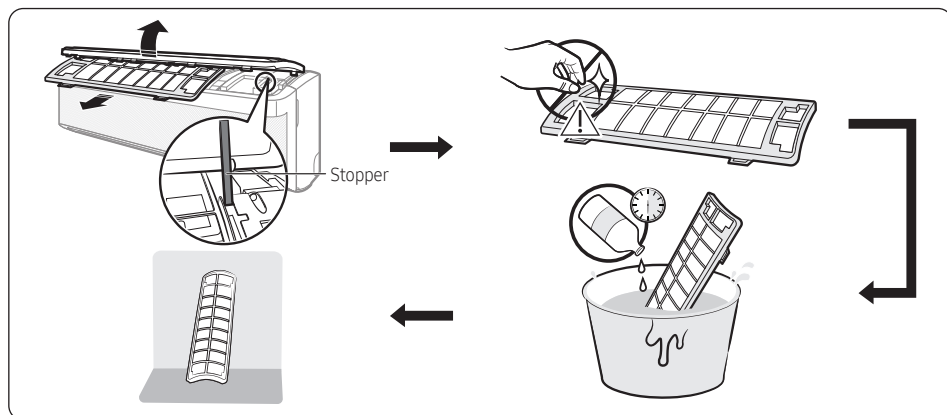


⚠ CAUTION

- Take care not to damage the filter during cleaning.
- Do not scrub the air filter with a hard-bristle brush or another cleaning utensil.
- Do not expose the air filter to direct sunlight when drying it.

Cleaning the PM1.0 filter

Clean the PM1.0 filter every 3 months. The time between cleanings may vary, depending on the usage and environmental conditions.

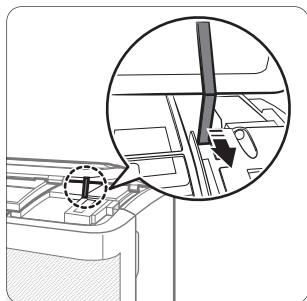


⚠ CAUTION

- Disconnect power to the unit for safety when cleaning the PM1.0 filter.
- The inside surface of the PM1.0 filter is sharp. Be careful not to cut your hand.
- When cleaning the PM1.0 filter, do not disassemble it.

📄 NOTE

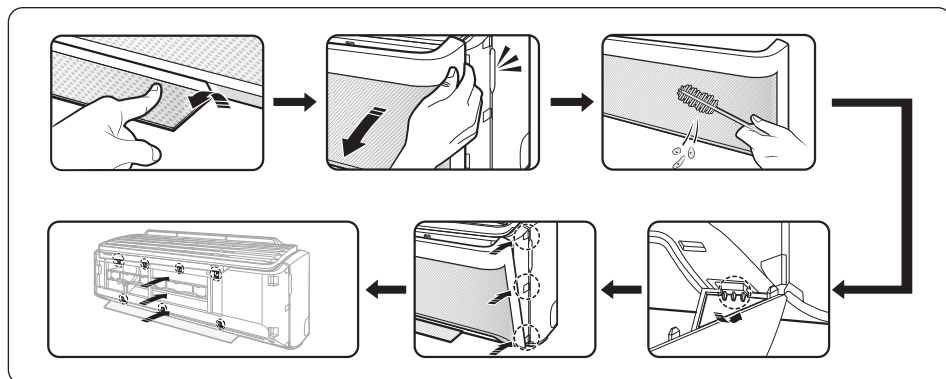
- If the filter is extremely dirty, soak it in water with a mild detergent for 30 minutes, then rinse until clean.
- Dry the PM1.0 filter completely by leaning it vertically against the wall avoiding the direct sunlight in the shade for 12 hours.
- To close the cover, pull the stopper frontward.



Cleaning

Cleaning the WindFree panel

Clean the WindFree panel at least once a month.



- 1 Pull the airflow blade open.
- 2 Hold and pull both sides of the WindFree panel until it comes free from the air conditioner.
- 3 Use a soft brush or vacuum cleaner to remove any dust.
- 4 Hang the WindFree panel in the grooves at the bottom left and right.
- 5 Align the projections of the WindFree panel with the grooves at the top, middle, and bottom of the front panel.
- 6 After inserting the WindFree panel, press the top 4 places and the bottom 3 places, indicated in the figure above, by hand so that there is no gap in the panel.

CAUTION

- If you attach the WindFree panel without the airflow blade being open, it may become obstructed by the WindFree panel and may not open properly.

Troubleshooting

If the air conditioner is not operating normally, refer to the troubleshooting guide below.

