

# FireEscape<sup>™</sup> NFPA Harness 40-150 Feet Descent System Instruction Manual 1-2024 Edition



Elevated Safety Systems LLC, 4115 Dragon Hwy, Cameron WV, 26033. <u>Elevatedsafetysystems.com</u>. 304-686-3224. MADE IN THE USA. WARNING! FAILURE TO READ AND FOLLOW ALL OF THE MANUFACTURER'S INSTRUCTIONS AND WARNINGS COULD RESULT IN SERIOUS INJURY OR DEATH. ALL MANUFACTURER'S INSTRUCTIONS ARE PROVIDED IN THIS BOOKLET. READ THE COMPLETE BOOKLET BEFORE USING THIS PRODUCT. MANUFACTURER'S INSTRUCTIONS ARE ALSO AVAILABLE ON MANUFACTURER'S WEB SITE AT ELEVATEDSAFETYSYSTEMS.COM.

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#### **GUARANTEE, WARRANTY AND GENERAL INFORMATION**

**<u>100% GUARANTEE FREE REPLACEMENT</u>** if the FireEscape<sup>™</sup> Harness is lost or damaged during an official documented emergency evacuation, descent or use.

#### WARRANTY INFORMATION

Elevated Safety Systems, ESS, expressly warrants that all ESS products are free from defect in material and workmanship from date of purchase and shipment. This warranty is for original purchaser only. Excluding loss or damage during a documented emergency, this warranty only covers defects in material and workmanship, and it does not cover results from normal wear and tear, neglect, abuse or accident. ESS'S OBLIGATION UNDER THIS WARRANTY APPLIES FOR THE LIFE OF THE PRODUCT AND IS LIMITED TO REPLACEMENT OF PRODUCT ONLY. COMPLETE WARRANTY INFORMATION VIEW AT ELEVATEDSAFETYSYSTEMS.COM. Keep this user instructions/information after separated from harness, descent control device and escape anchor, and retain in a permanent record; Copy the user instructions/information and keep a copy with the harness, descent control device and escape anchor. Refer to the user instructions/information before and after each use.

Additional information regarding life safety harnesses, descent control devices and escape anchors can be found in NFPA 1500 and NFPA 1858 and NFPA 1983, incorporated in the 2022 edition of NFPA 2500.

The Patent Pending FireEscape<sup>™</sup> Harness is intended to be used at elevated positions where an emergency evacuation or descent is necessary to protect the life of the Firefighter and/or others.



THE FIREESCAPE<sup>™</sup> HARNESS, MEETS THE LIFE SAFETY HARNESS REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500, AND THE OPTIONAL FLAME RESISTANCE REQUIREMENTS OF NFPA 1983, CLASS III.

3EDS (EMERGENCY DESCENT SYSTEM) RACK DESCENT DEVICE MEETS THE DESCENT CONTROL DEVICE REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500, E (ESCAPE USE). ALSO IN ACCORDANCE WITH ANSI/ASSP Z359.9-2021 DESCENT DEVICE , TYPE 6. AMBIENT TEMPERATURE RANGE OF TESTING -40 DEGREES TO 130 DEGREES.

THE 3EDS DESCENT CONTROL DEVICE HAS PASSED THE MANNER OF FUNCTION AND HOLDING LOAD TESTS USING THE FOLLOWING ROPE: Sterling Rope Co Inc., EscapeTech Rope, 7.5mm, MBS 3,911.

# ESS FIREHOOK™ MEETS THE ESCAPE ANCHOR REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500. MBS 13.5 kN, E (ESCAPE USE).

<u>Elevated Safety Systems (ESS) Patent Pending FireEscape™ Harness FITS IN A</u> <u>CARGO POCKET OF BUNKER PANTS OR ON A BELT</u>. The FireEscape™ revolutionary design is light weight, compact, and quickly used in an emergency evacuation or descent from an elevated danger. <u>It is with the Firefighter at all</u> <u>times and instantly ready to be used in an emergency</u>.

THE FIREESCAPE<sup>™</sup> CAN BE USED FOR THE UNCONSCIOUS FIRE VICTIM OR INJURED FIREFIGHTER. This is the most difficult decision a Firefighter can ever face if you have an unconscious fire victim or injured Firefighter and no time to do a technical rescue. If there is no other alternative and lives are at risk, the FireEscape<sup>™</sup> can be placed on an unconscious person or injured Firefighter and once anchored to a secure location, the unconscious person or injured Firefighter can be lowered from danger with no braking action. The slowed rate of descent is built into the FireEscape<sup>™</sup> and is NFPA compliant.

# WHEN DONNING, YOU ONLY NEED TO REMOVE YOUR HELMET BRIEFLY AND THEN PUT IT BACK ON. YOU DO NOT NEED TO REMOVE YOUR SCBA OR GLOVES.

**TOPPLING IS ELIMINATED**. With the <u>Sternal Attachment Point</u>, Toppling is eliminated, even while wearing SCBA during an emergency evacuation.

The <u>enlarged Brake Handle Loop</u> is quickly found and used even in the dark wearing gloves. The Kevlar Brake is extremely sensitive and can slow or stop the descent. And if necessary, can easily hold a suspended Firefighter in one location with very little effort. While holding the Brake Handle keep your hand or hands next to your body and slide the Brake Handle up to descend or push the Brake Handle towards your feet to slow or stop. <u>You do not need to hold the Line with your free hand. You will not Topple.</u>

<u>The FireEscape™ utilizes the ESS patented 3EDS Rack, the new ESS FireHook™,</u> <u>and the FireEscape™ Line Bag 40 with 37 feet of Sterling EscapeTech 7.5 mm,</u> <u>NFPA Certified Line, MBS 3,911.</u> The entire FireEscape™ with line and FireHook™ weighs 5.5 lbs. FireEscape<sup>™</sup> Line Bag 40 - (Standard) 37 feet of Sterling EscapeTech Line, MBS 3,911. Florescent Yellow, 250D, NFPA-701-2015 Water Repellent Fabric. Starting with 40 feet of Sterling EscapeTech Line, after the Line Loop is sewn and the Barrel and Overhand Knots are added, 37 feet of useable line remains. With the Sternal Attachment Point, the distance from the wearer's chest to the floor is added to the 37 feet for a total descent distance of approximately 40 feet. Line is machine wrapped and packed at ESS. This machine wrapping allows for the smallest amount of space needed while helping to prevent kinks and knots. With the machine wrapping, this line easily pulls from the bag. The LINE BAG 40 CANNOT BE REPACKED IN THE FIELD. If the line is removed from the Line Bag 40, it must be sent back to Elevated Safety Systems for inspection and repacking or a replacement purchased. If the Line Bag 40 gets damp, the Line Bag 40 can be removed from the FireEscape<sup>™</sup> Harness, and CAREFULLY and WITHOUT removing the line from the bag, the bag top fully opened, bag pulled down to the line level, and the line aired out in a warm place for a few days. Place the Line Bag 40 where it will not fall over. After the line has dried, replace the bag, retighten the Kevlar Drawcord with the Cordlock to where a finger can be placed in the opening beside the Line. Tie a Overhand knot behind the Cordlock and replace the Kevlar Drawcord end underneath the Line Bag 40 label. A replacement Line Bag 40 will need to be placed on the FireEscape<sup>™</sup> during the drying time of the other Line Bag 40. It is unlikely that the Line Bag 40 Line gets damp. It is double protected, first by the water repellent Cargo Pouch and then by the water repellent line bag itself.

