



Standard Operating Procedure

SOP Title:

WT-GERM KILLER™ 8910UVC BODYLight™ Operation

SOP Number:

WT-SOP-01007.05

Effective Date:

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Page:

1 of 17

Supersedes:

WT-SOP-01007.04

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1. PURPOSE AND OBJECTIVE

The purpose of this Standard Operating Procedure is to delineate the operation of the WT-GERM KILLER 8910UVC BODYLight.



SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 2 of 17

2. SCOPE

- 2.1. The scope of this procedure extends to all persons who operate the WT-GERM KILLER 8910UVC BODYLight.

3. REFERENCED DOCUMENTS

- 3.1. ATM, BodyLight, Report: 103231919CRT-001, Intertek, 25Mar2020.
- 3.2. ATM, BodyLight Lithium-Ion Battery Pack, Report: 103148214CRT-001, Intertek, 21Jun2018.
- 3.3. ATM, BodyLight Lithium-Ion Class 2 Battery Charger, Report: 103231919CRT-002, Intertek, 27Dec2019.
- 3.4. WT-FRM-01007, WT-GERM KILLER 8910UVC BODYLight Emission Certificate.
- 3.5. WT-GERM KILLER Emission Spectrum.

4. RESPONSIBILITY

- 4.1. It is the responsibility of any user of the UVC BODYLight to understand and follow this SOP.
- 4.2. It is the responsibility of any user of the UVC BODYLight to understand and comply with all procedures, practices, and safety protocols as outlined in this SOP.
- 4.3. It is the responsibility of management to ensure all users are trained in the safe use of the UVC BODYLight prior to operation.

5. DEFINITIONS

- 5.1. ATM: Authorization To Mark.
- 5.2. CCT: Correlated Color Temperature. The temperature at which a black-body radiator, i.e. carbon, produces light of a particular hue. In the case of 5700°K the color temperature is that matching noon-day sunlight.
- 5.3. COVID-19: SARS-CoV-2
- 5.4. PPE: Personal Protective Equipment.
- 5.5. SOP: Standard Operating Procedure.
- 5.6. UV: Ultraviolet
- 5.7. UVC: Ultraviolet C short-wave, germicidal, electromagnetic radiation having a wavelength between 100-280nm.
- 5.8. UVC BODYLight: WT-GERM KILLER™ 8910UVC BODYLight™.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 3 of 17

6. EQUIPMENT AND SUPPLIES

- 6.1. 8910UVC BODYLight Light Head
- 6.2. 8910 BODYLight Battery Pack
- 6.3. 8910 Battery Charger
- 6.4. 8910 Bristle Cone
- 6.5. 8910 Manifold
- 6.6. 8910 Power Box

7. THEORY

- 7.1. Visual light is part of the electromagnetic spectrum that can be detected by the human eye, typically having wavelengths between 400nm to 700nm.
- 7.2. UV radiation is usually specified as having wavelengths from 10nm to 400nm.
- 7.3. UVC radiation is identified as having wavelengths between 100nm and 280nm, and it is MUV (Middle Ultraviolet) having wavelengths between 200nm and 300nm that is considered germicidal.
- 7.4. UVC light can be absorbed by RNA and DNA causing damage to these molecules, such as in the formation of a thymine or cytosine dimers, which distort the molecule and prevent proper functionality.
- 7.5. The efficacy of UVC radiation is well documented in the literature as a means to inhibit microbial viability and inactivation of COVID-19 (See References, Section 14).

7.5.1. Recent studies indicate that an irradiance dosage of $\geq 3.6\text{mW/cm}^2$ of UVC_(260–285nm) on contact surfaces is sufficient to inactivate or “kill” the SARS-CoV-2 virus.

