

SOTO-G5 MEDICAL AIR PURIFIER

Operation Manual

Before operating the system,
please read this manual
thoroughly, and retain it for
future reference.

SOTO

Top-Grade Air Purifier

Hi

This is Soto

If you have the opportunity to experience SOTO air purifiers, please remember that they are designed with our dreams to meet your expectations...



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Consumer Limited Warranty

Congratulations on your investment

SOTO gives you the following limited warranty for this product only if it was originally purchased from SOTO or from an authorized dealer.

SOTO warrants that this product is free, under normal use and maintenance, from any defects in material and workmanship. If any such defects should be found in this product within the applicable warranty period. SOTO shall, at its option, repair or replace the product as specified herein.

SOTO will repair or replace, free of charge, to the original purchaser, any part that is found to be defective in material or workmanship within one (1) year of the date of purchase. This limited warranty does not cover there placement of expendable or consumable parts such as filters or UV lamps, and other parts subject to normal wear unless they are defective in material or workmanship.

This warranty shall not apply if:

1. Any defects caused or repairs required because of abusive operation, negligence, accident, improper installation or inappropriate use as outlined in the operation manual.
2. Any product tampered with modified, adjusted or repaired by any party other than SOTO.
3. Damaged caused or repairs because of the use with items not specified or approved by SOTO.
4. Any damage caused by external or environmental conditions (such as a fire or an earthquake), including but not limited to the use of voltage other than indicated on the product.
5. The content on the warranty card is inconsistent with the product, or there is no valid evidence to prove that the defective product is provided by SOTO.

Safety Precautions

To reduce the risk of electrical shock, fire or injury to person(s) read the following:

Running Environment Cautions

- Use only a 220~240-volt outlet with grounding wire receptacle.
- Do not use the unit in an enclosed space where oxygen, flammable, explosive or toxic vapors are given off by oil base paint, paint thinner, some moth proofing substances. It may cause explosion or fire.
- The product cannot be used in high-temperature, wet or watery places. Best working condition is 0-40°C and relative humidity of < 75%.

Unit Operation

- Do not operate the unit without filters. Make sure remove plastic packaging from all the filters before operation.
- Do not use the unit if the power cord or plug is damaged or the connection to the wall outlet is loose.
- When removing the power plug, always hold the plug and never pull by the cord.
- Do not handle plug or appliance with wet hands. Electrical shock or fire from short circuit may occur.
- To avoid causing fire do not attempt to disassemble the unit - only certified technicians should do this.
- Stop the unit and unplug the power when maintenance.
- Do not insert fingers or foreign objects into the intake or air outlet.
- Keep hair, loose clothing, fingers and all parts of body away from openings and moving parts.
- Do not use the unit near or on hot objects, such as range or where it may be exposed to steam.
- Do not wipe the outside, inside or any parts of the unit with flammable substances, it may cause fire!
- Do not wash or reuse the Pre-filter, HEPA filter and Carbon filter.
- Always hold the unit body when moving it. Holding the back panel when carrying may cause it to detach, and result in bodily harm.
- Photo catalytic is permanent, never needs replacing. When there is dust on it, clean the dust off using a vacuum cleaner dusting brush. Do not wash it in water.

How it Works

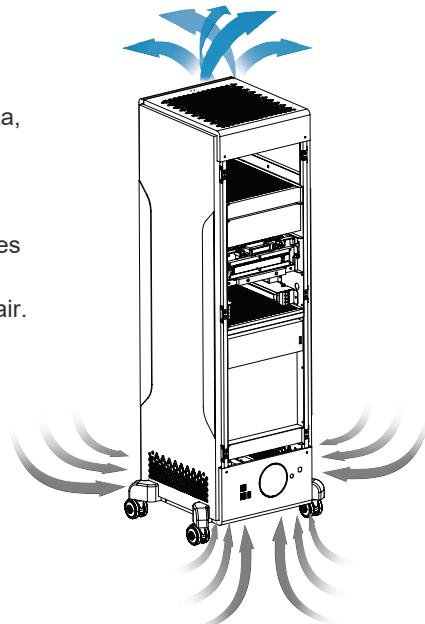
The air purifier functions as an air cleaner by helping to disinfect airborne microorganisms and removing particulates from the air. The DC fan of the unit draw air through the bottom (Intake) of the unit. Then it passes through the Pre-filter, UV lamp + Photo catalytic filter, Electronic cell (Electrostatic adsorption device), HEPA filter and Activated carbon filter. The purified air is then released through the outlet on the top of the unit. The Negative Ion Generators near the air outlet releases revitalizing negative ions into the air to refresh the air.

