VIOLET by clinell®

powered by *UVDI* technology

5x faster than other UV Devices[1]

Violet Room Sanitiser by Clinell is the most cost effective ultraviolet device on the market. It is the ideal choice for terminal cleaning after patient discharge.

Clinically proven

Greater than 99.99% reduction in *C. difficile* spores and MRSA.

Better by design

Not all UV devices are the same, the design of the device plays a crucial role and Violet is proven to be 5 times faster at killing *C. difficile* than other UV devices[1].

Powerful 1.6m leading lamp technology

Uses four 1.6m maximum output polymer-encapsulated UV lamps which are 7 times more powerful than competing lamps. The aluminium reflector mast has been designed for optimum UV-C energy distribution.

Lightweight, durable and easy to move

Only weighs 40kg allowing for easy movement around the hospital. The unit has undergone extensive testing to ensure toughness and durability.

Used in over 100 top US hospitals

Violet utilises UVDI technology, the trusted leader in ultraviolet disinfection with over 60 years heritage.

Safe to use

Four infrared motion sensors prevent operation if movement is detected within the room. In addition the remote control has an operating range of approximately 50 feet (even through walls).

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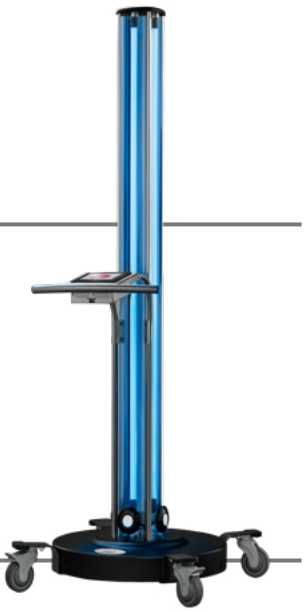
HOW ULTRAVIOLET LIGHT WORKS



Violet uses germicidal wavelength ultraviolet radiation (UV-C) to kill microorganisms.

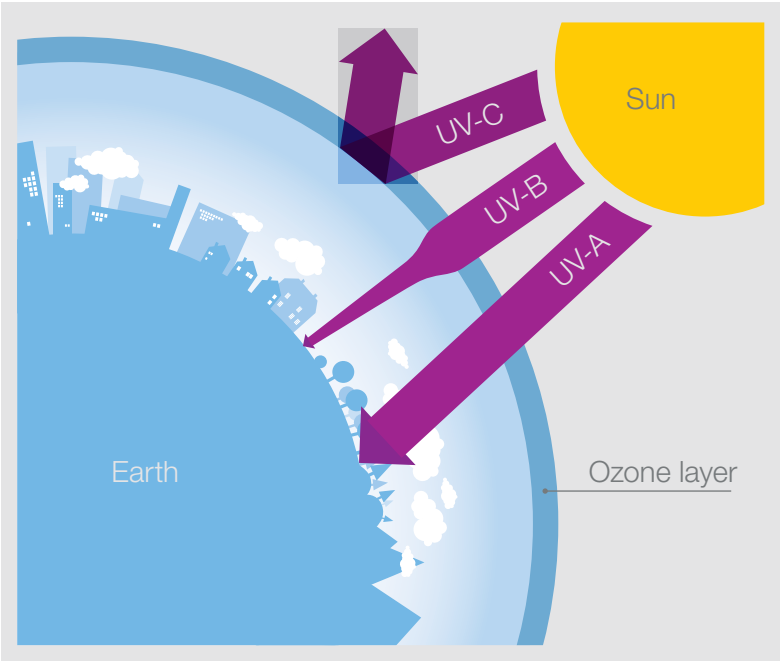
How it works

The sun emits three types of UV radiation:

UV-A (315nm-400nm):
Black light used for tanning lamps, can be harmful to eyes.

UV-B (280nm-315nm):
Can cause sunburn and skin cancer.