FireEscape<sup>™</sup> Practice Bag 30 - 27 feet of Sterling EscapeTech Line, MBS 3,911. Florescent Orange, 250D, NFPA-701-2015 Water Repellent Fabric. <u>CAN BE</u> <u>QUICKLY REPACKED IN THE FIELD.</u> Stuff a small amount of line at a time back into the Practice Bag 30 until all of the line is replaced in reverse order. See Instructions For <u>Repacking the Practice Bag 30</u> on Page 53. When practicing with the FireEscape<sup>™</sup> be sure to have other members available and on site. While using the FireEscape<sup>™</sup> Harness all precautions must be taken. Improper use can cause serious injury or death.

<u>Cargo Pouch</u> - Florescent Yellow, 250D, NFPA-701-2015 Water Repellent Fabric, NFPA 1971-1991 FR Hook and Loop. For storing ESS Harness Systems in a Bunker Pants Cargo Pocket or on a Belt. A fact of the occupation, Firefighters get wet, and the Cargo Pouch is designed to keep water out. The designed folding over of flaps helps ensure that even when drenched, the FireEscape<sup>™</sup> Harness and Line stay dry. After such conditions, remove the FireEscape<sup>™</sup> Harness from the Cargo Pouch and inspect it for dampness. If damp, hang in a well ventilated area to dry.

FireEscape<sup>™</sup> Line Bag 60 - (Optional) <u>57 feet of Sterling EscapeTech Line, MBS</u> <u>3,911.</u> The Line Bag 60 <u>WILL FIT</u> in a large cargo pocket with the FireEscape<sup>™</sup> Harness. Florescent Yellow, 250D, NFPA-701-2015 Water Repellent Fabric. Line is machine wrapped and packed at ESS. <u>This machine wrapping allows for the</u> <u>smallest amount of space needed while helping to prevent kinks and knots.</u> <u>With the machine wrapping, the line easily pulls from the bag. The LINE BAG 60</u> <u>CANNOT BE REPACKED IN THE FIELD</u>. If the line is removed from the Line Bag 60, it must be sent back to Elevated Safety Systems for inspection and repacking, or a replacement purchased.

FireEscape<sup>™</sup> Line Bag 150, (Optional) is an ESS Line Bag that contains 147 feet of Sterling 7.5 mm EscapeTech Technora/Nylon NFPA Line for greater lengths of descent, MBS 3,911. The FireEscape<sup>™</sup> Line Bag 150 attaches to the FireEscape<sup>™</sup> Harness in the same manner as the Line Bag 40. <u>With the ESS machine</u> wrapping, the line easily pulls from the bag with little resistance making it an excellent long distance Throw Bag. This bag cannot be repacked in the field. It must be returned to ESS for repacking or a replacement purchased.

<u>3EDS Rack</u> has a maximum descent distance of 200 feet. Maximum number of descents is a function of inspection. Any sign of damage, defect, or unsafe condition immediately remove 3EDS Rack and FireEscape<sup>™</sup> from service.

<u>Components</u> – 3EDS Rack, 6061 T6 Aluminum, MBS 13.5 kN. ESS FireHook<sup>™</sup>, 7075 Aluminum, MBS 13.5 kN. Sterling EscapeTech Technora/Nylon 7.5 mm NFPA Line, MBS 3,911 lbs., Line Loop sewn with Tex 210 Para Aramid Kevlar Thread. Kevlar Harness Webbing. Yoke Hardware. Tex 120 Para Aramid Kevlar Thread. 250D, NFPA-701-2015 Water Repellent Fabric for Line Bags, Practice Line Bag, and Cargo Pouch.

Your rate of descent is determined by the Line Configuration Level and your total weight. After you have practiced with the FireEscape<sup>™</sup>, you may need to go up or down a Line Configuration Level to either slow or speedup your descent. This

can be fine tuned to your specific weight with gear after practice descending from the ground a few times. SEE PAGE 12 FOR SIZES, WEIGHTS, AND LINE CONFIGURATION LEVELS. You want to be able to descend as soon as possible, but as safe as possible. Not too fast and not too slow.

Maintain harness, descent control device and escape anchor where metal components are not subjected to corrosion or deterioration. Store in dry location away from presence of moisture. Repair to harness, descent control device and escape anchor shall only be performed by manufacturer.

Do not expose the rope used with the descent control device and any software component to flame or high temperature. Carry the equipment where it will be protected as it could melt or burn and fail if exposed to flame or high temperature.

If FireEscape<sup>™</sup>, 3EDS Rack, Line Bags, Practice Bag Line, or Cargo Pouch become soiled, use warm water and a mild detergent to wash. Rinse with cool water and hang in a well ventilated area to dry. See FireEscape<sup>™</sup> Line Bag 40 on Page 5 if it gets damp.

Warning - Do not interchange non-Elevated Safety Systems components with the FireEscape<sup>™</sup>, 3EDS Rack, Line, Line Bags or Cargo Pouch. The use of none ESS approved components void the guarantee and warranty and may result in serious injury or death.

Warning - 3EDS Rack shall not be used for any other purpose than what it is intended for. Misuse of the 3EDS Rack outside of its expressed purpose, limitations, or for any other purpose may result in serious injury or death.

Warning - Damage to equipment and/or user may result from an uncontrolled, long, or heavy load descent. User must read and follow the FireEscape<sup>™</sup> Harness Instruction Manual, and use the correct Size, Weight, and Line Configuration Level. Failure to do so, may result in serious injury or death.

Warning - In an emergency situation, EVERY SECOND COUNTS. Practice with the FireEscape<sup>™</sup> until you are an expert in donning and using the equipment.

#### **COMPONENTS**



**Components FEH Front** 



**Components FEH Rear** 



ESS FireHook™ NFPA Certified by UL



FireEscape<sup>™</sup> Line Bag 40, 37 Feet of NFPA Sterling EscapeTech Line. MBS 3,911 lbs. NFPA Water Repellent Fabric.



FireEscape<sup>™</sup> Practice Bag 30, 27 Feet of NFPA Sterling EscapeTech Line. MBS 3,911 lbs. NFPA Water Repellent Fabric.



