Air sterilization mode

Example applications

Doctor's office

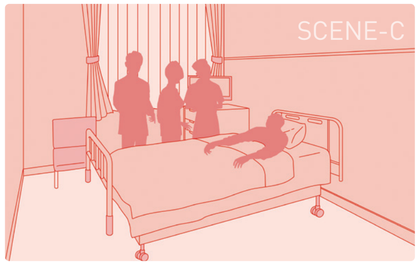
In environments where conversation takes place during consultation.

Waiting room

In waiting rooms, where conversation takes place at reception.

Patient room

In patient rooms with patients.



Specifications

Product name	MULTI LIZER
Model	ML-100
Power source	AC adapter Model: ATS024T-W120U Input: 100-240VAC, Output: DC12V/2A
Operating conditions	Ambient temperature: 0-40°C Relative humidity: 20-85% Ambient pressure: 70-106kPa
Storage conditions	Ambient temperature: 10-45°C Relative humidity: 10-90% Ambient pressure: 50-106kPa
External dimensions	Depth 140mm×Width 140mm×Height 418mm
Weight	Approximately 1.3kg
Accessories	UV lamp×1 (Installed), AC adapter×1, Filter×2 (Installed), Remote control×1 Battery for remote control (CR2032)×1, User's manual×1
Sterilization method	Ultraviolet sterilization, forced air circulation sterilization
UV lamp	Model: G6T5/225/4P Lamp power: 5.9W, germicidal output: 1.6W, UV irradiance: 10uW/cm² or more at a distance of 1m (around 20uW/cm² at maximum) Effective radiation range: between 45° above and 45° below the lamp center, Service life: 6000 h, UV wavelength: 254nm (no ozone formation)
Processing air flow rate	High: 25m³/h Low: 21m³/h
Preset irradiation time	10 min/60 min/180 min/420 min
Buzzer function	On (default)/Off
Human detection sensor function	On (default)/Off
Safety auto power-off function	On/Off (default)

Bacteria/Viruses	Standard time required for sterilization with this unit [min]		
	1m radius	2m radius	3m radius
Myxomycetes	6.3	25.2	56.7
Shigella (dysenteriae)	7.1	28.4	63.9
Shigella (paradysenteriae)	7.2	28.8	64.8
Salmonella typhi	7.4	29.6	66.6
Escherichia coli	9.0	36.0	81.0
Hemolytic streptococcus (Group A)	12.4	49.6	111.6
Legionella	12.5	50.0	112.5
Staphylococcus albus	15.1	60.4	135.9
Staphylococcus aureus	15.5	62.0	139.5
Salmonella paratyphi	16.0	64.0	144.0
Vibrio cholerae	17.0	68.0	153.0
Hemolytic streptococcus (Group D)	17.6	70.4	158.4
Bacillus anthracis	22.5	90.0	202.5
Enterococcus	24.8	99.2	223.2
Mycobacterium tuberculosis	25.0	100.0	225.0
Pseudomonas aeruginosa	27.5	110.0	247.5
Bacillus mesentericus	29.9	119.6	269.1
Bacillus subtilis	35.0	144.0	324.0
Salmonella typhimurium	40.0	160.0	360.0
Novel coronavirus (SARS-CoV-2)	6.5	26.0	58.5
Influenza virus	11.0	44.0	99.0
Hepatitis A virus	18.3	73.2	164.7
Poliovirus	20.0	80.0	180.0
Feline calicivirus	35.0	140.0	315.0
Rotavirus	40.0	160.0	360.0

Standard radiation time setting

Although UV radiation is effective for killing/inactivating various bacteria and viruses, tolerance to UV varies among bacteria/viruses. For example, the UV dose required for killing 99.9% of Escherichia coli is 90μW・min/cm², which means that 99.9% sterilization can be achieved by applying UV radiation at an irradiance of 90μW/cm² for 1 min or 45μW/cm² for 2 min. The table on the left lists the standard time required for achieving 99.9% sterilization of various bacteria/viruses with this unit.

[Notes]
●The "Standard time required for sterilization with this unit" provided in the left table is a theoretical value calculated from the UV dose required for killing/inactivating 99.9% of the bacterium/virus and the UV dose applied by this unit (10μW/cm², the minimum dose at a distance of 1m).
●The UV dose requirement for SARS-CoV-2 provided in the table is based on experimental data reported as of December 2020 and not on conclusive data.