8. PRODUCT DESCRIPTION

- 8.1. The WT-Germ Killer 8910UVC BODYLight is a flexible battery powered or cord connected germicidal UVC LED Light.
- 8.2. The UVC BODYLight and all components are ETL Certified to be Explosion Proof compliant for use in the following hazardous (classified) location atmospheres and water environmental conditions: Class I Division 1 & 2, Groups C, D; Class II Division 1 & 2, Groups E, F, G; Zone 1 & 2, Zone 20, 21 & 22; Suitable for Use in Wet Locations, NEMA Type 6P when fully assembled.
- 8.3. The UVC BODYLight utilizes 10 High-Power germicidal UVC LEDs with a peak emittance at 265-275nm having an average adjusted output power at 4-inches (10.16cm) of $>2.2\text{mW/cm}^2$ and at 3-inches (7.62cm) of $>3.7\text{mW/cm}^2$ across a projected 60° beam angle.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 4 of 17

- 8.3.1. The UVC emission spectrum and irradiant energy profile documentation is provided with this UVC BODYLight.
 - 8.3.1.1. WT-FRM-01007, WT-GERM KILLER 8910UVC BODYLight Emission Certificate
 - 8.3.1.2. WT-GERM KILLER Emission Spectrum
- 8.4. The UVC BODYLight simultaneously emits a 60° beam angle of **RED** light, providing both critical passageway lighting and a visible safety marker as to the projected emission / beam angle of the invisible UVC radiation.
- 8.5. A 4-inch long Bristle Cone is fitted into the bumpers of the UVC BODYLight providing a tactile reference distance of > 1-second germicidal inactivation of the COVID-19 virus and to provide shielding of scattered or reflected UVC radiation.
- 8.6. The UVC BODYLight light head may be cord connected to a Battery Pack Manifold for extended power or to a Power Box, which will provide continuous power, if required. These connections can be made within the hazardous (classified) area.
- 8.7. The UVC BODYLight is thermally monitored to ensure maximum life to the electronics, battery pack, and LED systems.
- 8.8. Protective Polyurethane Bumpers are fitted to the UVC BODYLight.
 - 8.8.1. The light head Bumpers are Fluorescent Orange providing rapid UVC emission identification in the field and to provide protection to both working surfaces and the UVC BODYLight.
 - 8.8.2. Further, Glow-In-The-Dark Bumper additions are included to assist in locating the UVC BODYLight in the dark and to aid in Battery Pack exchange, should it be required when working in dark environments.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 5 of 17

9. SAFETY AND PRECAUTIONS

9.1. UVC Radiation Generated:

9.1.1.



WARNING

Avoid exposure to direct or reflected germicidal ultraviolet rays. Germicidal ultraviolet rays are harmful to the eyes and skin. UVC is reasonably anticipated to be a human carcinogen. Wear personal protective equipment covering all exposed skin and eyes. Never look into the UVC light source and avoid all reflected light.

9.1.2. CAUTION

Germicidal ultraviolet rays may break down plastic, rubber, or other non-metallic materials, can fade colors, and can be damaging to plant life. Shield all plastic, rubber, or other non-metallic parts, plant life, etc. which may be exposed to direct or reflected germicidal ultraviolet rays.

9.1.3. Personal Protective Equipment:

9.1.3.1. Ensure all required and compliant personal protective equipment is worn to prevent exposure to UVC radiation prior to operation of the UVC BODYLight, which should include approved UVC blocking gloves, face mask/shield, garments, and shoe coverings.


9.1.3.2. Ensure a respirator or breathing apparatus is used, if required and directed by local, state, or federal regulations.


9.1.3.2.1. Always comply with company or organization directed safety protocols and directives.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 6 of 17

9.2. Equipment Precautions


9.2.1. 8910 UVC BODYLight Head:

 **WARNING** – This unit is Factory Sealed; Do Not Open. Risk of Explosion, Recharge the Batteries Outside of the Hazardous Location. To Reduce the Risk of Ignition of Hazardous Atmospheres, Any Repair Made to this Lighting Unit is to be Made Only By the Manufacturer or its Authorized Representative.


 **CAUTION** – For use with Western Technology Power Supply; Replace with Western Technology Battery Canister Only.


9.2.2. 8910 BODYLight Battery Pack:

 **WARNING** – This unit is Factory Sealed; Do Not Open. Do Not Submerge. Risk of Explosion, Recharge Batteries Outside of HazLoc Area. Battery May Explode or Catch Fire if Mistreated.