The air is cleansed in seven stages.

1. The Pre-filter traps large dust particles.
2. The UV lamps kill bacteria and viral microorganisms such as influenza, TB and Legionnaire's Disease as well as other harmful contaminants.
3. When UV light hits the photo catalytic filter, it creates e- and h+, which have an excellent effect in the decomposition of odors.
4. The two-stage electrostatic adsorption device (Electronic cell) captures airborne particles, as small as 0.01 microns.
5. The high efficiency HEPA filter removes microscopic particles in the air.
6. The activated carbon filter will absorb odors and gases.
7. The unit also generates negative ions that freshens the room air.

Sterilization Factor

1. The UV radiation destroys the DNA structure of bacteria and kills pathogenic microorganisms.
2. The UV ray wavelength is 254 nm, and the average intensity of UV ray irradiation is $186\mu\text{W}/\text{cm}^2$ at a position 1m below the UV lamps.



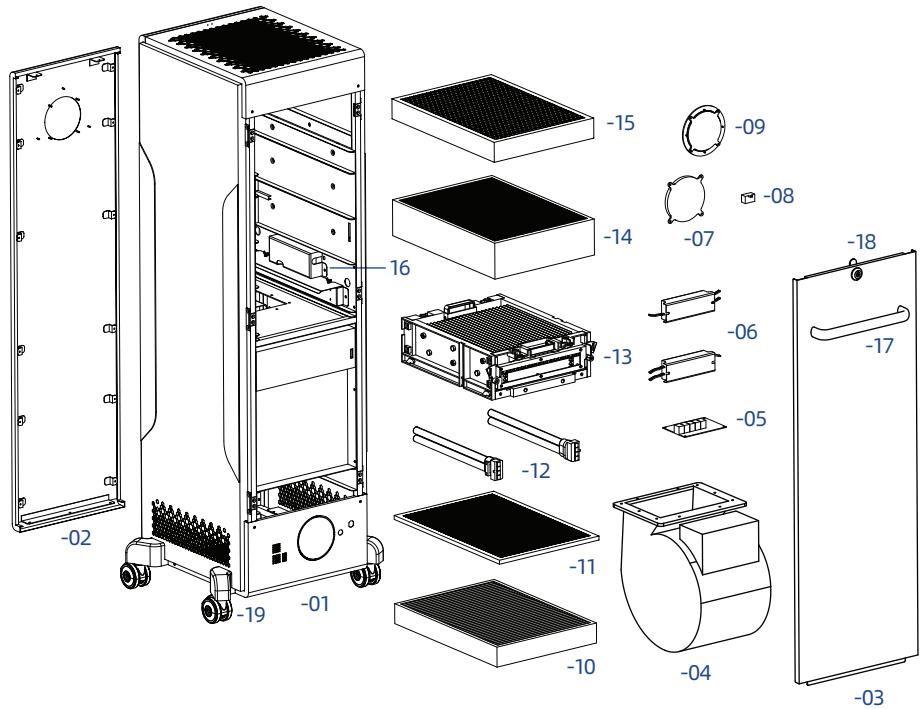
Features and Specifications

The unit has a Pre-filter (traps large dust particles), two-stage Electronic cell, HEPA Filter (remove particles), Activated Carbon Filter (absorbs odors and gases), UV Lamp + Photo catalytic Nano-TiO₂ filter (killing airborne pathogen) and Negative Ion generator (revitalize and refresh the air).

