



XENON PULSED UV STERILIZER

MODEL SOTO-MX

Operation Manual

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

SOTC

CONTENTS

CONSUMER LIMITED WARRANTY	04
SAFETY PRECAUTIONS	05-06
STRUCTURE AND MAIN PARTS	07
HOW IT WORKS	08
INSTALLATION	09
OPERATION	10-13
Main Interface	<u>10</u>
Input Information and Set Operational Time	<u>11</u>
Countdown Starts and Xenon Lamp Maintenance	<u>12</u>
Export Disinfection Records and Function Settings	<u>13</u>
CARE AND MAINTENANCE	14-16
Routine Maintenance Cleaning	<u>14</u>
Replacement of the Xenon Lamp	<u>15</u>
Reset the Service Life of the Xenon Lamp	<u>16</u>
TROUBLESHOOTING	17
SPECIFICATIONS	18

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 equipped with a grounded receptacle.
3. Never use the unit in a very hot or wet environment (Temperature 0-400C 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. Ensure that you have thoroughly read and fully understood the user manual before operating the device.
2. Please install, operate, maintain, and service the device strictly in accordance with the provided user manual.
3. Please verify that the device's power input voltage complies with the voltage specified in the user manual.
4. During device operation, it is strictly prohibited to obstruct the air intake and heat dissipation outlets to ensure proper functionality and prevent potential device damage.
5. It is strictly prohibited to place any objects on top of the device or to cover the pulsed xenon lampshade, as such actions may lead to device malfunction or pose safety risks.
6. The device should be maintained on a regular basis, including cleaning dust and stains from the lampshade surface and timely replacement of the pulsed xenon lamp, to ensure consistent sterilization efficiency.
7. The device surface should be cleaned only after the device has been powered off and the power cord has been disconnected. It is strictly prohibited to spray liquid directly onto the surface of the device, as this may allow liquid to penetrate internal components, potentially resulting in device damage or safety hazards.
8. Extreme caution must be exercised when moving the device to prevent overturning caused by an unstable center of gravity, which may result in personal injury. After each use, the power plug should be promptly disconnected, and the device shall be stored in a clean and dry environment.
9. Do not handle the power plug with wet hands. If the power cord is damaged, it must be replaced by the manufacturer, an authorized service provider, or a qualified professional unit with equivalent credentials.
10. The device must only be operated by qualified and professionally trained personnel. Unauthorized disassembly, maintenance, or replacement of any components by unqualified individuals is strictly prohibited.

Application Location

1. This device must not be operated in environments containing flammable, explosive, or corrosive gases, nor should it be placed in proximity to heat sources. Its use is strictly prohibited in locations characterized by high temperature, high humidity, or potential exposure to water, such as bathrooms.
2. The device will produce high-intensity pulsed broad-spectrum UV radiation during operation, which may cause potential damage to the skin and eyes. Therefore, it must be operated exclusively in an unattended environment devoid of personnel and animals. The operator is required to evacuate the disinfection area immediately after starting the device.
3. When utilizing device for air disinfection, it is essential to ensure that the environment to be sterilized is clean and dry, with all doors and windows closed to prevent indoor-outdoor air exchange and thereby maintain optimal disinfection efficacy. This device is not suitable for disinfecting surfaces of porous materials.

SAFETY PRECAUTIONS 2

Device Operation

1. During device operation, it is strictly prohibited to open the doors and windows of the room housing the device, in order to prevent potential harm caused by the broad-spectrum UV radiation emitted from the pulsed xenon lamp. If the operator must perform tasks within a UV radiation environment due to operational requirements, appropriate personal protective device (PPE) must be worn, including national standard-compliant protective eyewear and specialized protective clothing, to ensure that the skin, mucous membranes, and eyes are not exposed directly to UV radiation.
2. The device must be operated in an environment free of personnel and animals, and the operator must immediately evacuate the disinfection area upon activation to avoid potential exposure to UV radiation.
3. In the event of any abnormal conditions during device operation, the power supply should be immediately disconnected and contact the customer service center promptly for appropriate action.

