



Escalator Handrail Sterilizer

**CLEAR
WIN**



UV Sterilization Escalator Handrail

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- 01 Purpose
- 02 Escalators and moving walks installation facility
- 03 Configuration of sterilization equipment
- 04 Principle of operation of sterilizer
- 05 Advantage of sterilization management
- 06 Features of sterilization equipment
- 07 Effects



UV Handrail Sterilization Equipment

CLEAR WIN

At the moment, using escalator and moving walks handrails causes health problems such as various pathogenic diseases and viruses because it is used by thousands of people.

This product aims to contribute to improve hygienic environment by sterilizing bacteria and viruses, just by simply attaching it to an escalator or moving walks handrail.



Tempered glass type

Such as Hospitals, Department Stores, Shopping Malls, Subway Stations etc.

It is installable anywhere
as long as the escalators
and moving walks are there.

Stainless steel type

External environment, such as a subway station.





Airports



Hospitals



Department stores & shopping malls



Subway Stations



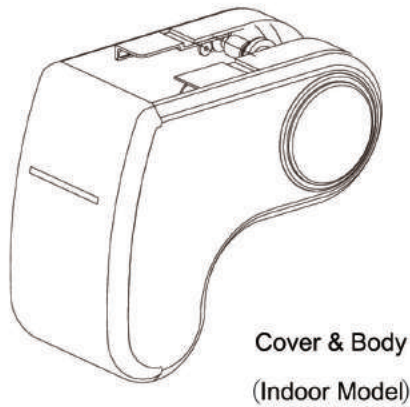
CONFIGURATION OF
STERILIZATION EQUIPMENT

CL

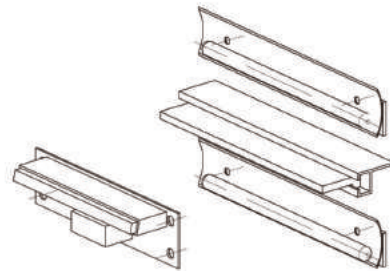
Black & White Color
Simple Design
Cover

Simple cover design and device
composed of a lamp,
housing, and power supply.

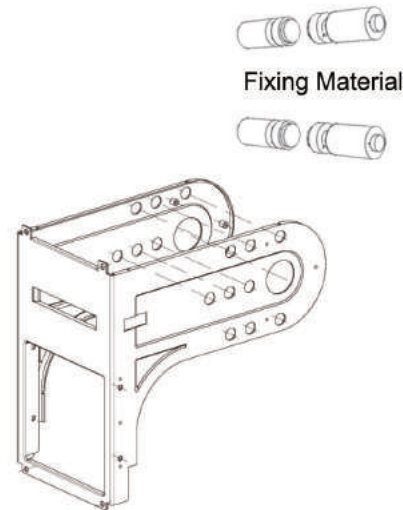
EARK VIN



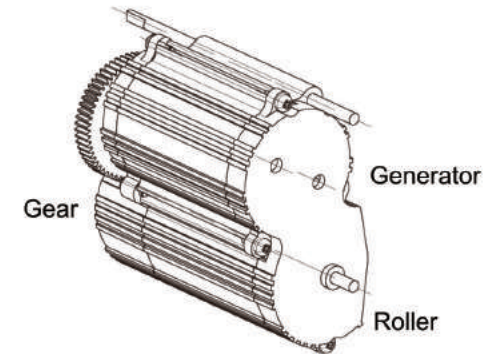
Cover & Body
(Indoor Model)



Ultraviolet Lamp



Fixing Material



Generator

Roller

'L' shape can protect
the internal devices.

COVER

Sterilizes various types of bacteria
that inhabits the handrail.