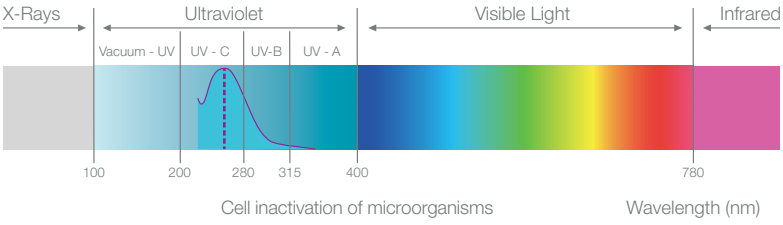
UV-C (200nm-280nm):
Kills microorganisms via short-wavelength ultraviolet radiation. This radiation is normally stopped by the Earth's ozone layer.

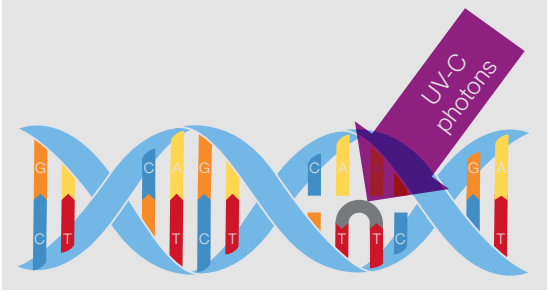


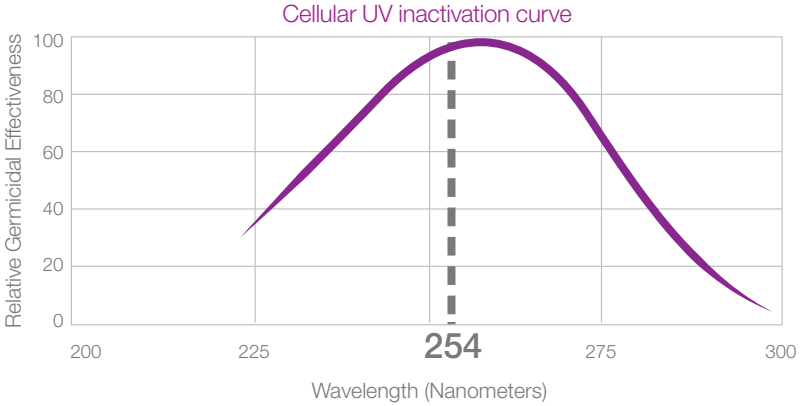
The power of UV-C

Violet generates artificial UV-C energy by ionizing low pressure mercury vapour in germicidal ultraviolet lamps.

Ionized mercury emits a predominantly discrete wavelength of 254nm - in the UV-C band which is an ideal wavelength for destroying DNA/RNA of microorganisms.







Room decontamination units (such as ultraviolet-C and hydrogen peroxide systems) aid in reducing environmental contamination after terminal room cleaning and disinfection[2].

Third-party testing results for Violet room sanitiser against *C. difficile* spores and MRSA

MICROORGANISM	DISTANCE (FEET)	TIME (MINS)	% REDUCTION COMPARED TO CONTROL	LOG REDUCTION COMPARED TO CONTROL
Clostridioides difficile (endospores)	3	4	>99.995	>4.32
	8	5	>99.992	>4.09
	12	8	>99.995	>4.32
Methicillin Resistant *Staphylococcus aureus* (MRSA)	3	1	>99.999	>5.69
	8	2	>99.999	>5.69
	12	3	>99.999	>5.69

Results verified by third-party laboratory.

Safe and effective way to reduce or eliminate microorganisms[3]

Studies have shown that UV-C technology can reduce the microbial burden and the risk of HCAIs.

After using a UV-C device for one year, "Rates of *C. difficile* infection (CDI) declined 25% on the study units and increased 16% on non-study units. There was a significant association between UV device usage and decline in CDI incidence"[4].

"After implementation of UVD, a dramatic decrease in the incidence of Pseudomonas was noted, potentially avoiding numerous infants from becoming colonized or infected"[5].