STRUCTURE AND MAIN PARTS



- 01 Top Cover Plate
- 02 Top Cover Base
- 03 Quartz Lampshade
- 04 Xenon Lamp
- 05 Control Display Panel
- 06 Structural Support Column
- 07 Xenon Lamp Socket
- 07 Internal Base Structure
- 08 Power Control Board
- 09 Caster
- 10 Handle

HOW IT WORKS

The device primarily comprises core components such as a xenon lamp tube, lamp socket, power control board, energy storage capacitor, xenon lamp assembly lifting mechanism, and an integrated Android operating system. During operation, the pulsed xenon lamp efficiently converts the electrical energy stored in the capacitor into intense pulsed light, achieving high peak power output within a short duration. This brief, high-intensity light pulse - analogous to a lightning discharge - delivers substantial energy instantaneously. The broad-spectrum illumination effectively inactivates microorganisms through synergistic photochemical and photothermal effects.

Primary Sterilization Factor

Intense Pulsed Light (IPL) rapidly generates high-energy, broad-spectrum light, including full-spectrum ultraviolet (UV) radiation. Through combined photochemical and photothermal effects, IPL effectively and completely destroys the DNA of pathogens.

Microbial Killing Category

The device effectively eliminates *Staphylococcus albus* and naturally occurring airborne bacteria in indoor environments. It also demonstrates efficacy against *Staphylococcus aureus* and *Escherichia coli* on hard, non-porous surfaces.

Application and Operation

The device is designed for indoor air disinfection in environments such as medical institutions, pharmaceutical facilities, hotels, and commercial spaces. It must only be operated in unoccupied areas, requiring immediate evacuation of all personnel upon activation. Operation is strictly prohibited in locations where flammable, explosive, or hazardous gases may be present.

Features

1. Rapid Disinfection: Intense Pulsed Light technology can rapidly eliminate pathogens in the surrounding air and on surfaces, overcoming the limitations of conventional thermal and chemical sterilization methods.
2. Easy Maintenance: The system alerts users when the xenon lamp needs replacement. Use the control panel's up/down buttons to raise or lower the lamp assembly for easy maintenance.
3. Android Operating System: The device is equipped with an Android operating system, enabling automatic disinfection record generation and remote software updates.

INSTALLATION

Operational Environment

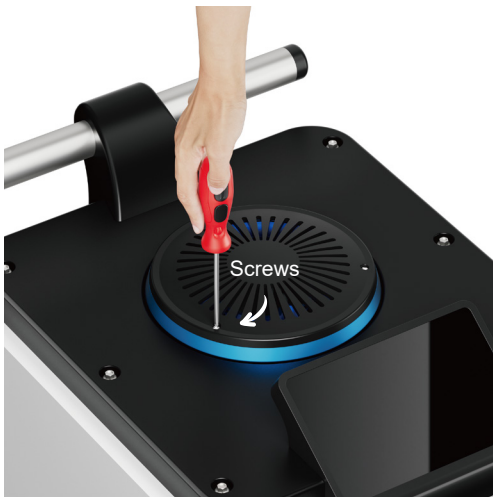
1. Power Supply Condition: Use only a 220–240 volt outlet equipped with a grounding wire receptacle.
2. Environmental Conditions: Temperature range of 0°C to 40°C; Relative humidity below 75%.
3. Unmanned Environments: The device must be placed on a stable and level surface during operation and should be used exclusively in an unoccupied environment. After operations are completed, personnel must leave 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 first use, check the packaging. It includes a main unit, several screws, a screwdriver, and a power cord. Confirm all items are complete and undamaged. If anything is missing or damaged, contact customer service immediately.

Remove the Protective Sponge

1. Use a Phillips-head screwdriver to remove the three M3×8 screws securing the lampshade's top cover plate, then carefully detach it.
2. Carefully remove the protective sponge material surrounding the xenon lamp.
3. Reinstall the lampshade's top cover plate in reverse order of disassembly and securely fasten it.