 **CAUTION** – For use with Western Technology BODYLight; Replace with Western Technology Battery Canister Only. Do Not Disassemble, Crush or Modify. Do Not Short Circuit. Do Not Heat Above 100°C (212°F) or Dispose of in Fire.

9.2.3. 8910 Battery Charger:

 **WARNING** – This unit is Factory Sealed; Do Not Open. Risk of Explosion, Recharge the Batteries Outside of the Hazardous Location. To Reduce the Risk of Ignition of Hazardous Atmospheres, Any Repair Made to this Lighting Unit is to be Made Only By the Manufacturer or its Authorized Representative.

 **CAUTION** – For use with Western Technology Power Supply; Replace with Western Technology Battery Canister Only.

9.2.4. 8910 BODYLight Battery Pack Manifold:

 **WARNING** – This unit is Factory Sealed; Do Not Open. Risk of Explosion, Recharge the Batteries Outside of the Hazardous Location. To Reduce the Risk of Ignition of Hazardous Atmospheres, Any Repair Made to this Unit is to be Made Only By the Manufacturer or its Authorized Representative.

 **CAUTION** – For use with Western Technology BODYLight; Replace with Western Technology Battery Canisters Only.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 7 of 17

10. EQUIPMENT SPECIFICATIONS

10.1. UVC BODYLight Light Head with Battery Pack - ATM, BodyLight

- 10.1.1. Suitable for simultaneous use in Class I, Division 1 & 2, Group C, & D and Class II, Division 1 & 2, Group E, F, & G locations; Zone 1 & 2 and Zone 20, 21 & 22.
- 10.1.2. Temp. Ambient: -20° to +40°C. Temp. Rating: T5.
- 10.1.3. Conforms to UL Std. 153, 844, 62133.
- 10.1.4. Certified to CSA Std. 12, 137, 25, E62133.
- 10.1.5. Suitable for Wet Location Use. Type 6P.

10.2. BODYLight Battery Pack - ATM, BodyLight Lithium-Ion Battery Pack

- 10.2.1. Suitable for simultaneous use in Class I, Division 1 & 2, Group C, & D and Class II, Division 1 & 2, Group E, F, & G locations; Zone 1 & 2 and Zone 20, 21 & 22.
- 10.2.2. Identification: 4INR19/66.
- 10.2.3. Output Power: 14.4VDC, 3.4Ah.
- 10.2.4. Temp. Ambient: -20° to +40°C. Temp. Rating: T5.
- 10.2.5. Certified to UN 38.3.
- 10.2.6. Conforms to UL Std. 62133.
- 10.2.7. Certified to CSA Std. E62133.
- 10.2.8. Suitable for Wet Location Use. Type 6P.

10.3. Battery Charger - ATM, BodyLight Lithium-Ion Class 2 Battery Charger

- 10.3.1. Ordinary Location Class 2 Power Unit
- 10.3.2. Input Power: 110-220VAC, 50/60Hz.
- 10.3.3. Output Power: 16.8VDC, 1.625A.
- 10.3.4. Conforms to UL Std. 153, 1310.
- 10.3.5. Certified to CSA Std. C22.2 No. 223.

10.4. BODYLight Battery Pack Manifold - ATM, BodyLight

- 10.4.1. Suitable for simultaneous use in Class I, Division 1 & 2, Group C, & D and Class II, Division 1 & 2, Group E, F, & G locations; Zone 1 & 2 and Zone 20, 21 & 22.
- 10.4.2. Output Power: 14.4VDC, 3.4Ah.
- 10.4.3. Temp. Ambient: -20° to +40°C. Temp. Rating: T5.
- 10.4.4. Conforms to UL Std. 62133.
- 10.4.5. Certified to CSA Std. E62133.
- 10.4.6. Suitable for Wet Location Use. Type 6P.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 8 of 17

11. EQUIPMENT OPERATION

11.1. Procedural Frequency

11.1.1. This SOP should be followed every time the UVC BODYLight is used.

11.2. Safe Equipment Handling

11.2.1. For extended life and efficacy of the UVC BODYLight always avoid rough usage and keep the Light clean and free of material splatter, overspray, and debris during usage.

