



**Survivor™ Harness  
60 - 200 Feet Descent System  
Instruction Manual  
1-2024 Edition**



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[Elevatedsafetysystems.com](http://Elevatedsafetysystems.com). 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**

**100% GUARANTEE FREE REPLACEMENT if the Survivor™ 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.

The Patent Pending Survivor™ 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 Survivor™ Harness meets the Evacuation Harness requirements of ANSI/ASSE Z359.4-2013.

The 1EDS (Emergency Descent System) Rack Descent Device meets the Descent Control Device Requirements of ANSI/ASSE Z359.9-2021.

Elevated Safety Systems (ESS) Patent Pending Survivor™ Harness FITS IN A CARGO POCKET OF BUNKER PANTS OR CAN BE CARRIED ON A BELT. The Survivor™ revolutionary design is light weight, very compact, and can be quickly used in an emergency evacuation or descent from an elevated danger UP TO 60 FEET WITH THE STANDARD SURVIVOR™ LINE BAG 60, AND UP TO 200 FEET WITH THE OPTIONAL SURVIVOR™ LINE BAG 200. It is with the Firefighter at all times and instantly ready to be used in an emergency.

THE SURVIVOR™ ESCAPE SYSTEM CAN BE USED FOR THE UNCONSCIOUS FIRE VICTIM OR AN 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 Survivor™ can be placed on an unconscious victim or an injured Firefighter and once anchored to a secure location, the unconscious victim or injured Firefighter can be lowered from danger with no braking action. The slowed rate of descent is built into the Survivor™.

WHEN DORNING, 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 Sternal Attachment Point, Toppling is eliminated, even while wearing SCBA during an emergency evacuation.

The enlarged Brake Handle Loop 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 down towards your feet to slow or stop. You do not need to hold the Line with your free hand. You will not Topple.

The Survivor™ utilizes the ESS patented 1EDS Rack, as well as Samson Tech-12, 1/4" Technora Line with a MBS of 7,300 lbs. The entire Survivor™ Harness with 57 feet of line and with the included FireHook™ weighs slightly over 4 pounds.

Survivor™ Line Bag 60 - 57 feet of Samson Tech-12, 1/4" Line. MBS 7,300 lbs. Florescent Yellow, 250D, NFPA 701-2015 Water Repellent Fabric. Starting with 60 feet of Samson Tech-12, 1/4" Line, after the Line Loop is spliced and lock stitched, the Barrel and Overhand Knots are added, 57 feet of useable line remains. With the Sternal Attachment Point, the distance from the wearer's chest to the floor is added to the 57 feet for a total descent distance of approximately 60 feet. The 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 SURVIVOR™ LINE BAG 60 CANNOT BE REPACKED IN THE FIELD. If the line is removed from the Survivor™ Line Bag 60, it must be sent back to Elevated Safety Systems for rewrapping or a replacement purchased. If the Survivor™ Line Bag 60 gets damp, the Survivor™ Line Bag 60 can be removed from the Survivor™ 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 to dry. Be sure to place the Survivor™ Line Bag 60 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 next to the Cordlock and replace the Kevlar Drawcord end underneath the Survivor™ Line Bag 60 Label. A replacement Survivor™ Line Bag 60 will need to be placed on the Survivor™ Harness during the drying time of the damp Survivor™ Line Bag 60.



The Survivor™ Line Bag 60 Line is double protected to prevent dampness, first by the water repellent Cargo Pouch and then by the water repellent line bag itself. 6 x 3.5", 1 lb.

Cargo Pouch - Florescent Yellow, 250D, NFPA 701-2015 Water Repellent Fabric. FR Hook and Loop. Holds the Survivor™ Harness 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 the Firefighter is drenched, the Survivor™ Harness and Line stay dry. After such conditions, remove the Survivor™ Harness from the Cargo Pouch and inspect for dampness. If damp, hang in a well ventilated area to dry.

