



UV STERILIZER

MODEL SOTO-BIG UV

Operation Manual

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

SOTO 

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CONSUMER LIMITED WARRANTY

SOTO provides the following limited warranty for this device solely if it was originally purchased from SOTO or an authorized dealer.

SOTO warrants that, under normal use and proper maintenance, the device shall be free from defects in materials and workmanship throughout the applicable warranty period. Should any such defects be identified during this period, SOTO reserves the right, at its sole discretion, to repair or replace the device in accordance with the terms 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 the replacement of expendable or consumable parts such as UV lamps, and other parts subject to normal wear unless they are defective in material or workmanship.

This Warranty Shall Not be Applicable 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. Damage caused by incorrect electrical supply, voltage fluctuations, or use of power sources not specified on the product label.
6. Shipping damage occurring after delivery unless otherwise agreed in writing.
7. In situations where the product information fails to correspond to the product, or where adequate valid documentation is absent to prove that the defective product originated from SOTO or an authorized distributor.

SAFETY PRECAUTIONS 1

To minimize the risk of electric shock, fire, or personal injury, please carefully read and adhere to the following instructions.

Guidelines for the Operating Environment

1. This product must be used in the absence of person. After operating the unit, the user should leave immediately.
2. Use only a 220-240V outlet with grounding wire receptacle.
3. Never use the unit in a very hot or wet environment (Temperature 0-40°C and RH < 75%).
4. 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.

Operation of the Device

1. Before operating the device, please read and thoroughly understand all information contained in the product instruction manual.
2. The UV radiation emitted by the device may cause severe damage to the skin and eyes; therefore, operation should be restricted to unoccupied environments.
3. Please install, operate, and maintain the device strictly in accordance with the provided instructions.
4. This device must only be connected to a power supply that complies with the voltage requirements specified in the product instruction manual.
5. Ultraviolet lamps should not be operated continuously for extended periods, as prolonged usage may reduce their service life and increase the likelihood of circuit failure.
6. It is recommended to routinely clean the surface of the UV lamp using a gauze pad moistened with 75% alcohol to remove accumulated dust or contaminants, thereby ensuring the efficacy of its germicidal function remains uncompromised.
7. The device must only be operated by qualified and professionally trained personnel. Unauthorized individuals are strictly prohibited from disassembling, dismantling, or replacing any components of the device.
8. Do not handle the power plug with wet hands. If the power cord is damaged, it must be replaced by the manufacturer or authorized service personnel.