11.2.2. It is recommended to always operate the UVC BODYLight with the Bristle Cone in position for protective operation to all personnel and to appropriately gauge effective kill distance.

11.2.3. Always move or carry the UVC BODYLight by the body, affixed strap, or handle – Never pull by a connected power cord.

11.2.4. Do not impact the Lens with hard, sharp or heavy objects, which can cause the lens to scratch, chip, crack, or shatter.

11.2.5. Avoid setting the UVC BODYLight FACE DOWN, especially on abrasive surfaces, which might result in chipping, scratching, abrading, or cracking of the Lens.

11.2.6. Do not operate the UVC BODYLight without Bumpers.

11.2.7. Do not severely bend a connected cord at any point as this may cause internal conductors to break and system failure.

11.3. Charging the BODYLight Battery Pack

11.3.1. Obtain the BODYLight Battery Charger and plug it into a compliant VAC outlet in an Ordinary Location.

11.3.1.1. **WARNING - The charger is not explosion proof rated and must remain outside the hazardous location when charging the batteries.**

11.3.2. Obtain the BODYLight Battery Pack and screw it into the receiving hub on the Battery Charger until a firm contact is made and allow the Pack to fully charge.

11.3.2.1. Note: The Hub is fitted with a Battery Pack charge indicator ring that will glow **RED** when the Battery Pack is in a charge cycle and **GREEN** when the Battery Pack is fully charged.

11.3.2.2. A full charge cycle takes approximately 2.5 hours.

11.3.2.3. Once the Battery Pack is fully charged, the Battery Charger will enter into a standby mode until an additional charge is required.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 9 of 17

11.3.2.4. A charged Battery Pack can operate the UVC BODYLight for approximately 4-hours before recharging is required.

11.4. Pre-Operation Check of the UVC BODYLight

11.4.1. Before operation of the UVC BODYLight complete a preventive maintenance check of all components, as outlined in Section 12.2.

11.4.2. Bristle Cone Installation

11.4.2.1. Obtain the UVC BODYLight light head and the Bristle Cone.

11.4.2.2. Insert the rubber ring of the Bristle Cone into the receiving grooves of the Bumpers on the front face of the UVC BODYLight.

11.4.2.2.1. Note: It may be necessary to remove the top Bumper screws in order to insert the Bristle Cone into the groove.

11.5. Operation of the UVC BODYLight

11.5.1. Put on approved PPE for potential UVC radiation exposure.

11.5.2. Attaching the Power Source to the Light Head

11.5.2.1. Firmly screw on the power source (Battery Pack, corded Battery Pack Manifold, or corded Power Box) to the UVC BODYLight Light Head.

11.5.2.1.1. Ensure that a fully charged Battery Pack is used, if applicable.

11.5.2.2. Note: When firmly hand tightened together, the gasket, located at the base of the power source threaded connector, will compress and a metal-to-metal contact and watertight seal will be made.

11.5.3. Switching ON and OFF the UVC BODYLight

11.5.3.1. The UVC BODYLight is equipped with a button on each side of the Light Head.

11.5.3.2. With the UVC BODYLight facing away from you, the Left Button will turn ON the light and the Right Button will switch OFF the light.