Survivor™ Practice Bag 40 - 37 feet of Samson Tech-12, 1/4" Line. MBS 7,300 lbs. Florescent Orange, 250D, NFPA 701-2015 Water Repellent Fabric. CAN BE QUICKLY REPACKED IN THE FIELD FOR PRACTICE. Stuff a small amount of line at a time back into the Survivor™ Practice Bag 40 until all of the line is replaced in reverse order. See Instructions For Repacking the Survivor™ Practice Bag 40 on Page 50. When practicing with the Survivor™ Harness and the Survivor™ Practice Bag 40, be sure to have other members available and on site. While using the Survivor™ Harness all precautions must be taken. Improper use can cause serious injury or death.

The Survivor™ Line Bag 60, Survivor™ Practice Bag 40, and the FireHook™ are designed to be quickly and easily removed and replaced for duty, practice, or if damaged removed from service. Replacement Survivor™ Line Bag 60, Survivor™ Practice Bag 40, FireHook™, and the Cargo Pouch are available through Elevated Safety Systems at Elevatedsafetysystems.com.

Survivor™ Line Bags 100, 150, and 200 are optional ESS Line Bags that contain 97, 147 and 197 feet of Samson Tech-12, 1/4" Line for greater lengths of descent. MBS 7,300 lbs. NFPA Water Repellent Fabric. These line bags attach to the Survivor™ Harness in the same manner as the standard Survivor™ Line Bag 60. The Survivor™ Line Bag 100 WILL FIT in a large cargo pocket with the Survivor™ Harness. ESS machine wrapped, these lines pull easily from the bag with little resistance, making them excellent long distance Throw Bags. These bags cannot be repacked in the field. They must be returned to ESS for rewrapping or a replacement purchased. 100 - 6 x 4", 2 lb., 150 - 9 x 4", 3 lb., 200 - 9 x 5", 4 lb.

**Your rate of descent is determined by the Line Configuration Level and your total weight. After you have practiced with the Survivor™ Harness, 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 couple of 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.**

**1EDS Rack** has a maximum descent range of 200 feet. The maximum number of descents is a function of inspection. Any sign of damage, defect, or unsafe condition immediately remove 1EDS Rack and Survivor™ Harness from service.

**Components** – 1EDS Rack, 6061 T6 Aluminum, MBS 13.5 kN. Samson Tech-12, 1/4" Technora Line, MBS 7,300 lbs. Kevlar Harness Webbing. Yoke Hardware. Tex 120 Para Aramid Kevlar Thread. 250D, NFPA 701-2015 Water Repellent Fabric for Survivor™ Line Bag 60, Survivor™ Practice Bag 40, Cargo Pouch, and optional Survivor™ Line Bags 100/150/200. Included ESS NFPA FireHook™, 7075 Aluminum, MBS 13.5 kN.

**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 Survivor™ Harness, 1EDS Rack, Survivor™ Line Bag 60, Survivor™ Practice Bag 40 and/or Line, or Cargo Pouch become soiled, use warm water and mild detergent to wash. Rinse with cool water and hang in a well ventilated area to dry. See Survivor™ Line Bag 60 on Page 4 if it gets damp.**

**Warning - Do not interchange non-Elevated Safety Systems components with the Survivor™ Harness, 1EDS 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 - 1EDS Rack shall not be used for any other purpose than what it is intended for. Misuse of the 1EDS 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 Survivor™ 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 Survivor™ until you are an expert in donning and using the equipment. Get down as quickly and as safely as you can. Your life depends on it.**