Application Location

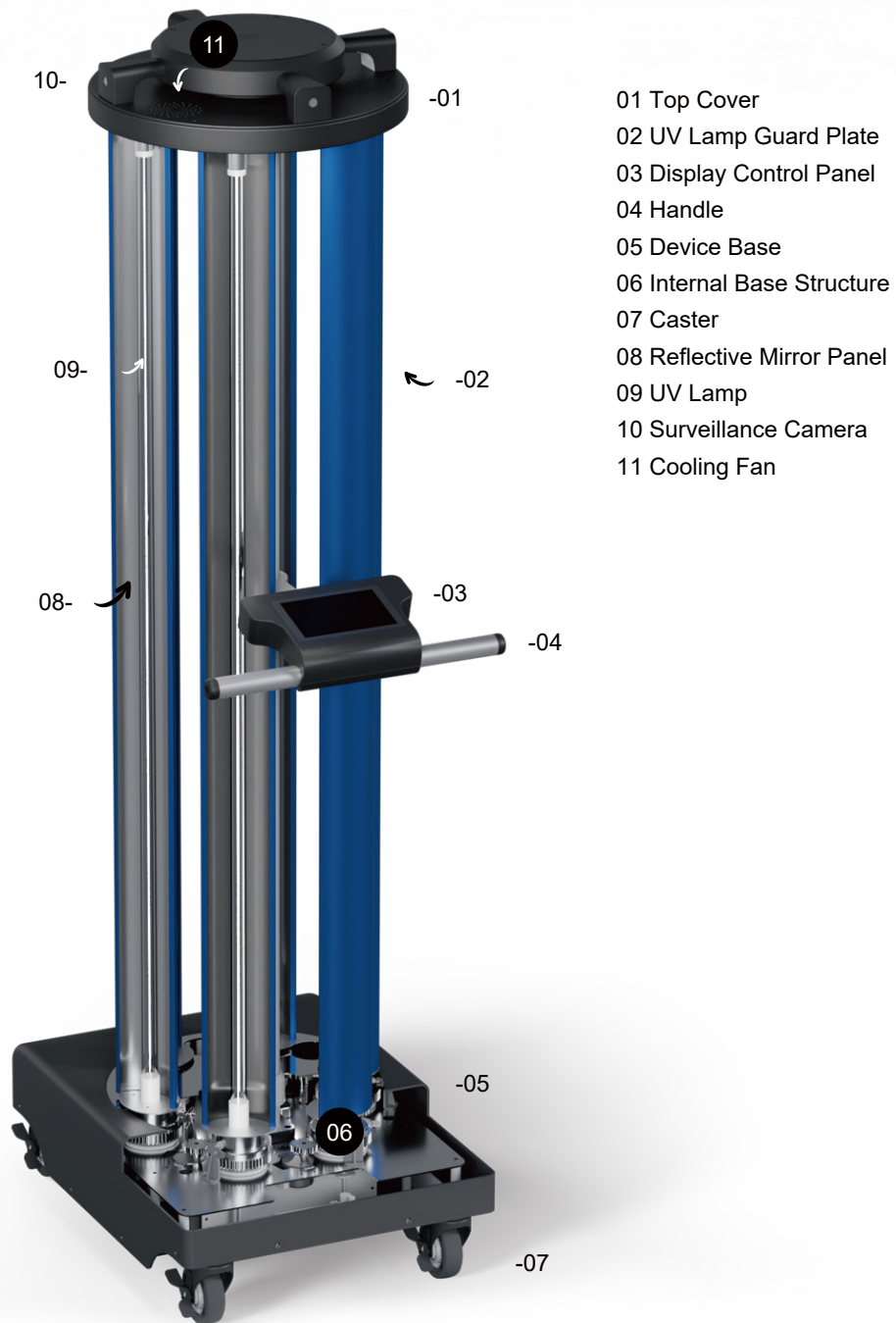
1. This device generates high-intensity UV radiation during operation, which may cause severe damage to the skin and eyes. To mitigate potential health hazards associated with UV exposure, all personnel, animals, and plants must be removed from the operational area prior to device activation. Immediately after initiation of operation, the operator must evacuate the area without delay to avoid harmful exposure to UV radiation.
2. This product must not be used in environments containing flammable, explosive, or corrosive gases, nor should it be operated under conditions of high temperature and high humidity.
3. Prior to initiating device operation, the environment must be verified as clean, and the air shall be free from contaminants such as dust or water vapor. If the indoor temperature is below 20°C or the relative humidity exceeds 50%, the device operating duration should be extended accordingly.

SAFETY PRECAUTIONS 2

Device Operation

1. If the UV lamp guard plate is found to be closed, the main power supply must be disconnected immediately to halt device operation. During operation, it is strictly prohibited to obstruct the air inlet or outlet of the top-mounted cooling fan.
2. During device operation, it is strictly prohibited to open the doors or windows of the room housing the device, in order to prevent potential harm caused by high-intensity UV radiation. If personnel must perform operations in an environment with UV radiation due to special requirements, they must wear protective eyewear compliant with relevant national standards and don specialized protective clothing to ensure that skin, mucous membranes, and eyes are not directly exposed to UV radiation.
3. After the device has been operated, it is essential to verify once again that all UV lamps are completely turned off before approaching the device.
4. Since ozone is generated during UV irradiation, the device should be ventilated for at least 30 minutes after operation to ensure complete dissipation of ozone prior to room entry, thereby safeguarding personnel safety.
5. Exercise caution when opening or closing the UV lamp guard plates to avoid contact and prevent potential limb injuries due to impact or pinching.
6. Before maintaining the device, disconnect the power supply and unplug the power cord to ensure safety. After turning off the UV lamps, allow sufficient cooling time before replacement to prevent burns or thermal injuries.
7. Please handle the device with care during movement to prevent tipping caused by center of gravity displacement, which could result in personal injury. When the device is not in use, disconnect the power cord and store the device in a clean, dry environment.
8. In the event of any abnormal conditions during device operation, the power supply should be immediately disconnected and the customer service center contacted promptly for appropriate action.