11.5.3.2.1. Note: The Left ON Button is marked **GREEN** and has the closed/connected power mark “—” molded into the fluorescent orange Bumper above this button.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 10 of 17

- 11.5.3.2.2. Note: The Right OFF Button is marked **RED** and has the open/disconnected power mark “**O**” molded into the fluorescent orange Bumper above this button.
- 11.5.3.3. Turn ON the Charge Indicator LED located at the top of the front face of the UVC BODYLight by depressing and releasing the Left (**Green/—**) Button.
- 11.5.3.4. Note the color of the charge indicator LED:
- 11.5.3.4.1. A **Green** LED charge indicator light indicates a battery having 2+ hours of battery charge.
 - 11.5.3.4.2. A **Yellow** LED charge indicator light indicates approximately 1 hour of battery charge remaining.
 - 11.5.3.4.3. A **Red** LED charge indicator light indicates a depleted battery requiring exchange.
- 11.5.3.5. Depressing and releasing the Left (**Green/—**) Button will not cause any additional effect to the operation of the UVC BODYLight, but the Light may be turned OFF by depressing and releasing the Right (**Red/O**) Button.
- 11.5.3.6. UVC Activation/Deactivation Code Mode (Special Order Only)
- 11.5.3.6.1.1. If the UVC BODYLight was provided with a UVC Lock-Out Code, a UVC activation code must first be entered into the system to unlock the UVC function.
 - 11.5.3.6.1.2. To enter into the UVC Code Entry Mode, depress and hold both the Left On (**Green/—**) and Right Off (**Red/O**) buttons simultaneously for about 2-seconds, at which time the Battery Charge Indicator LED will initially flash **Yellow** four times to indicate a change of mode, at which time the LED will glow **Green** for approximately 1-second, followed by repeated **Red** to **Yellow** flashing, indicating that the BODYLight has entered into the UVC Code Entry Mode.
 - 11.5.3.6.1.3. Enter the code assigned to the UVC BODYLight to activate the UVC mode, which consists of a series of button depressions.
 - 11.5.3.6.1.4. When the code is correctly entered and the UVC mode is activated, the Battery Charge Indicator LED will flash **Green** four times to indicate a correct code entry, after which it will enter into the visible Glow COB illumination mode.
 - 11.5.3.6.1.5. If the code is incorrectly entered, the Battery Charge Indicator LED will flash **Red** four times to indicate an

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 11 of 17

incorrect code entry, after which it will enter into the Battery Charge Indicator mode.

11.5.3.6.1.6. If the UVC BODYLight is left in the UVC Code Entry Mode, after approximately 2-minutes it will shut off the UVC BODYLight.

11.5.3.6.1.6.1. Note: In some cases, if requested by the customer, the UVC mode may be set to automatically deactivate after a set period of time, i.e. 1-hour, or immediately upon removal of the Battery Pack.

11.5.3.6.1.7. To deactivate and Lock-Out the UVC mode, enter again into the UVC Code Entry Mode, by depressing and holding both the Left On (**Green/—**) and Right Off (**Red/O**) buttons simultaneously for about 4-seconds, at which time the Battery Charge Indicator LED will repeatedly flash **Red** to **Yellow**, indicating that the BODYLight has entered into the UVC Code Entry Mode.

11.5.3.6.1.8. Enter the code assigned to your organization to deactivate the UVC mode, which consists of a series of button depressions.

11.5.3.6.1.9. Once deactivated, the UVC BODYLight will immediately enter into Battery Charge Indicator mode.

11.5.4. Germicidal UVC Illumination

11.5.4.1. Turn ON the Germicidal UVC and Visible Light by depressing and holding both Left (**Green/—**) and Right (**Red/O**) buttons together for approximately 2-seconds.

11.5.4.1.1. Note: The visible **RED** light is provided not only to illuminate areas that might be dark for safe operation, but also to provide **Warning** reference as to the projected beam pattern of the invisible UVC light emission for safe and effective practices.

11.5.4.2. Depressing and releasing the Left (**Green/—**) button will switch OFF the UVC/Visible Light output and turn on the Battery Charge Indicator LED.

11.5.4.3. Turn OFF the UVC BODYLight by depressing and releasing the Right (**Red/O**) Button.

11.5.4.3.1. Note: When the Battery Pack is almost drained, the UVC BODYLight will rapidly blink about five times to indicate

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 12 of 17

the Battery Pack is almost depleted of energy and should be recharged. It will then resume stable and germicidally effective UVC output energy until the Battery power drops below that which is required to maintain full UVC output energy, at which time the UVC BODYLight will shut off.

