

MRS4HO14T MOBILE UV ROOM STERILIZER



The Mobile Room Sterilizer (MRS) features 4 shatter-proof coated High Output UV lamps for total room irradiation. The MRS units are designed for virtually any room that needs air and surface disinfection, including sterile areas, laboratories, unoccupied patient rooms, clean rooms and all other applications, like hotel rooms, where permanent fixtures are not practical. Each unit is equipped with casters for maximum portability, a 25' power cord, on/off switch with 2min delay, timer and carry handle.

UV lamps - 4 AAWHO/14T shatter-proof coated High Output UV lamps (106 μ W/cm² UV intensity at 1m each lamp)

MRS Unit Dimensions - 12" L x 12" W x 24" H

These units are shipped assembled and wired for 120V, 60Hz operation with a standard 25' power cord. The only procedure necessary is removing of the protective cover (Fig. 1) and powering the unit. Two pairs of protective UV goggles are included with each unit.



Fig 1. MRS4HO14T with the Cover On for Transportation

General Operation:

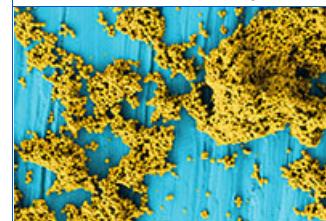
1. Put protective goggles on
2. Position unit in center of area to be exposed to germicidal UV light
3. Plug unit into 120V, 60Hz outlet
4. Set timer (Fig. 2) to the desired exposure time BEFORE pressing the Start switch *
5. Press the Start /power on/ switch (Fig. 2)
6. Leave the room. Keep the UV goggles with you in case you need to reenter the room while the UV system is still in operation
7. Make sure that no one enters the room while UV is on. Lock the door(s) and place **Do NOT Enter!** signs.
8. Disinfection cycle begins after 120 seconds (2min) and will continue for the preset time until the timer turns the unit off
9. Reposition the unit to cover any shadowed areas, if needed, and repeat the procedure. Elevate if needed to cover higher surfaces.
10. Check and clean the UV lamps regularly. Annual lamp replacement recommended. Avoid exposure to direct or reflected UV light.

* Once the power is turned on, the timer cannot be adjusted. Turn the unit off and reset the timer if the LED display shows a different amount of time than preferred.

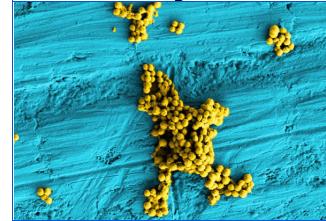
Distance inches	UV intensity μ W/cm ²	To calculate the exposure time - divide the desired UV dose by the UV intensity at any specific distance.
6"	2,734	UV dose needed for 3-log (99.9%) inactivation of:
12"	1,373	MRSA - 12,100 μ W·sec/cm ²
24"	493	C.diff (spores) - 11,500 μ W·sec/cm ²
39" (1m)	212	VRE - 8,400 μ W·sec/cm ²
60"	95	
120"	24	