1. Unscrew the three M3×8 screws on top cover plate with a Phillips screwdriver, then lift off it.



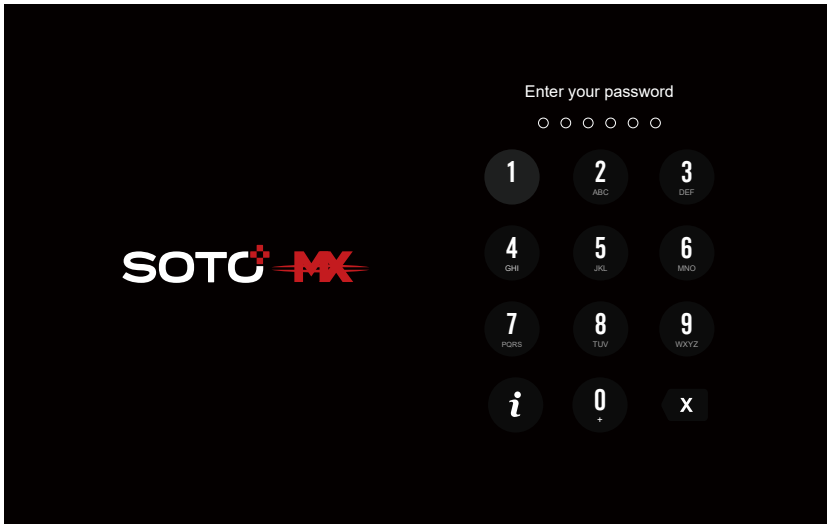
2. After removing the protective sponge, carefully reinstall the top cover plate by reversing the disassembly steps, then tighten the screws to secure it.

OPERATION 1

Connect the device to a power source, turn on the power switch at the rear, then press the power button on the right side of the control panel to boot up.

Enter Password

Upon booting the Android system, users are required to enter a login password before performing any subsequent operations.

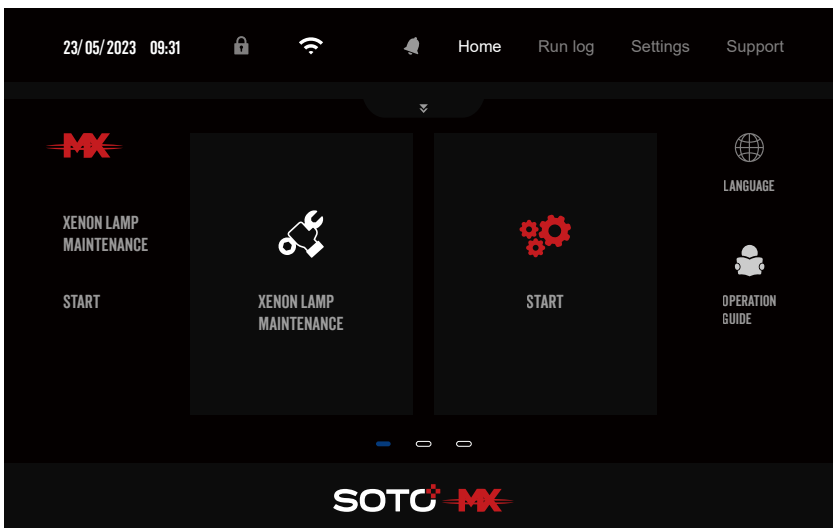


Change Password

The default system password is set to **123456**. Users are recommended to change their passwords immediately after first login through the Settings page.

Main Interface

On the main interface, the "Xenon Lamp Maintenance" option is designated for performing maintenance on the xenon lamp, while the "START" button initiates device operation.



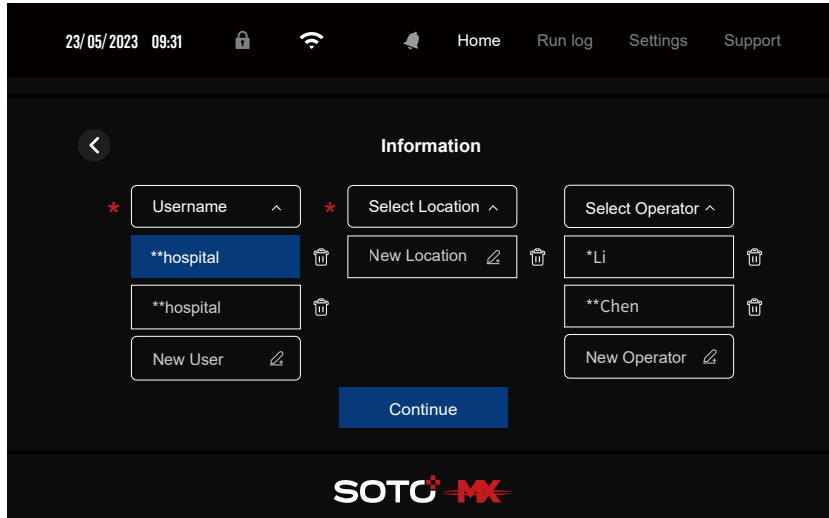
Initiate the Operation

To initiate the operation, press the START button and proceed according to the specified procedure.