- 11.5.4.3.2. Exchange the drained Battery Pack for a fully charged Battery Pack to continue sanitizing operations, as required.

11.5.5. Germicidal Operation of the UVC BODYLight

- 11.5.5.1. The Bristle Cone functions as a protective shield to the user and other personnel in the area of operation from stray or scattered UVC radiation and it also provides a physical measure of the effective kill zone.

- 11.5.5.1.1. **WARNING - Be aware of your surroundings. Do not expose individuals to UVC radiation.**

- 11.5.5.2. When operating the UVC BODYLight, bring the Bristles in contact with the surface to ensure effective radiant kill energy and protective shielding from scattered or stray light.

- 11.5.5.2.1. The zone of UVC light emission within the Bristle Cone provides $> 2\text{mW}/\text{cm}^2$ radiant energy at 1-second.
 - 11.5.5.2.2. Use the Bristles to dislodge or move particles, allowing more effective full contact exposure of the UVC light on the surface and on any foreign particulates.

- 11.5.5.3. For efficient and effective sanitization, use a sweeping motion of the UVC BODYLight keeping the Bristle Cone in contact with the surface.

- 11.5.5.4. Use a sweeping motion such that $> 1\text{-second}$ UVC exposure time is achieved on the surface being sanitized so that $\geq 3.6\text{mW}/\text{cm}^2$ irradiant energy is provided.

- 11.5.5.5. Ensure irradiation of all surface areas – top, bottom, sides, corners, etc.

- 11.5.5.5.1. Note: Areas kept in shadow will not be sanitized.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 13 of 17

11.5.6. UVC BODYLight LED Operator Signals

No.:	Observed Signal:	Reason/Indicator:	Observation/Correction:
10.5.6.1.	Green LED	Full charge/power.	None – Ready for Operation.
10.5.6.2.	Yellow LED	Partial charge/power.	About 1-hour of battery charge remaining.
10.5.6.3.	Red LED	Low charge/power.	Recharge battery.
10.5.6.4.	Blinking Red LED	Battery charge/power too low upon connection to light head.	Connect a charged battery or compliant power source.
10.5.6.5.	Flashing Illumination	Low power signal.	Five rapid flashes indicating about 20-minutes of charge remaining. Replace with charged battery.
10.5.6.6.	Blinking Yellow LED	BODYLight has overheated.	Thermal monitoring switched off the BODYLight due to elevated operating temperature. Upon 20°F drop in temperature the BODYLight will reset and can now be switched on.
10.5.6.7.	Repeating Green-Yellow-Red LED Blinks	UVC LED emission power is noncompliant to output specifications.	BODYLight will not switch on. Contact Western Technology for replacement of UVC LED board.
10.5.6.8.	None	BODYLight requires power.	Connect the BODYLight head to a charged battery or power source. Ensure proper connector contact.
10.5.6.9.	None	BODYLight does not operate.	Contact Western Technology Customer Service.
10.5.6.10.	No Operation	BODYLight does not operate.	Contact Western Technology Customer Service.
10.5.6.11.	Repeatedly flashing Red to Yellow LED	BODYLight has entered UVC Code Entry Mode.	Enter the UVC activation/deactivation code or press the ON/OFF button to resume standard BODYLight function.
10.5.6.12.	Yellow LED blinks four times	BODYLight has changed modes, i.e. Visible to UVC	Correct function observed.
10.5.6.13.	Green LED blinks four times	UVC activation code accepted.	UVC mode now operative.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 14 of 17

