COMPLIANT

TECHNOLOGIES

THE FORCE MULTIPLIER

The E-Band / E-Vest

USER MANUAL

TABLE OF CONTENTS

Pictured on cover:
Compliant Technologies CT-EBA / CT-EV

CHAPTER 1: Safety and Terms

SAFETY:

CEW'S (Conducted Electrical Weapon) are not risk free and should be treated seriously like any other weapon. Follow all laws, agency policies and TTP's (Tactics Techniques and Procedures) when employing the E-Band / E-Vest CEW or any weapon.

CEW's can provide force multiplication to one or more officers and thus enhance the safety of the user(s) and the public through apprehension and de-escalation by non-lethal means of force but at the same time can be dangerous if not used correctly. Follow all Cautions, Warnings and Notes highlighted throughout this manual.

TERMS:

If not followed can result to injury or death

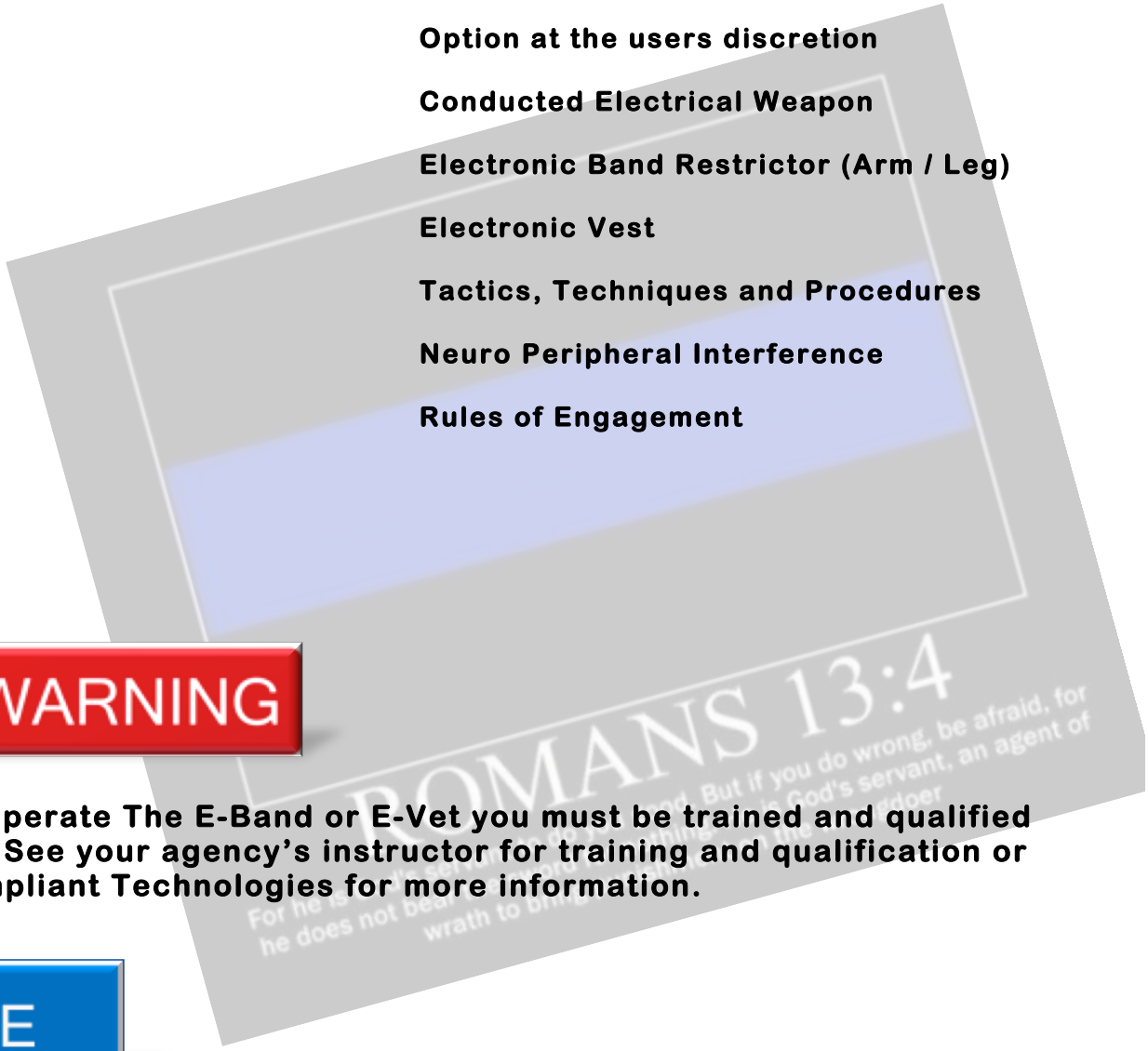
If not followed can result in equipment damage or failure

