COMPLIANT TECHNOLOGIES

THE FORCE MULTIPLIER

GEN 4 & GEN 5 G.L.O.V.E.

Product User Guide

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2 SAFETY AND TERMS

2.1 SAFETY

CD3 Technology is not risk free and should be treated seriously like any other weapon. Follow all laws, agency policies, and Tactics, Techniques, and Procedures (TTPs) when deploying the G.L.O.V.E. CD3.

2.2 TERMS

WARNING

May result in injury or death if not followed or observed

CAUTION

May result in equipment damage or failure if not followed or observed

NOTE

Informational notes or comments

CD3	Conductive Distraction and De-escalation Device
G.L.O.V.E.	Generated Low Output Voltage Emitter CD3
MAY	Optional at user's discretion
NPI	Neuro-Peripheral Interference
ROE	Rules of engagement
SHOULD	Suggested course of action
TTP	Tactics, Techniques, and Procedures
WILL/SHALL	Mandatory and non-negotiable
ACE	Agitated Chaotic Event (ACE) previously known as ExDS (Excited Delirium Syndrome)

WARNING

In order to operate The G.L.O.V.E., you must be trained and qualified on this tool. See your agency's instructor for training and qualification or contact Compliant Technologies for more information.

NOTE

Once qualified and certified on The G.L.O.V.E., an individual's certification is good for two years from the date of course completion. All individuals will have to go through re-certification or instructor level courses by the end of their second year. Failure to complete the bi-annual training will disqualify you from using the device until you recertify.

3 General Overview, Specifications, and Components

3.1 Overview

The G.L.O.V.E. stands for Generated Low Output Voltage Emitter. It is a CD3 (Conductive Distraction and De-escalation Device) available from Compliant Technologies LLC. It is a tool used within the Force Continuum to assist Law Enforcement Corrections, Security, Military, and EMS personnel. It is not intended to compete with or replace any existing tool but to supplement existing weapons and tools within an agency's policies and TTPs.

The G.L.O.V.E. is a Force Multiplier for officers operating within their agency's current Force Continuum or Force Options when on their own or in mass.

3.2 Specifications

Table 1: Product Specifications

Specification	CT-G4 Specification Value	CT-G5 Specification Value
Available Sizes*	S, M, L, XL, XXL	XXS, XS, S, M, L, XL, XXL, XXXL
Battery life – continuous stimulation	2 hrs.	90 minutes.
Battery life – standby mode	12-24 hrs.	12-24 hrs.
Battery life – fully charged "shelf life"	Months, recommend charging monthly	Months, recommend charging monthly
Charging time – full charge	2 hrs.	2 hrs.
Power on/off mechanism	Wrist switch	Wrist switch
Battery	User-replaceable 3.7V lithium ion	User-replaceable 3.7V lithium ion
Battery lifetime	2000 charge/discharge cycles	2000 charge/discharge cycles
Maximum Voltage:	210-380V (cannot go above 380V)	324-362V (cannot go above 380V)
Maximum Current:	0.9-1.5A	0.7-1.2A
Pulse Duration	105-115 us	114-116 us
Pulse Charge	84-125 uC	72.4 -111.7 uC
Pulse repetition rate	29.7-30.8 pps	29-30 pps
Duty Cycle	0.32-0.35 %	0.348%
Operation Temperature	14-122°F (-10-50°C)	14-122°F (-10-50°C)
* Availability of certain sizes may be subject to limitations		

3.3 Training Models (CT-G4T and CT-G5T)

The CT-G4T and CT-G5T are special G.L.O.V.E. models designed specifically for training exercises. The CT-G4T and CT-G5T operate at 1/50th the power of a regular G.L.O.V.E. CD3 which allows agencies to develop and conduct more extensive training scenarios without subjecting trainees to the full effects of the G.L.O.V.E. for extended periods of time.