Fig 2. Timer & Start Switch with 2min Delay

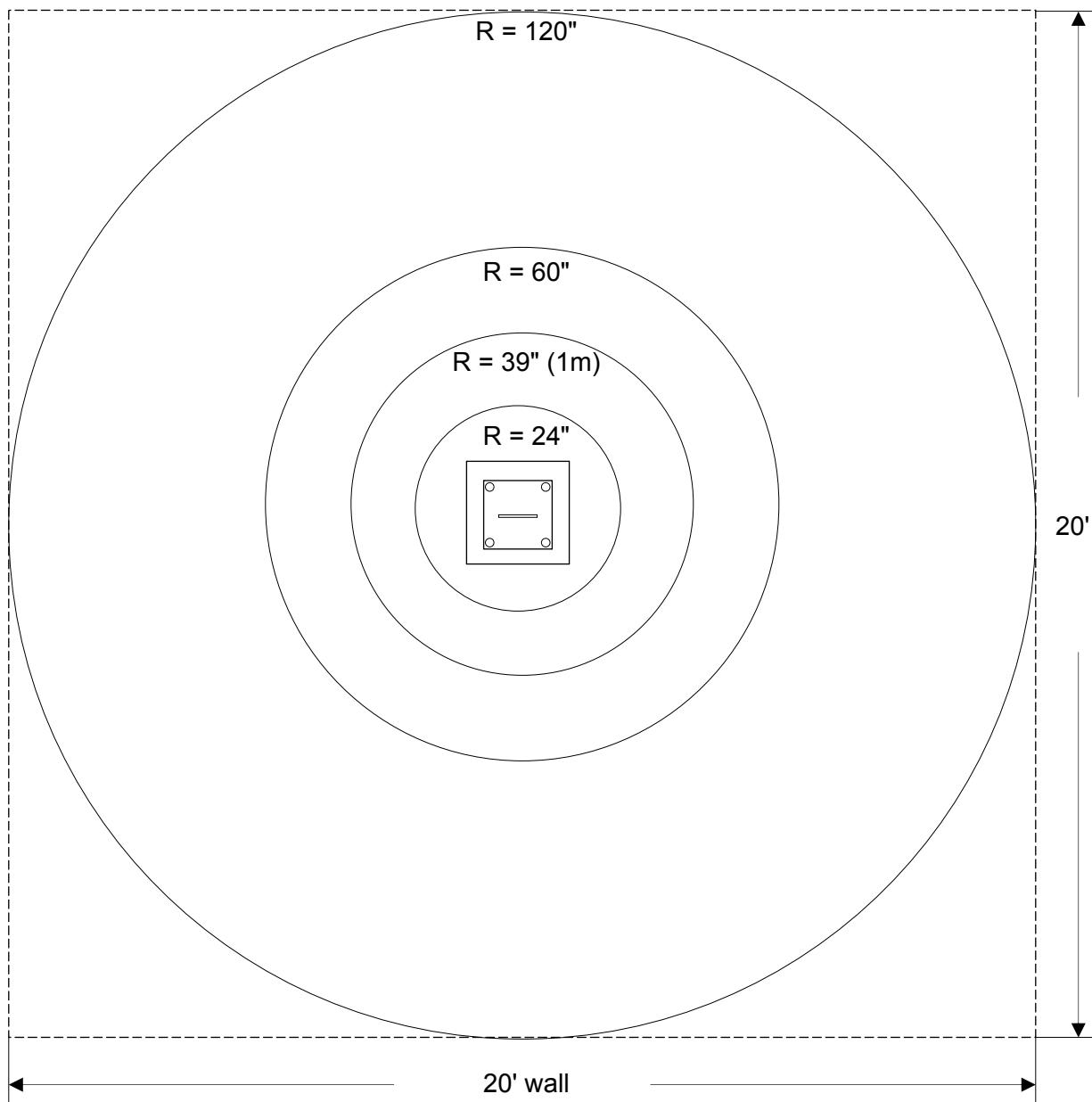


MRSA biofilm cultured on hospital-grade stainless steel
6000x magnification



Remaining MRSA after wiping the surface twice.
Study Performed at the
Center for Biofilm Engineering
Montana University

Model	Replacement Parts - Description	Price Each
AAWHO/14T	Shatter-proof Coated Replacement UV lamp, 12,000 hours	\$99
TXG270	Replacement electronic ballast, 120V	\$95
Safety Goggles	Replacement UV Safety Goggles	\$40


UV Dose at Various Distances in a 20' x 20' Room

Distance in inches	UV Dose in microwatt-seconds per square centimeter ($\mu\text{W}\cdot\text{sec}/\text{cm}^2$) at specified distances from the MRS4HO14T UV system			
Time	24" (2 feet)	39" (1m)	60" (5 feet)	120" (10 feet)
15 min	444,564	190,800	86,241	21,942
30 min	889,128	381,600	172,482	43,884
45 min	1,333,692	572,400	258,723	65,826
1 hour	1,778,256	763,200	344,964	87,768
6 hours	10,669,536	4,579,200	2,069,784	526,608
12 hours	21,339,072	9,158,400	4,139,568	1,053,216

Warning: Care should be taken to ensure that people are not exposed to direct or reflected UV light. Suitable eye and skin protection should be employed when UV lamps are in operation. Before cleaning or replacing the lamps, always turn the power OFF by unplugging the power cord.