STRUCTURE AND MAIN PARTS



HOW IT WORKS

This highly efficient UV sterilization system consists of a base with six high-intensity UV lamps arranged in a 360-degree circular configuration, lamp guard plates, and a top cover. The base includes a precision mechanical mechanism for automatic rotation of the guard plates. The top cover integrates four high-sensitivity surveillance cameras and three cooling fans, enabling real-time human activity monitoring and heat dissipation during operation.

The six high-wattage UV lamps (each up to 325W) produce ultra-high irradiance UV light to effectively inactivate a broad spectrum of pathogens in air and on surfaces by disrupting their DNA/RNA structures. A reflective mirror panel on the guard plates enhances UV light distribution and intensity. Three DC fans provide efficient cooling for the lamps and promote air circulation.

The system automatically turns off UV lamps upon detecting human presence via camera sensors. To avoid health risks from high-intensity UV exposure, operate only in unoccupied spaces - users must evacuate before starting sterilization.

Features

1. Rapid Sterilization: Ultra-high irradiance UV light instantly inactivates airborne and surface pathogens in 5-10 minutes.
2. UV Lamp Guard Plates: The UV lamp guard plate effectively prevents damage to the lamp tube from accidental impacts. Additionally, the reflective mirror panel on its inner surface enhances UV light irradiation intensity.
3. Surveillance Cameras: During operation, the system automatically turns off UV lamps upon detecting personnel via camera sensors to prevent UV radiation exposure.
4. Cooling Fans: The three DC cooling fans efficiently cool the UV lamp tubes and enhance surrounding air circulation, boosting overall sterilization performance.
5. Android Operating System: The device is equipped with an Android operating system, enabling monitoring of the remaining service life of UV lamps, real-time alarm notifications for lamp malfunctions, and convenient viewing or exporting of disinfection logs.

INSTALLATION 1

Operational Environment

1. Power Supply Condition: Use only a 220–240 volt outlet equipped with a grounding wire receptacle.
2. Environmental Conditions: Temperature range of 0°C to 40°C; Relative humidity below 75%.
3. Unmanned Environments: This device must be operated in an unmanned environment. Upon completion of operations, users must evacuate the area immediately.
4. Safety Environment: Operation of this device is strictly prohibited in environments containing flammable, explosive, or other hazardous gases.

Unpacking Inspection

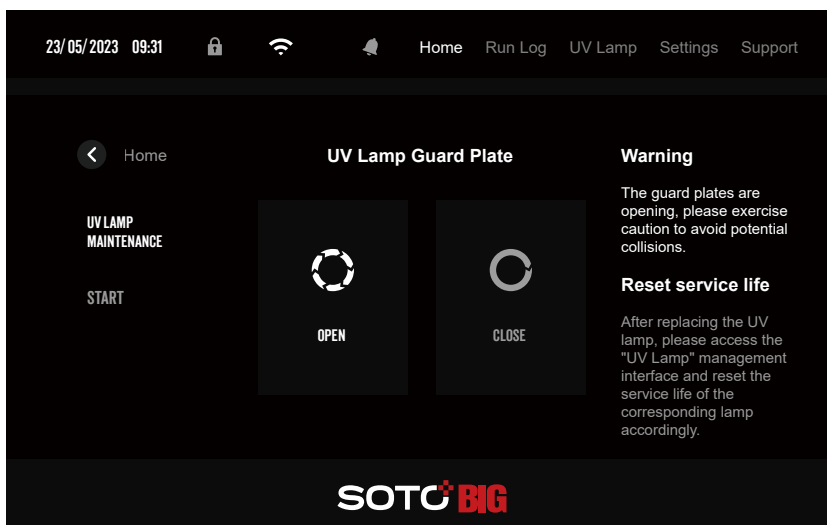
Before initial use, inspect the packaging. The package contains one main unit, six UV lamps, and one power cord. Please verify that all items are complete and undamaged. If any item is missing or damaged, please contact customer service immediately.