Figure 1: CT-G5T Training Model

3.4 CT- G4 Component Identification

3.5 CT- G5 Component Identification

4 PRE-OPERATIONAL CHECKS

All Compliant Technologies' CD3s, including G.L.O.V.E. devices should be inspected for overall condition prior to training or anticipated utilization. The pre-operational inspections should include a check of at least the following items:

- Velcro adherence
- Tears or frays in materials inside and out
- General condition of Contact Pad
- Broken zippers
- Loose components
- Stains or contaminates
- On/Off Activation
- Operational "Tap Test" – Optional (See Section 5.6)
- Visually inspect charger and cable for frayed wiring or poor condition
- Check battery charge level
- For Generation 5 G.L.O.V.E., conduct tap test and verify recorded data via the Data Management Portal
- For Generation 5 G.L.O.V.E., check stand-by mode operation (See Section 5.6)

If any component is deemed unacceptable from the pre-operational checks, the device should be removed from service.

NOTE

If a single G.L.O.V.E. is inoperative, the other G.L.O.V.E. from the pair may still be utilized. A single G.L.O.V.E. device may be adequate for effective usage.

5 G.L.O.V.E. Use and Operation

5.1 Charging

Generation 4 and 5 G.L.O.V.E. CD3s are supplied with a USB charging cable and an AC charging cube. Prior to use, inspect all components to ensure there are no frayed or broken wires.

The Battery and Micro-Processor ("B/MP") contains four LED indicator lights and a USB charging port. To begin charging, first access the B/MP by unzipping the zipper pouch on the G.L.O.V.E. Connect the supplied USB cable to the B/MP charging port and to a powered USB charger or the supplied charging cube. Alternatively, any USB receptacle in a vehicle or on a computer may be used.

Each of the four LED indicators represents ~25% of charge. While charging, the blue indicators will illuminate in sequence to reflect the charging status. Once charging is complete, all four indicators will be illuminated and will remain on. Disconnect the USB charging cable and close the zipper pouch before use.

5.2 Replacing Micro-Processor

5.3 Digital Event Record Retrieval

Generation 5 G.L.O.V.E. CD3s contain built-in memory where a record of activation events is stored. Thousands of events can be stored in the micro-processor. Compliant Technologies recommends downloading the data at least quarterly and transferring to a secure storage file. To download the event records, follow the instructions from the Data Management Portal Manual or PPT Training slides.

5.4 Powering On/Off

To power on the device, press and hold the ON/OFF button for ~1 second. Once powered on, the ON/OFF button will illuminate along with the indicator light on the B/MP.

To power off the device, press and hold the ON/OFF button for ~2-3 seconds and the ON/OFF and B/MP indicator lights will turn off.

5.5 Activating on Subject's Body

WARNING

No more than two (one pair or equivalent) of G.L.O.V.E. devices should be applied at one time to a single subject.

No more than 15-second activation duration should be deployed for a Level 2 ROE event.

The G.L.O.V.E. will function through soaked thin clothing layers (eg. T-shirts, thin blouses, etc)

NOTE

The device must come in contact with the subject's skin.
The device is not effective through clothing or hair and can be degraded on individuals and animals that are extremely hairy.
The user and other officers can touch the person the device is applied to without fear of feedback.
The device can get wet but can't be immersed in water. The effectiveness of the device does not change or diminish when the subject or user are wet.

WARNING

Although testing has demonstrated CT CD3 technologies don't produce enough current to ignite flammable materials, Compliant Technologies' devices should not be operated around flammable substances.

5.6 Tap Test (Optional)

To confirm that the device is operating as desired, an optional "Tap Test" may be performed as follows:

1. Start a stimulation on the G.L.O.V.E.
2. Quickly tap the device's electrode on the user's hand or forearm.
3. A slight electrical charge will be perceived by the user, confirming the device is functioning.
4. If equipped, download data and check usage via the Data Management Portal. For questions, please refer to Compliant Technologies' Data Management Portal Software User Guide.
5. For the CT-G5 verify the Standby Mode is operational. Press the on/off switch twice rapidly, switch should be flashing with no stimulation. Press the on'/off switch twice again rapidly and the G.L.O.V.E. should return to normal operation.

