spectratek avled

A COMPLETE LINE OF HIGH PERFORMANCE UV-A LED CURING LAMPS



A complete line of UV-A LED curing lamps specially designed with high performance UV LED technologies for the automotive industry.

An environmentally-friendly process with low energy consumption.

spectratek UVTEK 100
spectratek InstaCure UVLED
spectratek UVTEK 2000
spectratek UVTEK 3000
spectratek UVTEK 4000

SPECTRATEK InstaCure UVLED • Handheld model

CORDLESS

& BATTERY POWERED

ONLY EMITS UV-A NO HARMFUL UVB & UVC

SAFETY USE NO RISK OF BURNS



UNIFORM & CONSTANT IRRADIANCE MANAGED BY STATE-OF-THE-ART MCPCB

NO WARM-UP TIME BEFORE USING AND NO COOLING TIME REQUIRED DURING CURING JOBS

IRRADIANCE — Up to 250mW/cm² **SPECTRATEK UVLED** • Mobile models

NO HEAT ONLY EMITS UV-A FRIENDLY NO HARMFUL UVB & UVC



READY TO SAND, BUFF AND DELIVER IN LESS THAN 3 MINUTES

EFFICIENT AND UNIQUE PASSIVE THERMAL MANAGEMENT

SYSTEM SPECIALLY DESIGNED FOR HIGH POWER UVLED

IRRADIANCE —— Up to —— 50mW/cm² **AMH Canada Ltd** presents a complete line of UV-A curing lamps designed and developed with our unique and advanced DUAL LED technology combining 365 & 395nm wavelength for optimized results.

Working from its state-of-the-art research and testing facilities in Canada, a top team of designers, technicians and LED experts created - in cooperation with the coating industries the SPECTRATEK UVLED lamps destined to revolutionize UV-A curing in the car body repair industry.

Faster, safer, and more efficient than any other conventional UV curing system for automotive repair and industrial finishes.

The primary advantage of curing finishes with ultraviolet lies with the speed in which the final product can be readied for delivery.

In addition to speeding up production, UV curing can also reduce flaws and errors. The amount of time that dust, insects, or any airborne object has to settle on the painted surface is greatly reduced. This will improve the finish quality.

The SPECTRATEK UVLED curing lamps are environmentally-friendly with a low energy consumption.

spectratek™

InstaCure UVLED

Cordless & Handheld High Performance UV-A LED curing lamp

UV LED curing lamp powered by a rechargeable battery.

Designed and built in Canada for worldwide use on all current ultraviolet light curable fillers, base coats (primers), top coats, and clear coats. Equipped with DUAL LED technology combining

365 & 395nm wavelength.

Cordless & Autonomy —

- No electric plug needed.
- Easy and complete access to all parts and sections of the vehicle.

Flexible •

- Perfect for quick & fast repair.
- Scanning process can be used for larger surfaces.

Long Life Usage ——

• More than 35,000 hours of hard works

SPECTRATEK InstaCure UVLED Cordless & Handheld UV curing lamp

Curing surface: 100mm x 100mm (4" x 4")

Curing distance 50-75mm (2-3") -

• Curing time: 8 - 60 seconds

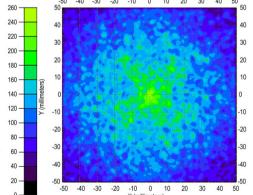
Average irradiance: 118 mW/cm²

Peak irradiance: 250 mW/cm²

Curing distance 200mm (8")

- Curing surface: 250mm x 250mm (10" x 10")
- Curing time: 60 120 seconds
- Average irradiance: 24 mW/cm²
- Peak irradiance: 50 mW/cm²

The LED units setup and the specially designed supply system allow a constant and uniform irradiance during the complete battery autonomy.



Reference:

28.SPTUVTEK565

Control system

- Two control modes: Automatic & Manual (with trigger).
- Digital counter, battery level symbol and control mode displayed on screen.