Cargo Pouch, NFPA Water Repellent Fabric





FireEscape<sup>™</sup> Line Bag 150, (Optional, 147 Feet of Sterling EscapeTech Line) NFPA Water Repellent Fabric

# SIZES, WEIGHTS, AND LINE CONFIGURATION LEVELS

CHEST SIZE, HEIGHT, AND WEIGHT ARE DETERMINED WHILE WEARING COMPLETE BUNKER GEAR AND SCBA. DESCENT SPEED IS DETERMINED BY LINE CONFIGURATION LEVEL AND WEIGHT. DESCENT SPEED CAN BE ADJUSTED TO YOUR SPECIFIC NEEDS AND TOTAL WEIGHT BY CHANGING THE LINE CONFIGURATION LEVEL.

SMALL/MEDIUM - Fits Chest Size 30-70", Heights 4'8" to 6'3", 5.5 lbs.

LARGE/X-LARGE - Fits Chest Size 40-80", Heights 5'5" to 6'7", 6 lbs.

SPECIAL SIZES CAN BE TAILORED BY CONTACTING ELEVATED SAFETY SYSTEMS.

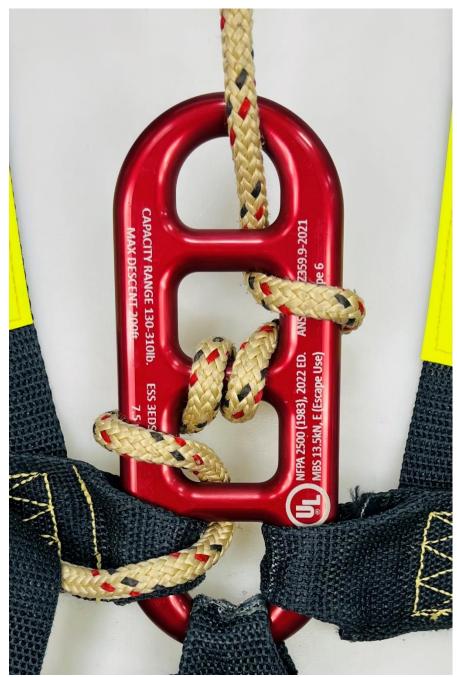
# LINE CONFIGURATION LEVELS AND DESCENT SPEED The Rate of Descent can be personalized by changing the Line Configuration Level to a Slower or Faster Line Configuration.

1 <u>LEVEL 1 LINE CONFIGURATION</u> - Recommended Weights 130 to 200 lbs. Photo 1



Level 1 Line Configuration, 130 to 200 lbs. Photo 1

# 2 <u>LEVEL 2 LINE CONFIGURATION</u> - Recommended Weights 200 to 280 lbs. Photo 2



Level 2 Line Configuration, 200 to 280 lbs. Photo 2

# 3 <u>LEVEL 3 LINE CONFIGURATION</u> - Recommended Weights 280 to 310 lbs. Photo 3



Level 3 Line Configuration, 280 to 310 lbs. Photo 3

#### **DESCENT RANGES**

- 1 FireEscape<sup>™</sup> Line Bag 40, 37 feet of Sterling 7.5 mm EscapeTech Technora/Nylon NFPA Line. MBS 3,911 lbs. Starting with 40 feet of line, 37 feet of useable line remains after the End Loop is sewn and knots tied. The First Barrel Knot is placed to ensure the line cannot exit the FireEscape™ during a descent. A Terminal Barrel Knot is placed on the very end of the line outside of the Line Bag 40, and a Overhand Knot is placed on the inside of the Line Bag 40. The end of the line must be attached to the Line Bag 40 to eliminate the possibility of it tangling with the line as it exits the Line Bag. NO LOOSE ENDS. The ESS machine wrapping allows for the smallest amount of space needed while helping to prevent kinks and knots. The line easily pulls from the bag. With the Sternal Attachment Point, the distance from your chest to the floor will be added to the total descent range. The Total Descent Range is approximately 40 Feet for the Line Bag 40. This bag CANNOT BE REPACKED in the field. It must be returned to ESS for repacking or a replacement purchased. 6 x 3", 1 lb. 3 oz.
- 2 <u>FireEscape<sup>™</sup> Practice Bag 30, 27 feet</u> of Sterling 7.5 mm EscapeTech Technora/Nylon NFPA Line. MBS 3,911 lbs. Starting with 30 feet of line, 27 feet of useable line remains after the End Loop is sewn and knots tied. The First Barrel Knot is placed to ensure the line cannot exit the FireEscape<sup>™</sup> during a descent. A Terminal Barrel Knot is placed on the very end of the line outside of the Practice Bag 30, and a Overhand Knot is placed on the inside of the Practice Bag 30. <u>The end of the line must be attached to the Practice Bag 30 to eliminate the possibility of it tangling with the line as it exits the Practice Bag. NO LOOSE ENDS. <u>With the Sternal Attachment</u> Point, the distance from your chest to the floor will be added to the total descent range. The Total Descent Range is approximately 30 Feet for the Practice Bag 30. This bag can be EASILY and QUICKLY REPACKED in the field for repeat practice descents.</u>
- 3 <u>FireEscape™ Line Bag 60</u> (Optional) <u>57 feet of Sterling EscapeTech Line.</u> MBS 3,911 lbs. The Line Bag 60 <u>WILL FIT</u> in a large cargo pocket with the FireEscape™ Harness. Florescent Yellow, 250D, NFPA-701-2015 Water Repellent Fabric. Line is machine wrapped and packed at ESS. <u>The Line Bag</u>

<u>60 CANNOT BE REPACKED IN THE FIELD</u>. If the line is removed from the Line Bag 60, it must be sent back to Elevated Safety Systems for inspection and repacking, or a replacement purchased. 6 x 4", 1 lb., 12 oz.

4 <u>FIREESCAPE™ LINE BAG 150</u>, (Optional) 147 feet of Sterling 7.5 mm EscapeTech Technora/Nylon NFPA Line for greater lengths of descent. MBS 3,911 lbs. It attaches to the FireEscape™ in the same manner as the Line Bag 40. With the ESS machine wrapping, the line easily pulls from the bag with little resistance, making it an excellent long distance Throw Bag. This bag cannot be repacked in the field, it must be returned to ESS for repacking or a replacement purchased. 12 x 5", 4.5 lbs.

