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D E S I G N 30-2020-0038609
T R A D E M A R K 40-2020-0141828
P C T KR2021/000955



CLEARSCAN
Portable UV-C Sanitizer Pen

KEY FEATURES

Clearwin Korea's unparalleled UV-C sanitation technology has been applied

CLEARSCAN



UV-C LED Sanitization Power

99.99% sanitizing rate for Coronavirus
Proven in Korea Zoonosis Research Institute



Portability

Compact and lightweight for portability
32 gram



Safety

Double Lock and timer function for safety
As well as the built in Gyro Sensor



Neat Design

Simple and smart design with
essential functionalities



Long Lamp Lifespan

More than 10,000 hours of germicidal lamp life
Up to 200 times operation after 40 mins charge



Logo Printing

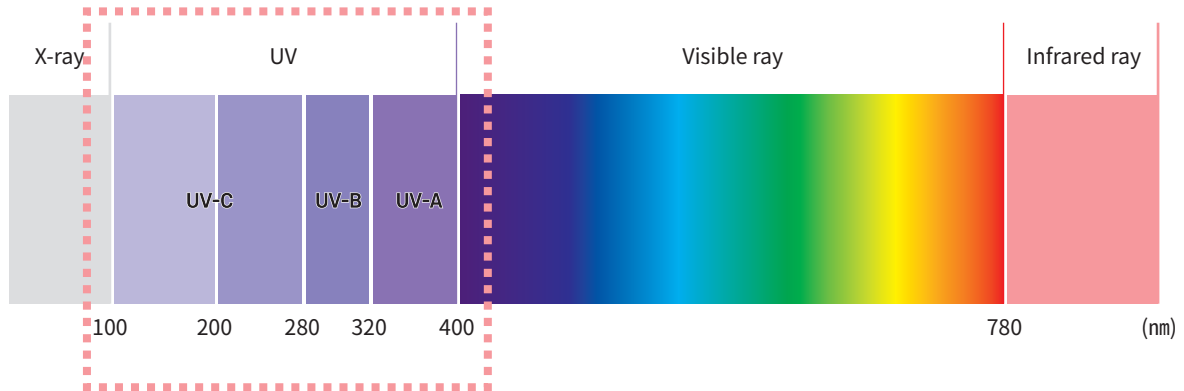
Promotional Printing



By supplying CLEARWIN/CLEARSCAN to over 50 Countries around the world,
we are contributing to the prevention of COVID-19 and the promotion of public health and hygiene.

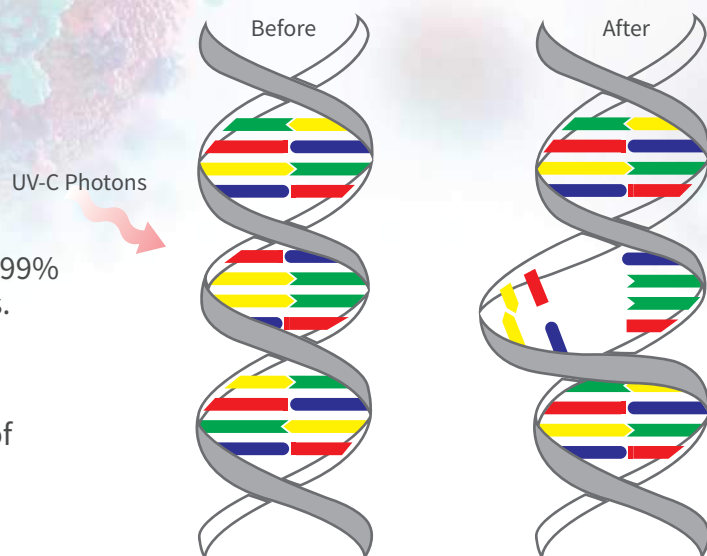
UV-C SANITATION

Light Spectrum



- | The ultraviolet rays are divided into three types: UV-A, UV-B and UV-C depending on the wavelength. Out of these rays, only the UV-C is capable of effectively eliminating germs and viruses.
- | UV-C is used for various sanitization purposes such as household and industrial uses since early 1930's.
- | Clearscan uses UV-C wavelength of 260-270nm, which has the best ratio for disinfection power with the current technology.

DNA & RNA structure destruction



- | UV-C is an eco-friendly light with 99.99% sanitizing effect on micro organisms.
- | It destroys and alters the structure of DNA and RNA in living cells.