6 Medical, Physiological Effects and ExDS

WARNING

Any use of force, including CD3 deployment, may cause or contribute to death or serious injury. Follow your agency's guidance and policies when dealing with medically compromised persons.

Various Agencies are called upon daily to deal with the general public. Sometimes the response is to individuals in various states or mind, or emotion and often times under the influence of some form of drug or alcohol. These individuals may also have underlying medical conditions that may or may not be easily discernable with casual observation and thus may be susceptible to an arrest-related death.

When dealing with suicidal individuals, be sure to follow your agency's polices, TTPs and other related protocols when dealing with these subjects.

6.1 Medical Considerations

CD3 technology stimulates the sensory portion of the Peripheral Nervous Systems which inhibits/ distracts the subject from performing coordinated muscle movement, thus achieving Neuro-Peripheral Interference (NPI).

Medical and Product research studies have been conducted and these findings have concluded that, when used properly and within legal limits, agency policies, and along with sound TTPs, these devices pose no immediate threat or significant health risk to the general population. However, Compliant Technologies recommends avoiding use of these devices on the following higher risk portions of the population:

- The elderly
- Small children
- Pregnant women
- The severely handicapped

6.2 Physiological Considerations

CD3s may increase the affects that can cause sudden death including physiological changes with:

- Increase in blood pressure
- Changes in blood chemistry
- Increase in respiration and heart rates
- Changes in heart rhythm
- Increase in Adrenaline
- The longer the CD3 exposure, the greater the potential risk

6.3 Agitated Chaotic Event (ACE) previously known as Excited Delirium Syndrome (ExDS) and Suicidal Considerations

Compliant Technologies does not prescribe any protocols for using a CD3 device in a situation involving an ACE or suicidal people. It is the responsibility of the officer to deal with these cases according to their agency's protocols and procedures.

6.3.1 CT-LSS (Light Sound Shield)

The Compliant Technologies Light Sound Shield may be an appropriate option for your agency. Ask your dealer or contact Compliant Technologies for more details.

7 Tactical Considerations for Use of Force

WARNING

Agencies will set their own TTPs and training policies incorporating the G.L.O.V.E. usage.

"CD3" stands for Conductive Distraction and De-escalation Device. Compliant Technologies does not consider CD3 Technology to be a weapon due to the low electrical current deployed. Compliant Technologies' products will not stimulate through clothing, hair, metal, plastics, or fur, but only stimulates human skin exclusively on the epidermis. CD3s function by over-stimulating the sense of touch within the Peripheral Nervous System which causes Neuro Peripheral Interference or NPI. CD3 technology delivers a pain stimulus strictly to the area of the epidermis contacted by the CD3. Compliant Technologies does not stipulate where CD3 technology fits into Use of Force or "Response to Aggression" protocols; however most agencies include CD3 technology into soft empty hand control protocols.

When considering Use of Force, operators should take into consideration the following:

- The user's experience level, and comfort level with their agency's equipment, TTPs, and the individual(s) situational awareness at that time, and available back-up
- The subject(s) actions/behaviors during the interaction with the officer(s)
- The risk/benefit associated with any given level of force utilized during the encounter

When dealing with anyone, always give the subject(s) a reasonable opportunity to comply before force is used. When the decision to use force is made, use only that minimum amount of force necessary to accomplish lawful objectives within the scope of the agency's policies and TTPs.

It is recommended to have an additional officer on scene to cuff/restrain while the G.L.O.V.E. is being deployed. Always advise other officers of G.L.O.V.E. deployment by saying, "G.L.O.V.E. ON!"

Users should radio in CD3 deployment use and call in a post event status report.

No weapon or tool used by officers is ever operational or effective 100% of the time so an individual's Situational Awareness, knowledge of agency policies, TTPs, training and experience is key! Users should be ready to deploy other force options or disengage if practical.

NOTE

Due to the G.L.O.V.E. stimulation technology, the user and other officers may safely handle and handcuff the subject without fear of receiving any stimulation feedback to themselves.

WARNING

When grabbing the subject's extremities, the officer(s) may be in a better position to manipulate the subject to prevent serious fall injuries due to device application, but safety to the officer or subject can never be guaranteed.