Problem	Solution
The air conditioner stops working.	• Make sure the unit is receiving power. • Check the circuit breaker. If it is flipped off, flip it on again and restart the unit. If the problem persists, contact your service provider. • The Timed off function may have turned off the unit. Turn on the unit again.
Cannot change the temperature.	• Check if the unit is in Purify or MAX mode. If so, you cannot change the set temperature; the unit automatically controls the set temperature.
Improper airflow temperature.	• Check the set temperature. In Cool mode, cooling occurs only when the set temperature is lower than the current temperature. In Heat mode, heating occurs only when the set temperature is higher than the current temperature. • Use the [Temp] button on the remote control to change the set temperature. • Check if the air filter is blocked with dirt or debris. If the air filter is blocked, the cooling and heating performance may decrease. Clean the air filter regularly (page 42). • Check if the outdoor unit is covered or is installed near obstacles. Remove the coverings and obstacles. • Check if the Defrost function is on (page 27). During defrosting, the fan stops, and warm air does not come out. • Check if doors or windows are open. This may cause poor circulation or performance. Close all doors and windows. • Check if the pipe length between the units exceeds the maximum pipe length (see "Typical installation" in the Installation manual). If so, the cooling and heating performance may decrease.
Cannot change the airflow direction.	• Check if the Good Sleep function is on in Cool mode. If so, you cannot control the airflow direction.
Cannot change the fan speed.	• Check if the unit is in AI Auto, Dry, or MAX mode or if the Good Sleep function is on in Cool mode. In these conditions, you cannot control the fan speed; the unit automatically controls the fan speed.

Troubleshooting

Problem	Solution
The remote control does not work.	- Charge the remote control, using the USB port (type C) on the bottom of the remote control. - Make sure the remote control can send an unobstructed signal to the unit. - Keep bright lights away from the unit. Light from fluorescent bulbs or neon signs may interrupt the signal from the remote control.
The Timed on/off function does not work.	Make sure to press the  button on the remote control when setting the timer.
The indicator on the indoor unit display blinks continuously.	- Press the  (Power) button to turn off the unit or disconnect the power plug. - If the indicator light on the indoor unit display continues blinking, contact your service provider.
Odors are coming from the unit during regular operation.	- If the unit is operating in a smoky area, ventilate the room or operate the unit in Purify mode for 3 to 4 hours. There are no components in the unit that produce a strong odor. - Check if the drain lines are clean. Clean them regularly.
The indoor unit display shows an error message.	If the indoor unit indicator blinks, write down the error code. Contact your service provider and provide them with the error code.
The unit is generating noise.	It is normal for the unit to generate some noise while operating. If the pipe length between the units is less than 3 m and no coil was used (see "Typical installation" in the Installation manual), additional noise may be transmitted from the outdoor unit to the indoor unit via the piping.
Smoke is coming from the outdoor unit.	In winter, most likely this is steam coming from the outdoor heat exchanger while the Defrost function is on.
Water drips from the pipe connections on the outdoor unit.	Condensation may develop when the ambient temperature or humidity changes significantly. This is normal.
Condensation forms on the surface of the indoor unit.	If the humidity is higher in the room in Cool mode, or the difference between the desired temperature and indoor temperature is great, condensation may form on the surface of the indoor unit.

Problem	Solution
The cleanliness color indicator continuously lights up in red. (The cleanliness indications are strange.)	• Check the sensors for any foreign substances and clean them if necessary. • If you have followed all the solutions presented in this section and the cleanliness color indicator lights up in red for a long time, it might be a problem with the sensor. Contact a Samsung dealer. • When the product is used in a place where a humidifier, an electric pressure cooker, a sprayer, etc. is operating, the cleanliness may be indicated as Poor.
The fan speed does not change according to cleanliness.	• Set the fan speed to Auto. The fan speed does not change automatically when it is set to Turbo, Low, Med, or High.
The PM10, PM2.5, PM1.0 concentration values do not change from the Good (05) level.	• The dust concentration may continue to be at the Good level in an enclosed space.

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" on page 51.

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, SmartThings is also updated continually according to the latest OS.
- If you have inquiries regarding the items mentioned above, please contact us at 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" on page 50.

- 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" on page 51.

- 1 Launch the **SmartThings** app.
- 2 When you see pop-up windows asking for location, Wi-Fi, and 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 the  button on the remote control for at least 4 seconds.

To notify you 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" on page 51.

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.
- Instruction for host system labeling, the host system should have a proper label showing that it "Contains FCC ID: A3LSWL-B70F"
- Your device uses non-harmonized frequency and is intended for use in all European countries. The WLAN can be operated in the EU without restriction indoors but cannot be operated outdoors in France.

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 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/SMART_AT_051/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.

SAMSUNG