ULTRAVIOLET LAMP

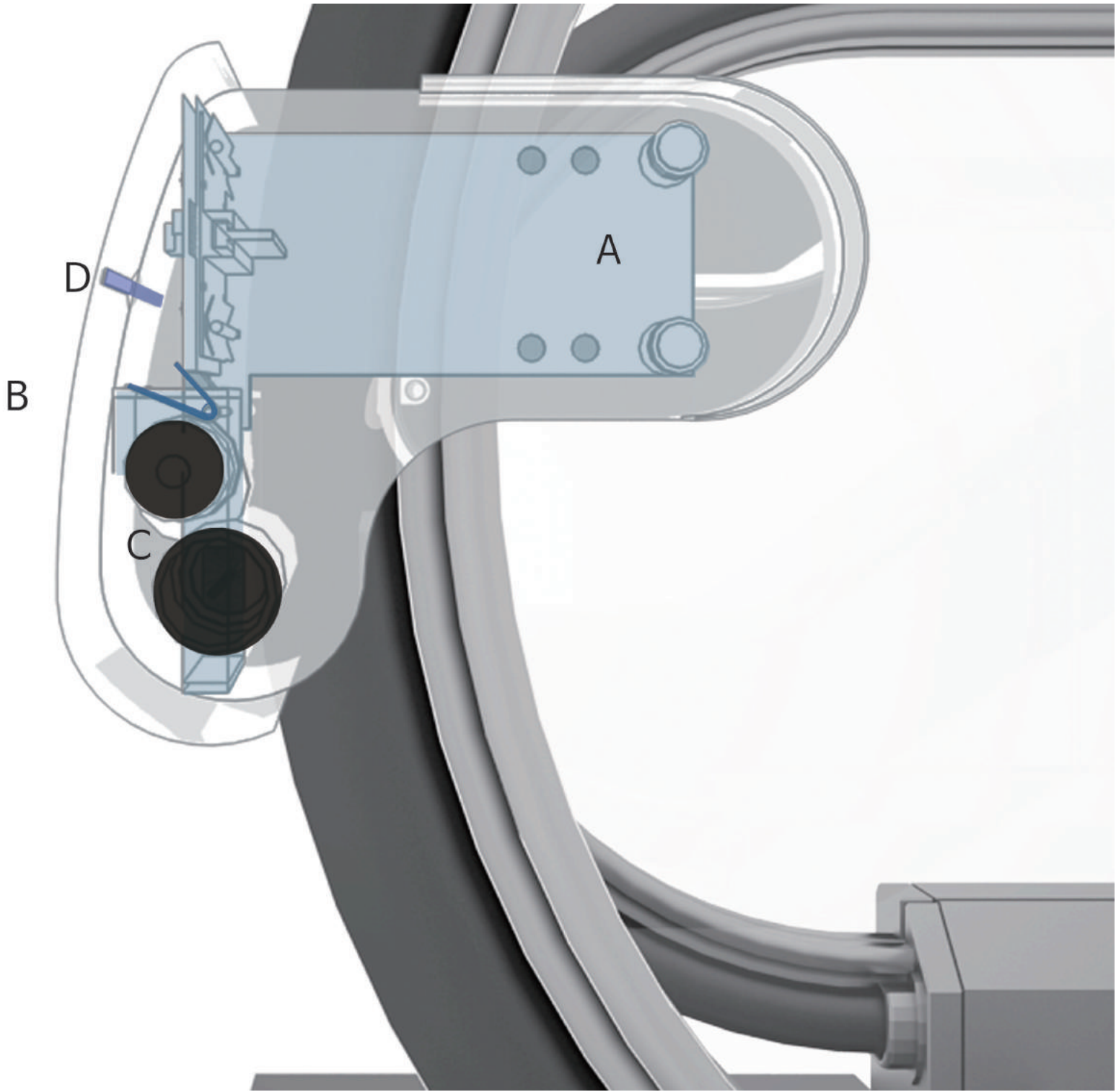
It is engaged with a fixed frame of the
handrail through the pressure.

HOUSING

Converts the rotational motion
of the handrail into electricity.

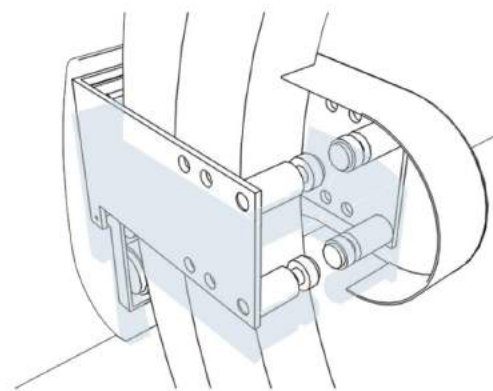
POWER

PRINCIPLE OF
OPERATION OF STERILIZER



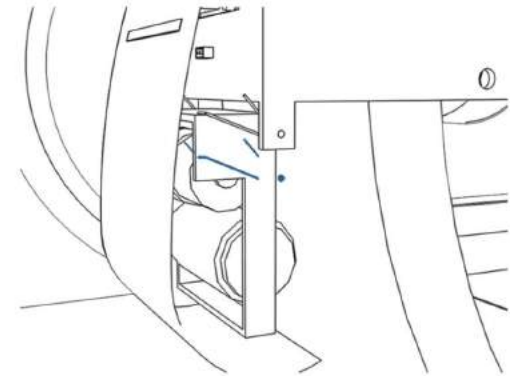


PRINCIPLE OF OPERATION OF STERILIZER



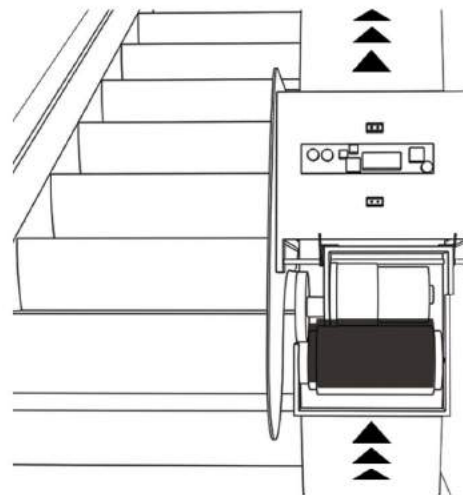
A

The main body is fixed to the balustrade of the moving walks.



B

The torsion spring makes roller contact at a constant pressure on the handrail.



C

The rear roller and the handrail's rotational force, generates power.