The G.L.O.V.E. **SHALL NOT** be deployed for any of the following:

- Verbal defiance or belligerence
- Punishment
- Torture
- Horse play

Avoid using the G.L.O.V.E. against certain portions of the population to include:

- The elderly
- Small children
- Pregnant women
- The severely handicapped

8 Suggested ROE and Post-Incident Actions

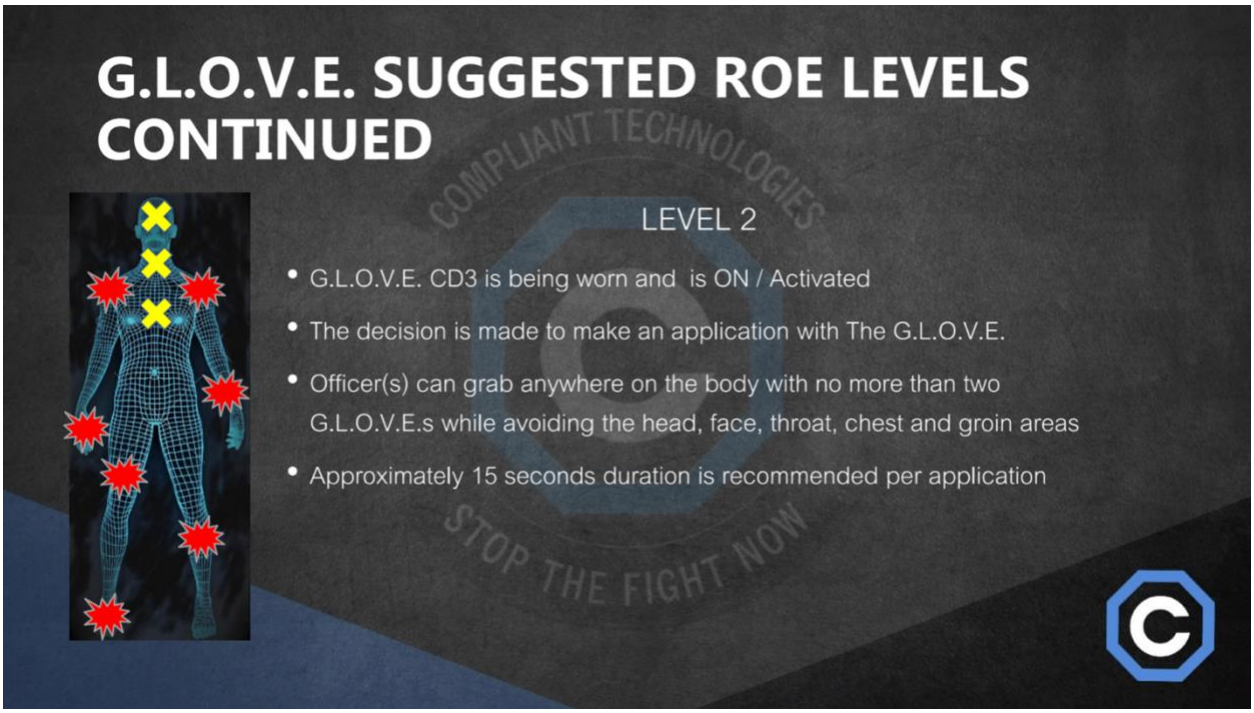
8.1 Suggested ROE (Rules of Engagement) Levels