Information to be highlighted

CHAPTER 1: Safety and Terms

TERMS: CONTINUED…

WILL/SHALL	**Mandatory and Non-Negotiable**
SHOULD	**Suggested Course of Action**
MAY	**Option at the users discretion**
CEW	**Conducted Electrical Weapon**
E-BAND	**Electronic Band Restrictor (Arm / Leg)**
E-VEST	**Electronic Vest**
TTP's	**Tactics, Techniques and Procedures**
NPI	**Neuro Peripheral Interference**
ROE	**Rules of Engagement**



In order to operate The E-Band or E-Vet 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.

Once qualified and certified on The E-Band /E-Vest an individual's certification is good for 2 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 device use until you recertify.

CHAPTER 2: General Overview, Specifications and Components

The E-Band and E-Vest are tools used within the Force Continuum to supplement existing Law Enforcement, Corrections, Security, Military and EMS personnel. It is not intended to replace any intermediate tool but to supplement existing assets and agency TTP's.

The E-Bands and E-Vests are CEW tools are ideal for Corrections and Law Enforcement transporting individuals, court room appearances and medical visits.

The E-Band / E-Vest construction is made up of high-grade leather and man-made materials. There are 3 models for these devices but the CEW functionality of each model is the same.

GENERAL SPECIFICATIONS:

Color: Black
Material: calf or goat skin, neoprene and polyester fiber
Two models to choose from: Arm or Leg
Charge time: 4 hours
Stand-by time: 24 hours
Continuous working time: 2 hours
Snap-type locking mechanism
Magnetically operated
Remotely controlled (300 meters)
3.7 Volt Lithium Ion Battery
Maximum Voltage: 210-320V (cannot go above 380V)
Maximum Current: 0.9-1.5A
Pulse Duration (μS) : 105-115 (.0001 second)
Pulse charge [μC] 84 – 125 (.0001 Amp-Second)
Pulse repetition rate [pps] 29.7 – 30.8
Duty cycle [%] 0.32 – 0.35

(Pictured on Right):
Compliant Technologies
A2G2 Fingerless Gloves with Carbon Fiber Knuckles