Advantages over other no-touch room decontamination technologies

1. Rapid room decontamination.
2. Can be used in high turnaround areas or rooms.
3. Ventilation system does not need to be disabled.
4. Smoke alarm does not need to be disabled.
5. UV-C radiation leaves no residual contamination or by-products which may cause health and safety concerns.
6. No consumable products. This ensures operating costs are low.
7. Can be used as part of a daily disinfection routine.
8. Safe for staff and patients. Ordinary glass and plastic windows will block any UV-C radiation and there is no need to seal room.
9. Room can be used immediately on completion.

Greater than
99.99%
kill of microorganisms and is effective from 1 minute.

TWO STEP BUNDLED APPROACH

A comprehensive two step bundled approach to environmental cleaning and disinfection.

Step 1: Regular cleaning/disinfection procedures with Clinell wipes.
Step 2: Supplement with UV light to ensure complete decontamination.

Comprehensive cleaning solutions

It is now generally accepted that contamination of environmental surfaces in hospital rooms plays an important role in the transmission of several key healthcare-associated pathogens[2,6,7]. Many of these pathogens persist in the environment for days and some even for months[8].

Admission to a room previously occupied by a patient with MRSA, or *C. difficile* increases the risk for the subsequent patient admitted to the room to acquire the pathogen[2].

To decrease the frequency and level of contamination of environmental surfaces and medical equipment in hospital rooms, routine and terminal disinfection with a germicide has been recommended. Unfortunately, routine and terminal cleaning of room surfaces by environmental service personnel and medical equipment by nursing staff is frequently inadequate[7].

Multiple studies have demonstrated that less than 50% of hospital room surfaces are adequately cleaned and disinfected when disinfectants are used[2,6,7]. The implementation of enhanced education, checklists, and methods to measure the effectiveness of room cleaning (e.g. use of fluorescent dye) with immediate feedback to environmental service personnel has been found to improve cleaning and lead to a reduction in healthcare-associated infections[9].

"No-touch" methods (e.g. ultraviolet C light [UV-C], hydrogen peroxide vapour) have been developed to improve terminal room disinfection and to reduce surface contamination and thereby reduce healthcare-associated infections[2].

Studies have shown that adequate environmental cleaning is frequently lacking[6].

Violet provides you with a fast and effective UV-C device which, together with traditional terminal cleaning, gives you a comprehensive bundled approach to environmental cleaning and disinfection.

Range of use

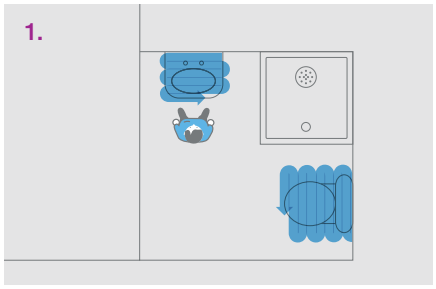
Ideal for use in most healthcare rooms and areas, such as:

1. Patient's side rooms and bathrooms after terminal cleaning.
2. Daily in high risk patient's rooms whilst the patient is undergoing treatment.
3. Operating rooms after terminal cleaning.
4. Operating rooms in between cases whilst the next patient is having an anaesthetic.
5. Haematology and oncology room suites in between patients.
6. Sluice rooms.
7. High turnaround rooms where no downtime is possible.

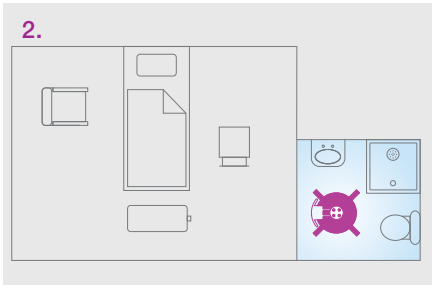
Less than 50%
of hospital room surfaces are adequately cleaned and disinfected[2].