Battery powered

• Complete recharge in less than 1-1/2 hours.

State-of-the-art electronics

- Electronics kept in a well sealed section.
- Constant and uniform irradiance during the complete battery autonomy.

Safety

- No risk of burns.
- No cooling time required.

Ergonomic handle & trigger

• Light weight & safe handling.





Storage case:

The SPECTRATEK InstaCure UVLED is provided with a storage case made of durable material. Battery charger, AC cable, and UV safety goggles also included.

The DUAL LED technology

The DUAL LED technology is a unique design from SPECTRATEK providing 365 & 395nm wavelenght, all-in-one. Specially developped by our engineers and LED experts, our unique LED unit can emit at 365 & 395nm allowing optimized results and compatibility with a larger UV paint products market as primers, clearcoats, putties, resins, and more.

The unique and specific LED configuration guarantees the must uniform, constant, powerful, and efficient UV curing process on the global market.

Ultraviolet spectrum UV-C (100-280nm) • **UV-B** (280-315nm) • **UV-A** (315-400nm) Visible Light Spectrum —

500nm 700nm



SPECTRATEK Flashlight UVTEK100

A powerful 20W UV LED flashlight for touch-up and very small repair. Powered by a Lithium battery and rechargeable through USB port. UV-A high-performance 395nm UV LED unit.

Reference: 28.SPTUVTEK100



spectratek uvled

Mobile High Performance UV-A LED curing lamps

Manufactured with an efficient and unique passive thermal management system specially designed for high power UV LEDs. No fan or liquid cooled system.

Complete access all around the vehicle (including top of the vehicle).

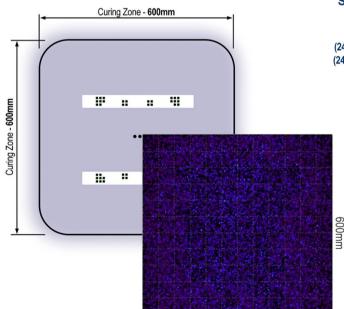
All the models are equipped with a distance sensor and a digital control board. The distance sensor allows the operator to adjust the lamp unit at the proper 300mm from the curing surface.

The digital control board allows the selection and display of the curing parameters through a multi language interface.



High quality

- Evenly cured surface up to 170µm for customer satisfaction.
- No degradation of UV over lifetime.
- Higher accuracy due to incorporation of lenses and distance control
- Large, uniform curing area up to 600mm x 600mm.
- High intensity curing up to 24mW/cm² (Config. 24LEDs by module).



600mm

SPECTRATEK UVTEK2000

Single UVLED head

References:

(24LEDs - 110V): 28.SPTUVTEK2110.24 (24LEDs - 230V): 28.SPTUVTEK2000.24

mW/cm²

Long Life Usage

• More than 35,000 hours of hard works

Lower cost

- Substantial cost saving over lifetime = better margins up to 70% lower energy use.
- Very long lifetime = no replacement cost.
- No warm-up & cooldown time.
- Passive cooling without parts and vents subject to wear.

Safety

- Pure UV-A, no filter required.
- Reduced heat production, no risk of burns.
- No hazardous chemicals in work environment.
- · No disposal of used lamps containing Mercury.





SPECTRATEK UVTEK 4000

Double UVLED head on a strong & robust column

(24LEDs - 110V): 28.SPTUVTEK4110.24 (24 LEDs - 230V): 28.SPTUVTEK4000.24



- Improved working conditions = employee satisfaction.
- Compact design, easy to store and set-up.
- Safe in use Unit does not get hot.

SPECTRATEK UVTEK3000

Single UVLED head on a strong & robust column

(24 LEDs - 110V): 28.SPTUVTEK3110.24 (24 LEDs - 230V): 28.SPTUVTEK3000.24



UV curing process

UV curing is the process by which ultraviolet light is used to initiate a photochemical reaction that generates a crosslinked network of polymers. UV curing is adaptable to printing, coating, decorating, stereolithography, and in the assembly of a variety of products and materials.