CHAPTER 2: General Overview, Specifications and Components

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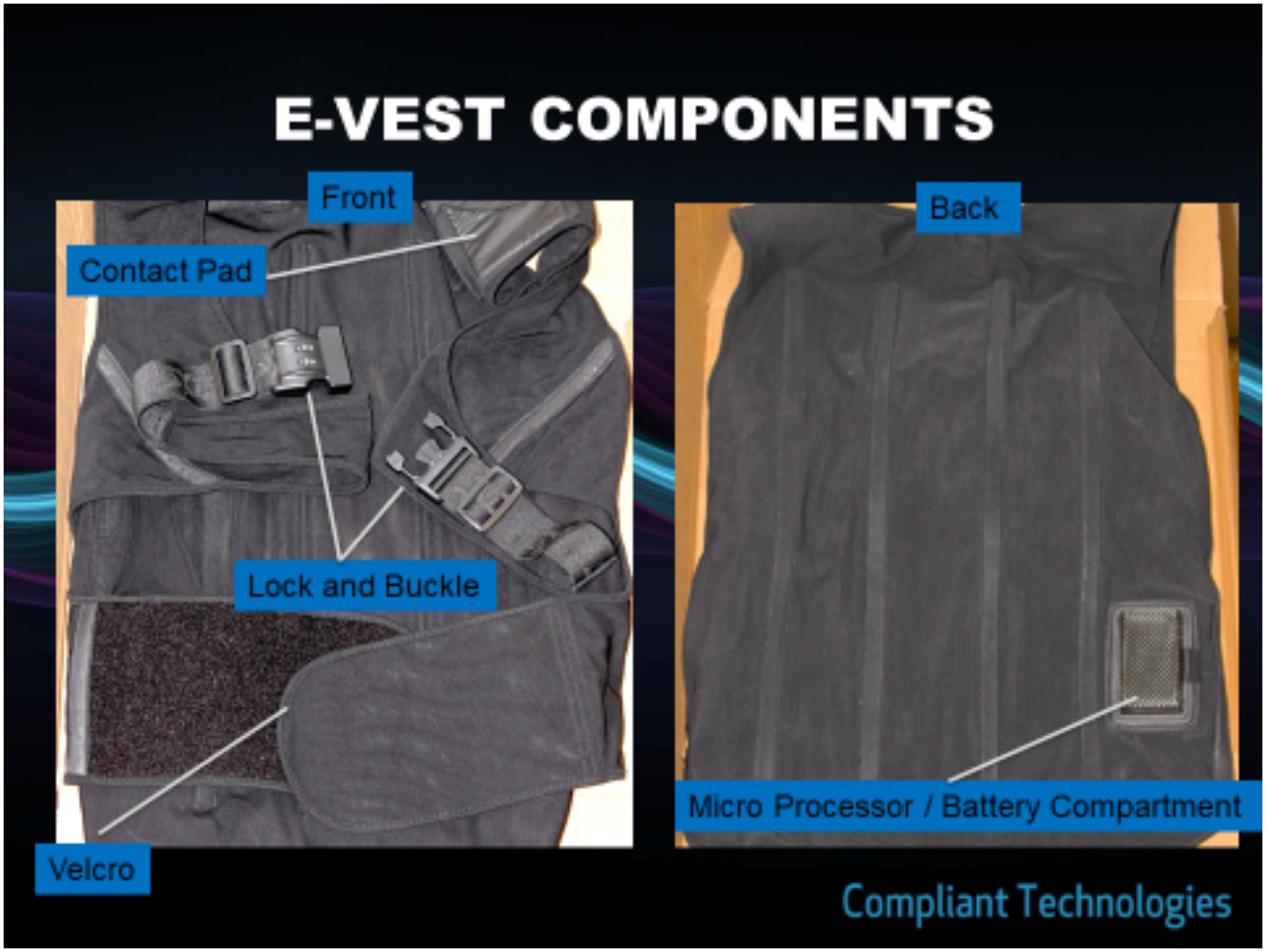


Do not purposely immerse The E-Band / E-Vest in water or put into the washing machine. This will destroy the electronics in these devices and void the manufactures warranty!

CHAPTER 3: Pre-Operational Checks and Charging

PRE-OPERATIONAL CHECKS

Before going on duty inspect Compliant Technologies' E-Bands / E-Vest CEW's for overall condition to include:

- **Velcro adherence**
- **Tears or frays in materials inside and out**
- **General condition of Contact Pad**
- **Loose components**
- **Stains or contaminates**
- **Remote Control Condition, switch and light activation**
- **On/Off Activation (Red and Green Light on)**
- **Operational "Tap Test" – Optional**
- **Visually inspect Charger for proper connections and loose wiring (Red and Green Light)**

If any component that effects the operational worthiness and readiness of the device is deemed unserviceable remove it from service and contact Compliant Technologies.

CHAPTER 3: Pre-Operational Checks and Charging

Inspect the E-Band / E-Vest charger before plugging it in. Make sure there are no frayed or broken wires and that the adaptor plug is securely connected to the wires leading to the power supply.

The power supply has a light that glows red or green. Each light represents the status of the device. When charging, the power supply light will be red until charging is complete at which time the light will turn green. Simply unplug The E-Band / E-Vest and the power supply and store until use is required.

The charge on the device can last for months if not turned on and up to a few days when in the "ON / STANDBY" mode. Once in action the device can stun for over 2 hours of continuous use.