Violet only adds 20 minutes to standard room disinfection protocols.

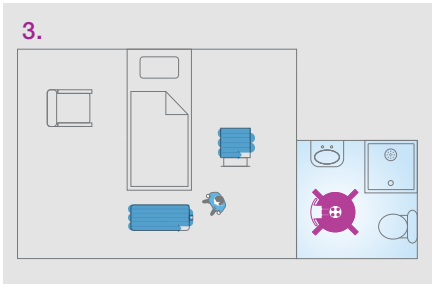
How to use



Before using Violet you must perform regular cleaning as per local policy. This is to remove any visible soiling which may reduce the efficacy of the machine. Place the 'No Entry' barrier outside of the doors. If the room has a bathroom ensure it is also cleaned thoroughly before using Violet.

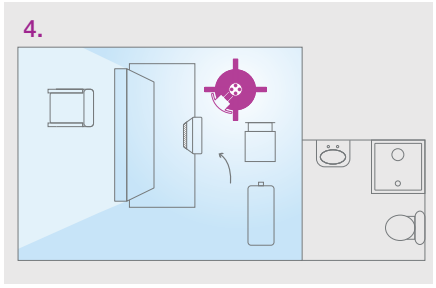


Place the device as shown above. Lift the toilet lid and seat. Set the device for 10 minutes and leave the room, ensure the door is closed behind you.

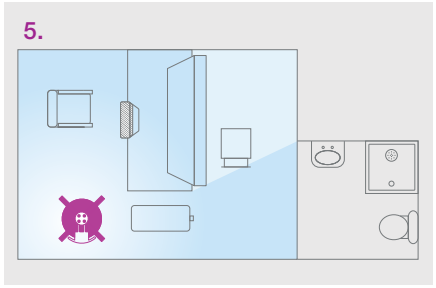


Whilst Violet is disinfecting the bathroom perform a regular terminal clean in the room, as per local policy.

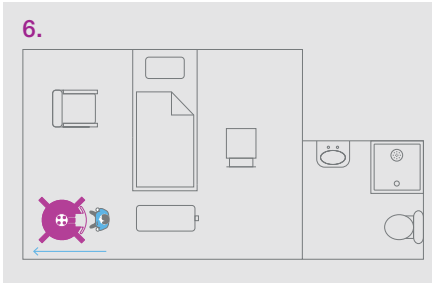
Having two placements eitherside of the bed helps to reduce shadowed areas



Check that the machine cycle is complete and all four lamps show OK. Place Violet in the room as show above. Move the bed away from the wall and roll the mattress to a 45° angle, lean on left bed rails. Place the pillow(s) on the right bed rail in portrait position. If applicable, close bathroom door. Turn the bedside locker to face the wall as shown and open door/drawers. Move high touch devices (including telephone if present) to a new position to maximise exposure. Set the device for 10 minutes and leave the room.