NOTE

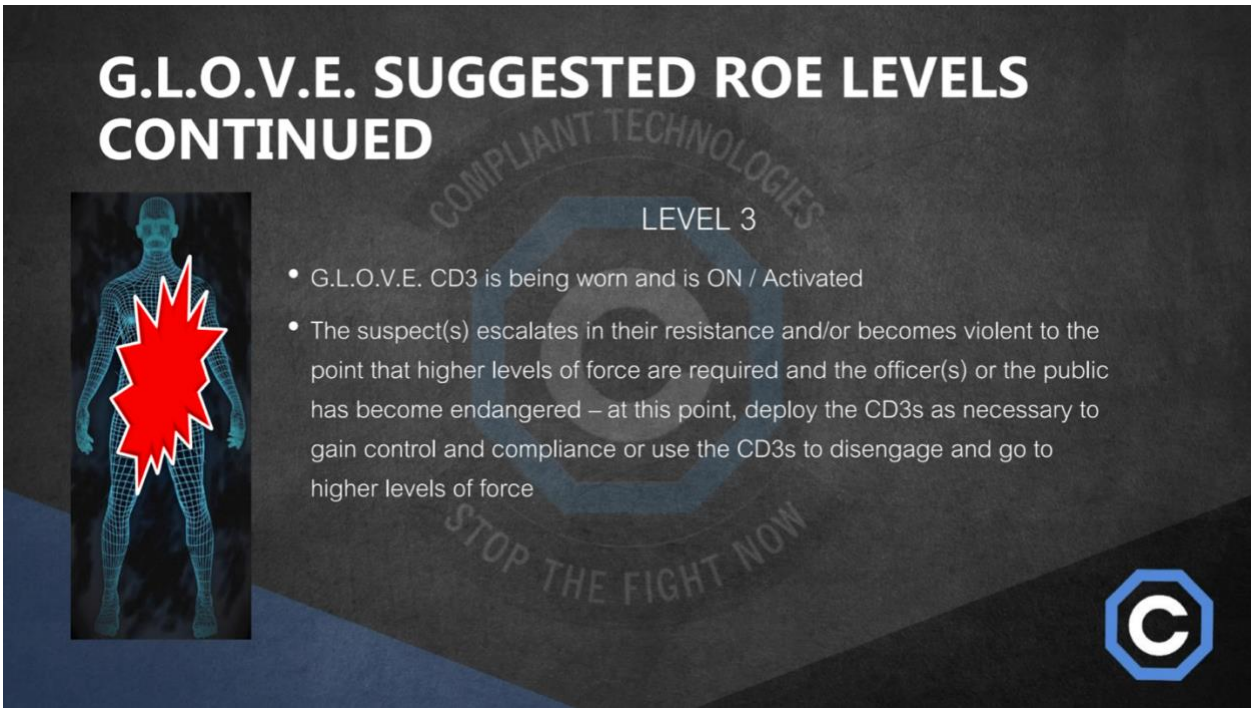
Compliant Technologies does not set any policies or TTPs. The sample ROE contained in this manual are merely a suggested framework from which an agency can develop and set their own training policies incorporating the G.L.O.V.E. usage.

8.1.1 Level 1

8.1.2 Level 2


G.L.O.V.E. SUGGESTED ROE LEVELS CONTINUED
LEVEL 2
G.L.O.V.E. CD3 is being worn and is ON / Activated
The decision is made to make an application with The G.L.O.V.E.
Officer(s) can grab anywhere on the body with no more than two G.L.O.V.E.s while avoiding the head, face, throat, chest and groin areas
Approximately 15 seconds duration is recommended per application
COMPLIANT TECHNOLOGIES
STOP THE FIGHT NOW

8.1.3 Level 3



9 Post-Incident

WARNING

Use your agency's TTPs for reporting significant events for CD3 deployment, CD3 termination and post event status reporting.

9.1.1 CD3 Anonymous After-Action Report

After an incident in which an officer or user deploys The G.L.O.V.E., they will be able to record the event on the Compliant Technologies' CD3 Anonymous After-Action Report.

This form can be submitted online by going to www.complianttechnolgies.net. From the home page, navigate to "Portals" > "Customer Portal" and enter the password provided by your Dealer/Rep and the report will be visible.

