



SUFIROBOTICS

Instruction Manual

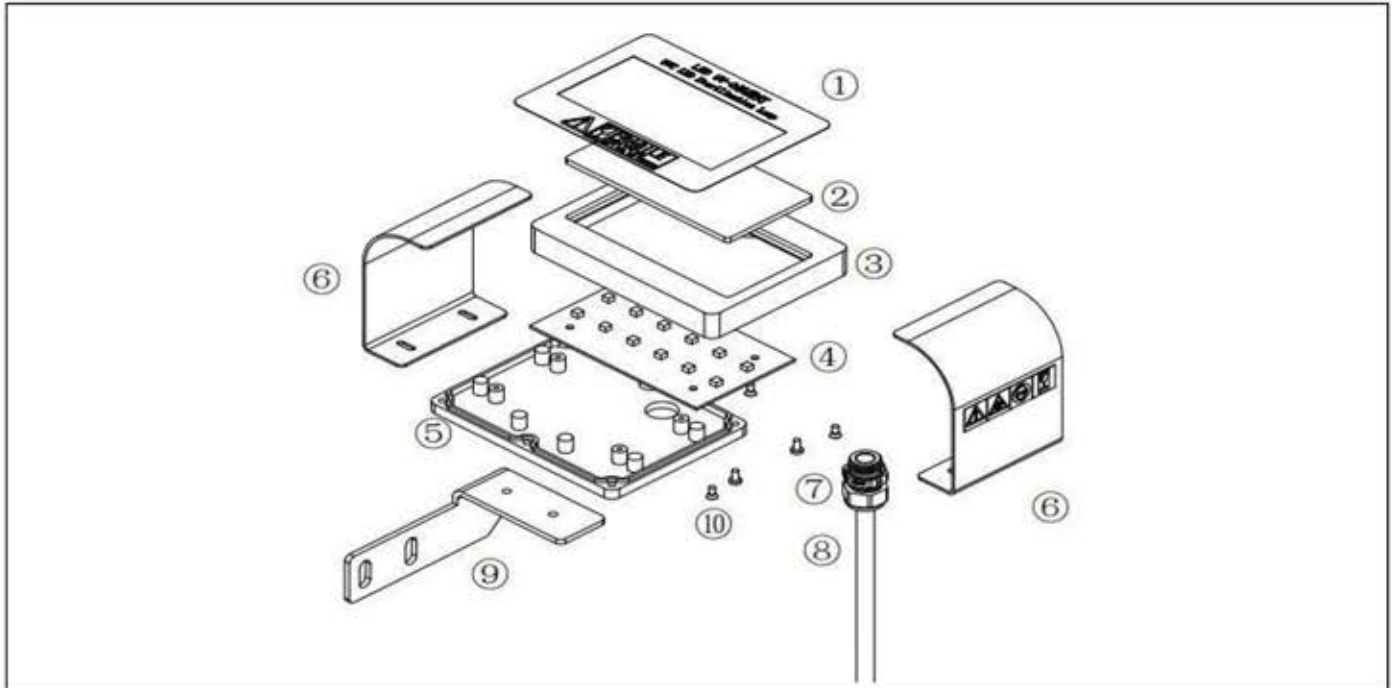
UVC LED Sterilization Lamp






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■ Exploded Drawings for Components



■ Main Data

	12·0.3W		DC24V
	IP 55		

Component

ID	Quantity	Articles
1	1	PVC Thin Film
2	1	Quartz Glass
3	1	Front Cover
4	1	PCB Board
5	1	Rear Cover
6	2	Reflector
7	1	Cable Connector
8	1	Cable
9	1	Installation Bracket
10	4	Fastening screw



1. Lable

Product Model:	TGSJ-LED24
Rated Voltage:	DC24V
Rated Current:	<150mA
Radiation Intensity	$\geq 45\text{uw/cm}^2$ (@15mm)
Wavelength Range:	270~285nm

2. Instruction Manual

This instruction manual introduces UVC sterilization lamp.

