# Finger Tip Pulse Oximeter UV-C Sterilizer Virus Killer

Model:VK-254



## Sterilization for Inside cabinet

\*\*The picture is image. It can not see UV light from out side.







on the catcher





Put the cover on the stand

**3** PUSH

Push switch sterilization start /stop automatically



## **Theory 30sec 99.9% Virus Inactivation**

Virus Killer 254 gives 254nm UV-C light which has influence to inactive the virus strongly. UV-C sterilizes 99.9% virus by induction of viral genome damage without apparent effects on viral morphology and proteins. Required UV-C dose to inactivate of virus depend on kind of virus. \* According to some reports, required UV-C dose to 99.9% inactivate SARS- CoV-2 (3.7-5.3mJ/ cm<sup>2</sup>) is lower than Influenza-A(6.6mJ/ cm<sup>2</sup>).Our product VK-254 has 7.5mJ/ cm<sup>2</sup> of UV-C dose. It is enough ability to inactivate SARS-CoV-2.

# $\frac{\text{UV-C intensity}}{250\,\mu\text{W/cm^2}} \times \frac{\text{Time}}{30} = \frac{\text{UV-C dose}}{7.5} \text{mJ/cm^2}$

Research of inactivation Institute Milan univ Boston univ Lights 254nm lamp UV-C dose Wet : 5.3 3.7  $(mJ/cm^2)$ **Dry** : 4.1 Necessary UV-C dose for 7.5mJ/cm 99.9% Virus inactivation 6.6mJ/cm UV-C dose Virus Influenza-A Killer` SARS-CoV-2

▲ Required each UV-C dose for inactivation of virus

Referenced: 1) UV-C irradiation is highly effective in inactivating and inhibiting SARS-CoV-2 replication,Mara Biasin et al., Scientific reports, 11 (2021) 6260\_1-7. https://doi.org/10.1038/s41598-021-85425-w 2) Rapid and complete inactivation of SARS-CoV-2 by ultraviolet-C irradiation,Nadia Storm et al., Science Report, 10 (2020) 22421. https://www.nature.com/articles/s41598-020-79600-8

## Safety design for eyes and skin from UV light

The machine is not active unless put the cover on the stand.

It stops to work when cover is opened.



# LED illumination status indicator

LED illumination shows current status

## On sterilization process

On the process the LED flashing

#### **"UV-C device" remaining life** It shows remaining life cycle by flashing

It shows remaining life cycle by flashing pattern

### "UV-C device" trouble

The LED flashes with unique interval

Product name	:	Virus Killer 254	Irradiation time	:	30sec/operation
Model	:	VK-254	Accessories	:	AC adaptor
Power	:	AC100-240V	Operation temp	:	0~45°C
Rated power	:	1.5W (Active)	Size	:	W70×D70×H115(mm)
		0.8W (Stand by)	Weight	:	Approximately 250g
UV-C device	:	LED			(without AC adaptor)
		Peak Wave length 254nm	Warranty		1year
		Life cycle 10,000 times			

%This product supports most of pinch type finger tip pulse oximeters. However it is not available for all oximeters.
%UV-C has feature to be rubbished to ABS materials. So it may damage the oximeter body color to yellow like a sunburn.

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