### **INSPECTION**

1 Inspect the FireEscape<sup>™</sup> Harness, 3EDS Rack, Line and FireHook<sup>™</sup> before each shift by removing it from the Cargo Pouch. Lay the FireEscape<sup>™</sup> on a flat surface and inspect thoroughly. Extend the Waist and the Leg Straps and inspect each strap. Remove from service if the equipment does not pass inspection or if there is any doubt about the safety or serviceability of the equipment. Any sign of damage, defect or unsafe condition, remove from service immediately. Photo 1

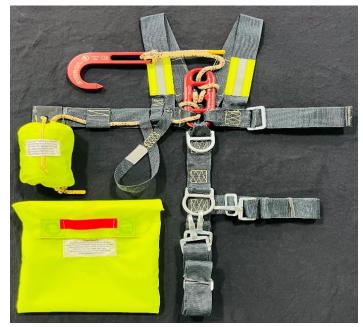


Photo 1

- 2 Inspect the FireEscape<sup>™</sup> thoroughly after each use. Any sign of damage, defect or unsafe condition, remove from service immediately. The Cargo Pouch is Water Repellent, but if the FireEscape<sup>™</sup> gets damp, lay it out to dry before repacking.
- 3 Inspect the FireEscape<sup>™</sup> at least every six months by a Competent Person or per your department's requirements. With each inspection, scan the <u>SuperTrack QR Sticker</u> and input the inspection data for future reference. The QR Sticker is located on the rear right Shoulder Strap Reflective Tape. Photo 3



Photo 3

- 4 The <u>SuperTrack QR Sticker</u> is a unique identifier to one specific FireEscape<sup>™</sup> Harness. If the QR Code is scanned with the camera of a smart phone, and if the <u>Havoc SuperTrack App</u> has been downloaded, you will find specific information on the date of manufacture, inspections, etc., for that specific FireEscape<sup>™</sup>. Information can also be inputted after inspections, use, etc., for later reference.
- 5 After inspection, repack and stow the FireEscape<sup>™</sup> in its Cargo Pouch as shown in <u>REPACKING THE FIREESCAPE<sup>™</sup> HARNESS ON PAGE 59</u>. Then replace the Cargo Pouch containing the FireEscape<sup>™</sup> back in the Bunker Pants Cargo Pocket or on a Belt.

#### **DONNING OF THE FIREESCAPE™ HARNESS**

The FireEscape<sup>™</sup> Harness is easily donned from a standing or kneeling position in approximately 30 seconds. Practice, Practice, Practice! Practice in the dark, or with your eyes closed from both standing and kneeling positions. Make sure you have previously adjusted the Waist Strap and Leg Straps to your size over your normal Bunker Gear and SCBA. You may not have time to adjust anything in an emergency situation. Once you have determined your egress point, do the following;

1 Remove helmet briefly. You do not need to remove your gloves, air tank or mask if worn. Photo 1



Photo 1

2 Open the flap on the Cargo Pocket of your Bunker Gear Pants and the Cargo Pouch holding the FireEscape<sup>™</sup>. Use the Red Pull Straps on the Cargo Pouch to open. Find the Shoulder Straps "V" where it attaches to the Chest Strap. The "V" will be on top with the SuperTrack QR Sticker and in the middle of the Cargo Pouch. Photo 2



Photo 2

3 Pull the FireEscape<sup>™</sup> from the Cargo Pouch by the Shoulder Straps at the "V" and hold it in front of you. Photo 3



Photo 3

4 Place your head up through the Shoulder Straps as you pull the Chest Strap over your head and down the back of your neck. Photo 4



Photo 4

5 Put your helmet back on and place both arms up through the Chest Strap on both sides of the Shoulder Straps. The Chest Strap will be placed under both arms. Photos 5A, 5B



Photo 5A



Photo 5B

6 Place the 3EDS Rack over your Sternal Area and pull the slack out of the Chest Strap with your left hand <u>while lifting the Line Bag 40</u> with your right hand. This will pull the excessive webbing through the Shoulder Strap "V" on your back. Then pull on the Tail End of the Chest Strap to tighten it around your Chest. Photos 6A, 6B



Photo 6A



Photo 6B

7 Hook the FireHook<sup>™</sup> over the Chest Strap or 3EDS Rack so it is out of your way. Photo 7



Photo 7

8 Grasp the Snap Buckle D-Ring (the lower larger D-Ring) on the FireEscape<sup>™</sup>. Grab the Waist Strap Snap Buckle on the left side of the Snap Buckle D-Ring. Place the Waist Strap around your waist and fasten it's Snap Buckle to the Snap Buckle D-Ring. The upper small D-Ring is used for an emergency auxiliary connection if ever needed. Photos 8A, 8B, 8C



Photo 8A



Photo 8B



Photo 8C

9 Grasp the Snap Buckles for the Leg Straps below the Snap Buckle D-Ring. Pull one of the Snap Buckles and Leg Strap between your legs, up around your hip and fasten it to the Snap Buckle D-Ring. It does not matter what leg you do first or which strap is used. Photos 9A, 9B, 9C



Photo 9A



Photo 9B



Photo 9C

10 Grasp the other Leg Strap Snap Buckle and place it between your legs, pull it up and around the opposite hip and fasten it to the Snap Buckle D-Ring. Photos 10A, 10B



Photo 10A



Photo 10B

11 Double check to make sure all three (3) Snap Buckles are securely attached to the Snap Buckle D-Ring and all Straps are snug on the body. The FireEscape<sup>™</sup> Harness is now properly donned. Photo 11



Photo 11

### DESCENDING WITH THE FIREESCAPE<sup>™</sup> HARNESS

# BEFORE DUTY USE, YOU MUST PRACTICE WITH THE FIREESCAPE<sup>™</sup>. READ THIS SECTION ON DESCENDING AND THEN FOLLOW THE PRACTICE SECTION INSTRUCTIONS.

The FireEscape<sup>™</sup> Harness IS INTENDED TO BE USED AT ELEVATED POSITIONS where an EMERGENCY EVACUATION OR DESCENT IS NECESSARY to protect the life of the Firefighter and/or others. <u>Make sure your Waist Strap and Leg Straps</u> <u>have been previously adjusted to your size while wearing your normal Bunker</u> <u>Gear equipment.</u>

- 1 See previous section <u>DONNING OF THE FIREESCAPE™ HARNESS</u>. Make sure the FireEscape<sup>™</sup> Harness is snug and properly attached.
- 2 Use the FireHook<sup>™</sup> on the end of the Line to attach to a secure anchor as close to your egress point as possible. Make sure the anchor will hold your weight while descending.
- 3 The FireHook<sup>™</sup> can be placed around a suitable anchor, the line looped through the FireHook<sup>™</sup> Slot and the loop placed over the point end of the FireHook<sup>™</sup> and tightened to form a secure anchor. <u>This is the preferred</u> <u>method of anchoring if possible</u>. Photos 3A, 3B, 3C