Before the first operation, please read the instruction manual and understand the related operations regarding this UVC sterilization lamp. Please be sure to follow the related safety reminders and use this lamp properly. Please keep the manual well and easily be accessed once needed to search safety reminder and important information.

3. Instruction Manual for Installations

3.1 Warnings



Warnings

UV emitted form this product. Dangerous!

- Avoid to exposure to UVC light without any protection.
- UVC light cannot penetrate most transparent glass and plastic.
- Wearing glasses can prevent eyes from injury.



Warnings

The surface of lamp is quartz glass. Fragile!


- Handler gently cause glass is breakable
- Be cautions of falling articles and prevent crashing.



Warnings

The lamp has the UVC radiation once turned on. Dangerous!

- Avoid installation or other operations when the lamp is turned on.
- Must wear protective equipment if you need to operate, when the lamp is turned on.

	Notices
	<ul style="list-style-type: none"> • The edge is very sharp and easily scratched, which needs to wear gloves to operate. • Must need enough space and ensure the sight of operator's, which avoids the hurt of hands. • Ensure the escalator is stopped when operates. Do not operate it when the escalator runs.

3.2 Applicable Environment

UVC sterilization lamp is used for industrial, residence, commercial and enterprise. The local climate conditions should meet the requirements of the operating environment. This lamp needs to be installed and used by professionals, which the EMC knowledge and experience is not necessary.

3.3 Qualification of Operation Staff

Only electrical professionals (meet the standard of IEC 60050/EN 50110-1:2008-09-01 is electrical professional) can install, test and operate electrical equipment. Professionals should follow the ESD protection standards when installing, testing and operating ESD sensitive components. The lamp is delivered, unboxed, operated, and maintained only by the professionals who are trained and authorized.

Must follow the standard of ISO 15858 UV-C Devices-Safety information-permissible human exposure and train the related staff to operate proper.

Must follow the standard of EN 170:2002/ISO 12312-1-20-13 to choose safety goggles to operate if any UVC protection is required. For example: UV-400 (UV protective glasses)

3.4 Delivery

Please keep the original package for shipping and delivery. Be caution for fragile. Do not litter.



3.5 Storage

Please keep the lamp in clean and dry environment with protection.

The best storage temperature is -30°C ~ +70°C



3.6 Disposal of Components

Do not drop the lamp into trash bin directly. The lamp and its components and package need to be disposed properly and legally.

4. Proper Usage

This UVC sterilization lamp is especially design for escalators and moving walks, which sterilizes for handrail. So, this lamp must be installed inside the enclosed space of escalators' and moving walks'.

Any other applications are not our initial and prospective proposals, which will lead to the misuse of the lamp.

UVC sterilization lamp can not be used for sterilization for humans or animals, and it's not suitable for household room illumination.

Prospective and proper usage also including:

- The lamp may only be turned on after it has been installed in the escalator/moving walk.
- Follow this instruction manual.

5. Improper Usage

If the UVC sterilization lamp is used improperly, it will be harmful for humans and animals. In the event of improper use, the liability on the part of MINJIE as well as the general operating permit expires.



SUFIROBOTICS

6. Technical Specification

Please check the drawings in the appendix.

Product Data

General Info

Model	TGSJ-LED24
Best Distance for sterilization	< 15mm (The vertical distance between lamp and disinfection area)
Operation Temperature	-25°C ~ +60°C

Optical

LED Size	LED 3535 *12PC
Wavelength	270~285nm

Electrical

Input Voltage	DC24V±10%
Input Current	< 0.15A

Mechanical

Material	PC & SUS304 & Quartz Glass
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Safety

Protective Level	IP55
Initial Radiation Intensity	≥45uW/cm ²
Radiation Intensity (10000Hrs)	≥38uW/cm ²