Device Placement

1. Firmly grasp the device handle with both hands, maneuver it carefully, and place it centrally on a flat surface in the room to ensure stability and optimal performance.
2. Install warning signs at all indoor entry points to indicate device operation, preventing unauthorized or accidental access.

Install UV Lamps

1. Plug the power cord into a suitable outlet. Check the connection before powering on the device.
2. Press the switch button on the base to activate the Android control panel. The default login password for the device is **123456**. From the home screen, select UV LAMP MAINTENANCE to access the UV Lamp Guard Plate interface. Press 'OPEN' to unlock and fully open the six UV lamp guard plates.
3. Press the switch button on the device base to turn off the system, then unplug the power cord to cut off the power supply.



Fully Open Lamp Guard Plates

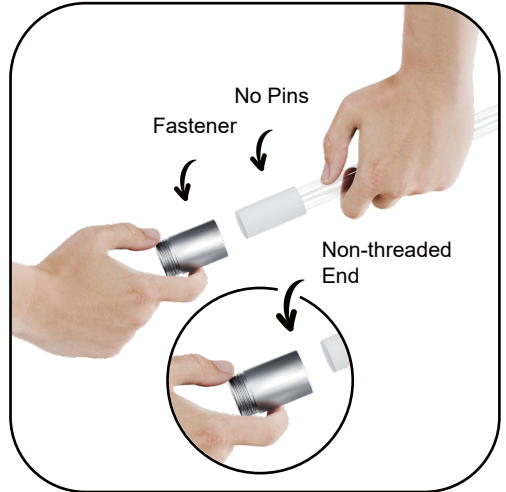
Press 'UV Lamp Maintenance' on the main interface to access the 'UV Lamp Guard Plate' screen, then press the 'OPEN' button to open all lamp guard plates. After all plates are fully opened, switch off the power at the base to shut down the system and disconnect the power cord before installing the UV lamps.

INSTALLATION 2

4. Before installing the UV lamps, ensure the system is powered off and disconnect the power cord. Remove the six UV lamps from the packaging and install them as illustrated in the figure below.



1. Carefully remove the six metal fasteners from the lamp holder located at the bottom of the top cover.



2. Insert a fastener into the terminal end of the UV lamp tube (the end without pins).



3. After inserting one end of the UV lamp tube (with its fastener) into the lamp holder at the bottom of the device's top cover, rotate the fastener clockwise to secure it initially. Do not fully tighten it at this stage.



4. Insert the pin-end of the UV lamp into the socket at the base of the device, then securely tighten the fastener at the lamp's top.

OPERATION 1

Connect the device to the power supply, press the switch button on the base to initiate the Android operating system, and then proceed with the subsequent operations.

Enter Password

Upon booting the Android system, users must enter a login password before proceeding with any subsequent operations.



Default Password

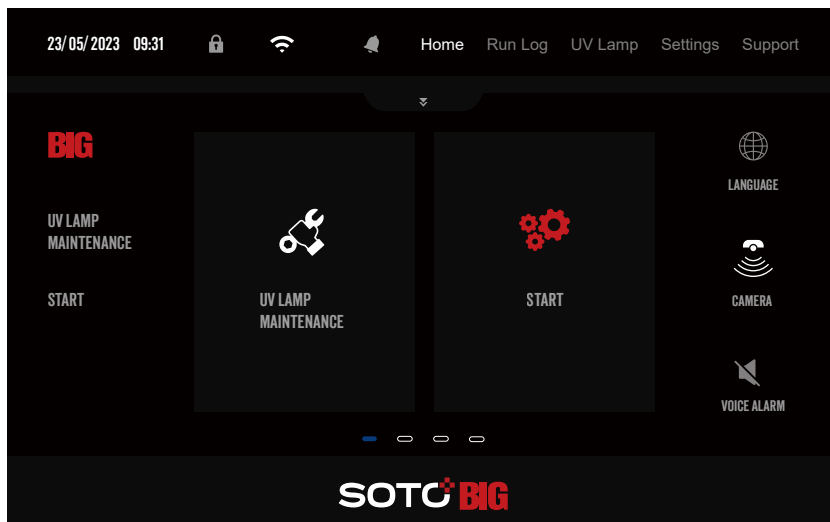
Android requires a valid password at startup. Users can change it later in Settings.

