

USER INSTRUCTION, SAFETY AND TRAINING GUIDE



elbeco

ready for action

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LION Elbeco Certified Uniforms

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 **DANGER**

You MUST read this Guide and all Safety, Cleaning and Information labels before wearing.

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1. INTRODUCTION

This User Instruction, Safety and Training Guide gives important information regarding the use, inspection, care, maintenance, storage and retirement of Emergency Services Work Apparel. Immediately upon receipt of your garment, you should carefully read and save this guide for future reference.

NO ONE SHOULD USE THIS EMERGENCY SERVICES WORK APPAREL UNTIL:

- A. The firefighter or emergency response personnel, who has been trained in the proper use of firefighting and emergency response equipment, as well as protective clothing, has read and understood all the warnings, as well as the User Information, Safety and Training Guide provided with the clothing.
- B. The clothing has been inspected inside and out for any tears, holes or cuts.
- C. The firefighter or emergency response personnel understands the limitations of the clothing, which can be gained from training, and has knowledge of the material used in the clothing (information which can be supplied by the garment or material manufacturer).
- D. The clothing is cared for and maintained according to instructions in this User Information, Safety and Training Guide.

To ensure proper use of this clothing, it is recommended that the user read and become familiar with the current edition of NFPA 1975, *Standard on Emergency Services Work Apparel*. A copy of the standard can be acquired from the National Fire Protection Association, 1 Batterymarch Park, PO Box 9101, Quincy, MA 02269-9101.



Safety Considerations

This Emergency Services Work Apparel is not structural, proximity or entry PPE. It is not designed to be kept in direct contact with flames or molten metal, or for protection against hazardous, chemical, biological or radiological agents. User must have the background necessary to select correct clothing for the job and use it safely. If you do not have expertise, do not take chances. Get expert assistance.

FOR ALL FIREFIGHTING ACTIVITIES, primary protective clothing appropriate for the type of firefighting operation must be worn for limb/torso protection. Additional items of protective clothing and equipment will be needed for respiratory, head, hands and foot protection. Failure to comply with this warning may result in serious injury or death.

User Marking

It is recommended that emblems, shields or heraldry, embroidery, silkscreens and heat transfers that designate a governmental entity, a specific organization, rank, title, position or some professional status, etc. NOT be affixed to your Emergency Services Work Apparel unless it meets the thermal shrinkage requirements and heat resistance requirements of NFPA 1975, current edition. For marking an individual's name or other identifying mark, an indelible laundry marker may be used.

Storage Considerations

After clothing has been cleaned and inspected, it should be stored in a place that will protect it from direct sunlight, indirect sunlight, fluorescent light, heat and excessive moisture. Never store your clothing in direct sunlight, indirect sunlight or in fluorescent light. Exposure to light (particularly light in the sun's rays and

Upon receipt of your LION Certified Uniforms, you must carefully inspect the garment and review all warnings, use and care instructions provided.

Your Emergency Services Work Apparel will carry a label indicating whether or not your garment is compliant to NFPA 1975 and if it has Flame Resistant (FR) properties. Read this label carefully. Failure to understand the performance properties of FR and non-FR uniforms may result in serious injury or death.

Do not continue to wear Emergency Services Work Apparel that has been exposed to products of combustion. Wash your garments as soon as possible after exposure to reduce cross contamination.

First, check the Fabric Content Label (it has a serial number on it) to determine whether adequate identifying information was already printed by the manufacturer.

NEVER MARK ON THE SAFETY, CLEANING OR INFORMATION LABELS ON YOUR GARMENT!

fluorescent light) will severely weaken and damage the components in your garments after only a few days. Damage caused by exposure to light cannot be repaired, nor will the manufacturer cover such damage under its warranty.



Maintenance

Emergency Services Work Apparel for firefighters and emergency services personnel consists of many components (shirt, pants, thread, trim, etc.) which work together as a system. All components require periodic inspection and maintenance.

