



Non-Powered

Escalator Handrail Sterilizer



Ultraviolet sterilizers

**CLEAR
WIN**

IDEACITY COMPANY

www.ideacity.co.kr



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

Characteristics



Continuous sanitization

Strong and continuous sanitization along with escalator drive



Easy installation

Maintain existing facilities as they are



Compact and safe design

No interruption to the passenger



UV Sanitization

99.99% Efficacy rate on COVID-19



Self generation

Safe self generation method without the danger of electrical hazards



Promotional printing available

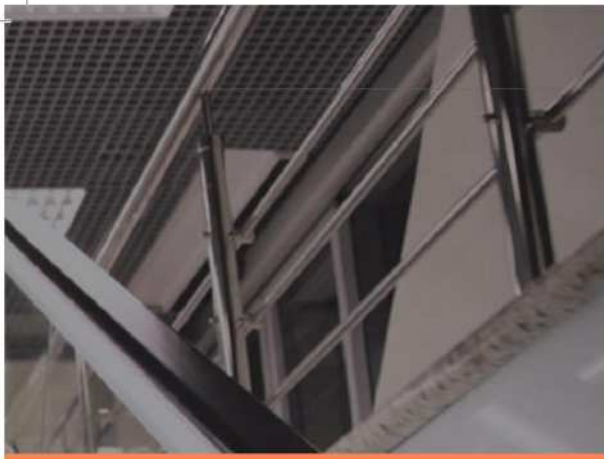
Company logo printing is available on the front cover



Safety

Multiple safety devices to prevent hand stuck

**CLEAR
WIN**



*Escalators and Moving walks **installation facility***



Hospital



Airport



Subway



Department & Shopping mall

PRODUCTS



Stainless steel type
(Metro, subway)



Tempered glass type
(Airport, Hotel, Shopping mall, Hospital...)