**COMPONENTS**



**Components Survivor™ Front**

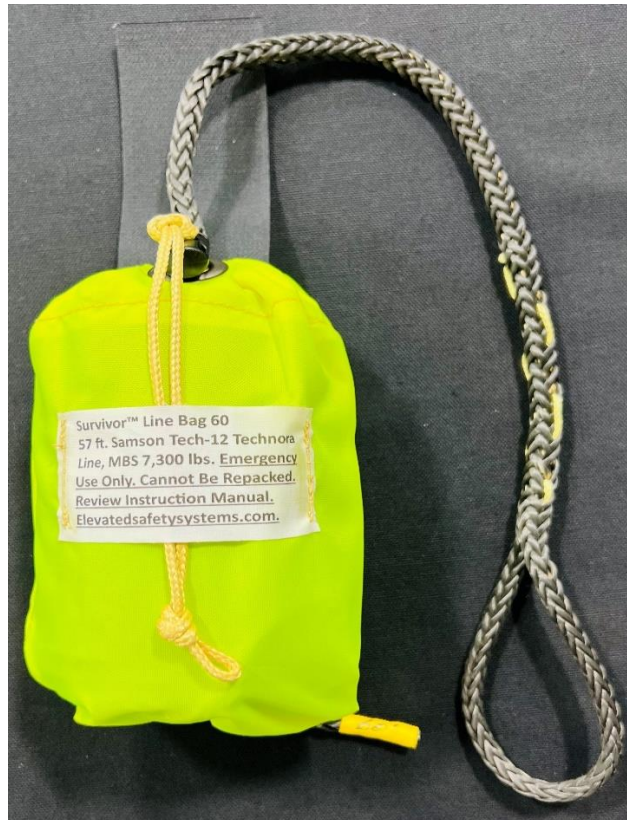


**Components Survivor™ Rear**





**FireHook™ NFPA Certified By UL**



**Survivor™ Line Bag 60, 57 ft. of Samson Tech-12,  
1/4" Line. MBS 7,300 lbs. NFPA Water Repellent Fabric, 1 lb.**



**Survivor™ Practice Bag 40, 37 feet of Samson Tech-12, 1/4" Line. MBS 7,300 lbs. NFPA Water Repellent Fabric.**



**Cargo Pouch, 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", 4 lbs.

**LARGE/X-LARGE** - Fits Chest Size 40-80", Heights 5'5" to 6'7", 4.5 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 LEVEL 1 LINE CONFIGURATION** - Recommended Weights 130 to 200 lbs.  
**Note the slight difference between Level 1 and Level 2 Line Configurations.**  
Photo 1





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

2 **LEVEL 2 LINE CONFIGURATION** - Recommended Weights 200 to 280 lbs.  
Photo 2



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



**3**    **LEVEL 3 LINE CONFIGURATION** - Recommended Weights 280 to 310 lbs.  
**Photo 3**



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

## DESCENT RANGES

- 1** SURVIVOR™ LINE BAG 60, 57 feet of Samson Tech-12, 1/4", Technora Line. MBS 7,300 lbs. Starting with 60 feet of line, 57 feet of useable line remains after the End Loop is spliced and knots tied. The First Barrel Knot is placed to ensure the line cannot exit the Survivor™ Harness during a descent. A Terminal Barrel Knot is placed on the very end of the line outside of the Survivor™ Line Bag 60, and an Overhand Knot is placed on the inside of the Survivor™ Line Bag 60. The end of the line must be attached to the Survivor™ Line Bag 60 to eliminate the possibility of it tangling with the line as it exits the Line Bag. NO LOOSE ENDS. ESS machine wrapped to help prevent kinks and knots, this 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 60 Feet for the Survivor™ Line Bag 60. This bag CANNOT BE REPACKED in the field. It must be returned to ESS for rewrapping or a replacement purchased. 6 x 3.5", 1 lb.
- 2** SURVIVOR™ PRACTICE BAG 40, 37 feet Samson Tech-12, 1/4", Technora Line. MBS 7,300 lbs. Starting with 40 feet of line, 37 feet of useable line remains after the End Loop is spliced and knots tied. The First Barrel Knot is placed to ensure the line cannot exit the Survivor™ during a descent. A Terminal Barrel Knot is placed on the very end of the line outside of the Survivor™ Practice Bag 40, and an Overhand Knot is placed on the inside of the Survivor™ Practice Bag 40. The end of the line must be attached to the Survivor™ Practice Bag 40 to eliminate the possibility of it tangling with the line as it exits the Survivor™ Practice Bag 40. NO LOOSE ENDS. 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 Survivor™ Practice Bag 40. This bag can be EASILY and QUICKLY REPACKED in the field for repeat practice descents.
- 3** SURVIVOR™ LINE BAGS 100/150/200, are optional ESS Line Bags that contain 97/147/197 feet of Samson Tech-12, 1/4" Line for greater lengths of descent. MBS of 7,300 lbs. These Line Bags attach to the Survivor™ Harness in the same manner as the Survivor™ Line Bag 60. The Survivor™ Line Bag 100 WILL FIT in a large cargo pocket with the Survivor™ Harness.