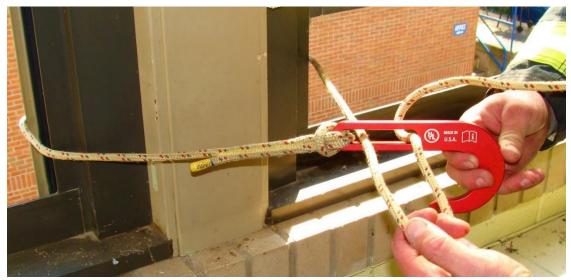


Photo 3A



Photo 3B



Photo 3C

- 4 The FireHook<sup>™</sup> can also be easily and quickly removed if necessary to attach the Line Loop to an anchor.
- 5 Once anchored and if more line is needed to reach your egress point, push down on the line between the Kevlar Brake and the 3EDS Rack with your right hand forming a small loop of line on your right side. Doing this will pull more line from the Line Bag 40 or Practice Bag 30 if practicing. Photo 5

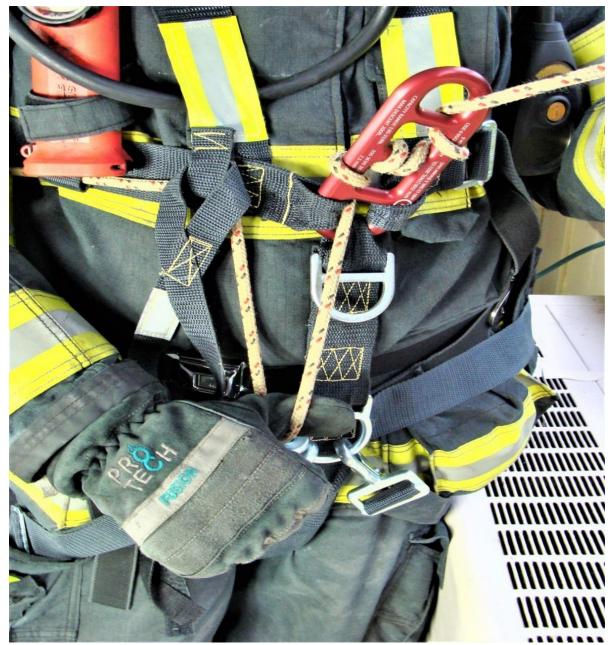


Photo 5

6 Next feed this loop of line up into the 3EDS Rack with your right hand while backing towards your egress point. This will pull the line up through the 3EDS Rack as you back up. You can also pull the line up through the 3EDS Rack with your left hand and then back up. Continue these movements until you have enough line to reach your egress point. Photo 6



Photo 6

7 As a last resort and if no other anchor can be found, the hook of the FireHook<sup>™</sup> can be hooked over the window seal or other edge near your egress point. This must be done with extreme care to prevent the FireHook<sup>™</sup> from becoming dislodged after weight is placed on the line while descending. Photo 7

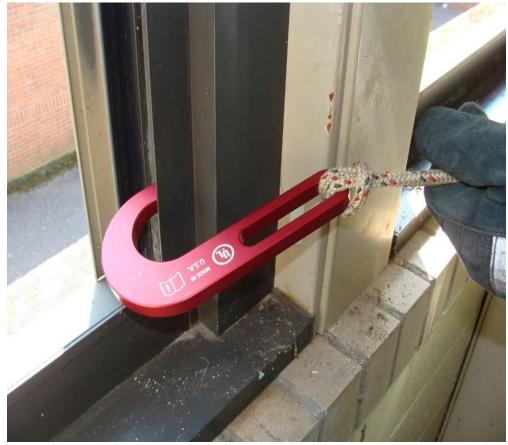


Photo 7

8 Before putting your full weight on the FireHook<sup>™</sup> and line, grasp the Brake Handle Loop with your right hand. Hold pressure downward on the Brake Handle while placing your full weight on the line. Use your left hand to ensure the FireHook<sup>™</sup> stays hooked on the window seal or edge if used while transferring your weight to the line. Photo 8



Photo 8

- 9 Once your full weight is on the line, ease up on the Brake Handle to start your descent. Keep your hand close to your body and slide the Brake Handle up or down your chest with your hand. Sliding the Brake Handle up and pushing the Brake Handle towards the line will help start your descent. If you hold pressure on the Brake Handle, you will not descend. The Kevlar Brake is very sensitive and just the weight of your hand and arm on the Brake Handle may prevent you from descending. If the line is slow to slide through the 3EDS Rack, push down and let up on the line between the 3EDS Rack and Kevlar Brake to start. This will pull more line from the Line Bag.
- 10 After descent has started, you can push down on the Brake Handle <u>towards your feet</u> to slow or stop your descent. <u>Keep your hand next to</u> <u>your chest and slide your hand up or down your chest to loosen or apply</u> <u>the Brake.</u>
- 11 <u>THERE IS NO NEED TO HOLD THE LINE WHILE DESCENDING.</u> With the sternal connecting point, <u>YOU WILL NOT TOPPLE.</u> Place both hands on the Brake Handle. <u>Keep your hands and clothing away from the 3EDS Rack and Line to prevent jamming while descending.</u>

REMEMBER, THE LONGER YOU ARE SUSPENDED ON THE LINE, THE LONGER YOU ARE IN DANGER. GET TO THE GROUND AS SAFELY AND AS QUICKLY AS POSSIBLE.



## **PRACTICE DESCENDING WITH THE FIREESCAPE™ HARNESS**

## Always Use Every Precaution And Never Practice Alone From Heights!

- 1 Prior to Practicing with the FireEscape<sup>™</sup> Harness you need to put the <u>FireEscape<sup>™</sup> on.</u> After snugging up the Chest Strap, adjust the Waist Strap and both Leg Straps to your specific size WITH YOUR NORMAL BUNKER GEAR ON. You want the FireEscape<sup>™</sup> ready to go and already adjusted to your size either for practice or duty.
- 2 <u>Remove the Line Bag 40 and Line from the FireEscape<sup>™</sup> prior to practicing</u>. Start by removing the FireHook<sup>™</sup> from the end of the Line. Open up the looped end of the line, slide it over top of the FireHook<sup>™</sup> point and pull the line back through the Slot. Photo 2

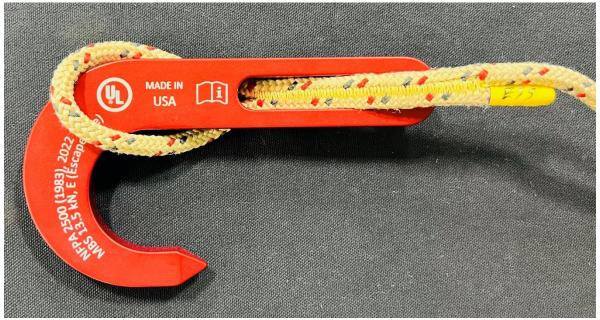


Photo 2

**3** Pull the Line Loop back through the 3EDS Rack, the Kevlar Brake and the Line Guide. Photo 3



Photo 3

4 Remove the Line Bag 40 from the FireEscape<sup>™</sup> by lifting the FireEscape<sup>™</sup> Line Bag 40 Loop Velcro Strap out from underneath the rear Hook Velcro Guide, off the Hook Velcro and then do the same on the front of the Chest Strap. Slide the Line Bag 40 Loop Velcro Strap downward from underneath the front Hook Velcro Guide and pull the Line Bag 40 free. Photos 4A, 4B.