Housing

Strong L-shape structure
Stainless steel



UV-C LED

Strong Ultra violet C-wavelength
Dual UV-C LED lamp



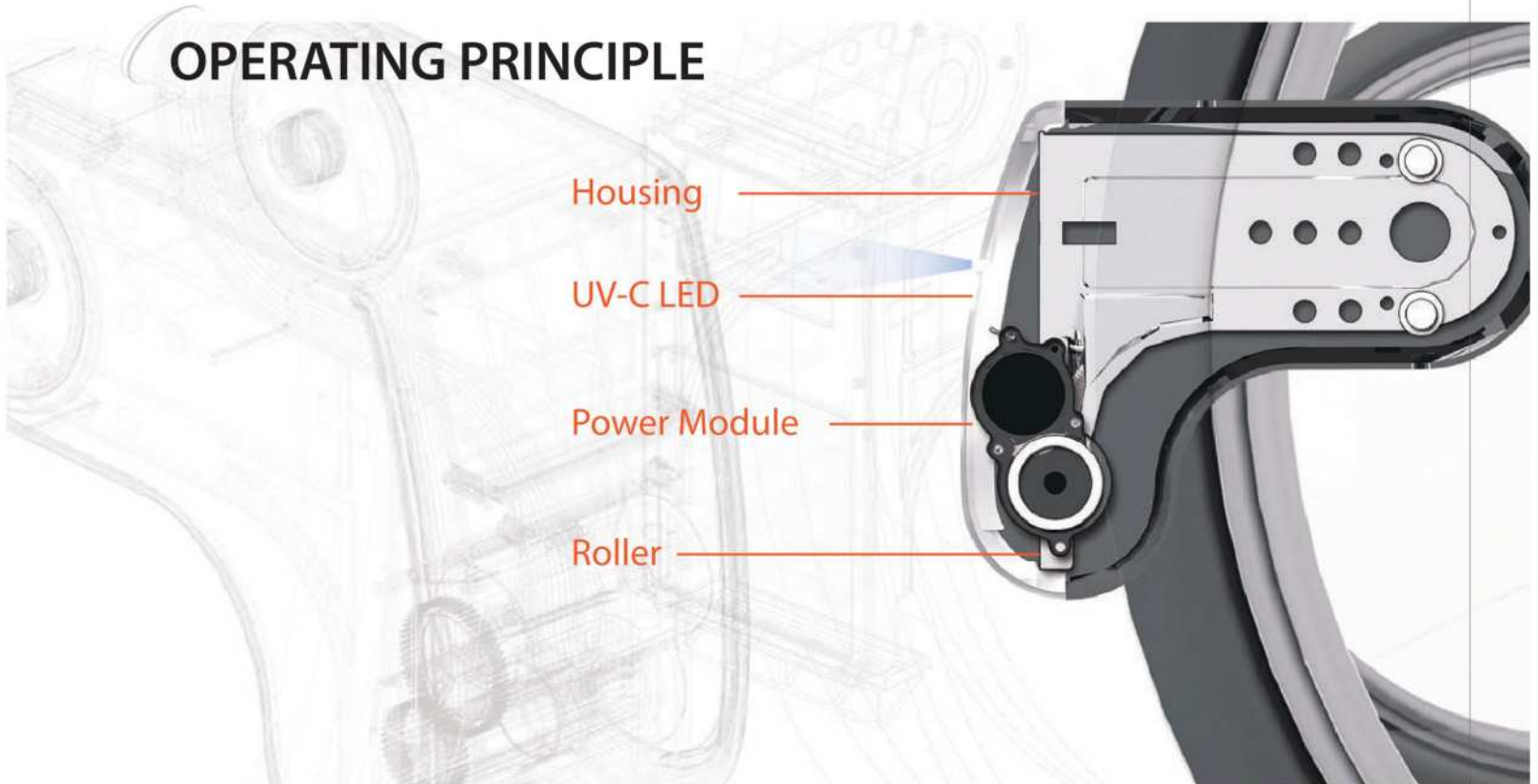
Power module

Convert rotary motion of
handrail into electric power

SPECIFICATION

Product name	CLEARWIN	Generator output	24V, 40~50W
LED UV lamp	0.5~6.5W Wavelength:265nm	Cover	PC ABS Black and white
Product size	130x220x260mm	Origin	Made in Korea
Product weight	GLASS:2.8kg / SUS:1.8kg	Patent No.	10-16665676

OPERATING PRINCIPLE



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.

CLEARWIN

Comparison between UV sterilization and other sterilization methods

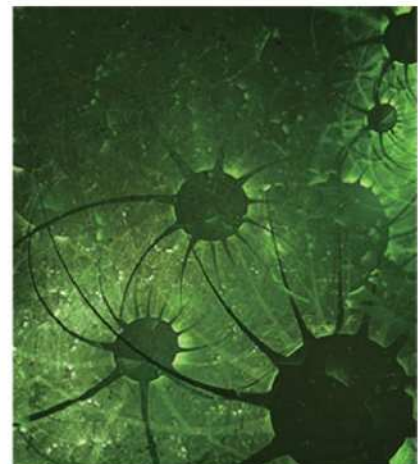
	UV sterilization	Heat sterilization	Ozone sterilization	Chemical sterilization	Radio-sterilization
Sterilization of mycetoma	Effective against all	Effective against all	Effective against all mycetomas	Effective against specific	Effective against all
Physical property change (Handrail)	Little change	Occasional	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



UV-C disinfection method doesn't deform other than chemicals or heating system



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



Sterilization effectiveness to all bacteria

by using the sterilizing power of a dual lamp.

TEST REPORT

《한국환경수도연구원》

한국환경수도연구원
200, Mokdong-ro, Seongbuk-gu, Seoul 152-800, Korea

Korea Environment & Water Works Institute
200, Mokdong-ro, Seongbuk-gu, Seoul 152-800, Korea
Tel: 45-2-2021 / Fax: 45-2-2021 / E-mail: kswi@kswi.co.kr

시험결과서

1. Client Name : SOOYOUNG CO., LTD.
Address : 404, Hundaehouse, 200, Mokdong-ro, Seongbuk-gu, Seoul-gu, Republic of Korea
Date of Receipt : Jan. 15, 2015

Certificate No. : K-100066
Page(1) / 10Page end.
Date of Enforcement : Jan. 25, 2015

2. Use of Report : Quality management
3. Test Sample : Oscillator (vibratory) UV sterilizer device
4. Date of Test : Jan. 15, 2015 ~ Jan. 20, 2015
5. Test method used : Flow Plate Method
6. Testing Environment : Temperature : (25 ± 0.1) °C, Relative Humidity : (45 ± 10) %RH

Test Results

Items	Unit	Result					Remark
		The synthesis water	1 sum	10 sum	20 sum	30 sum	
Staphylococcus aureus	CFU/mL	1,000	180	260	88	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.

Requested by : Eunha Seo
Tested by : Inyeo Beck
Technical Manager : Minyoung Song

Korea Environment & Water Works

FPC05-3B(13)

Korea Environment & Water Works Institute

A4(210×297)


전북대학교
Jeonbuk National University

COVID-19 TEST REPORT
Efficacy test for sanitizing device against CORONAVIRUS

JEONBUK NATIONAL UNIVERSITY
INDUSTRY-ACADEMIC JOINT RESEARCH CENTER

Test period : 2020.06.01 ~ 2020.07.08

Report No. : 2010000941

Host Representative : Jaeyoung Cho, Kwangsu Yoo

Company : CLEARWIN KOREA Co., Ltd

Address : #703. 88 Jeonpa-ro, Dongan-gu, AnYang city, Kyonggi province, Republic of Korea

*** Test goal**

- Evaluation of the efficacy of the virus sanitizer device commissioned by CLEARWIN KOREA Co., Ltd. in an in-vitro Environment.