1. The odor and particle sensor can let the unit automatically select the appropriate fan speed depending on the air quality detected.
2. The G5 can be operated completely with the wave of your hand, making it suitable in medical settings to avoid cross contamination.
3. The indicator lights tell you when to replace the Pre-filter, HEPA filter and the Activated carbon filter or the UV lamp.
4. When the filters need to be replaced, simply open the back panel and pull out the filters and replace a new one in. No screws, hooks or tools are required.

Model	SOTO-G5
Power Requirement	220-240V~, 50/60Hz
Rated Power	208W
Negative Ion	3x10 ⁶ /cm ³
UV Lamp	2x24W
Fuse	250V, 3A
Dimensions	48cm x 48cm x H136.5cm
Weight	53kg

Part Name



- 01- Unit Body
- 02- Front Panel
- 03- Back Panel
- 04- Fan motor
- 05- Main Circuit Board
- 06- UV Ballast
- 07- LED Display Board
- 08- Ion Generator
- 09- PC Display Panel
- 10- Pre-filter
- 11- Photo Catalytic Filter
- 12- UV Lamp
- 13- Electronic Cell
- 14- HEPA Filter
- 15- Activate Carbon Filter
- 16- Power supply
- 17- Handle
- 18- Back Panel Key
- 19- Castors

Installation

1. Power supply condition: Use only a 220-240 volt outlet with grounding wire receptacle.
2. Environmental conditions: Temperature: 0°C~40°C; Relative humidity: <75%.
3. The unit should be installed in an indoor area with less personnel activities, and the unit should be set up against the wall.

② Applicable places and Operation

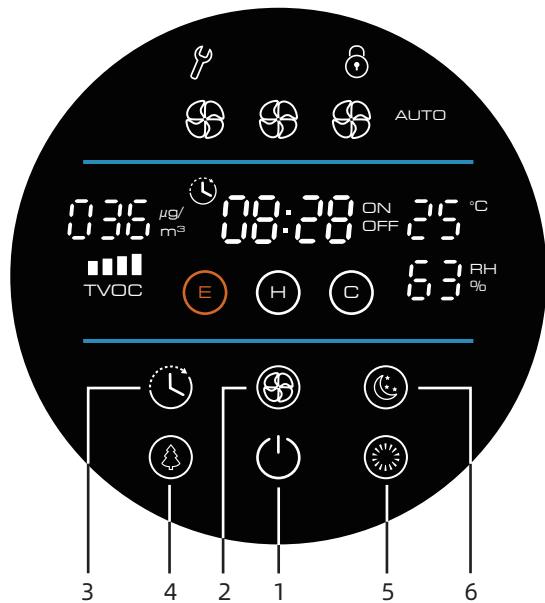
1. This product is used for indoor sterilization in unmanned environment. It cannot to be used in the environment with inflammable and explosive gases.
2. This product satisfying the requirements of the China "General Hygienic Requirements for Air Sterilizer". Turn on the unit, UV lamp and negative ion on, operate it for 60 minutes at high speed in a 100m³ space. Three repeated tests have all achieved the natural bacteria extinction rate of more than 90% for indoor air.

④ Before operation

1. Before operating the unit, open the back panel and take out the pre-filter, HEPA filter and Carbon filter, then remove plastic packaging from all the filters.
2. Plug the power cord of the unit into a nearby power outlet.
3. The unit has a remote control. Put the batteries into the remote control before using it.

Operation 1

Button Operation



1 POWER Button

- Turns the unit On and Off.
- Hold the button for 2 seconds, the “” indicator light will light up with beeping. In this mode, the panel is locked. If you want to return to the default mode, do the reverse.

2 SPEED Button

When this button is pressed the airflow rate changes as shown below: L ... M... H ... AUTO.....

3 TIMER Button

Press this button to select the time for operation. The timer setting switches as shown: 1 -- 2 -- 4 -- C (timer cycle function) -- cancel timing.