OPERATION 2

Input Information

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



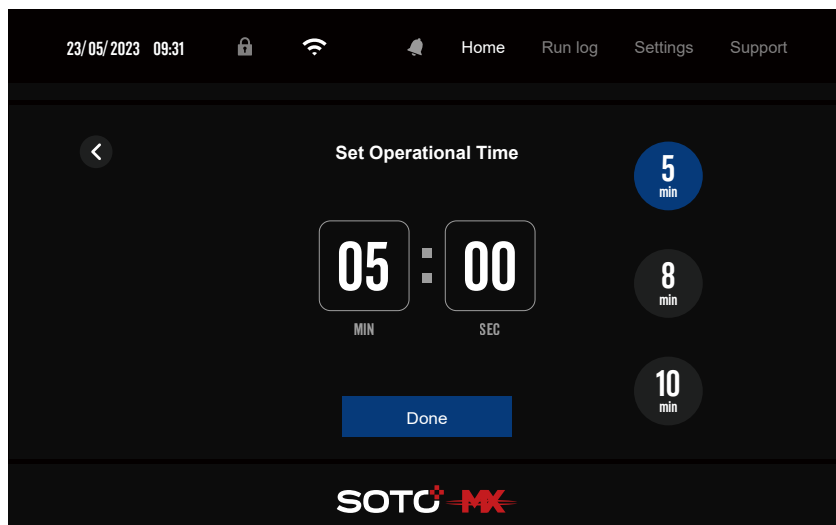
Input Information

Input detailed information to automatically generate disinfection records.

The fields marked with a red asterisk are required.

Set Operational Time

After entering the required information, users are required to set the device's runtime. The default is 5 minutes, but it can be extended if needed. Once configured, the device will start a countdown.



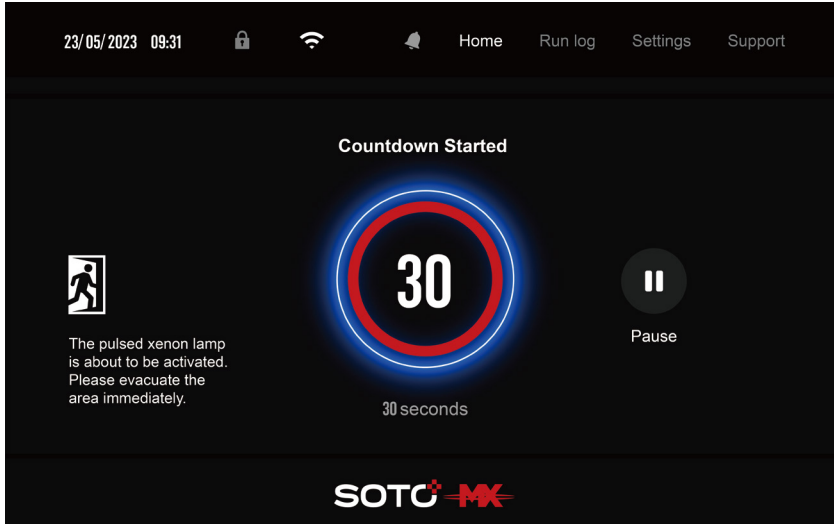
Set the operating duration

The default setting is 5 minutes and may be extended as necessary.

OPERATION 3

Countdown Starts

Once the required operational duration is confirmed, initiate the countdown program. The default duration is set to 30 seconds, which can be adjusted in the Settings menu. Available options are 15, 30, and 45 seconds.