When the charge on device is getting low the light will flash red indicating it's time to recharge the battery. If not use for a prolonged period charge the device monthly to keep it in a ready mode.

CHAPTER 4: Basic E-Band / E-Vest Operations

The E-Band / E-Vest is magnetically operated and remotely controlled. The devices are turned ON/OFF by holding the magnetic key up to the right upper side of battery compartment for 3 seconds. The red stand-by light will illuminate. Pressing the remote will active the device and the light on the battery compartment will turn green letting you know the device is activated and current is flowing to the contact pads. Releasing the button will stop the flow of current and light will return back to red indicating the device is back in the stand-by mode. To turn device off reverse the process with same magnetic key again for 2-3 seconds and the red light will go out.

An Operational "Tap Test" which is Optional can be performed by activating the remote control on the E\Band \ E-Vest and quickly tapping it on the hand or forearm. The device will give the user a slight electrical charge letting the operator know it's operational.

When turning on the devices, current momentarily crosses the pads prior to entering Stand-By mode. Turn the device on before attaching to the body.

The device must come in contact with the subject's skin.

The device is not affective through clothing or hair and can be degraded on individuals who are extremely hairy.

The user and other officers can touch the person the device is applied to without fear of being shocked.

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.

The device should not be operated around flammable substances.

CHAPTER 5: Medical, Physiological Effects, ExDS

MEDICAL:

CEW's stimulate the sensory and motor systems of the Central and Peripheral Nervous Systems which inhibits/ distracts the subject from performing coordinated muscle movement.

Many medical and research study's involving CEW's have been conducted over past decades. The vast majority of these findings conclude that, when used properly and within legal limits, agency policy and along with sound TTP's, these intermediate weapons pose no immediate threat or significant health risk to the general population. However, Compliant Technologies recommends not using these devices or other CEW's on the following higher risk portions of the population:

- **The elderly**
- **Small children**
- **Pregnant women**
- **The severely handicapped**
- **Those with obvious health conditions**

PHYSIOLOGICAL:

CEW's 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 CEW exposure, the greater the potential risk**

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

CHAPTER 5: Medical, Physiological Effects, ExDS

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, TTP's and other related protocols when dealing with these subjects.

ExDS (EXCITED DELERIUM SYNDROME):

Controversy has continued regarding the cause and manner of death of some highly agitated persons held in police custody, restrained or incapacitated by CEW(s).
ExDS is a Syndromal disorder (sets of symptoms) and is highly debated because the mechanism of lethality is unknown.

When triggered, dopamine levels increase in the brain and a lethal cascade of neural activities progress from Hyperthermia (body too hot) to Asphyxia and sudden Cardiac Arrest then death. Medical examiners frequently cite Psychostimulant (ADHD drugs) intoxication as a contributing factor.

In North America ExDS is most frequently associated with Cocaine, Methamphetamine, and Cathinone (Bath Salts) use. Alcohol may or may not be on board or the individual may not be on any stimulants at all.

Characteristics of ExDS include:

- **Bizarre and Aggressive behavior**
- **Shouting**
- **Paranoia**
- **Panic**
- **Violence**
- **Unexpected physical strength**
- **Hyperthermia (Hallmark symptom of ExDS)**

CHAPTER 6: Tactical Considerations for Use of Force

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

- **The user's experience level, and comfort level with their agency's equipment, TTP's, and the individual(s) situational awareness at that time, and available back-up**
- **The subject(s) actions/behaviors during the course of 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 force continuum, policies and TTP's.

It is recommended to have an additional officer on scene to cuff/restrain while the E-band / E-Vest is being employed. Always advise other officers of device employment by saying, "Band or Vest On!"

Users should radio in CEW employment use and call in a post event status report.

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

The user and other officers can handle and handcuff the subject without fear of being stunned.

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.