APPLICATION

“Essential for current quarantine
3 seconds of CLEARSCAN”



At School, Office, Home and Outdoor

Personal items



PC peripheral

Accessory

Mobile device



Mask

Bill

At Mall, Restaurant and Public Transport

Public goods / Multiple facilities



Elevator button

Mart

Restaurant



Public Transportation

Handle

SPECIFICATION



Color

- Standard



BLACK



DARK GREY



NAVY



WHITE



MINT



PINK



SILVER



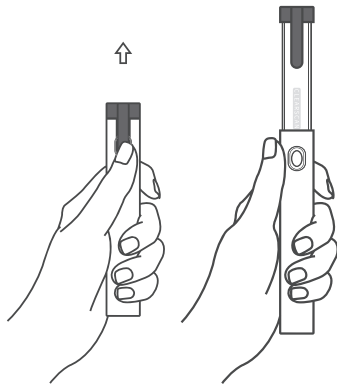
GOLD

- Premium

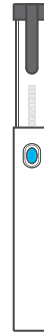
CLEARSCAN

Model No.	CWK-CS-1020	Length / Weight	127 X 21 X 16mm / 32g
Total LED Output	UV-C 21.6mW	DC Input	DC5V/MAX 500mA
Lamp Life Span	10,000 Hr	Input Interface	MICRO USB C TYPE
Battery Capacity	3.7V 230mA	Operating Temp.	-10~55°C
Wavelength	UV-C 260-270nm	Origin	MADE IN KOREA

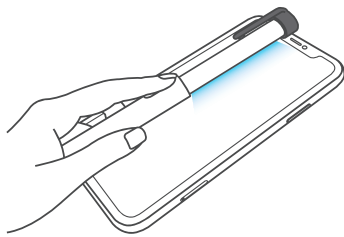
OPERATION



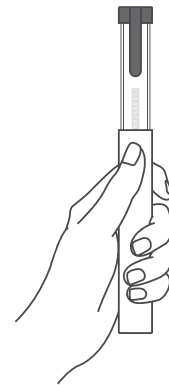
- 1 | Push the clip of ClearScan upwards with enough force to pull out the inner body until a click sound is heard and the power button is seen.



- 2 | Press the On/Off button for 1 second to turn on the device. Single operation will last for 20 seconds and will shut down itself immediately after.

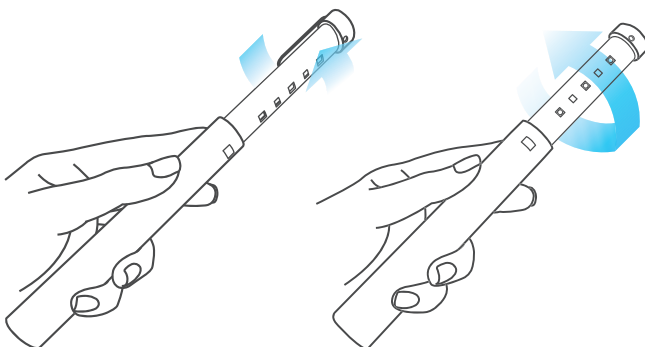


- 3 | Position the lamp within 3cm from the desired object to be sanitized. Turn on the device to start sanitizing. (Be wary of UV-C exposure.)



- 4 | Press the button once again, to turn off the device at any moment during the operation.

SAFETY GYRO FUNCTION



In order to protect the user's eyes, ClearScan has a built in Gyro sensor function where if the device were to rotate over 90 degrees, it will shut itself down.

To use the device without activating the Gyro sensor, simply hold the power button when rotating more than 90 degrees.

■ PRECAUTIONS ■

- (1) Do not expose body parts directly to UV-C light.
- (2) Do not look directly into the lamp light.
- (3) Keep away from children.

CERTIFICATE

EC Declaration of Conformity

EC Declaration of Conformity

According to
EMC Directive 2014/30/EU

For the following product:

Product Name: ClearScan
Model Name: CWK-CS-1020
Variant Model Name: -
Applicant: Clearwin Korea Inc.
Applicant's Address: 88 Jeonpa-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea
Manufacturer: Same as above

We hereby declare that the product identified above meets the requirements of the EMC Directive 2014/30/EU, as laid out in the guideline set down by the member states of the EEC commission.

This declaration is valid for all samples that are part of this declaration, which are manufactured according to the production charts appendix.