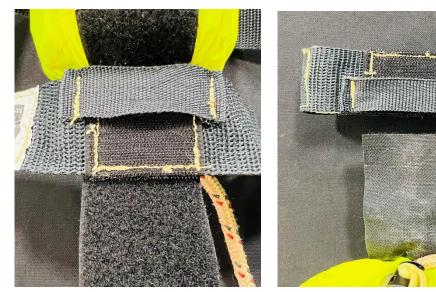


Photo 4A Rear

Photo 4B Front

5 Reverse the procedure to attach the Practice Bag 30. Be sure to place the Loop Velcro Strap underneath the Hook Velcro Guide on the front of the Chest Strap first and then fold the Loop Velcro Strap over the Chest Strap Hook Velcro and place the end of the Loop Velcro Strap underneath the Hook Velcro Guide on the rear of the Chest Strap. <u>Helpful Hint</u> - Fold the Practice Bag 30 Loop Velcro Strap in half before inserting it underneath the front Hook Velcro Guide, then open the Loop Velcro Strap fully to attach it to the Chest Strap Hook Velcro. Photos 5A, 5B, 5C

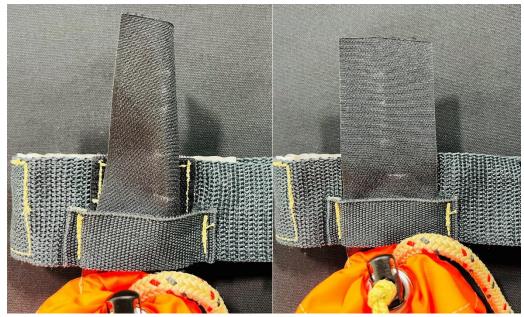


Photo 5A, Front Folded

Photo 5B, Front



Photo 5C, Rear

6 Thread the Practice Line Loop through the Line Guide, Kevlar Brake and 3EDS Rack. Extend the line until you have 12 inches of line out of the top of the 3EDS Rack. <u>Extending the Line Loop from the 3 EDS Rack to the</u> <u>middle of the Hook Velcro on the Chest Strap is 12 inches</u>. Make sure the Line Configuration Level is correct for your weight. SEE PAGE 12 FOR SIZES, WEIGHTS, AND LINE CONFIGURATION LEVELS. Photo 6.



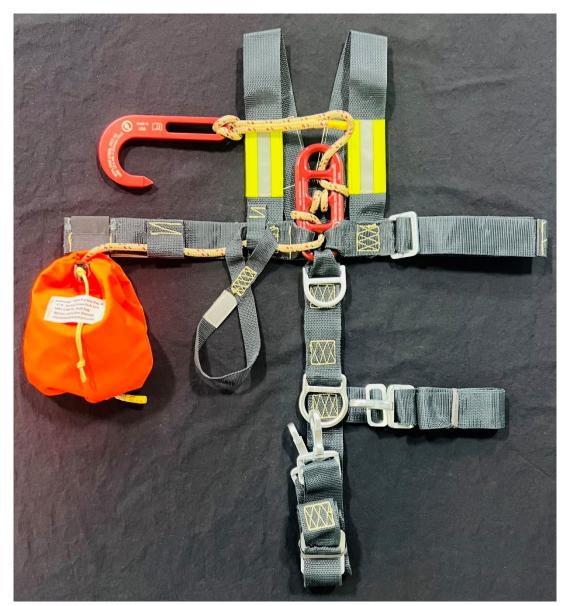
Photo 6

7 Re-attach the FireHook<sup>™</sup> to the Line Loop by inserting the Line Loop through the FireHook<sup>™</sup> slot. Place the end of the Line Loop over the FireHook<sup>™</sup> point, pull the Line Loop down over the FireHook<sup>™</sup> and tighten the Line Loop on the end of the FireHook<sup>™</sup> slot. Photos 7A, 7B



Photo 7A

Photo 7B



8 The FireEscape<sup>™</sup> Harness is now ready to be practiced with. Photo 8

Photo 8

9 PRACTICE FROM THE GROUND BEFORE ACTUAL DESCENDING FROM HEIGHTS. Review DESCENDING on Page 37. After donning the FireEscape<sup>™</sup>, attach the FireHook<sup>™</sup> as high as you can reach to a secure anchor. Place all of your weight on the line while wearing all of your normal Bunker Gear and SCBA. This will familiarize yourself with the 3EDS Rack, Brake Handle, Kevlar Brake, and how they work. Lower yourself to a seated position stopping several times by <u>pushing the Kevlar Brake Handle</u> down towards your feet. Photos 9A, 9B



Photo 9A



Photo 9B

- 10 After each ground practice, there will be 3-5 feet of line pulled from the Practice Bag 30. To continue with ground practice, stand up and tie the line up tight to your anchor point and repeat. You can take the FireHook<sup>™</sup> off for this purpose if needed.
- 11 If at anytime during a descent the line fails to slide up through the 3EDS Rack, there are three possible causes.
  - A The Line Configuration Level is too high, change to a lower Level.
  - B You are holding the Kevlar Brake too tight. The Kevlar Brake is very sensitive and you may need to shove up on the Brake Handle towards the line to start your descent.
  - C The line has snagged in the Practice Bag 30. Grab the line between the 3EDS Rack and the Kevlar Brake and forcefully shove down on the line forming a loop. This will pull more line from the Practice Bag 30. Next feed the line up into the 3EDS Rack with your hand allowing it to slide through the 3EDS Rack. Photo C



Photo C

- 12 AFTER A COUPLE OF PRACTICE DESCENTS FROM THE GROUND, IF YOU FEEL THE DESCENT SPEED IS SLOWER OR FASTER THAN NEEDED OR PREFERRED FOR YOUR WEIGHT WITH ALL EQUIPMENT DONNED, YOU CAN CHANGE THE LINE CONFIGURATION LEVEL IN THE 3EDS RACK TO THE NEXT LOWER OR HIGHER LEVEL. SEE PAGE 12 FOR SIZES, WEIGHTS, AND LINE CONFIGURATION LEVELS. EXPERIMENT WITH THE DIFFERENT LINE CONFIGURATIONS TO DETERMINE WHAT WORKS BEST FOR YOU.
- 13 After you have completed practicing from the ground and are comfortable with the FireEscape<sup>™</sup> and Kevlar Brake, you can then practice from heights.
- 14 See <u>REPACKING THE PRACTICE BAG 30 on Page 53. Then rethread the line</u> <u>per paragraph #6 this section and replace the FireHook™</u>.
- 15 Repack the FireEscape<sup>™</sup> in its Cargo Pouch and place it in the Bunker Pants Cargo Pocket or on a Belt prior to actual descending practice. See <u>REPACKING THE FIREESCAPE<sup>™</sup> HARNESS on Page 59.</u> <u>PRACTICE LIKE IT'S REAL!!</u>
- 16 <u>Remember, the longer you are suspended on the line, the longer you are</u> <u>in Danger</u>. Get to the ground as safely and as soon as possible.
- 17 <u>After you have finished practicing with the FireEscape™ Harness</u>, be sure to remove the Practice Bag 30 and replace it with the Line Bag 40.
- 18 <u>The maximum number of practice descents is a function of inspection</u>. Any sign of damage, defect or unsafe condition, immediately remove the Practice Bag 30, FireHook<sup>™</sup> and/or FireEscape<sup>™</sup> from service.

