CAS
Canada Auto Solutions Inc.

AMH®

spectratek™ UVLED

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

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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 InstaCure UVLED
spectratek UVTEK 2000
spectratek UVTEK 3000
spectratek UVTEK 4000

SPECTRATEK

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
200mW/cm²

SPECTRATEK UVLED • Mobile models

ALMOST INSTANT FULL CURE WITH
NO HEAT

ONLY EMITS UV-A
NO HARMFUL UVB & UVC

ENVIRONMENTALLY
FRIENDLY

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
16mW/cm²

AMH Canada Ltd presents a complete line of UV-A curing lamps designed and developed with the most advanced LED technology.

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

A 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.

Control system

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

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
Ref: 28.SPTUVTEK500

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.

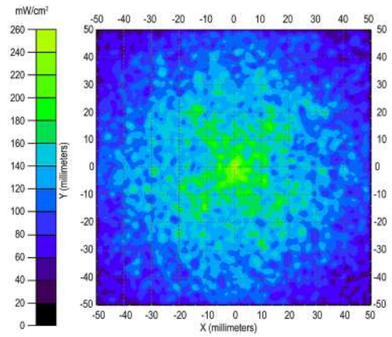
Curing distance 50-75mm (2-3")

- **Curing surface:** 100mm x 100mm (4" x 4")
- **Curing time:** 8 - 60 seconds
- **Average irradiance:** 112.8mW/cm²
- **Peak irradiance:** 200mW/cm²

Curing distance 200mm (8")

- **Curing surface:** 250mm x 250mm (10" x 10")
- **Curing time:** 60 - 120 seconds
- **Average irradiance:** 21.7mW/cm²
- **Peak irradiance:** 40mW/cm²

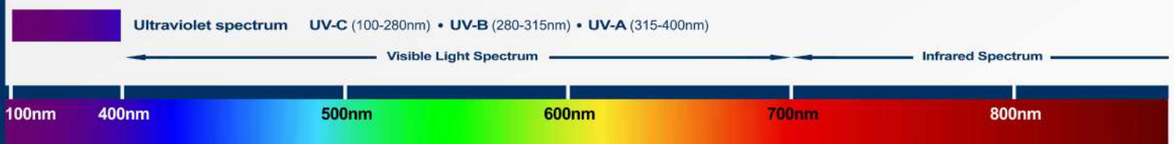
The LED units setup and the specially designed supply system allow a constant and uniform irradiance during the complete battery autonomy.



What is UV?

Ultraviolet (UV) light is an electromagnetic radiation with a wavelength from 100nm to 400nm, shorter than visible light but longer than X-rays. Though usually invisible, under some conditions children and young adults can see ultraviolet down to wavelengths of about 310nm.

UV radiation is present in sunlight, and produced by electric arcs and specialized light such as mercury-vapor lamps, tanning lamps, and black lights. Although lacking the energy to ionize atoms, long-wavelength ultraviolet radiation can cause chemical reactions, and cause many substances to glow or fluoresce. Consequently, biological effects of UV are greater than simple heating effects, and many practical applications of UV radiation derive from its interactions with organic molecules.



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.

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.

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.

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 **16mW/cm²**.

SPECTRATEK UVTEK2000
Single UVLED head
Ref. (110V): 28.SPTUVTEK2110
Ref. (230V): 28.SPTUVTEK2000

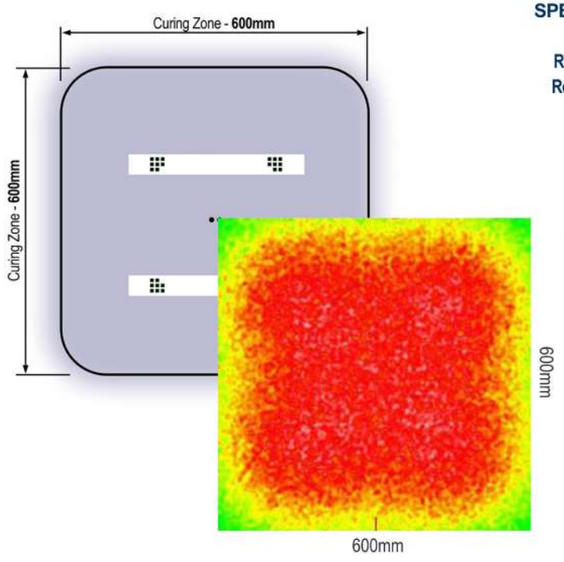
Safety

- 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 UVTEK3000
Single UVLED head on a strong & robust column
Ref. (110V): 28.SPTUVTEK3110
Ref. (230V): 28.SPTUVTEK3000

Long Life Usage

- More than 35,000 hours of hard works



SPECTRATEK UVTEK 4000
Double UVLED head on a strong & robust column
Ref. (110V): 28.SPTUVTEK4110
Ref. (230V): 28.SPTUVTEK4000

User **friendly**

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

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
Application of the UV paint product

EXPOSURE
Exposure to UV light causes chemical reactions

FINISH
UV paint hardens when completely cured

Handheld model
Specifications

SPECTRATEK InstaCure UVLED	
28.SPTUVTEK500	
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:	395nm (UV-A only)
Weight:	1,85 kg (4 lbs)

	@ 50mm (2") curing distance	@ 200mm (8") curing cistance
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:	112.8 mW/cm^2	21.7 mW/cm^2
Peak Irradiance:	200.0 mW/cm^2	40.0 mW/cm^2

Body lamp material:	Aluminium
Cooling system:	Passive thermal management system enhanced with fan
LED lifetime:	+35,000 hours
Storage temperature (˚C):	-40˚C ~ +80˚C

*The curing time may vary according to the paint product type, the curing process and/or other factors

Mobile models
Specifications

	UVTEK 2000		UVTEK 3000		UVTEK 4000	
	28.SPTUVTEK2110	28.SPTUVTEK2000	28.SPTUVTEK3110	28.SPTUVTEK3000	28.SPTUVTEK4110	28.SPTUVTEK4000
Supply voltage (V):	110VAC, 1PH	230VAC, 1PH	110VAC, 1PH	230VAC, 1PH	110VAC, 1PH	230VAC, 1PH
Frequency (Hz):	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz	50-60Hz
Fuse (A):	3.5A	1.5A	3.5A	1.5A	7.0A	3.0A
Input apparent power (VA):	385VA	350VA	385VA	350VA	800VA	700VA
Electrical power (W):	250W (125W by cassette)				500W (125W by cassette)	
Optical power (W):	80W (40W by cassette)				160W (40W by cassette)	
Total LED power (W):	170W (85W by cassette)				340W (85W by cassette)	
Curing zone dimensions (mm):	24" x 24" (600mm x 600mm)				24" x 52" (600mm x 1315mm)	
Emitting zone dimensions (mm):	16" x 16" (400mm x 400mm)				16" x 44" (400mm x 1115mm)	
Maximum curing distance (mm):	12" (300mm)					
Curing time (sec.):	< 300 seconds					
Average irradiance (mW/cm^2):	13.0mW/cm^2					
Peak irradiance (mW/cm^2):	16.0mW/cm^2					
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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