The default password:

123456

Main Interface

On the main interface, the 'UV Lamp Maintenance' option is used for maintaining UV lamps, while 'START' initiates device operation.



Initiate the Operation

To start the operation, press the START button and follow the procedure.

OPERATION 2

Input Information

Users must input their username, location, and operator details to enable automatic disinfection log generation during the procedure.

Information

The fields marked with a red asterisk are required.

Selection of UV Lamps and Operation Timer Settings

Before activating the UV lamps, users are required to select the specific lamps to be operated and specify the intended duration of operation.

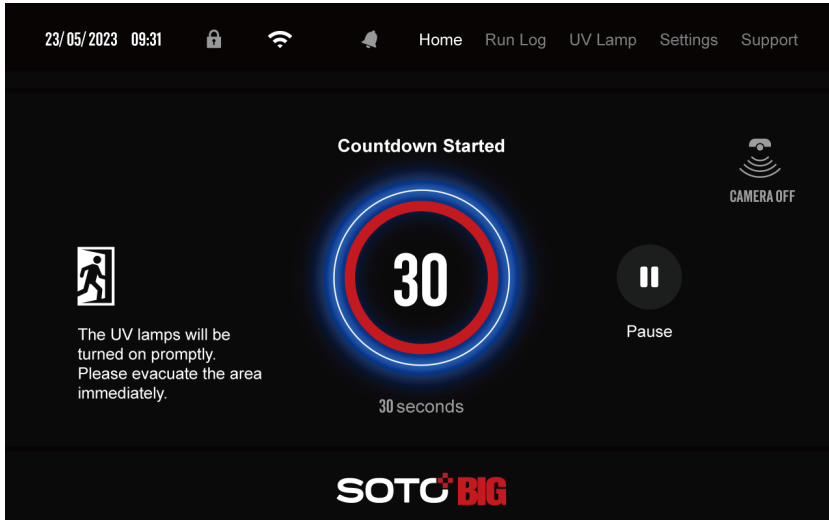
Select the UV Lamps

The UV lamp can be selectively activated or deactivated by pressing the corresponding circular button. All UV lamps can be simultaneously controlled by pressing the central circular button.

OPERATION 3

Countdown Operation

Upon completion of the previous settings, the countdown for UV lamp activation begins. The operation may be paused by pressing the "PAUSE" button or terminated by pressing and holding the "STOP" button.

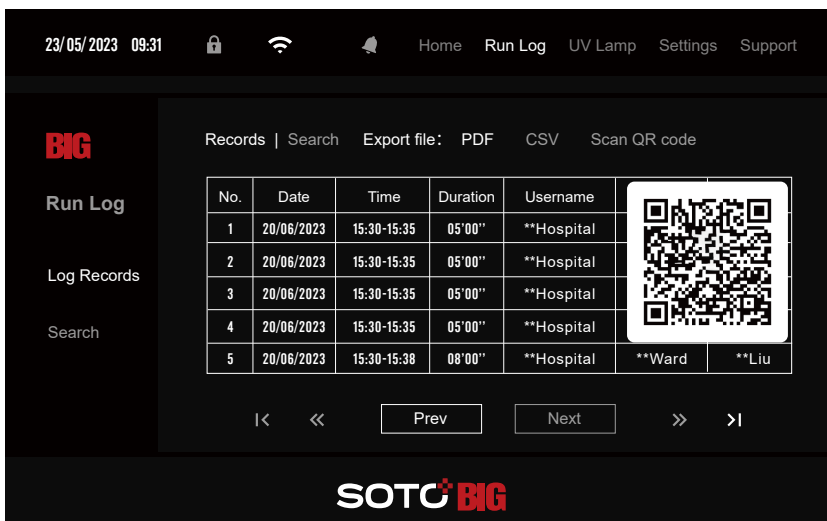


Countdown Begins

Upon initiation of the countdown, the UV lamps will be activated promptly. All personnel must evacuate the area immediately.