Inspection procedures should include the following:

- 1.) Inspect all components for rips, tears, burn damage and abrasion damage. Close attention should be paid to

thread, shoulders, elbows, cuffs, crotch and knees.

- 2.) All major seams (i.e., shirt side seams, sleeve seams and shoulder seams and pants seat seams, outseams and inseams, etc.) should be physically inspected for structural damage.

- 3.) If any component is found to be damaged, the clothing should be removed from service and repaired or replaced.

Frequency and Details of Inspection

A. You should inspect your Garment at the following times:

- 1.) upon receipt of your new Garment or replacement component;
- 2.) at least monthly thereafter during the useful life of the Garment;
- 3.) after exposure to heat, flames, chemicals; and
- 4.) after washing, repair or decontamination.

You must inspect your Garment as a minimum, at the above frequency intervals to detect more obvious damage and deterioration. Whenever you detect a potential problem through your own inspection, or suspect that the protective qualities might be degraded, your Garment should be inspected by a trained expert at the Fire Department, LION TotalCare® Center or Verified ISP.

B Details of inspection: Inspect each article of clothing for the following types of wear or damage:

- Rips, tears, holes, thin spots
 - Damage to pockets
 - Hardware
 - Reinforcements
 - Embrittlement (stiffness of material)
 - Char, burns
 - Discoloration
 - Cleanliness
 - Seam integrity
 - Abrasions or worn spots
 - Functionality
 - Closure system
 - Sizing and fit
 - Verify all Safety, Cleaning and Information labels are on the garment and are legible
- C. Most performance properties of the garment and its components cannot be tested by the user in the field.

Methods of Repair

Before any repairs are made to your Garment, it must be washed, decontaminated and disinfected in accordance with this Guide. It is a violation of OSHA guidelines to expect workers to alter or repair soiled and possibly contaminated or infected Garments.

All repairs should be done by LION, LION TotalCare® or a Verified ISP. Repairs made

to garments by other organizations may invalidate all warranties and may expose the wearer to hazardous or life threatening conditions. For a list of LION TotalCare® Centers, visit www.lionprotects.com/totalcare-locations. For information on Verified ISPs, call LION at (800)421-2926.



Washing

FREQUENCY

Emergency Services Work Apparel should be cleaned at the following intervals:

- 1.) After every use.
- 2.) As soon as possible after exposure to smoke, products of combustion or hazardous substances.

WARNING

Never dry clean your garment. Dry cleaning solvents are made from petroleum products which may support combustion and negate the fabric's flame resistant properties.

WARNING

To reduce the risk of harm from hazardous substances present in the products of fire combustion or hazardous chemicals, you **MUST** wash your garments.

WARNING

Always wash your LION Elbeco Certified Uniform separately from other items. Use extreme caution when laundering at home to avoid spread of chemical contamination or hazardous combustion products to other laundry. Do not wash garments at home or at public facilities if garments have been exposed to any emergency incident.

WARNING

Always wash your Elbeco Certified Uniform separately from other items. Flame resistant Garments must be washed separately from non-flame resistant Garments. Lint from non-flame resistant Garments may impact flame resistance.

CLEANING PRODUCTS

Routine Washing:

- A. Commercially available detergents. Use commercially available detergents with a pH greater than 6.0 and less than 10.5. Many household detergents fall within this range.
- B. Specialty detergents. Some manufacturers of cleaning products have developed products that can be used on Protective Clothing. Always read SDS (Safety Data Sheet) before using these products.
- C. Spot cleaning and pre-treating. Use commercially available detergents with a pH greater than 6.0 and less than 10.5. Many household detergents fall within this range. Always check SDS and product instructions before use.



no chlorine bleach

WARNING

Never use chlorine bleach or chlorinated products to clean your Elbeco Certified Uniform. Even small amounts of chlorine will seriously reduce your Garment's protective qualities. Non-chlorinated bleaches are acceptable.

WARNING

Do not use soap-based cleaning products. Soap fat residues will contribute to flammability.