CHAPTER 6: Tactical Considerations for Use of Force

No one SHALL ever employ the E-Band / E-Vest for the following:

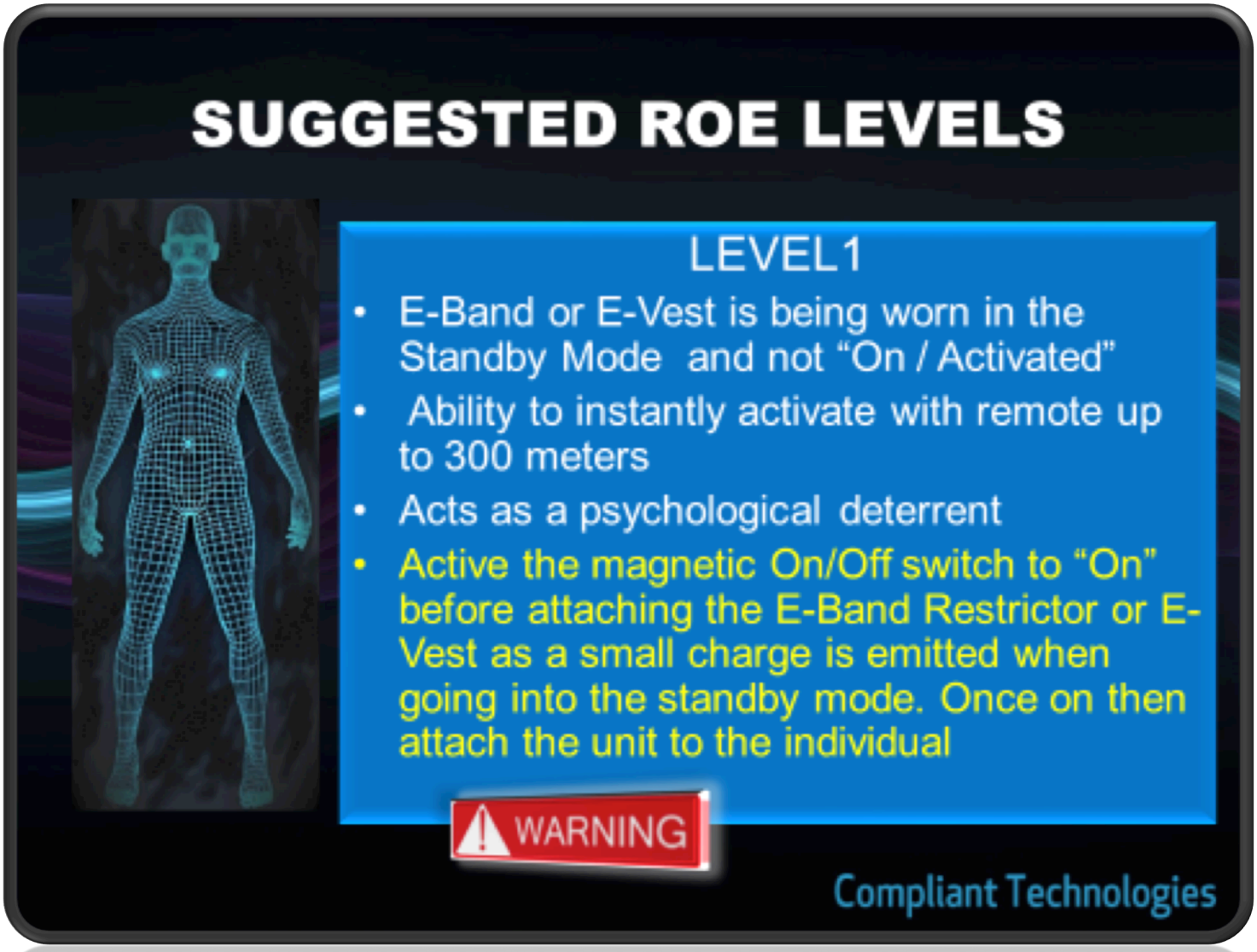
- **Verbal defiance or belligerence**
- **Punishment**
- **Torture**
- **Horse play**

Avoid using the E-Band / E-Vest against certain portions of the population to include:

- **The elderly**
- **Small children**
- **Pregnant women**
- **The severely handicapped**
- **Those with obvious health conditions**

Agencies will set their own TTP's and training policies incorporating The E-Band / E-Vest.