Export Disinfection Records

Users can view and export disinfection records by selecting the "Run Log" option in the navigation bar.



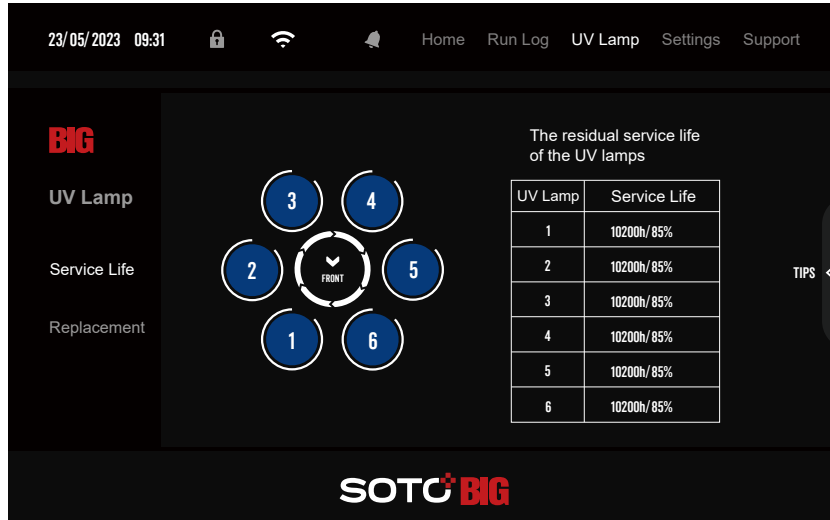
Disinfection Records

To view or export the logs, select Run Log from the navigation menu. To export them, insert a USB flash drive into the Type-C port on the side of the display panel, or scan the QR code shown on the screen.

OPERATION 4

Service Life of UV Lamp

By selecting "UV Lamp" from the menu, users can view detailed information regarding the service life of the UV lamps.

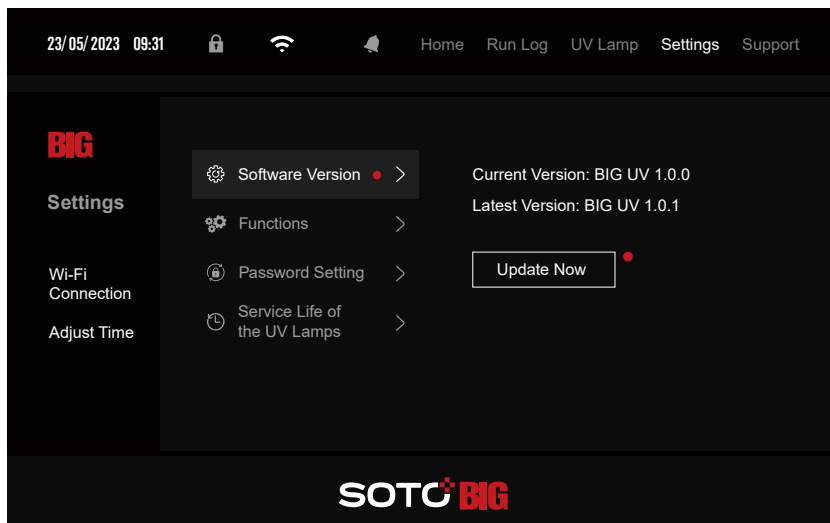


Service Life of UV Lamps

By selecting "UV Lamp" from the menu, users can view the service life and replacement history of the UV lamps.

Settings-Software Update

Upon accessing the Settings interface, users can configure and modify a variety of default system settings. The system software can be updated continuously. Go to Settings, select Wi-Fi Connection, and connect to a wireless network or mobile hotspot if needed. Then, click "Update Now" to install the latest version.