10 Device Troubleshooting Procedure

1. **If the G.L.O.V.E. will not charge**
    a. Check that the AC outlet is powered
    b. Check the charger cube and wires for any damage or malfunction
    c. Check the charger's connection to the Micro Processor
    d. If the G.L.O.V.E. still will not charge, contact Compliant Technologies for further support
2. **If the G.L.O.V.E. will not turn ON**
    a. Plug the G.L.O.V.E. into the charger
    b. The state of charge should be displayed via the indicator LEDs
        i. If no red indicator LEDs are illuminated, the battery may be dead. Allow the G.L.O.V.E. to charge for 5-10 minutes. If the charge indicator LEDs begin illuminating, the battery was likely dead.
    c. Check that an SD card is installed in the card slot
    d. Check that the Micro Processor is firmly connected to the G.L.O.V.E.
    e. If the G.L.O.V.E. has 2 or more red LEDs illuminated but won't turn on, there may be an issue with the Micro Processor, the internal wiring, or the ON/OFF switch.
        i. Remove a Micro Processor from a known-working G.L.O.V.E. and install into the G.L.O.V.E. under investigation. Attempt to turn the G.L.O.V.E. on. If the G.L.O.V.E. turns ON, then the Micro Processor was at fault. Contact Compliant Technologies to acquire a replacement Micro Processor.
        ii. If the G.L.O.V.E. still will not turn ON with the replacement Micro Processor, the issue is likely the internal wiring or ON/OFF switch. Remove the device from service and contact Compliant Technologies for further support.
3. **If the G.L.O.V.E. will not turn OFF**
    a. Try cycling the ON/OFF switch several times. A detent should be felt when depressing the button.
    b. Try disconnecting the Micro Processor from the G.L.O.V.E. and then reconnecting the Micro Processor. Note: the charge indicator lights will remain illuminated.
    c. Try cycling the ON/OFF switch several more times. If the G.L.O.V.E. still fails to turn OFF, remove the device from service and contact Compliant Technologies for further support.
4. **If the G.L.O.V.E. will not stimulate**
    a. Check the Micro Processor connection to the G.L.O.V.E.
    b. If the G.L.O.V.E. still will not stimulate, try replacing the Micro Processor with one taken from a known-working G.L.O.V.E.. Try re-activating; if the G.L.O.V.E. successfully stimulates, the original Micro Processor is likely non-functional. Contact Compliant Technologies for further support.
    c. If the G.L.O.V.E. still will not stimulate, the issue is likely internal to the G.L.O.V.E.. Contact Compliant Technologies for further support.
5. **If the G.L.O.V.E. turns OFF as soon as contact is made with something conductive**
    a. The SD card was likely not ejected properly. Remove the SD card and reconnect to the PC. Eject the drive properly and re-insert into the G.L.O.V.E.. Conduct a Tap Test; the G.L.O.V.E. should be functional now.

11 Maintenance and Decontamination

11.1 Precautions for Lithium-Ion Batteries

11.1.1 During Use

Misusing the battery may cause the battery to get hot, explode, or ignite and cause serious injury. Be sure to follow the safety rules listed below:

- Do not carry or store the batteries together with necklaces, hairpins, or other metal objects.
- Do not solder directly onto the battery.
- Do not place the battery in fire or heat the battery.
- Do not place the batteries in microwave ovens, high-pressure containers, or on induction cookware.
- Do not install the battery backwards so that the polarity is reversed.
- Do not connect the positive terminal and the negative terminal of the battery to each other with any metal object (such as wire).
- Do not penetrate the battery with nails, strike the battery with a hammer, step on the battery, or otherwise subject it to strong impacts or shocks.
- Do not expose the battery to water or salt water or allow the battery to get wet.
- Do not disassemble or modify the battery. The battery contains safety and protection devices, which, if damaged, may cause the battery to generate heat, explode or ignite.
- Do not place the battery on or near fires, stoves, or other high-temperature locations. Do not place the battery in direct sunshine or use or store the battery inside cars in hot weather. Doing so may cause the battery to generate heat, explode, or ignite. Using the battery in this manner may also result in a loss of performance and a shortened life expectancy.
- Do not insert the battery into equipment that is hermetically sealed. In some cases, hydrogen or oxygen may be discharged from the cell, which may result in rupture, fire, or explosion.

Immediately discontinue use of the battery if, while using, charging, or storing the battery, the battery emits an unusual smell, feels hot, changes color, changes shape, or appears abnormal in any other way.