D

The generated power activates the UV germicidal lamp and operation indicator.



LIGHTWEIGHT

Easy to use with **lightweight device**.

01

SIMPLIFICATION OF THE STRUCTURE

Excellent maintain to **simplify the structure**.

02

LIFE OF GERMICIDAL LAMP 10,000 HOURS OR MORE

More than 10,000 hours of germicidal lamp life,
so it is easy to maintain.

03



Easy, convenient with simple
and lightweight device.

Comfortable with more than
10,000 hours of germicidal lamp life.

FEATURES OF
STERILIZATION EQUIPMENT



Non-powered
UV sterilization device of Escalator Handrail.

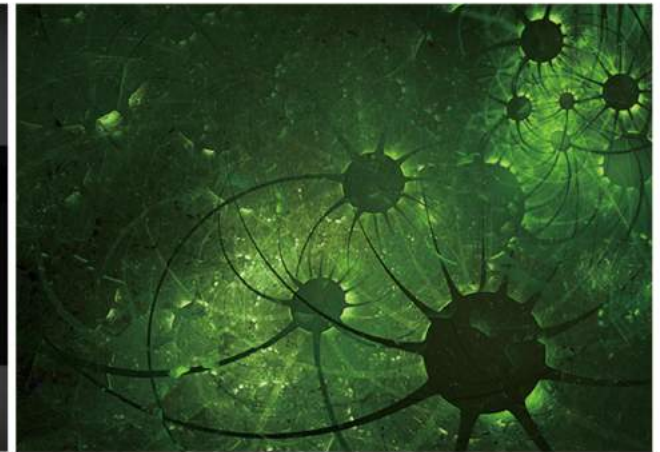
CLEARWIN



UV disinfection methods
other than chemicals or
heating system doesn't deform.



This CLEARWIN device can be
easily installed even when the
escalator is in motion.



Sterilization effectiveness
to all bacteria.

E. coli
Staphylococcus
Candida
Influenza virus



Certified for sterilizing
the Staphylococcus Aureus and E. Coli
by using the sterilizing power of a dual lamp.

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시험성적서

1. Client Name : SOOKYOUNG CO., LTD.
Address : 804, HyundaiTower, 293, Mulsong-dong-ro, Yangcheon-gu, Seoul-st., Republic of Korea
Date of Receipt : Jan. 15, 2015
Certificate No. : K-150056
Page(1) / (1)Page and
Date of Enforcement : Jan. 20, 2015

2. Use of Report : Quality management
3. Test Sample : Escalator handrail UV sterilizer device
4. Date of Test : Jan. 15, 2015 ~ Jan. 20, 2015
5. Test method used : Pour Plate Method
6. Testing Environment : Temperature : 25 ± 0.5 °C, Relative Humidity : (65 \pm 5) % R.H.

Test Results							
Items	Unit	The synthesis water	Result				Remark
			1 turn	10 turn	20 turn	30 turn	
Staphylococcus aureus	CFU/mL	1000	100	250	95	110	-

Notice 1. The results shown in this test report refer only to the offered sample by client.
2. The test report cannot be used for the purpose of litigation or advertising, and shouldn't be republished without document approval.

Received by : Hyunho Seo
Tested by : Inkyu Doek
Technical Manager : Minhyoung Song

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시험성적서

1. Client Name : SOOKYOUNG CO., LTD.
Address : 804, HyundaiTower, 293, Mulsong-dong-ro, Yangcheon-gu, Seoul-st., Republic of Korea
Date of Receipt : Feb. 2, 2015
Certificate No. : K-150107
Page(1) / (1)Page and
Date of Enforcement : Feb. 9, 2015

2. Use of Report : Quality management
3. Test Sample : Escalator handrail UV sterilizer device lamp
4. Date of Test : Feb. 2, 2015 ~ Feb. 9, 2015
5. Test method used : Pour Plate Method
6. Testing Environment : Temperature : 25 ± 0.5 °C, Relative Humidity : (65 \pm 5) % R.H.

Test Results						
Items	Unit	The synthesis water	Result			Remark
			30 sec.	1 min.	2 min.	
Staphylococcus aureus	CFU/mL	1500	Not Detected	Not Detected	Not Detected	-
Escherichia coli	CFU/mL	1300	-	Not Detected	-	-

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Certified by
Korea Environment & Water Works Institute
Life, Environment & Food Institute
FITI Testing & Research Institute
Food Analysis Institute



Comparison between UV sterilization and other sterilization methods

	UV sterilization	Heat sterilization	Ozone sterilization	Chemical sterilization	Radio-sterilization
Sterilization of mycetoma	Effective against all	Effective against all	Effective against all mycetomas	Effective against specific	Effective against all
Physical property change (Handrail)	Little change	Occasional	Occasional	Occasional	Little change
Permeability	No permeability (except air and water)	Effective even inside the object	Effective on the object surface	Effective even inside the object	Effective even inside the object
Sterilization time	Short	Considerably	Long	Considerably	Short
Usage	Easy	Occasionally	Difficult	Easy	Difficult



Would you
still hold
any handrail?