Remote Software Update

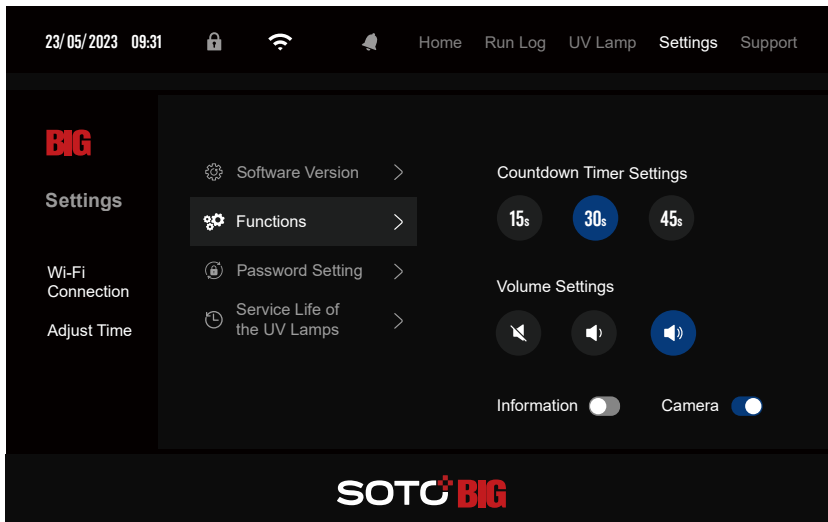
To connect to Wi-Fi, go to Settings and tap Wi-Fi Connection. For updates, use Software Update to install them remotely.

OPERATION 5 TABLET COMPUTER OPERATION

In addition to screen-based operation, users can remotely control the device via a tablet computer, enhancing operational convenience and security.

Set the Device Hotspot

Upon starting the device, please access the Settings interface by selecting the "Settings" option from the navigation bar. In the left-hand menu, navigate sequentially to "Wi-Fi Connection," then "Hotspot & Tethering," followed by "Wi-Fi Hotspot," and finally select "Hotspot Name" to complete the configuration.



Device Hotspot

Navigate to Wi-Fi Connection, then select Hotspot & Tethering, followed by Wi-Fi Hotspot. Finally, configure the settings by selecting Hotspot Name to complete the setup.

Hotspot Settings for Tablet Computer

Access the Settings interface on the tablet device, enable Wi-Fi connectivity, and select the appropriate device hotspot to establish a network connection.

For further detailed information, please refer to the **Tablet Computer Operation Manual**.



CARE AND MAINTENANCE

To maintain the device's optimal operational performance, regular maintenance and timely replacement of UV lamps are critical. Before initiating any maintenance procedures, always disconnect the power cord from the electrical source. Furthermore, refrain from handling the plug with wet hands to mitigate risks of electrical shock and related injuries.

Routine Maintenance

1. For stubborn stains or dirt on the machine, gently wipe with a dry, soft cloth. Avoid using volatile substances such as benzene or paint thinner, as these may cause damage to the surface.
2. Handle the device with care during transportation to prevent tipping, which may result in personal injury. When the device is not in use, disconnect the power cord and store the device in a clean and dry environment.

Cleaning the Surface of the UV Lamps

For optimal performance of UV lamps, it is recommended to periodically clean the lamp surface using a gauze pad moistened with 75% alcohol to remove accumulated dust and other contaminants. This maintenance procedure helps ensure consistent germicidal efficacy.

1. Connect the device to power and start the system. From the Android main interface, select "UV Lamp Maintenance" to access the maintenance screen. Press the button to activate the UV lamp guard plate, which will automatically deploy all guard plates. Forced opening is prohibited to avoid device damage. Be cautious during opening to prevent collisions.
2. Once all UV lamp guard plates are fully opened, press the switch button on the base to stop the running program and disconnect the power supply.
3. After cleaning the UV lamps, reconnect the power cord, all lamp guard panels will then close automatically.

Replacement of the UV lamps

In the event of UV lamp malfunction or the need for replacement, the system will promptly generate a notification. Please replace the lamp promptly to ensure uninterrupted disinfection performance.