4 NEG.ION Button

Turns Negative Ions on and off.

5 UV LAMP Button

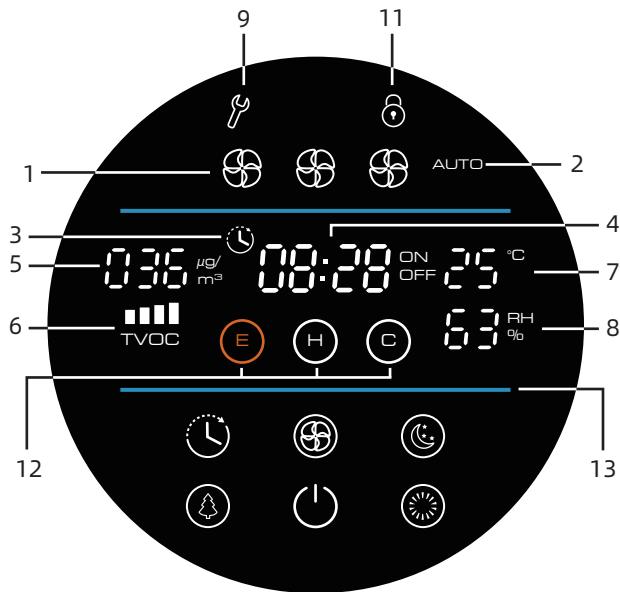
When the button is pressed, it will turn off the UV lamps, pressing again will turn on the UV light.

6 NIGHT Button

When pressed, all the indicator lights on the display panel will go out.

Operation 2

Display Indicator Lights



1 SPEED indicator light: When the power is on, the indicator light will light up, select the speed by pressing the SPEED button.

2 AUTO MODE indicator light: When the indicator is lighting up, the unit is at Auto mode.

3 TIMER indicator light: When the TIMER button pressed, the indicator light will light up.

4 SCHEDULED OPERATION TIMER indicator light:

- Displays the current clock time when the unit has no time set.
- When the scheduled operation time is set, the “OFF” indicator will light up under the running state and display the shutdown time. When in the power off state, the “ON” indicator will light up and display the power on time.

5 PM2.5 display: Real-time display the indoor PM2.5 concentration ($\mu\text{g}/\text{m}^3$).

6 Indoor TVOC pollution level display

7 Indoor Temperature display

8 Indoor Humidity display

9 CHECK indicator light: When the indicator light flashes with beeping, please contact customer service.

Operation 3

Display Indicator Lights

11 LOCK FUNCTION indicator light: In this mode, all the buttons will not work.

12 CLEAN or REPLACE Filters indicator light

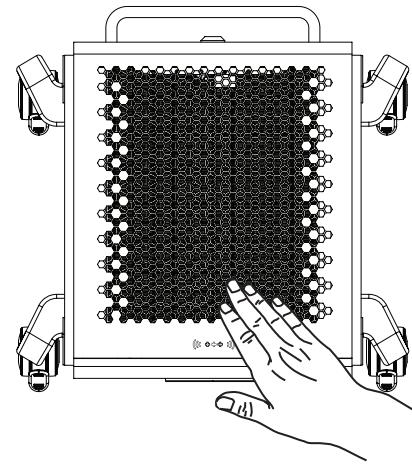
- When the “” indicator light flashes, the Pre-filter needs to be replaced and the electronic cell needs to be washed.
- When the “” indicator light flashes, the HEPA filter needs to be replaced.
- When the “” indicator light flashes, the Carbon filter needs to be replaced.