#### **REPACKING THE PRACTICE BAG 30**

- 1 After the Practice Bag 30 Line has been used to descend <u>remove the</u> <u>Line completely from the FireHook™, 3EDS Rack, Kevlar Brake, Line Guide</u> <u>and Practice Bag 30.</u> Pull the remaining line up through the 3EDS Rack by removing the two Barrel Knots and the Overhand Knot. Make sure you replace the three Knots when repacking the Practice Bag 30. <u>The</u> <u>end of the line must be secured to the Practice Bag 30 to prevent the</u> <u>end of the line from tangling with the line as it exits the bag.</u> <u>NO LOOSE ENDS</u>.
- 2 <u>Before repacking the line into the Practice Bag 30, make sure you lay the</u> <u>line out straight and remove any twist or knots in the line that may have</u> <u>formed.</u> You can do this by holding the line and walking it out to the end a couple times. Continue this until the end of the line does not twist. It is not uncommon to have 2-3 twist in the line that need removed. Examine the Line and Sewn Loop thoroughly for any abrasions, cuts, or any sign of defect, damage or unsafe condition, if found, remove Line from service immediately.
- 3 Start the First Barrel Knot <u>30 INCHES</u> from the end of the line. Photos 3A, 3B, 3C, 3D, 3E

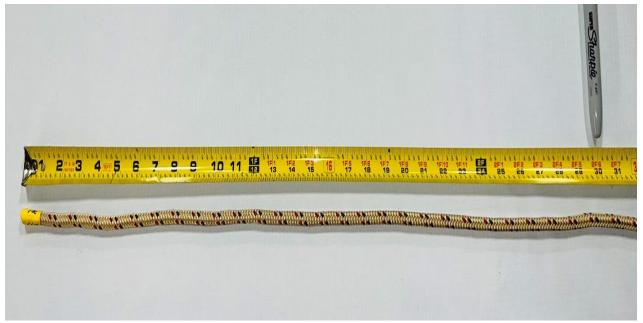


Photo 3A



Photo 3B

Photo 3C



Photo 3D

Photo 3E

4 After the First Barrel Knot is tied, there will be approximately 20 inches of line free end left. Tie an Overhand Knot next to the First Barrel Knot. Photo 5



Photo 5

6 Place the end of the line into the Practice Bag 30 and pull it out of the bottom Grommet Hole until the Overhand Knot stops it. Photo 6

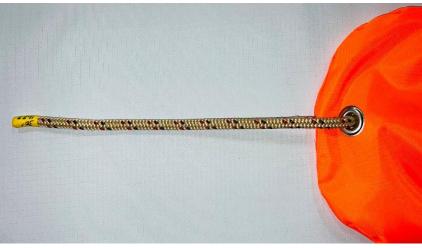


Photo 6

Tie the Terminal Barrel Knot in the end of the line. Make sure 2 inches of line free end remain after the Terminal Barrel Knot has been tightened.
Photo 7



Photo 7

8 Pull the Terminal Barrel Knot up tight against the outside bottom Grommet Hole and slide the Overhand Knot down the line from the First Barrel Knot and against the Practice Bag 30 inside Bottom Grommet. Photo 8



Photo 8

9 Hold the Practice Bag 30 where it attaches to the Chest Strap, while holding the line with the same hand. Photo 9



Photo 9

10 With the other hand, grab the line next to the Chest Strap and push the line into the bottom of the Practice Bag 30 in a back and forth motion from corner to corner. This will allow the line to lay in a ribbon formation. Continue to do this until all of the line except the Sewn Loop is in the Practice Bag 30. While you are repacking the Practice Bag 30 re-exam the line again. Any sign of damage, defect, or unsafe condition, remove line from service immediately. Photo 10



Photo 10

11 Tighten the Cordlock on the Kevlar Draw Cord until the Practice Bag 30 opening is almost completely closed on the line. <u>There should only be</u> <u>enough room in the opening to insert a finger next to the line.</u> Place a Overhand Knot in the Kevlar Draw Cord next to the Cordlock to prevent the Cordlock from sliding and allowing the Practice Bag 30 to open. Photo 11



Photo 11

12 Place the remaining Kevlar Draw Cord underneath the Practice Bag 30 Label. The Practice Bag 30 is now repacked and ready for more practice. NOTE – A newer line will descend quicker. After several practice descents with the same line, you may notice a slight slowing of your descent. This is due to the slight fraying of the line's surface which will increase friction. Photo 12



Photo 12

After practice has concluded, make sure the Line Bag 40 has been reattached to the FireEscape<sup>™</sup> Harness, the line properly reinstalled with the correct line configuration level and the FireHook<sup>™</sup> reattached to the 12 inches of extended line. Then repack the FireEscape<sup>™</sup> in the Cargo Pouch and place it in the cargo pocket of the Bunker Pants or on a belt. See repacking instructions in the next section. Always be prepared!

## <u>REPACKING THE FIREESCAPE<sup>™</sup> HARNESS</u> <u>Prior to repacking, make sure the Waist Strap and Leg Straps are</u> <u>adjusted to your size while wearing your normal Bunker Gear and SCBA.</u>

1 Lay the FireEscape<sup>™</sup> on a flat surface. The Chest Strap will be extended except for a 6 inch Free End at the Chest Strap Adjuster Buckle. This 6 inch Free End will be grasped to tightened the Chest Strap during use. Fold the Chest Strap so it does not extend past the Line Bag 40 on the left as shown in Photo 1



Photo 1

2 Fold both Leg Strap Snap Buckles together up to the the Snap Buckle D-Ring. Photo 2



Photo 2

3 Fold the remaining Leg Straps over a fold or two up to the Snap Buckles and place a rubber band over the Leg Straps to hold them in place. Photo 3



Photo 3

4 Fold the Waist Strap over and place the Snap Buckle next to the Snap Buckle D-Ring. Photo 4



Photo 4

5 Fold the remaining Waist Strap a couple folds up to the Snap Buckle and place a rubber band over the Waist Strap to hold it in place. Photo 5