 **WARNING**

Do not use petroleum-based solvents to spot clean. These products may reduce the limited protective qualities of your Garments.

 **WARNING**

Do not use fabric softeners. Fabric softeners are oil-based and can contribute to fabric flammability.

 **WARNING**

Do not use starch. Starch can contribute to fabric flammability.

SPOT CLEANING

- A. Use a detergent that is safe for use on protective clothing fabrics to clean light spots and stains on Garments.
- B. Apply the detergent one or two times on soiled areas according to the detergent manufacturer's instruction on dilution and application.
- C. Gently rub the fabric together.
- D. Thoroughly and carefully rinse Garments with cool water.

PRETREATING

- A. Apply pretreating product onto the soiled areas according to the pretreating product manufacturer's instructions on dilution and application.
- B. Thoroughly and carefully rinse Garments with cool water.
- C. Place Garments into washing machine and follow the wash procedures in this section.

HEAVILY SOILED AREAS

- A. Air dry Garments, if damp, before applying detergent.
- B. Saturate the heavily soiled and surrounding area according to the detergent manufacturer's instructions on dilution and application. Follow the detergent instructions for duration of soaking.
- C. Use a soft bristle brush (toothbrush or fingernail-type brush dipped in water) to gently scrub the soiled area for 1 or 2 minutes.
- D. Thoroughly and carefully rinse Garment with cool water.
- E. Repeat steps B-D if necessary.
- F. Place Garments into the washing machine as instructed in the wash procedures in this section.

 **WARNING**

Keep protective clothing clean. Life expectancy and flame resistance (if FR uniform) increase if abrasive, flammable dirt and contaminants are removed after each use. While aramid fibers, for example, are inherently flame retardant, protective clothing contaminated with unburned byproducts of combustion, as well as other flammable contaminants, may negate the ability of clothing to resist flame and, may not only ignite, but the clothing may also continue to burn when it would normally self extinguish. **IF NOT CLEANED, CONTAMINATION WILL REDUCE THE EFFECTIVENESS OF THE FR CLOTHING AND MAY CAUSE ILLNESS.**

 **WARNING**

Wash FR Garments with other FR Garments. Lint from non-FR Garments may impact flame resistance.



MACHINE WASHING

Preparation

Before washing, make sure you comply with all federal, state and local guidelines for handling effluents from utility sinks.

A. Pretreat heavily soiled Garments following steps in the Spot Cleaning and Pretreating procedures on page 7 of this Guide.

B. Fasten all closures.

If the machine is used to wash items other than Emergency Services Work Apparel, it should be rinsed out by running the machine without a laundry load through a complete cycle with cleaning product and filled to the maximum level with water at a temperature of 49°C to 52°C (120°F to 125°F) before used for Emergency Services Work Apparel. This process should be repeated after washing Emergency Services Work Apparel to avoid cross-contamination of the next laundry load.

Machine Settings

For best results, use a front loading extractor or front loading washing machine with a tumbling action for washing. Top-loading machines may not wash your Garments thoroughly and the agitator can damage the Garments and reduce their durability and protective value.

The following machine settings should be used:

A. Wash temperature should not exceed 105°F (40°C)

B. Normal cycle

C. Use low extractor speeds less than 100g's.

D. Double rinse. If your machine will not automatically double rinse, a complete second rinse cycle should be run without cleaning products.

Wash Procedures

A. Load machine with Garments to be washed. Follow machine manufacturer's instructions for proper load size.

B. Add detergent per manufacturer's instructions. Never use chlorine bleach; non-chlorine bleach may be used. Ensure accurate measuring tools are used for correct cleaning product dosage.

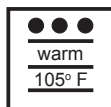
C. Set washing machine to normal cycle and start wash cycle.

DRYING

A. Tumble dry on permanent press cycle or hang dry.

B. Do not over-dry.

Note: The use of home washers, and washers used by the public, are not recommended in order to prevent the spread of contamination to other laundry.



water temperature



machine wash cycle



no chlorine bleach



line dry/
hang to dry



in the
shade



tumble
dry

WARNING

Do not hang Garments to dry in direct sunlight, indirect sunlight or fluorescent light. Light will severely reduce the strength of the seams and will discolor and greatly reduce the strength and protective qualities of the components of the Garments.