**With ESS machine wrapping, these lines easily pull from the bags with little resistance making them excellent long distance Throw Bags. 100 - 6 x 4", 2 lbs., 150 - 9 x 4", 3 lbs., 200 - 9 x 5", 4 lbs.**

### **INSPECTION**

- 1 Inspect the Survivor™ Harness, 1EDS Rack, Line and FireHook™ before each shift by removing it from the Cargo Pouch. Lay the Survivor™ out on a flat surface and inspect thoroughly. Extend the Leg Straps and thoroughly 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 Survivor™ 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 Survivor™ gets damp, hang dry before repacking.
- 3 Inspect the Survivor™ at least every six months by a Competent Person or per your department's requirements. With each inspection, scan the SuperTrack QR Sticker 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 SuperTrack QR Sticker is a unique identifier to one specific Survivor™ Harness. If the QR Code is scanned with the camera of a smart phone, and if the Havoc SuperTrack App has been downloaded, you will find specific information on the date of manufacture, inspections, etc., for that specific Survivor™. Information can also be inputted after inspections, use, etc., for later reference.
- 5 After inspection, repack and stow the Survivor™ in its Cargo Pouch as shown in REPACKING THE SURVIVOR™ HARNESS ON PAGE 55. Then replace the Cargo Pouch containing the Survivor™ back in the bunker pants cargo pocket or on a belt.



## DONNING OF THE SURVIVOR™ HARNESS

The Survivor™ Harness is easily donned from a standing or kneeling position in 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 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. Use the Red Pull Handles 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. Photos 2A, 2B, 2C



Photo 2A





**Photo 2B**





Photo 2C



- 3 Pull the Survivor™ 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 between the Shoulder Straps as you place both arms up through the Chest Strap. The Chest Strap is placed under both arms.  
Photo 4



Photo 4



- 5 Place the 1EDS Rack over your Sternal Area and pull the slack out of the Chest Strap with your left hand while lifting the Survivor™ Line Bag 60 with your right hand. This will pull the excessive webbing through the Shoulder Strap “V” on your back. Photo 5



Photo 5



- 6 Then pull on the Tail End of the Chest Strap to tighten it around your Chest. Photo 6



Photo 6



- 7 Hook the FireHook™ over the Chest Strap or 1EDS Rack so it is out of your way. Photo 7



Photo 7



- 8 Grasp the Snap Buckles for the Leg Straps below the Snap Buckle D-Ring (the lower larger D-Ring). Pull one of the Leg Strap's Snap Buckles 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. The upper small D-Ring is used for an emergency auxiliary connection if ever needed. Photos 8A, 8B, 8C