13 Pollutant level display (See the chart) The different colors indicate the air quality:

Blue=Good, Orange=Unhealthy, Red=Hazardous



Indicator Color	PM2.5	TVOC Level	Speed
Blue	$\leq 75\mu\text{g}/\text{m}^3$	■ ~ ■■	L
Orange	$76\sim 150\mu\text{g}/\text{m}^3$	■■■ ~ ■■■■	M
Red	$>150\mu\text{g}/\text{m}^3$		H



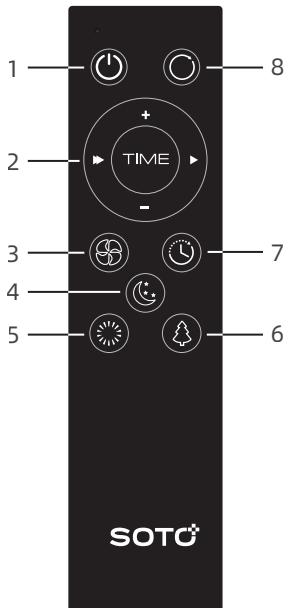
Gesture Sensing Operation

Use your hand to wave over the sensor, this waving motion turns the unit on & off, and can also adjust the fan speed.

Hover & hold your hand over the sensor for 2 seconds and this will lock the unit at the desired speed. This will prevent accidental or unwanted speed changes.

Operation 4

Remote Control Operation



1 Power (ON/OFF) Button

The unit will start operating when the POWER button is pressed.

Pressing the button again will stop operation.

2 Scheduled operation time Buttons

- The first time press the "TIME" button, the digital clock on the display panel is flashes, calibrate the current time by pressing the "+" or "-" buttons. Then press the "▶" button, the minute display starts flashing. Also calibrate the current minute by pressing the "+" or "-" buttons.
- Press the "TIME" button a second time, the "ON" indicator light on the display panel is light on. At this point, press the "+" or "-" buttons to set the start time of the unit through the same time setting method.
- Press the "TIME" button a third time, the "OFF" indicator light on the display panel is light on. At this point, according to the same time setting method, press the "+" or "-" buttons to set the unit's shutdown time.
- Press the "▶" button to confirm the above time setting. At this time, the unit is turned on and off at the set time every day.

3 SPEED Button

The fan speed can be switched among L- M- H- Auto settings.

4 NIGHT Button

When pressed, all the indicator lights on the display panel will go out.

5 UV-C+ LAMP Button: Turns UV-C+ lights on and off.

6 NEG.ION Button: Turns Negative Ions on and off.

7 TIMER Button

The set time switches every time the button is pressed as shown below: 1hr - 2hr - 4hr - Cycle - Cancel.

8 RESET Button

Pressing the reset button 3 times will reset the replacement indicator lights.

Care and Maintenance 1

To maintain optimum performance of this air purifier, the Pre-filter, the HEPA filter, the Activated carbon filter and the UV-C+ lamp need to be replaced when the indicator lights are flashing.

⚠ Warning

When maintenance on the unit, be sure to unplug the power cord, and never handle the plug with wet hands. If so, electrical shock and bodily injury may occur as a result.

Main unit

Wipe with a dry, soft cloth for stubborn stains or dirt. Do not use volatile fluids, Benzene, paint thinner, polishing powder, this may damage the surface. Do not use detergents, detergent ingredients may damage the unit.

Replacing the pre-filter

When the “” indicator light on the control panel flashes, the Pre-filter needs to be replaced.

1. Stop the operation and unplug the unit.
2. Rotate the door lock and pull the back panel toward to you then take off the back panel.
3. Gently pull out the bottom pre-filter.
4. After replacing the pre-filter, hold the “” button 3 seconds to reset the time for the pre-filter.

DO NOT reuse or clean the pre-filter with liquid, especially alcohol, gasoline, paint thinner, etc. It may cause fire!



Care and Maintenance 2

Cleaning the electronic cell

When the “” indicator light on the control panel flashes, the Electronic cell needs to be cleaned.

Remove the electronic cell

1. Stop the operation and unplug the unit. Take off the back panel.
2. Hold the Electronic cell's handle, pull it toward to you.