Photo 5

6 Lay the FireHook<sup>™</sup> next to the 3EDS Rack and insert the point of the hook up into the opening formed where the Chest Strap wraps around the 3EDS Rack on the Right side looking down. Photo 6



Photo 6

7 Fold the Chest Strap across the 3EDS Rack and the FireHook<sup>™</sup>. Photo 7



Photo 7

8 Lay the Leg Straps up over the Chest Strap and the Waist Strap along side of the Leg Straps. Photos 8A, 8B

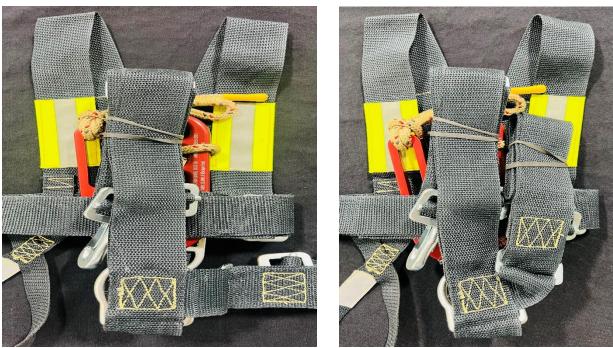


Photo 8A

Photo 8B

9 Fold the end of the Chest Strap back to the FireHook<sup>™</sup>. Photo 9



Photo 9

10 Place the Line Bag 40 on top of the folded Chest Strap end. Photo 10



Photo 10

Start the folded FireEscape<sup>™</sup> into the Cargo Pouch with the Label up. <u>NOTE</u>—This positioning places the Shoulder Straps "V" on the inside of the Cargo Pocket and against the leg while carried in a cargo pocket of Bunker Pants, or against the body while wearing the Cargo Pouch on a belt. <u>Helpful Hint</u> - Attach a 9 x 2" piece of Adhesive Backed Hook Velcro to the packing table to hold the Cargo Pouch in place while sliding in the FireEscape<sup>™</sup>. Fold the Cargo Pouch back flap backwards to attach to the table Hook Velcro. Photo 11



Photo 11

12 Once the FireEscape<sup>™</sup> is in the Cargo Pouch, the Shoulder Straps will still be extended. Photo 12



Photo 12

13 Fold the Shoulder Straps over the FireEscape™ Harness and tuck them inside the Cargo Pouch. The Shoulder Strap "V" with SuperTrack QR Sticker will be at the top of the opening of the Cargo Pouch as shown. Photo 13



Photo 13

14 Fold and tuck the Cargo Pouch Top Flap underneath the FireEscape™ Harness. Photo 14



Photo 14

15 Fold the Cargo Pouch Bottom Flap up over the Top Flap and attach to its Velcro. Photo 15



Photo 15

16 Insert the Cargo Pouch into the cargo pocket of the Bunker Pants with the Label up, or place it on a belt. Photos 16A, 16B







Photo 16B

17 Fold the Cargo Pocket Flap over and attach to its Velcro to complete the FireEscape<sup>™</sup> packing and the closing of the Bunker Pants Cargo Pocket. Photo 17



Photo 17

#### **OTHER EMERGENCY APPLICATIONS FOR THE FIREESCAPE™**

Anytime an emergency descent is needed, it can be performed with the FireEscape<sup>™</sup>. If there is a vehicular accident over a step hill. If there is a child who has fallen into a deep hole. The FireEscape<sup>™</sup> has endless uses to guickly lower emergency personnel to victims. The FireEscape<sup>™</sup> can also be used to recover not only the first responder, but a victim as well. With a simple loop and overhand knot formed between the 3EDS Rack and the Kevlar Brake, no additional line will be able to transition up through the 3EDS Rack. If this loop is made large enough, it can be placed around a victims chest and under their arms. And if the victim is able, both the first responder and the victim can then be pulled to safety by other members or with a vehicle. See Photo below. If a descent is being made without full gear, you may need to change the Line Configuration to a lower Level. The Line Configuration Level can be quickly changed by removing the FireHook<sup>™</sup> and re-threading the 3EDS Rack. Refer to Page 12 for Sizes, Weights, and Line Configuration Levels. If a longer descent is required, remove the Line Bag 40 and attach the optional FireEscape<sup>™</sup> Line Bag 150 (147 Feet).



## **LABELS**



FireEscape<sup>™</sup> Harness, Elevated Safety Systems, 4115 Dragon Hwy, Cameron WV 26033 Elevatedsafetysystems.com. 304-686-3224. Made in USA. MEETS THE LIFE SAFETY HARNESS REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500, AND THE OPTIONAL FLAME RESISTANCE REQUIREMENTS OF NFPA 1983, CLASS III. DO NOT REMOVE THIS LABEL! MFG. . . SMALL/MEDIUM Fits Chest Size 30-70". Fits Height 4'8" to 6'3".



FireEscape™ Harness, Elevated Safety Systems, 4115 Dragon Hwy, Cameron WV 26033 Elevatedsafetysystems.com. 304-686-3224. Made in USA. MEETS THE LIFE SAFETY HARNESS REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500, AND THE OPTIONAL FLAME RESISTANCE REQUIREMENTS OF NFPA 1983, CLASS III. DO NOT REMOVE THIS LABEL! MFG. . LARGE/XLARGE Fits Chest Size 50-80". Fits Height 5'5" to 6'7".

> FireEscape<sup>™</sup> Practice Bag 30 27 ft. Sterling EscapeTech Line, MBS 3,900 lbs. <u>Stuff Bag</u>. Review Instruction Manual. <u>Elevatedsafetysystems.com.</u>

FireEscape<sup>™</sup> Line Bag 40 37 feet of Sterling EscapeTech Line, MBS 3,911 lbs. Emergency Use Only. Cannot Be Repacked. Review Instruction Manual. <u>Elevatedsafetysystems.com</u> FireEscape<sup>™</sup> Line Bag 60 57 feet of Sterling EscapeTech Line, MBS 3,911 lbs. Emergency Use Only. Cannot Be Repacked. Review Instruction Manual. <u>Elevatedsafetysystems.com</u>

FireEscape<sup>™</sup> Line Bag 150 147 feet of Sterling EscapeTech Line, MBS 3,911 lbs. Emergency Use Only. Cannot Be Repacked. Review Instruction Manual. <u>Elevatedsafetysystems.com</u>

# **Cargo Pouch**

The Cargo Pouch is used to hold ESS Harness Systems in a bunker pant's cargo pocket or on a belt. 250D, NFPA 701-2015 Water Repellent Fabric. NFPA 1971-1991 FR Hook and Loop. See Instruction Manual for more information. <u>Elevatedsafetysystems.com</u>



**BE PREPARED!** 

Elevated Safety Systems LLC, 4115 Dragon Hwy, Cameron WV, 26033. <u>Elevatedsafetysystems.com</u>. 304-686-3224. PROUDLY MADE IN THE USA.