In the event the battery leaks and the fluid gets into one's eyes, do not rub them. Rinse thoroughly with water and immediately seek medical care. If left untreated the battery fluid could cause serious damage to the eyes.

When the battery is dead, insulate the terminals with adhesive tape or similar materials before disposal.

11.1.2 During Charging

- Only use chargers that have specially been designed for use with lithium-ion batteries.
- Do not attach the batteries to a power supply plug or directly to a car's cigarette lighter.
- Do not place the batteries in or near fire, or into direct sunlight. When the battery becomes hot, the built-in safety features are activated, preventing the battery from charging further, and heating the battery which can destroy the safety features equipment and can cause additional heating, or ignition of the battery.
- Do not continue charging the battery if it does not recharge within the specified charging time. Doing so may cause the battery to become hot, explode, or ignite.

The temperature range for charging the battery is 0°C to 45°C. Charging the battery at temperatures outside of this range may cause the battery to become hot or, effect the performance of the battery, or reduce the battery's life expectancy.

11.1.3 Battery Discharge

Do not discharge the battery using any device except for The G.L.O.V.E. When the battery is used in devices aside from The G.L.O.V.E. it may damage the performance of the battery or reduce its life expectancy. If the device causes an abnormal current flow, it may cause the battery to become hot, explode, or ignite and cause serious injury.

The temperature range for which the battery can be discharged is -10°C to 55°C. Use of the battery outside of this temperature range may damage the performance of the battery or may reduce its life expectancy.

11.1.4 Battery Storage

If you are not planning on using the battery for about 6 months or longer, first charge it fully and then recharge it once a year. A lithium-ion battery that has been left un-charged for too long will no longer be able to be re-charged. Storage temp should be from -5°C to 35°C.

11.2 Decontamination

Periodic cleaning of the outside surface area of the G.L.O.V.E. **SHAL**L only be done with “My-Shield” wipes or surface cleaner in order to maintain the warranty on the G.L.O.V.E.

Decontaminating the G.L.O.V.E. due to blood and/or other bodily fluids, etc. **SHALL** be performed with “My-Shield” disinfectant products.

Please contact your dealer for details regarding “My-Shield” products.

Compliant Technologies recommends G.L.O.V.E. STIX for internal care, drying and decontamination of the G.L.O.V.E.

G.L.O.V.E. STIX and refills may be purchased through Compliant Technologies. Contact your Dealer/Rep for more information about all cleaning and de-contamination products.

Do not immerse The G.L.O.V.E. in water or put into the washing machine. This will destroy the electronics in these devices and void the manufactures warranty!

Decontamination, periodic cleaning and post-use cleaning of the outside surface area of the G.L.O.V.E. is required with My-Shield® Broad Spectrum Disinfectant. See the MITEK link at www.complianttechnologies.net or contact your dealer for our complete line of disinfectant products and our best in class Fentanyl gloves.

12 Product Support, Warranty, and Contact Information

12.1 Product Warranty

Purchase:

Compliant Technologies provides a full one-year warranty from date of delivery on all products. If a problem cannot be diagnosed and corrected while under warranty, simply return the device to Compliant Technologies for repair or replacement. Negligence, abuse, or unauthorized use voids all warranty claims. Extended warranties out to the 3rd year are also available. Please contact your Dealer/Rep for more information.

Subscription:

Compliant Technologies provides a full 6 year "Bumper to Bumper" warranty.

The warranty covers items due to normal wear and tear and used according to training and specifications. Negligence, abuse, or unauthorized use voids all warranty claims. Ask your Dealer/Rep for more information.

12.2 Compliant Technologies Contact Information

Compliant Technologies can be reached at:

P.O. Box 24714
Lexington, KY 40524

Phone #: 859-447-0576

Email: info@complianttechnologies.net

Please contact Compliant Technologies if you find any error in this manual or if you have any suggestions. Your input is greatly desired and appreciated.

Thank you for your purchase of Compliant Technologies products! We appreciate the service you provide to your communities and our country. We are honored to work alongside you in the crucial role you play to keep us safe!