Photo 8A



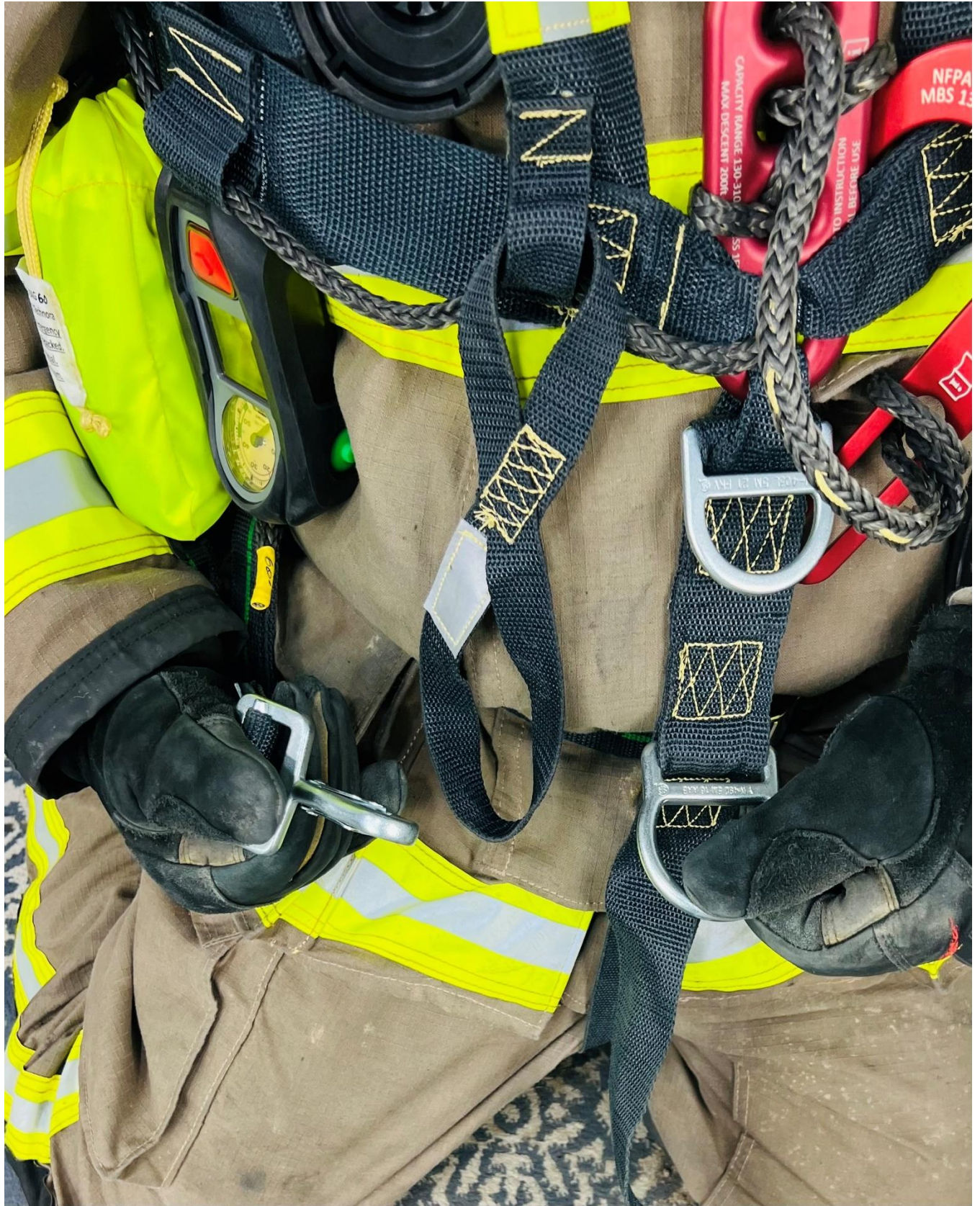


Photo 8B





Photo 8C



- 9 Grasp the 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. Photo 9A, 9B



Photo 9A





**Photo 9B**



- 10 Double check to make sure both Snap Buckles are securely attached to the Snap Buckle D-Ring and both Leg Straps are snug on the body. The Survivor™ Harness is now properly donned. Place your helmet back on.  
Photo 10



Photo 10

## DESCENDING WITH THE SURVIVOR™ HARNESS

BEFORE DUTY USE, YOU MUST PRACTICE WITH THE SURVIVOR™ HARNESS .  
READ THIS SECTION ON DESCENDING AND THEN FOLLOW THE PRACTICE  
SECTION INSTRUCTIONS.

The Survivor™ 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. Make sure your Leg Straps have been previously adjusted to your size while wearing your normal Bunker Gear equipment.