In comparison to other technologies, curing with UV energy may be considered a low temperature process, a high speed process, and is a solventless process, as cure occurs via direct polymerization rather than by evaporation.



Application of the UV paint product









Exposure to UV light causes chemical reactions

UV paint hardens when completely cured

Specifications

28.SPTUVTEK100

Rechargable battery type:

Flashligth model

Lithium 3.7 VOLT - 2,600mAh

LED wattage:

20 watts

Emiting wavelength:

395nm

Waterproof grade:

IPX4

Handheld model	SPECTRATEK InstaCure UVLED					
Specifications	28.SPTUVTEK565					
Rechargable battery type:	Li-ion 18.5 VOLT - 3,000mAh					
Battery charge cycles life:	1,000 cycles					
Battery autonomy:	2 hours					
Battery charger:	110-240VAC, 50-60Hz, Short circuit/Overload protection					
LED type:	High power LED					
LED lamp wattage:	55 watts					
Wavelength:	DUAL LED technology 365 & 395nm (UV-A only)					
Weight:	1,85 kg	1,85 kg (4 lbs)				
	@ 50mm (2") curing distance	@ 200mm (8") curing distance				
Curing zone dimensions:	100mm x 100mm (4" x 4")	250mm x 250mm (10" x 10")				
Emitting zone dimensions:	80mm x 80mm (3-1/5" x 3-1/5")	80mm x 80mm (3-1/5" x 3-1/5")				
Curing time:	8 ~ 60 seconds	60 ~ 120 seconds				
Average Irradiance:	118.0 mW/cm ²	24.0 mW/cm²				
Peak Irradiance:	250.0 mW/cm ²	50.0 mW/cm²				
Darky lawn materials						
Body lamp material: Cooling system:	Aluminium					
LED lifetime:	Passive thermal management system enhanced with fan					
	+35,000 hours					
Storage temperature (°C):	-40°C ~ +80°C					

 $^{^{\}star}$ The curing time may vary according to the paint product type, the curing process and/or other factors

Mobile models Specifications	UVTEK 2000 Configuration 24 LEDs by cassette		UVTEK 3000 Configuration 24 LEDs by cassette		UVTEK 4000 Configuration 24 LEDs cassette		
	28.SPTUVTEK2110.24	28.SPTUVTEK2000.24	28.SPTUVTEK3110.24	28.SPTUVTEK3000.24	28.SPTUVTEK4110.24	28.SPTUVTEK4000.24	
Supply voltage Single Phase (V):	110VAC	230VAC	110VAC	230VAC	110VAC	230VAC	
Frequency (Hz):	50-60Hz						
Fuse (A):	4.8A	2.0A	4.8A	2.0A	8.5A	3.7A	
Input apparent power (VA):	525VA	475VA	525VA	475VA	950VA	850VA	
Electrical power (W):	375W (190W by cassette) 750W (190W by casset					V by cassette)	
Optical power (W):	120W (60W by cassette)			240W (60W by cassette)			
Total LED power (W):	255W (128W by cassette)				510W (128W by cassette)		
Wavelength (nm):	DUAL LED technology 365 & 395nm (UV-A only)						
77-74 A 77-74					00-00 W		
Curing zone dimensions (mm):	24" x 24" (600mm x 600mm)			24" x 52" (600mm x 1315mm)			
Maximum curing distance (mm):	12" (300mm)						
Curing time (sec.):	< 300 seconds						
Average irradiance (mW/cm²):	24.0mW/cm ²						
Peak irradiance (mW/cm²):	~50.0mW/cm²						
Cooling system:	Passive thermal management system						
LED lifetime (hr):	+35,000 hours						
Storage temperature (°C):	-40°C ~ +80°C						
Control system:	Digital control (LCD screen + tactile membrane keypad)						

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