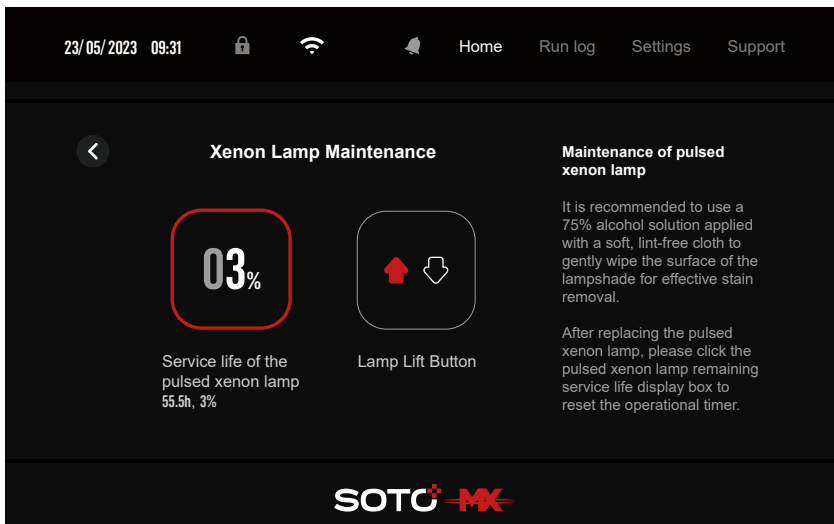
Countdown Procedure

Upon initiation of the countdown, all personnel are required to immediately evacuate the site.

The countdown will be suspended upon activation of the PAUSE button and will terminate completely upon activation of the STOP button.

Xenon Lamp Maintenance

In the Xenon Lamp Maintenance interface, users can monitor the remaining service life of the xenon lamp and perform cleaning or replacement as needed. Upon completion of lamp replacement, press the remaining service life indicator to reset the operational timer.



Lamp Maintenance

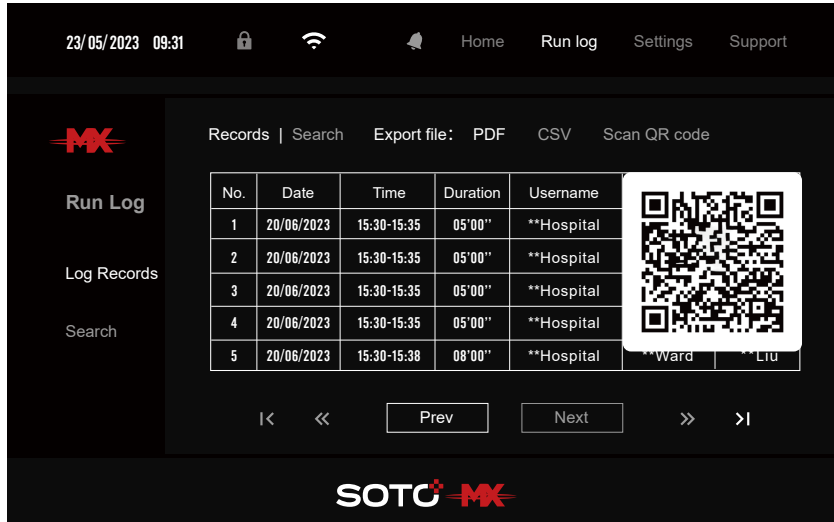
Users can clean or replace the xenon lamp through this interface.

After replacement, the service life indicator must be manually reset by pressing the corresponding button to ensure accurate tracking of the lamp's operational duration.

OPERATION 4

Export Disinfection Records

During operation, disinfection logs are generated automatically. Users can view and export them via Run Log in the menu.

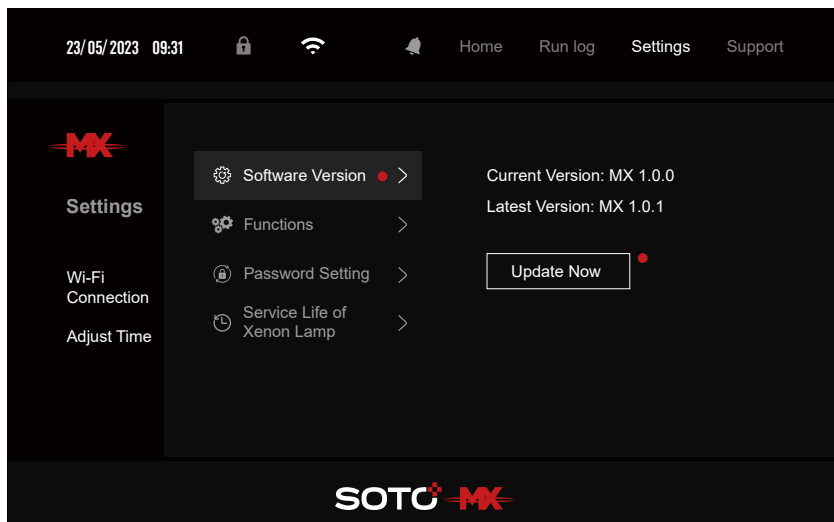


Disinfection Records

To view or export logs, select Run Log from the menu. Export by inserting a USB into the Type-C port at the top rear or scanning the on-screen QR code.