DO NOT DRY CLEAN

Never dry clean your Garments. Dry cleaning will damage the Garments and reduce their protective qualities.



never
dry-clean



Decontamination Procedures

DECONTAMINATION AND DISINFECTION

You must read and have facilities and procedures in compliance with NFPA 1581 Standard for Fire Department Infection Control Program.

CAUTION

Personnel involved in the handling, sorting, bagging, transporting and laundering of contaminated garments must wear utility gloves, protective eyewear and appropriate protective clothing to prevent occupational exposure during these activities.

WARNING

To reduce the risk of harm from hazardous substances present in product of fire combustion, hazardous chemicals and body fluids, you **MUST** wash, decontaminate and/or disinfect your garments after each exposure to such hazardous substances.

WARNING

Only a trained expert in decontamination should attempt to decontaminate garments. Contact a LION TotalCare® Center or Verified ISP to seek assistance in determining whether decontamination is possible and the name of the appropriate organization to perform decontamination.

Preparation

Remove contaminated and infected garments from wearer and from service before beginning. Garments should remain out of service until decontaminated and disinfected. Wear protective gloves, protective eyewear and appropriate protective clothing and equipment while decontaminating and disinfecting.

Hazardous Chemicals

KNOWN MATERIALS: Contact the source of the materials, your local HAZMAT team or the Health Department to determine whether the contaminants are hazardous materials. If the contaminant is known, contact a LION TotalCare® Center or Verified ISP to determine the feasibility of decontamination.

UNKNOWN MATERIALS: If the contaminant is not known, garments should remain out of service until the materials are identified. Always demand MSDS information and be prepared to share your findings with a LION TotalCare® Center or Verified ISP to decontaminate the garments. **If your garment cannot be decontaminated, it must be retired and disposed of in accordance with federal, state and local regulations.**

Blood and Body Fluids

You must use disinfectants that are compatible with protective garments.

SMALL INCIDENTAL AREAS: Use spot cleaning procedures described in the washing section and use an appropriate disinfectant available for garments. Always follow the instructions of the manufacturer regarding product usage. Wash garments thoroughly after spot cleaning.

LARGE AREAS: If garments have large areas of coverage of blood or body fluids, place and transport garments in bags to prevent leakage. Contact a LION TotalCare® Center or Verified ISP to arrange for disinfection or **retire and dispose of the garments in accordance with federal, state and local regulations.**



Retirement Criteria

USEFUL LIFE AND RETIREMENT

NFPA 1975 performance requirements are based on new, unworn Garments and materials. Useful life is the period of time that Garments, which have been properly cared for, can be expected to provide reasonable limited protection. Useful life depends on the materials and the conditions of wear, maintenance and storage. Nomex® is normally 4 years, Tecasafe® is normally 2.5 years and Cotton is normally 1 year. Garments should be retired when the costs of repair would exceed 50% of the replacement cost.

The useful life of a Garment will vary according to the following factors:

- Weight and type of weave of fabric
- Age and frequency of use
- Type of work the wearer performed
- The length of exposure to direct sunlight, indirect sunlight or other light sources such as fluorescent light
- Age of garment

Assess your Garments at each regular inspection to determine whether it has exceeded its useful life and must be retired

Trained professionals with in-depth knowledge of Garments and their limitations should handle the details of a retirement program. If you have any questions about the useful life and retirement of your Garments, get assistance before wearing it. Contact a trained expert within your organization, LION, or LION TotalCare®.

Retired uncontaminated garments must be destroyed to prevent unauthorized or mistaken use. Cut uncontaminated, retired Garments into several pieces and dispose of properly. One suggested method of disposal is a landfill.



Limited Lifetime Product Warranty

LION warrants that its firefighter and emergency responder products meet all applicable NFPA standards in effect at the time of their manufacture and further warrants that such products are, during their useful life, free from any defect in workmanship or any material defect.