CHAPTER 7: Suggested ROE, Post Incident



NOTE

Compliant Technologies does not set any policies or TTP's. Our ROE is simply a suggested framework from which an agency can develop and set their own standards.

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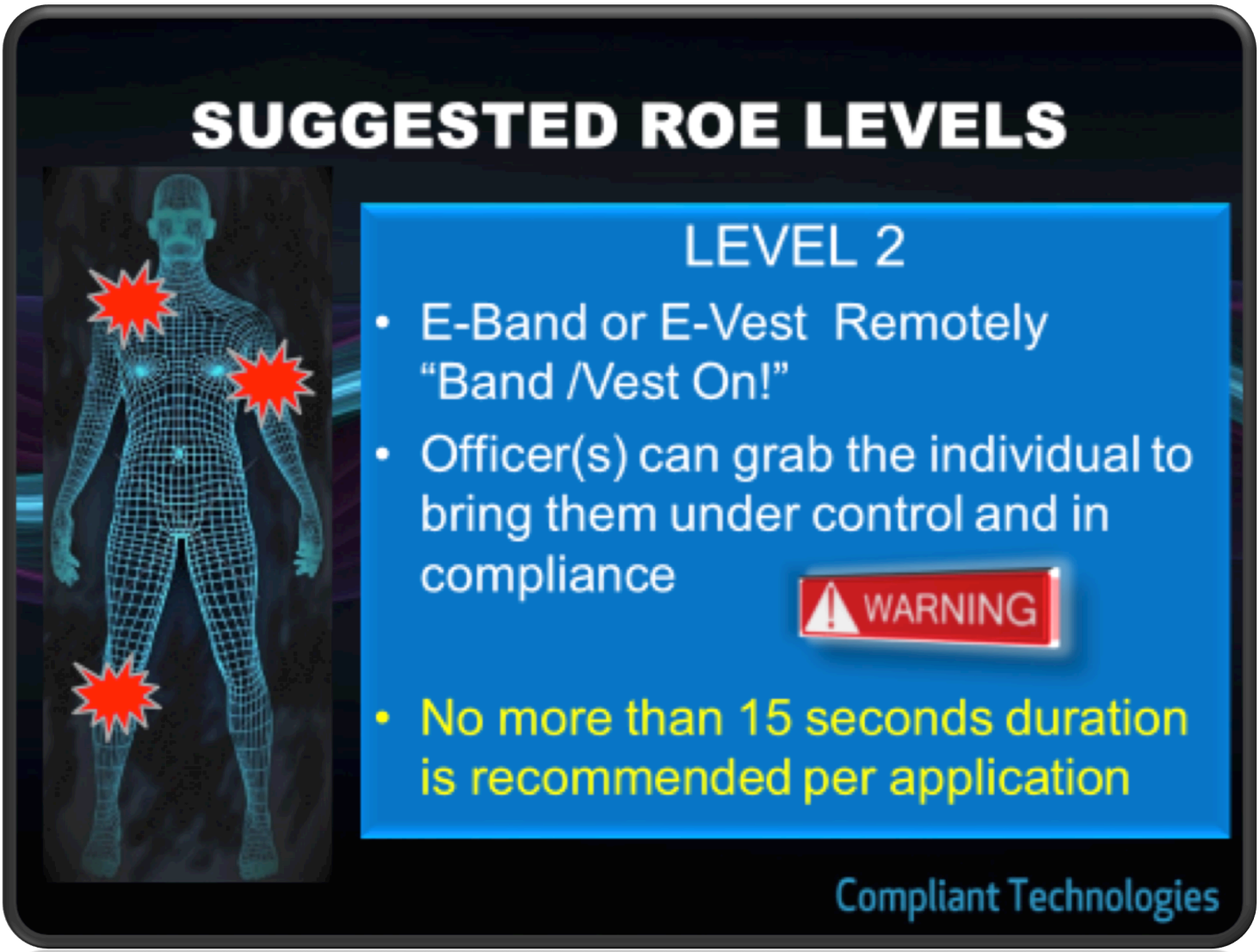

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CHAPTER 7: Suggested ROE, Post Incident

POST INCIDENT:

After an incident in which an officer or user employs The E-Band / E-Vest they will be able to record the event on the Compliant Technologies' CEW After Action Review Form

This form can be submitted online under the "Contact Us" page at:
www.complianttechnolgies.net

Use your agency's TTP's for reporting significant events for CEW employment, CEW termination and post event status reporting.