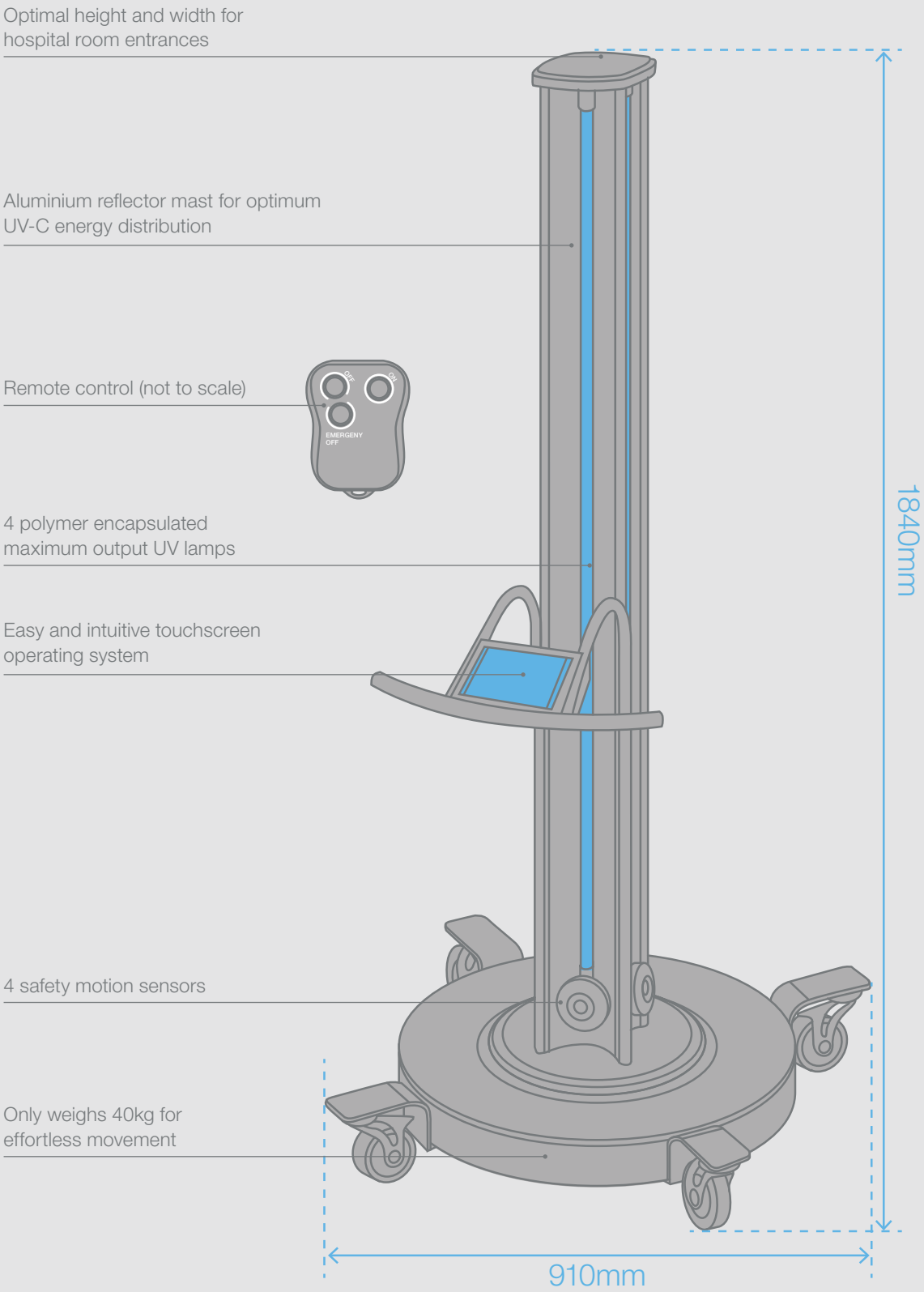


Check that the machine cycle is complete and all four lamps show OK. Move Violet to the new location as above. Raise the bed to its highest level. Raise the cot sides. Lean the mattress on the right bed rail. Place the pillow(s) in portrait position with exposed end down, flip so the unexposed side is facing towards the machine, lean on the left bed rail. Raise the patient table to its highest level and place as shown. Rotate the bedside locker. Ensure the nurse call button is placed in a position to maximise exposure to UV e.g. dangle over side of the bed. Place all high touch devices e.g. TV remote controls in a position to maximise exposure. Set the device for 10 minutes and leave room.



Once the machine cycle is complete, and all four lamps show OK, enter the room. It will smell of ionization which is normal. Remove Violet from the room and place back in the UV cover. Use PPE if indicated by local policy and risk assessments.

MACHINE SPECIFICATIONS



VERI6™
POWERED BY *UVDI*

Violet Veri6™ technology verifies that a specific germicidal UV-C dose has been received on a target surface, whether in direct or indirect (shadowed) line of sight to the Violet device.