Function Settings

In the Settings interface, users can configure various functions and remotely download and install software updates. If no Wi-Fi network is available, a mobile hotspot can be used as an alternative to connect the device to the internet.



Software Update

Once the device is connected to the network, click "Update Now" to download, install, and apply the latest software update, ensuring stable and efficient system performance.

CARE AND MAINTENANCE 1

To ensure optimal device performance, regular maintenance and timely replacement of the xenon lamp are essential. Always disconnect the power cord from the electrical source before performing any maintenance. Furthermore, under no circumstances should the power plug be handled with wet hands to mitigate the risk of electrical shock and potential personal injury.

Routine Maintenance

For stubborn stains, gently wipe with a dry, soft cloth. Avoid volatile substances such as benzene or paint thinner, which can damage surfaces. During transport, handle with care to prevent tipping and injury. When not in use, unplug the power cord and store in a clean, dry environment.

Cleaning the Surface of the Lampshade

Regularly clean the quartz lampshade of the xenon lamp using 75% alcohol to remove accumulated dust and ensure optimal operational performance.

1. Connect the device to a power source, power on the Android system, and navigate to the main interface. Press the Xenon Lamp Maintenance button, followed by the Lamp Lift button to raise the lampshade. Clean the lampshade thoroughly using a soft, lint-free cloth.
2. After cleaning the lampshade, reconnect the power cord, as the lampshade will automatically return to its initial position.



Routine Maintenance Cleaning

It is recommended to clean the quartz lampshade of the xenon lamp regularly to ensure optimal performance.

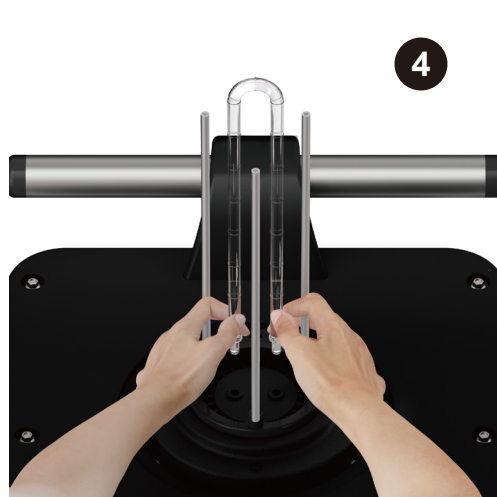
CARE AND MAINTENANCE 2

Replacement of the Xenon Lamp

Replace the xenon lamp as soon as the system issues a replacement notification. Connect the device to a power source, power on the Android system, and press the Lamp Lift button to raise the lampshade.

Warnign: Only personnel trained by SOTO or officially designated professionals are permitted to replace the xenon lamp. Unauthorized individuals, particularly those without professional qualifications, are strictly prohibited from opening the equipment for xenon lamp replacement.

1. Remove the top cover plate by unscrewing the three securing screws with a Phillips-head screwdriver.
2. Remove the top cover base by unscrewing the three securing screws.
3. Grasp the lampshade firmly with both hands and lift it upward steadily to ensure smooth separation.
4. Carefully remove the U-shaped xenon lamp using both hands, replace it with a new lamp tube, and then reattach the lampshade and top cover.