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

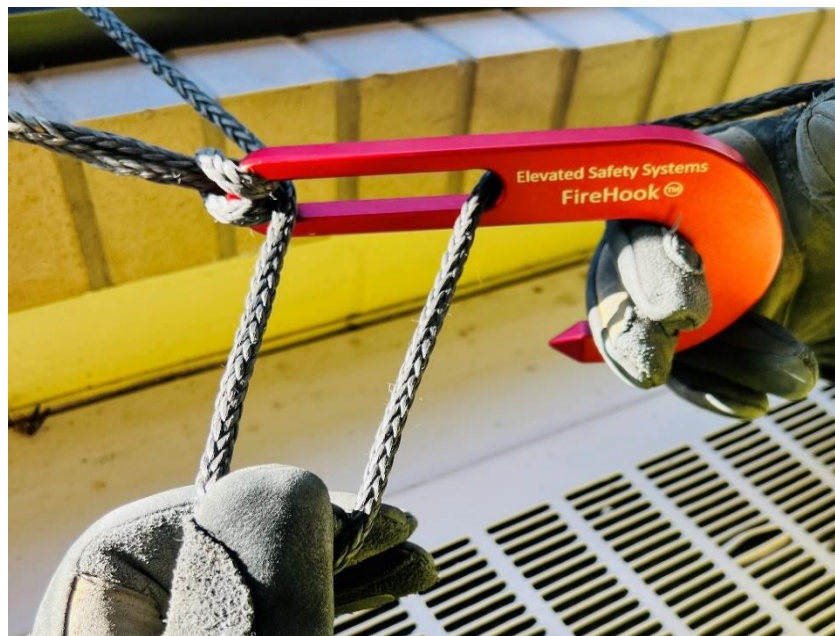
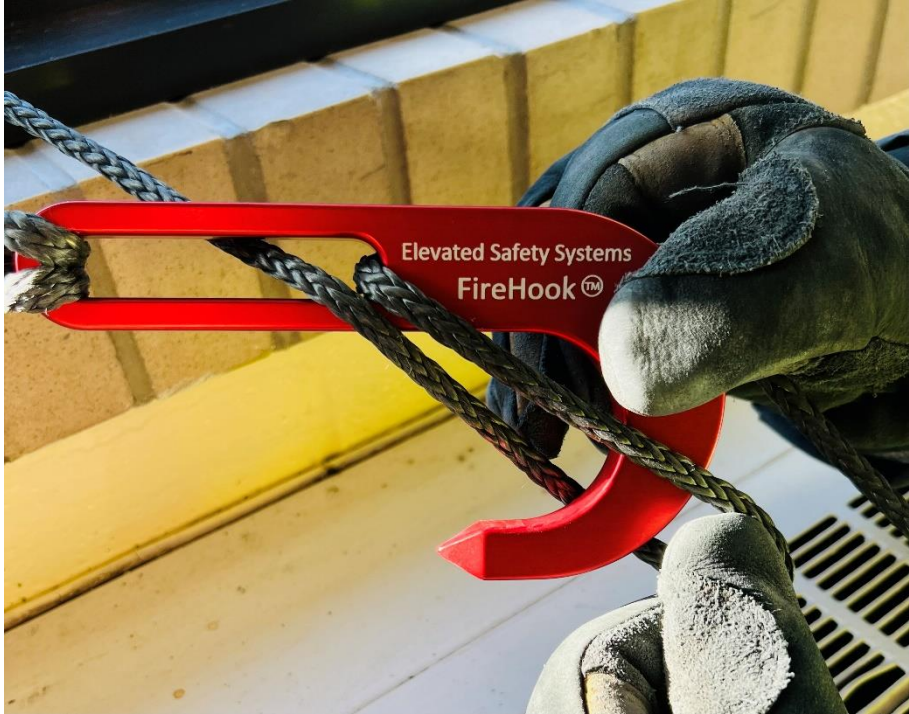


Photo 3A





**Photo 3B**



**Photo 3C**



- 4 The FireHook™ 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 1EDS Rack with your right hand forming a small loop of line on your right side. Doing this will pull more line from the Survivor™ Line Bag 60 or Survivor™ Practice Bag 40 if practicing. Photo 5



Photo 5



- 6 Next feed this loop of line up into the 1EDS Rack with your right hand while backing towards your egress point. This will pull the line up through the 1EDS Rack as you back up. You can also pull the line up through the 1EDS Rack with your left hand and then back up. Continue these movements until you have enough line to reach your egress point. Photo 6