Environment

Storage Environment	-30°C ~ +70°C
Relative Humidity	≤95%

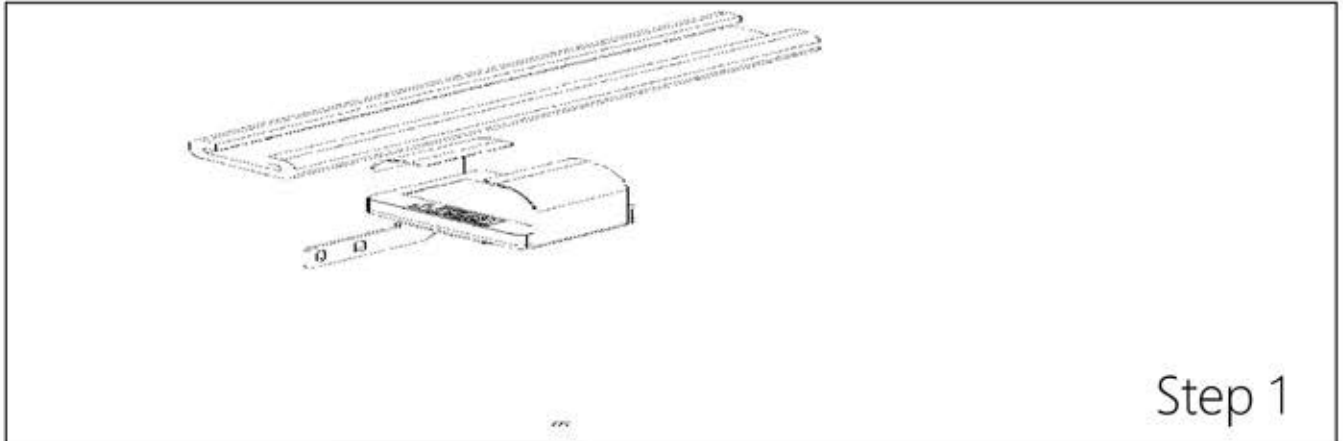
Design Lifetime

On and Off times	> 300000 times
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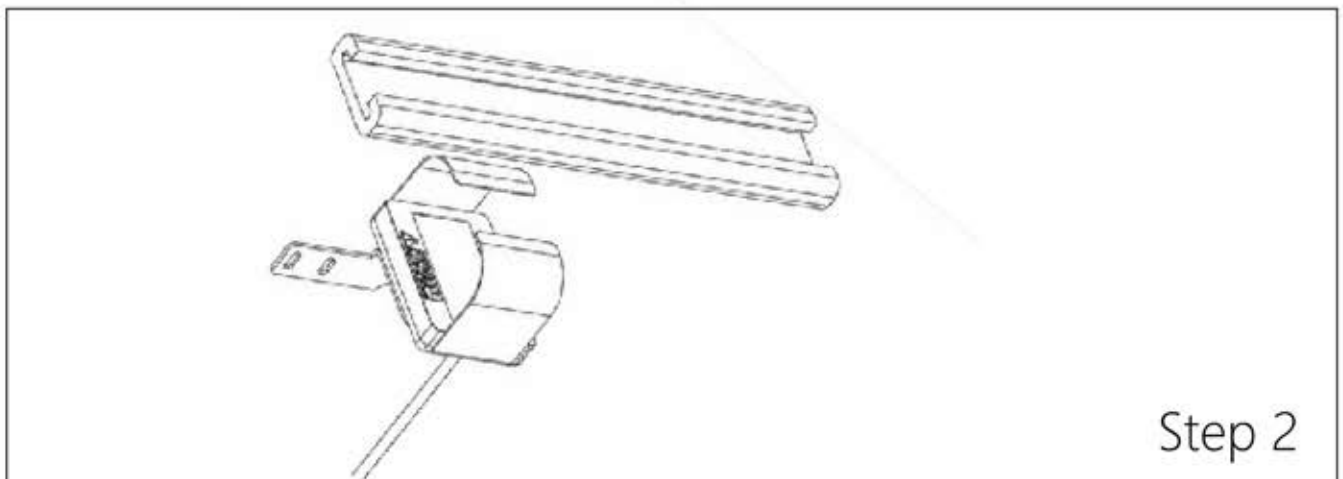