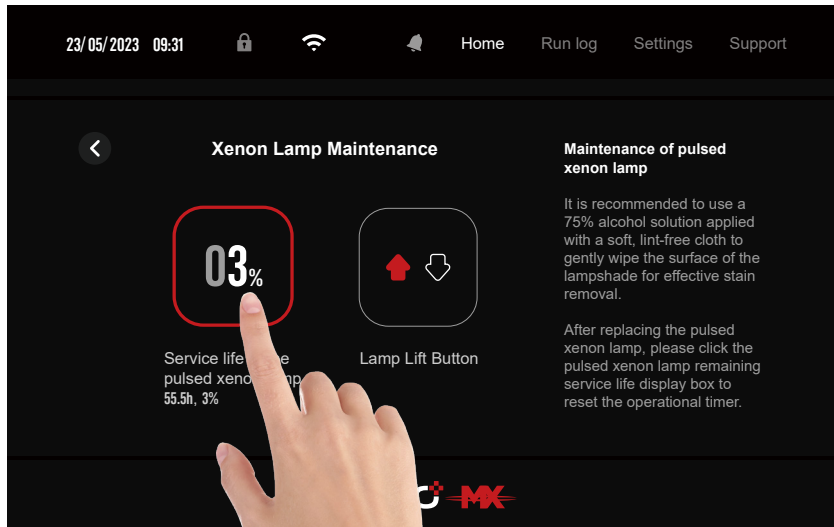


CARE AND MAINTENANCE 3

Reset the Service Life of the Xenon Lamp

Following the replacement of the xenon lamp, it is essential to reset the service life of the new lamp to ensure accurate tracking of its operational duration.

1. After replacing the xenon lamp, connect the device to the power supply, boot the Android system, and access the main interface.
2. Click the "Xenon Lamp Maintenance" button on the main interface of the Android system.
3. Press the remaining service life display button for the xenon lamp to reset the operational timer in the Xenon Lamp Maintenance interface. Upon successful reset, the lamp's service life will be restored to 100%.



Reset the Service Life of the Newly Installed Xenon Lamp

After replacing the xenon lamp, it is crucial to reset its service life for accurate usage tracking.

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 Android System Fails to Power On

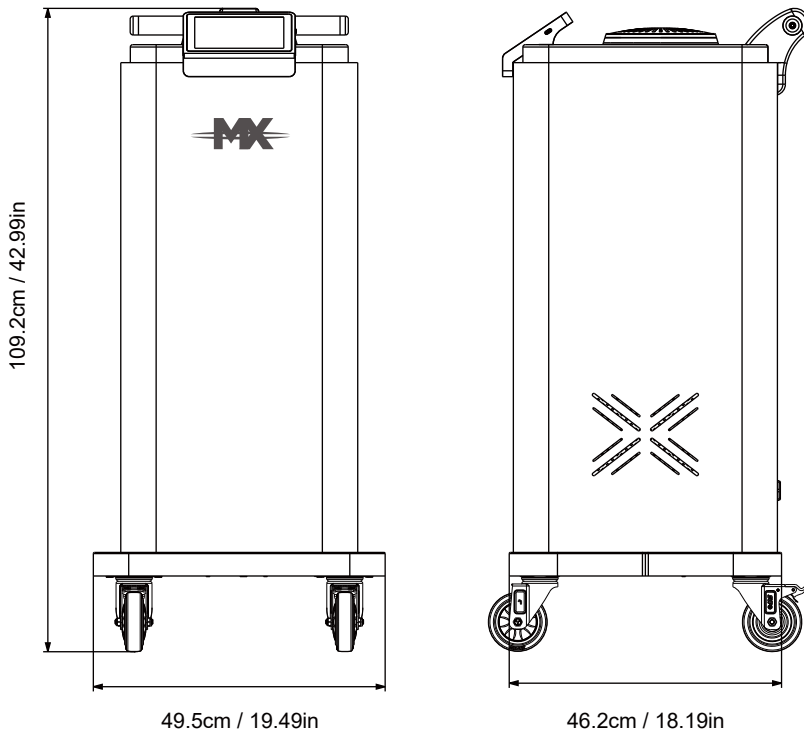
Ensure that the device is properly connected to the power supply by verifying that the power cord is securely and fully inserted. If the connection appears secure, assess the power stability by testing other electrical devices in close proximity. In case of a suspected blown fuse, consider replacing it to determine whether the issue is resolved. Should there be any indication of damage or malfunction in the power cord, promptly contact an authorized service center for professional assistance and replacement.

2. The Xenon Lamp is not Functioning Properly

First, verify that the xenon lamp is properly installed and check whether the lifting system fails to activate. If the lamp is misaligned, open the lampshade and reinstall it correctly. If the lifting system malfunctions, immediately power off the device and contact customer service for further assistance.

SPECIFICATIONS

Product Name	Xenon Pulsed UV Sterilizer
Model	SOTO-MX
Power Req	220-240V, 50/60Hz
Rated Power	1150W
Dimensions	49.5cmx51.6cmxH109.2cm
Weight	59kg / 130.07lb
Power Cord	2.5m
Lamp	Xenon Lamp
Operation	Android Operating System
Display	Timer / Start Countdown Xenon Lamp Lifespan Disinfection Log



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