The following harmonized standards were applied in full in accordance to Article 6 of Directive 2014/30/EU:

EN 55014-1:2006/A2:2011
 EN 55014-2:1997/A2:2008

[Signature]
 Date of issue: October 6, 2020
(Name and signature of authorized person)

Clearwin Korea Inc.
 88 Jeonpa-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea

CE

Supplier's Declaration of Conformity

FCC RULES PARTS 15 SUBPART B CLASS B ALL OTHER DEVICE

For:

Product: ClearScan

Model Name: CWK-CS-1020

AUTHORIZED

Clearwin Korea Inc.
 88 Jeonpa-ro, Dongan-gu, Anyang-si, Gyeonggi-do, Republic of Korea

September 28, 2020

SUMMARY

The above equipment complies with the applicable technical standards as indicated in the measurement report and was tested in accordance with the measurement procedures specified in ANSI C63.4a:2017.

[Signature]
 (signature)

This is only valid in connection with Test Report: E20WD-268

The test report is not related to ICAS accreditation and it is not allowed to reproduce it in full or part, without the written approval of manufacturer Co., Ltd.
 48, Gurochoerimnam2-ro 2-gil Guro-gu, Gyeonggi-do, 10886, Republic of Korea Tel: (02)31-353-9384 Fax: (02)31-353-9382

FCC

Final Report Summary

Efficacy Study of a UVC Light Disinfection Pen

Project Title: Antibacterial efficacy testing of a UVC light disinfection pen.

Study Methods: ASTM E3135 Standard Practice for Determining Antimicrobial Efficacy of Ultraviolet Germicidal Irradiation Against Microorganisms on Carriers with Simulated Soil.

Study Period: October 21-November 19, 2020

Product Tested: UVC disinfection pen (Clearwin Korea Co., Ltd)

Challenge Organism: Staphylococcus aureus (ATCC 6538) and E. coli (ATCC 25922)

Treatment Times: 0 (untreated control), 1, 3, 5, and 10 seconds at room temperature

Distance: 1/2 inch away from UVC lights on the pen

Experimental Results:

Table 1. Antibacterial efficacy of the UVC light device against S. aureus.

UV Treatment (seconds)	Bacterial Recovery (average CFU/ml)	Log	Log Reduction	%Kill
0 (Control)	4,430,000	6.63		
1 sec	109,000	5.23	1.42	96.2
3 sec	66,700	4.82	1.82	98.5
5 sec	34,200	4.53	2.11	99.2
0 (E. coli control)	11,700,000	7.07		
10 sec	700	2.85	4.22	99.994

Table 2. Antibacterial efficacy of the UVC light device against E. coli.

UV Treatment (seconds)	Bacterial Recovery (average CFU/ml)	Log	Log Reduction	%Kill
0 (Control)	490,000	5.69		
1 sec	21,000	4.32	1.37	95.7
3 sec	11,700	4.14	1.55	97.2
5 sec	6,200	3.79	1.90	98.8
10 sec	230	2.36	3.33	99.96

Conclusions: The UVC light disinfection pen was effective at reducing the bacteria on test surfaces and showed 99.994% as the highest kill against S. aureus and 99.96% against E. coli.

Signatures:
 Study Performed by: *[Signature]*
 Report Issued by: *[Signature]*
 Mona Barasa, Ph.D., Microbiologist
 Jaeyoung Cho, Ph.D., Vice-President of Microbiology & Life Sciences Study Director

EMSL Analytical, Inc. Order ID: 152007541 www.emsl.com

EMSL

COVID-19 TEST REPORT

Efficacy test for sanitizing device against CORONAVIRUS

JEONBUK NATIONAL UNIVERSITY
 INDUSTRY-ACADEMIC JOINT RESEARCH

Report No.: 2020000641 Test period: 2020.06.01 - 2020.07.08

Host Representative: Jaeyoung Cho, Kwangsu Yoo
 Company: CLEARWIN KOREA Co., Ltd
 Address: #703, 88 Jeonpa-ro, Dongan-gu, Anyang city, Gyeonggi 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	log ₁₀ TCID 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 test results repeated 3 times.
 - Through the experiment, it was confirmed that the CORONAVIRUS has been sanitized by more than 99.99% when the CLEARWIN KOREA UVC sanitizer device exposes the virus to the UVC light for 0.7 seconds more than 10 times (17 acceptors 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%, 88%, 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 ZOOZONOSIS RESEARCH INSTITUTE

Attested by Notary Public Kwangsu Yoo (Seal)
 Head of subjective research

COVID-19 TEST REPORT

This is not for choice,
it's **essential!**



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Factory: #703, 88 Jeonpa-ro, Dongan-gu, Anyang-si, Gyeonggi-do, South Korea
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