For some agencies, when CEW employment has taken place, it is required to initiate CEW post incident EMS medical response.

CHAPTER 8: Trouble Shooting and De-contamination

TROUBLE SHOOTING:

The E-Band / E-Vests are tools made to ensure reliability and operability, ready for those who need them when that critical time arrives. Unfortunately, no technology is ever 100% operational or reliable 100% of the time. Therefore, the following is a trouble shooting guide for The E-Band / E-Vest In the event of a malfunction.

- **Failure of E-Band / E-Vest to turn on or stun**

  1. **Using the magnetic key the Red Standby light should turn on in 3 seconds and the Green in use light should illuminate when you activate the remote control. If the light doesn't come on then the battery may completely discharged or the switch is bad. Attempt to re-charge the device. If the problem still persists then check the charger. Complete Optional Operation Tap Test to see if the device may be active.**

  2. **Visually and functionally inspect the charger. Make sure that it is plugged in and connects easily to the device and that the appropriate red and green lights illuminate depending on the status of the battery. If the charger doesn't seem to be working properly, switch chargers and try recharging the device. If the device does recharge, then the charger was bad, so remove it from service. If the device still doesn't charge, remove it from service and contact Compliant Technologies.**

- **Failure of E-Band E-Vest. to turn off**

  1. **Functionally inspect the magnetic On/Off function (Light Off) Recycle Switch 2 times.**

  2. **Conduct the Optional Operational "Tap Test" if willing. If the device is still functioning then remove the device from service and contact Compliant Technologies.**

CHAPTER 8: Trouble Shooting and De-contamination

TROUBLE SHOOTING: CONTINUED…

- **Lithium Ion Battery Issues**

Compliant Technologies' E-Band / E-Vest and other CEW's use Lithium Ion Batteries to operate. In the unlikely event you have a battery issue and the battery is:

- **Hot**
- **Smoking**
- **Sparking or catching fire**

1. **If the device is on and being worn immediately take it off and turn it off. Place it on a non-flammable surface outside and away from other people and flammables and contact Compliant Technologies.**

Pictured Right: Compliant Technologies' Non-removable 3.7 Volt Lithium Ion Battery

DO NOT ATTEMPT TO REMOVE OR REPAIR THE BATTERY WITHIN THE DEVICE AS THIS WILL VOID THE MANUFACTURER'S WARRANTY.

CHAPTER 8: Trouble Shooting and De-contamination

SAFETY PRECAUTIONS FOR LITHIUM ION BATTERIES:

When Using the Battery:

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, the device is no longer serviceable as the battery is not replaceable on the E-Band or E-Vest. Please dispose of properly.

CHAPTER 8: Trouble Shooting and De-contamination

SAFETY PRECAUTIONS FOR LITHIUM ION BATTERIES: continued…

When Charging the Battery:

- 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.

When Discharging the Battery:

Do not discharge the battery using any device except for the E-Band / E-Vest. When the battery is used in devices aside from the E-Band / E-Vest 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.