Veri6™ technology

This patent pending technology eliminates guesswork in determining whether sufficient UV-C dose levels have reached their targeted surface.

Veri6™ is used for establishing protocols for room disinfection, quality audits, training and record keeping.

Placed in 6 areas around a room, the UV-C sensitive coupons change colour when exposed to UV-C energy, and that colour change is calibrated to specific germicidal dose levels.

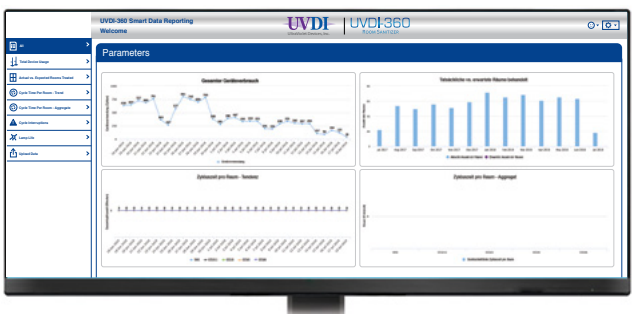
Independent laboratory testing validated colour change associated with 2 log (99%) reduction for MRSA and *C. difficile*.

89% of surfaces cleaned by clinical staff failed the ATP benchmark[11].

SMART DATA WEB PORTAL

The Violet System features an optional robust website that leverages data uploaded from your device.

Provides analytical and diagnostic tools that help you determine where, when, and how all your UV devices are working.



REFERENCES

1. Rutala WA, Gergen MF, Tande BM, Weber DJ. Room decontamination using an ultraviolet-C device with short ultraviolet exposure time. Infection Control & Hospital Epidemiology. 2014 Aug 1;35(08):1070-2.
2. Weber DJ, Anderson D, Rutala WA. The role of the surface environment in healthcare-associated infections. Current opinion in infectious diseases. 2013 Aug 1;26(4):338-44.
3. Croteau ME, Grover T. Evaluating the Efficacy of UV Technology in Acute Care. American Journal of Infection Control. 2015 Jun 2;43(6):S39-40.
4. Pegues D, Gilmar C, Denno M, Gaynes S. Reducing Clostridium difficile Infection among Hematology-Oncology Patients Using Ultraviolet Germicidal Irradiation for Terminal Room Disinfection. InOpen Forum Infectious Diseases 2015 Oct 10 (Vol. 2, No. suppl 1, p. 1715). Oxford University Press.
5. Mauzey S. Coming to the Light: Impact of Ultraviolet Technology on Incidence of Pseudomonas in a Neonatal Intensive Care Unit. American Journal of Infection Control. 2015 Jun 2;43(6):S21.
6. Rutala WA, Weber DJ. Disinfectants used for environmental disinfection and new room decontamination technology. American journal of infection control. 2013 May 31;41(5):S36-41.
7. Carling PC, Parry MF, Von Beheren SM. Identifying opportunities to enhance environmental cleaning in 23 acute care hospitals. Infection Control & Hospital Epidemiology. 2008;29(01):1-7.
8. Kramer A, Schwebke I, Kampf G. How long do nosocomial pathogens persist on inanimate surfaces? A systematic review. BMC infectious diseases. 2006 Aug 16;6(1):130.
9. Donskey CJ. Does improving surface cleaning and disinfection reduce health care-associated infections?. American journal of infection control. 2013 May 31;41(5):S12-9.
10. Rutala WA, Weber DJ, Gergen MF, Tande BM, Sickbert-Bennett EE. Does Coating All Room Surfaces with an Ultraviolet C Light–Nanoreflective Coating Improve Decontamination Compared with Coating Only the Walls?. Infection Control & Hospital Epidemiology. 2014 Mar 1;35(03):323-5.
11. Anderson RE, Young V, Stewart M, Robertson C, Dancer SJ. Cleanliness audit of clinical surfaces and equipment: who cleans what?. Journal of Hospital Infection. 2011 Jul 31;78(3):178-81.

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