12. PREVENTIVE MAINTENANCE

- 12.1. Depending upon the severity of conditions when in use, it is recommended that you implement a minimum standard preventative maintenance schedule for the UVC BODYLight and its accessories.
- 12.2. To maintain compliance for use in Hazardous (Classified) Locations all components must be in factory original working condition. As such, safety requires, before and after each use, a thorough visual examination of the unit and accessories for physical damage that might cause a spark or result in the ignition of hazardous atmospheres. This examination includes, but is not limited to, verifying that:
 - 12.2.1. The Light Head of the UVC BODYLight is not cracked, broken, or breeched.
 - 12.2.2. The Battery Canister for the UVC BODYLight is not cracked, broken, or breeched.
 - 12.2.3. The Lens is not cracked or chipped.
 - 12.2.4. All Gaskets are in position and not cracked, chipped, or broken.
 - 12.2.4.1. Ensure that the Gasket is in place around the base of the threads of the Connector on the Battery Canister, Cord Connected Battery Pack Manifold, and Cord Connected Power Box.
 - 12.2.4.1.1. This Gasket is required to be present and functional for Explosion Proof certification and usage in Hazardous (Classified) Locations.
 - 12.2.5. The Bumpers are in good condition and capable of protecting the UVC BODYLight and the work area if struck by the UVC BODYLight.
 - 12.2.6. If using a cord connected Power Box or Battery Pack Manifold, the Braided Cable Strain Reliefs are not frayed and are gripping the cord tightly at all points of cord contact, if applicable.
 - 12.2.7. If using a cord connected Power Box or Battery Pack Manifold, the Cord Jacket is completely intact and that no internal conductors or conductor insulation is exposed, if applicable.
 - 12.2.8. If using a cord connected Power Box or Battery Pack Manifold, the Power Box or Battery Pack Manifold is not cracked, broken, or breeched, if applicable.
 - 12.2.9. If using a cord connected Power Box, the Cord Plug is not cracked or damaged and the Ground Post is intact, if applicable.
 - 12.2.10. Maintain all Light surfaces, including glass and Light Body, free from coatings, paint or debris accumulation.

SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 15 of 17

- 12.2.11. Ensure all electrical contacts on the Light Head, Battery Canister, Battery Pack Manifold, and Power Box connections are clean and free of any debris.
- 12.2.12. Ensure the Bristle Cone is in good condition and properly inserted into the Bumpers.
- 12.2.13. It is recommended that periodic cleaning is performed on the Bristle Cone to prevent transfer or carryover of contaminants from site to site.
 - 12.2.13.1. When cleaning the Bristle Cone use mild soap and warm water.
 - 12.2.13.2. If the Bristle Cone bristles have become brittle or damaged due to UVC radiation exposure or usage, replace the Bristle Cone prior to continued operation.

13. PRODUCT ASSISTANCE

13.1. BODYLight Battery Pack Replacement

- 13.1.1. In general, a Battery Pack will remain operational for approximately 500 charge cycles.
- 13.1.2. Should a Battery Pack no longer charge, or a replacement is required, contact Western Technology Customer Service.

13.2. BODYLight Battery Pack Disposal

- 13.2.1. The Battery Canister contains Li-Ion batteries, which are classified as hazardous waste and are not safe for disposal in the normal waste stream.
- 13.2.2. Western Technology encourages recycling, as these batteries do contain recyclable materials. In the event of disposal, dispose only in accordance with federal, state and local regulations.
- 13.2.3. For assistance in disposal of the Battery Pack, contact Western Technology.

13.3. Contact Western Technology Customer Service should any assistance be required in the operation, maintenance, repair, or replacement of any Western Technology equipment or parts.

- 13.3.1. Western Technology
3517 Arsenal Way
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SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 16 of 17

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SOP Title: WT-GERM KILLER™ 8910UVC BODYLight™ Operation	Effective Date: 10July2020
SOP Number: WT-SOP-01007.05	Page: 17 of 17

15. HISTORY

Revision No:	Effective Date:	Comments:
00	20May2020	New
01	10Jun2020	Addition of UVC Activation Table Codes
02	12Jun2020	Inclusion of Section 10.5.3.6. UVC Activation/Deactivation Code Mode
03	18Jun2020	Inclusion of Section 7, Theory, and Section 8, Product Description.
04	23Jun2020	Bristle Cone maintenance added.
05	10July2020	Current references added to address COVID-19 inactivation on contact surfaces.