References
1. Kawabata, Harada: Journal of the Illuminating Engineering Institute of Japan 36 (1952)
2. Water Environment Federation: Wastewater Disinfection (Manual of Practice Facilities Development)
3. Kaufman, John E.: IES Lighting Handbook (5th ED.)
4. Hirata, Iwasaki, Otaki: Ultraviolet radiation – Applicability to water disinfection -
5. Nadia Storm et al.: Rapid and complete inactivation of SARS-CoV-2 by ultraviolet-C irradiation

Cautions

This unit is intended solely as an aid for preventing infections and does not guarantee 100% sterilization.
Please practice standard infection prevention measures such as social distancing, good ventilation and disinfection in addition to using this unit.

●Specifications and appearance of the product may be changed without prior notice for improvement. ●This product is not a medical device.

Manufacturer: **TOP Corporation** 19-10 Senjunakai-cho, Adachi-ku, Tokyo 120-0035, Japan

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THE TOP IN QUALITY
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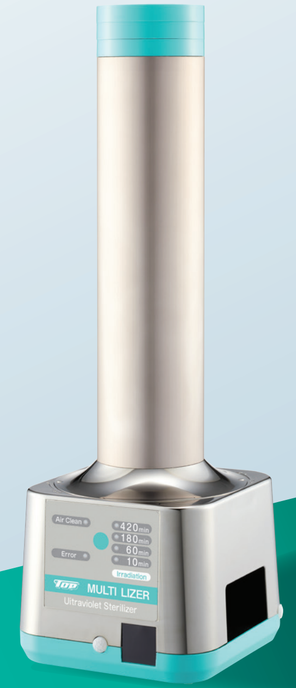
MULTI LIZER ML-100

UV sterilizer



Two sterilization modes to choose from, depending on the environment
Compact design suitable for a wide range of applications

In the presence of people

Air sterilization mode

The unit sterilizes the surrounding space by drawing in air and sterilizing the air by UV radiation.

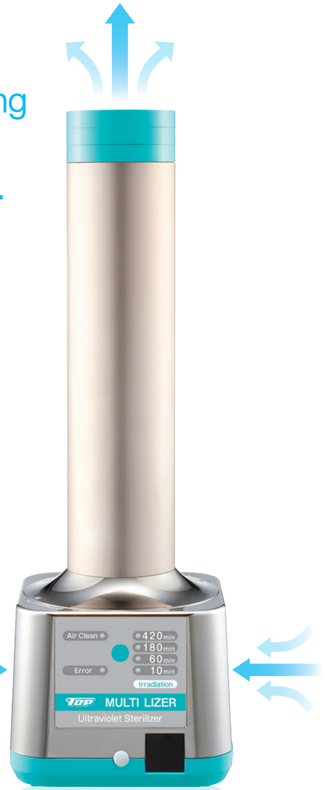
Air circulation volume

The unit can take in and send out a volume of air equivalent to a room of about 10m^2 in 1 hour.

※When using this unit, it is recommended to circulate air in the room with air conditioners, etc.

Control panel

Control switch



Safety auto power-off function

If you forget to turn OFF the power, it will turn OFF automatically after 8 hours of use.

Cover detection switch

If the cover is removed while the power is ON, it will turn OFF automatically to prevent UV leakage.

Quiet mode available

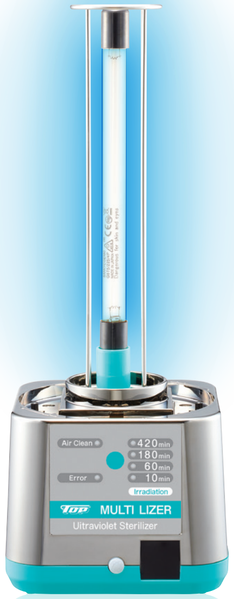
The unit offers a quiet mode with reduced fan noise.

In the absence of people

Radiation sterilization mode

The unit sterilizes air and surfaces by directly applying UV to the surrounding area.

※The unit cannot disinfect areas not reached by the UV light.



UV radiation effect

The unit applies UV with the most effective germicidal wavelength of 254nm to destroy and inactivate bacterial DNA and viral RNA.

※See the back for details.

Timer setting

Four timer settings available: 10 min, 60 min, 180 min and 420 min.

Remote control included

Power can be turned OFF using the remote control.

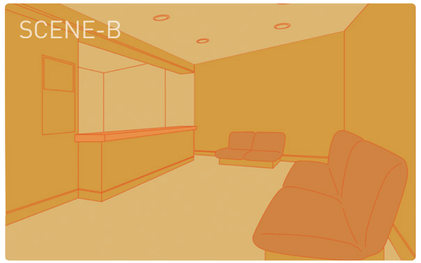
Human detection sensor

The human detection sensor detects movement of people within 5m and stops radiation automatically.

Radiation sterilization mode > Example applications

Doctor's office

In the absence of people, such as during night-time after business hours.



Waiting room

In waiting rooms without any people, such as during night-time after business hours.

Patient room

In patient rooms without patients.