Sample name : Escalator Handrail Sanitizer

TEST RESULTS(1/3)

UV reaction times	log10TCID ₅₀ ml	UV reaction times/virus removal efficiency (%)
Unreacted	7.50	
1 time	6.50	90%
10 times	3.33	>99.99%
20 times	<0.5	>99.99%
30 times	<0.5	>99.99%

*** Test condition**

- As a result of the virus cell culture test, the dilution rate in which virus inactivation was confirmed becomes an effective concentration. In this case, the effective inactivation ability of the disclosed virus becomes the average value of the best results repeated 3 times.
- Through this experiment, it was confirmed that the CORONAVIRUS has been sanitized by more than 99.99% when the CLEARWIN KOREA UV-C sanitizer device exposes the virus to the UV-C light for 0.7 seconds more than 10 times (17 seconds in total)
- This particular test is the first one out of three total tests. From the 3 tests, the virus removal rate after just one revolution resulted in 90%, 68%, and 78% respectively. All three tests had the same results where after 10 revolutions, it had 99.99% sanitization rate.

Jul.17. 2020





JEONBUK NATIONAL UNIVERSITY
INDUSTRY-ACADEMIC JOINT RESEARCH INSTITUTE
KOREA ZOOONOSIS RESEARCH INSTITUTE



Attested by Notary Public

Kwangsu Yoo (01-11111111)
Head of subjective research

CERTIFICATE

<div style="text-align: center;">  <h2 style="text-align: center;">FCC</h2> <h3 style="text-align: center;">DECLARATION OF CONFORMITY</h3> </div>	
Applicant Name: Clearwin Korea Inc. Applicant's Address: 48 Eumseong-dong, Yeongju-si, Gyeongsangbuk-do Republic of Korea Manufacturer's Name: Same as above Manufacturer's Address: Same as above	
Declares that the product:	
Type of Equipment:	Chairman
Model Name:	YK-01-0010
Serial Number:	Foreigning
Variant Model:	YK-000000
Applicable Regulations: PART 15 of Subpart B	
<p>I, the undersigned, hereby declare that the equipment specified above conforms to the above Declaration and functionality as described in the attached test report.</p> <p style="text-align: center;">Authorized Representative</p> <p>Korea Standard Symbol</p> <p> 107-15, Ganghwa-dong 1-gil, Yeongju-si, Gyeongsangbuk-do Ganghwa-dong, Yeongju TEL: 053-258-7310 Fax: 053-258-7300 </p> <p style="text-align: right;"> Date of Issue: / Jan. 26, 2019 Authorized Signature:  CLARWIN KOREA Co., Ltd. PRESIDENT / KIM JOO CHUL </p>	

특허증 DIPLOMA OF PATENT		
출원번호 Application No.	제 10-2013-008123 호	
발명인 Inventor(s)	정지성 99% 이종 9%	
발명일 Date of Invention	2013년 10월 09일	
본문서 증명 : 한국지식재산위원회 대한민국 특허청 제1차법관 장영기		
출처지 : Korea 공고번호 : KR2013-0101177 출처지 : 대한민국 정부 & 공여국 : 487,200원(199만원)채소농가지원사업(농촌진흥청)		
발명자 : Inventor 한국과학기술연구원 기숙		
<p>위의 발명은 「특허법」에 의해 특허등록됨으로써 등록되었음을 증명합니다. This is to certify that, in accordance with the Patent Act, a patent for the inventor has been registered at the Korean Intellectual Property Office.</p>		
 특허청 Korean Intellectual Property Office		2013년 10월 09일 특허장관 COMMISSIONER KOREAN INTELLECTUAL PROPERTY OFFICE  박원규

EC Declaration of Conformity

According to
EMC Directive 2014/30/EU

For the following product:

Product Name	1. Cleverbit
Model Name	1. CWS-1000
Variant Model Name	1. CWS-1000
Application	1. Computer Storage Unit
Applicant's Address	1. 90 Bengawan, Pangasinan, Bengawan, Cengkeng, Bangkok of Thailand
Manufacturer	1. Same as above

We hereby declare that the product identified above meets the requirements of the EMC Directive 2014/30/EU, in full and in the conditions set forth by the member states of the EEC countries.

This declaration is valid for all samples and for all parts of the declaration, which are manufactured according to the production charts appended.



The following harmonized standards were applied in full in accordance to
Article 4 of Directive 2014/30/EU:

EN 61000-6-3:2007+A1:2011
EN 61000-6-4:2007

Signature of the
Authorized Representative
of the Manufacturer

Signature of the
Authorized Representative
of the Manufacturer

Date of Issue: June 16, 2019

CLEVERBIT KOREA CO., LTD.

RESIDENT / 1501 YOO CHEOL

[illegible]

FCC

Patent

CF

PCT

Certified by

Korean Environment & Water Works Institute / Life, Environment & Food Institute
FITI Testing & Research Institute / Korea Testing & Research Institute

This is not for choice, this is essential



Church



E-mart



GBG Subway Station



Hyundai Department Store



LG Building



LOTTE Hotel



Posco Town in China



Seoul CityHall



Severance Hospital



SRT(Korea express train)



Taiwan Hospital



Taoyuan Airport Taiwan



IDEACITY COMPANY
SISTER COMPANY YANMA GNS CO.,LTD.

+82-32-822-1314~6 +82-32-822-1317 info@ideacity.co.kr

Office : #306, Namdong Techno Tower, 189 Hogupo-ro, Namdong-gu Incheon Metropolitan City, South Korea
Factory : #703, 88 Jeonpa-ro, Dongan-gu, Anyang-si, Gyeonggi-do, South Korea