

About the Dry & Store[®] Germicidal Cycle

(Professional and Global / Global II only)



A-B-C'S of UV Light

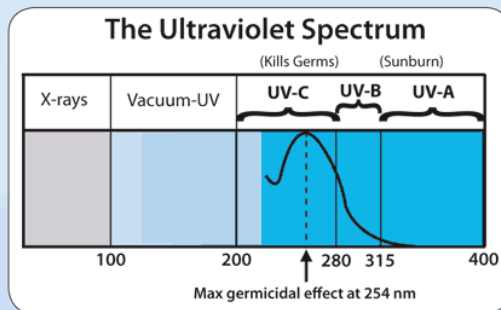
Germicidal ultraviolet light is an effective, efficient, and sophisticated means of eliminating bacteria and germs on hearing instruments. It's a proven scientific technique commonly used in hospitals to disinfect surfaces and water treatment facilities to kill bacteria.

Germicidal lamps are not to be confused with sunlamps or blacklights, for while those are also "ultraviolet" lamps, the UV produced by those types have longer wavelengths and are not useful for germicidal applications.

Sunlight generally includes both the longwave UV and the middlewave UV regions. The lamp in Dry & Store Global II produces UV-C, which is the shortest wavelength.

UV-C is also the most lethal to micro-organisms. By disrupting the organism's DNA, UV-C effectively ends the reproductive cycle.

Maximum germicidal effect is at the 254nm spectral line (see chart), which is the energy generated by the UV-C lamp in Dry & Store Global II and Professional models.



Dry & Store Kills 99.9% of Germs

The dose of germicidal energy depends on a number of factors: the power of the bulb, the distance from the lamp to the target, the time that the lamp is on, and the temperature of the air through which the germicidal light passes.

The UV-C lamp in Dry & Store generates enough germicidal energy to kill 99.9% of the bacteria that are a common cause of itching ears. An FDA-certified laboratory affirmed this on the suite of organisms the FDA requires to be tested.

Bacteria	Minimum Dose Required for 90% Kill Rate*	Actual Average Dose Delivered Global II **
Corynebact. diphtheriae	34	400
Micrococcus sphaeroides	100	400
Pseudomonas aeruginosa	55	400
Staphylococcus aureus	26	400
Streptococcus lactis	62	400
Streptococcus viridans	20	400
Mycobacterium tuberculi	100	400

* Minimum dose for 90% destruction in joules/m², per Philips Lighting. Since the Global II dose is so much greater than these minimums, one can predict that few, if any, of these bacteria would survive a single germicidal cycle.

** Two earlier models, the Global and Professional also include the germicidal function but are no longer in production.

Frequently Asked Questions

Does the UV-C lamp hasten hardening of BTE tubes or other damage to components?

No. At 4 watts, the Dry & Store lamp is a great surface sanitizer, but it has no penetrating power and it does not generate damaging ozone.

Does the UV-C lamp heat the appliance?

No. The 4-watt UV-C lamp generates very little heat during its two minute cycle. The air inside Dry & Store is warmed for the full 8 hour cycle by a different mechanism on the circuit board.

How does Dry & Store improve comfort and reduce itchy ears?

Hearing aids spend most of their time in the dark, moist environment of the ear canal, so it's a perfect habitat for bacteria and fungus to grow. Elimination of this flora from hearing aids can significantly reduce itching and the re-introduction of infection-causing bacteria into the ear canal. To the user, this means less itching and irritation, and fewer recurring infections of the external ear canal.

I suffer from frequent infections of the external ear canal. Any advice?

Yes. Occasionally re-orient your hearing instruments when placing them in the drying chamber, so that all exterior parts of the ear mold or hearing instrument are exposed to the germ-killing UV-C light.