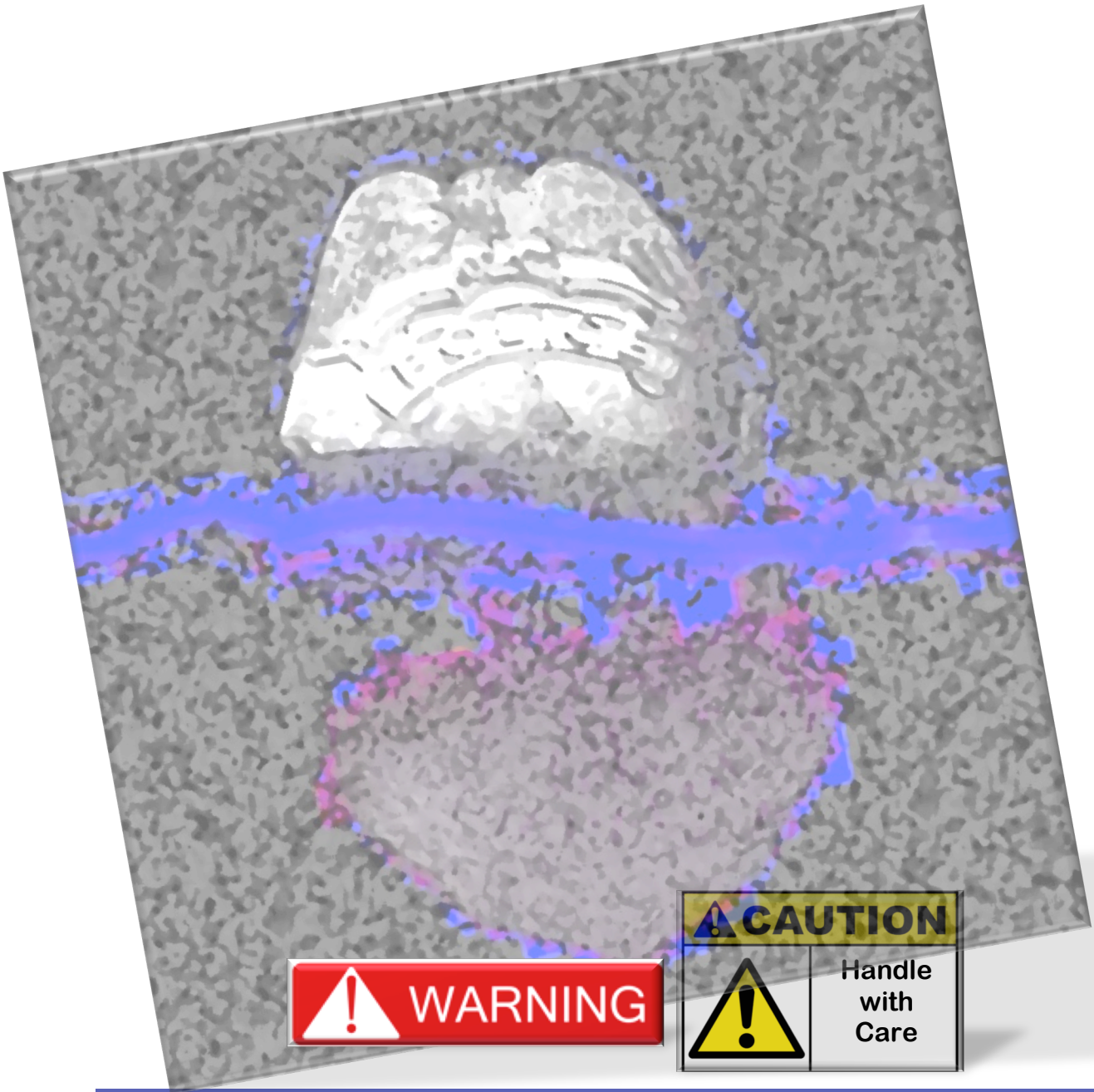
When Storing the Battery:

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

CHAPTER 8: Trouble Shooting and De-contamination

DECONTAMINATION:

Periodic cleaning of the outside surface area of the E-Band / E-Vest is recommended with mild soap and water and/or a PDI Sanicloth® or other similar disinfectant.
Decontaminating the E-Band / E-Vest. due to blood and/or other bodily fluids, etc. should be done with a PDI Sanicloth® or other similar disinfectant.



CHAPTER 9: Warranty and Contact Information

WARRANTY:

Compliant Technologies provides a full one-year warranty from date of delivery on all our products. If a problem can't be diagnosed and corrected while still under warranty simply return the device to Compliant Technologies.

Reckless or improper use of the glove is not covered under warranty.

CONTACT INFORMATION:

Compliant Technologies can be reached at:

P.O. Box 24714
Lexington, KY 40524

Phone #: 859-447-0576

Our email address is: info@complianttechnologies.net

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