7. Installation

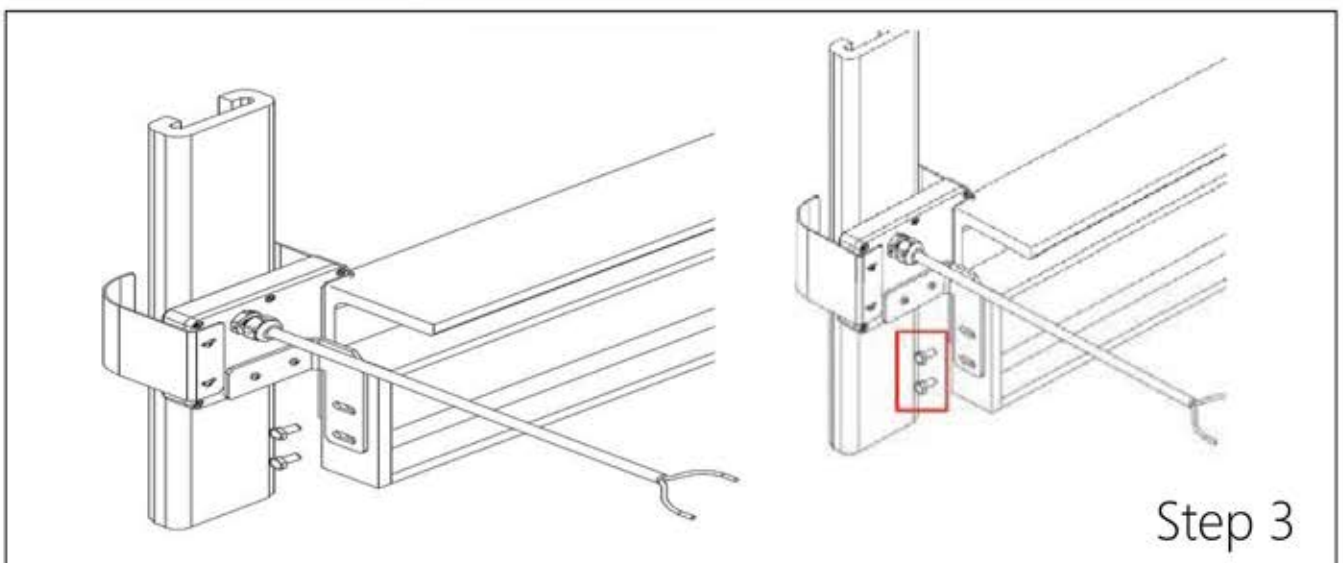
The UVC sterilization lamp is installed inside an escalator. Choose an available space where the lamp can be fixed in handrail system.



Put the reflector of lamp go through the handrail, which makes the luminous surface of lamp faces to the handrail.





Choose a suitable installation bracket, and fix the lamp into the target position.



Adjust the lamp via two installation holes of bracket, and be sure the distance between the handrail and lamp is 10~15mm, which brings the best sterilization effect.

8. Usage and Test

	Warnings
	<p>UV emitted form this product. Dangerous!</p> <ul style="list-style-type: none"> • Avoid to exposure to UVC light without any protection. • UVC light cannot penetrate most transparent glass and plastic. • Wearing glasses can prevent eyes from injury.

	Warnings
	<p>The lamp has the UVC radiation once turned on. Dangerous!</p> <ul style="list-style-type: none"> • Avoid installation or other operations when the lamp is turned on. • Must take protective procedures if you need to operate, when the lamp is turned on.

Testing before Usage:


- Check all components of lamp and recognize whether any damage.
- All electrical components operate normally.

Only the installation area is enclosed, then the UVC sterilization lamp can be turned on. If you need to check whether the UVC LEDs operate normally, please take protective measures, such as wear protective goggles, and keep the distance from the lamp above 1 meter.

9. Normal Operation

In normal operation condition, UVC Sterilization lamp will work in an enclosed area of handrail. If the escalator pauses or stops, the lamp will be turned off accordingly.

10. Clean the lamp

	Warnings
	<p>UV emitted form this product. Dangerous!</p> <ul style="list-style-type: none"> • Avoid to exposure to UVC light without any protection. • UVC light cannot penetrate most transparent glass and plastic. • Wearing glasses can prevent eyes from injury.