Conditions of use are outside the control of LION. It is the responsibility of the user to inspect and maintain the products to assure they remain fit for their intended purpose. In order to maximize the useful life of these products and maintain the warranty, the products are to be used only by appropriately trained personnel following proper firefighting or emergency response techniques and in accordance with the product's warning, use, inspection, maintenance, care, storage and retirement instructions. Failure to do so will void the warranty.

EXCEPT AS SET FORTH ABOVE, LION MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR USE.

Under the above warranties, LION will repair or replace, at its option, any product which does not meet the above warranties. Such repair or replacement will be the purchaser's sole remedy and LION will not be responsible for any incidental, consequential or other damages based upon or arising in any way from any breach of the warranties contained herein or the purchaser's use of such product.

These warranty obligations apply only to any product, part or component which is returned to LION or LION TotalCare® with prior authorization and proof of purchase, and which LION agrees to be defective as covered by this warranty.

The word "product" includes the product itself and any parts or labor furnished by LION with the sales, delivery or servicing of the product.

USEFUL LIFE: Performance requirements are based on new, unworn Garments and materials. Useful life is the period of time that Garments, which have been properly cared for, can be expected to provide reasonable limited protection.

The useful life will vary according to type and frequency of use, the weight and type of materials used in the product. Useful life is normally 1 to 5 years, depending on the fabric

type, wear, maintenance and storage. Useful life is highly unlikely to be more than 5 years. Garments more than 5 years old and made to earlier versions of NFPA Standards are highly likely to have exceeded their useful life and must be retired! A Garment should be retired when the costs of repair would exceed 50% of the replacement cost.

DEFECTS IN WORKMANSHIP AND MATERIALS:

Defects in workmanship and materials means poorly manufactured items, including seams, stitching or components (for example, loose or broken seams; zippers or snaps that fall off or do not function properly), and fabrics or barriers which have such flaws as holes, uneven spots, weak areas, pilling or other flaws caused by irregularities in their manufacture.

EXCEPTIONS TO LIMITED WARRANTY

This limited warranty does not cover the following items after receipt of product by end user:

- A. Claims made after 60 days from the date of shipment for damage to materials.
- B. Damage or color change from exposure of materials to direct or indirect sunlight or fluorescent light.
- C. Shade variations among textiles used or shade changes to fabrics caused by wear and tear and/or washing.
- D. Color loss due to abrasion (creases, folds, pleats, edges, collar points, etc.).
- E. Damage caused by improper washing, decontamination, disinfecting or maintenance (for example, use of chlorine or petrochemicals to clean).
- F. Damage caused by repair work not performed to factory specification.
- G. Damage from routine exposure to common hazards which may cause rips, tears, burn damage or abrasion.
- H. Loss of retroreflectivity of reflective trim due to normal wear or heat exposure.
- I. Detachment of reflective trim due to thread abrasion or heat exposure.
- J. Replacement of zippers or closures worn partially sealed or damaged by heavy wear and tear.
- K. Loss of buttons, snaps or cuff hem seams.



PERSONAL RESPONSIBILITY CODE



The member companies of FEMSA that provide emergency response equipment and services want responders to know and understand the following:

1. Firefighting and Emergency Response are inherently dangerous activities requiring proper training in their hazards and the use of extreme caution at all times.
2. It is your responsibility to read and understand any user's instructions, including purpose and limitations, provided with any piece of equipment you may be called on to use.
3. It is your responsibility to know that you have been properly trained in Firefighting and/or Emergency Response and in the use, precautions and care of any equipment you may be called upon to use.
4. It is your responsibility to be in proper physical condition and to maintain the personal skill level required to operate any equipment you may be called upon to use.
5. It is your responsibility to know that your equipment is in operable condition and has been maintained in accordance with the manufacturer's instructions.
6. Failure to follow these guidelines may result in death, burns, injury, diseases, and illnesses.



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