1. Open the Guard Plates: Turn on the system and access the main interface. Press the "UV Lamp Maintenance" button to open the UV lamp guard plates. After completing the procedure, turn off the power switch at the base and disconnect the power cord to prevent potential safety hazards.
2. Replace the UV Lamps: The UV lamp replacement procedure is essentially the reverse of the installation steps, refer to the "**Install UV Lamps**" section for detailed instructions.
 - A. Loosen the fastener at the UV lamp tube's top, carefully remove the lamp from the top cover's lamp holder, and gently withdraw it from the base.
 - B. Replace and securely reinstall the new UV lamps per the installation instructions.

Reset the Service Life of the UV Lamp

After replacing the UV lamps, it is essential to reset the lamp service life indicator to ensure accurate tracking of operational duration.

1. Click the "UV Lamp" icon on the navigation bar to access the UV lamp management interface.
2. Press the corresponding circular button to reset the service life of the UV lamp.
3. Press the central button to simultaneously reset the service life of all UV lamps.

TROUBLESHOOTING

Many service issues that seem serious can often be fixed with simple steps. Try troubleshooting using this guide first. For all other repairs, contact an authorized service center.

1. The Device Fails to Power On

- A. Check that the device is correctly connected to the power supply, ensuring the power cord is fully inserted.
- B. If the power cord is properly connected, test other nearby devices to check for power stability.
- C. If a blown fuse is suspected, it is advisable to replace it to verify whether this resolves the issue.
- D. If a fault in the power cord is suspected, contact an authorized service center for a replacement.



2. The UV Lamp isn't Working

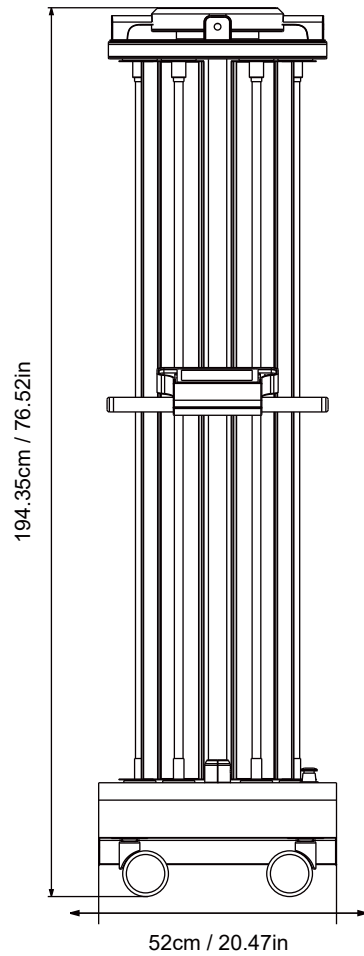
- A. Check that the UV lamp is securely inserted; if not, reinsert it carefully.
- B. Examine the UV lamp for any physical damage. If damage is found, replace it with a new one.

3. The Lamp Guard Plate Fails to Open

Please power off the unit, restart it, and then try to open the lamp guard plates. If the issue persists, please contact the customer service center.

SPECIFICATIONS

Product Name	UV Sterilizer
Model	SOTO-BIG UV
Power	220-240V, 50/60Hz
Power Req	2000W
Dimensions	76.5cmx52cmxH195cm
Weight	92kg / 202.83lb
Power Cord	3m
UV Lamp	6x325W / 254nm, UV-C
Bacterial Removal	S. albus>99.9% Natural Bacteria>90.0%
Inactivation logarithms	S. aureus>3.00 / E. coli>3.00
Operation	Android Operating System Tablet Operation
Display	Timer / Start Countdown UV Lamp Lifespan UV Lamp Malfunction Lamp Guard Malfunction Disinfection Log / UV Lamp Replacement Records



SOTO AIR PURIFICATION TECHNOLOGY (LANGFANG) CO., LTD.

Add: Certification Industrial Park, Dachang, Langfang City,
Hebei Province, China

Customer service: +86 400-626-8883

E-mail: customerservice@soto.com.cn

Web: www.soto.cn



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