Cleaning the electronic cell

1. Use a large enough container, such as a laundry tub or trash container. Dissolve detergent in warm water to cover the cell. After the detergent has completely dissolved, place the cell in the container. Allow the cell to soak for 15~30 minutes and rinse with clean water.
2. Dry the cell thoroughly with heat gun before reinstalling.
3. After cleaning the Electronic cell, hold the “” button 3 seconds or press the reset button on the remote control to reset the time for the cell.



Warning

- If the air quality is extremely poor and the cell is dirty, you may clean the cell before the indicator light flashes.
- DO NOT clean the cell with alcohol, gasoline, paint thinner or other flammable substances. It may cause fire!
- Before Remove the electronic cell, stop the operation and unplug the unit.
- DO NOT reinstall the cell until it is completely dry. If the “” indicator light on the control panel flashes, then the cell may still be wet.
- Be careful not to snag or cut the ionizing wire. If the unit is operated with the ionizing wire cut, there will be no dust collection.

Care and Maintenance 3

Replacing the HEPA filter and the Carbon filter

When the “  ” indicator light on the control panel flashes, the HEPA filter needs to be replaced.

When the “  ” indicator light on the control panel flashes, the Carbon filter needs to be replaced.

1. Stop the operation and unplug the unit. Take off the back panel. (See P14 replacing the pre-filter)
2. Hold the HEPA filter's handle, pull it toward to you, then pull out the HEPA filter.
3. Hold the carbon filter's handle, pull it toward to you, then pull out the Activated carbon filter.



Take out the HEPA filter



Take out the Activated carbon filter



Note

Remove plastic packaging from the Pre-filter, HEPA filter and the carbon filter before operation.

After replacing the filters, hold the flashing indicator button 3 seconds or press the reset button on the remote control to reset the time for the filters.

⚠ Warning

- DO NOT reuse or clean the Pre-filter, HEPA filter and the carbon filter.
- DO NOT clean the Pre-filter, HEPA filter and the carbon filter with liquid, especially alcohol, gasoline, paint thinner, etc. It may cause fire!

Care and Maintenance 4

Replacing UV Lamps

When the “” indicator light on the control panel flashes, it is time to replace the UV lamps.

1. Stop the operation and unplug the unit. Take off the back panel. (See P14 replacing the pre-filter)
2. Pull it toward to you and take off the photo catalytic filter.
3. Hold the UV lamp, pull it up and remove it from UV lamp holder.
4. After replacing the UV lamps, hold the “”button 3 seconds to reset the time for the UV lamps.



1. Remove the UV lamp blocker.
2. Hold the UV lamp, pull it toward and remove it from UV lamp holder.

Warning

- Never look directly at UV lamps. Direct exposure to germicidal light can cause temporary or chronic damage to your eyesight, or even blindness.
- Always unplug the unit before servicing or replacing the UV lamps.

Photo catalytic filter

Photo catalytic filter is permanent, never needs replacing. When there is dust on it, clean the dust off using a vacuum cleaner dusting brush. Donot wash it in water.

Troubleshooting

Service problems that appear to be major can often be solved easily. You can be your own troubleshooter by reviewing the following guide. All other servicing should be done by a SOTO authorized service center.

Case	What to check	Measure
The unit does not operate	Power failure? Power plug disconnected? Is the fuse brunt? Back panel open or interlock switch failure? Is the “  ” light flashing?	Check other electrical appliances. Make sure to insert the plus. Replace the FUSE with new one. Install the back panel properly and check the interlock switch. The cell may be wet after cleaning. Dry it thoroughly. If not, call the customer service.
When functions do not work properly	There is too much dust on the electronic cell?	Wash it and dry completely before reinstalling it.
	There is too much dust on the pre-filter, HEPA filter or carbon filter?	Replace the pre-filter, HEPA filter or the carbon filter.
	The air inlet or outlet blocked?	Get rid of foreign materials around the inlet or outlet.

Filter Maintenance Schedule

Pre-filter Replace Reminder

Year	J	F	M	A	M	J	J	A	S	O	N	D

Electronic Cell Wash Reminder

Year	J	F	M	A	M	J	J	A	S	O	N	D

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