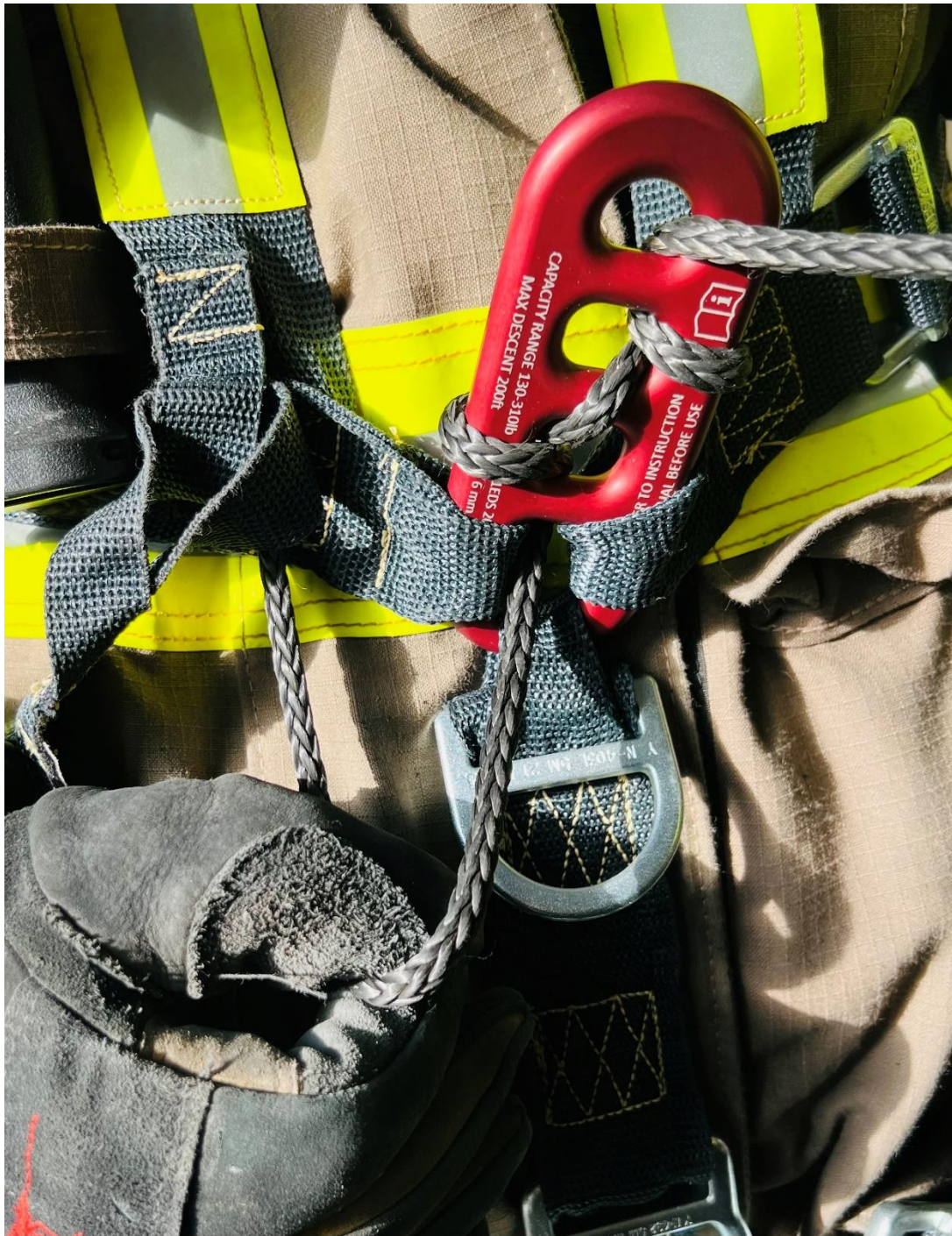


Photo 6

- 7** As a last resort and if no other anchor can be found, the FireHook™ 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™ 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™ 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™ 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 1EDS Rack, push down and let up on the line between the 1EDS Rack and Kevlar Brake to start. This will pull more line from the Survivor™ Line Bag 60.**
  
- 10 **After descent has started, you can push down on the Brake Handle towards your feet to slow or stop your descent. Keep your hand next to your chest and slide your hand up or down to loosen or apply the Brake.**
  
- 11 **THERE IS NO NEED TO HOLD THE LINE ABOVE THE 1EDS RACK WHILE DESCENDING. With the sternal connecting point, YOU WILL NOT TOPPLE. You can place both hands on the Brake Handle. Keep your hands and clothing away from the 1EDS Rack and Line to prevent jamming while descending.**

**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 SURVIVOR™ HARNESS

Always Use Every Precaution And Never Practice Alone From Heights!

- 1 Prior to Practicing with the Survivor™ Harness you need to put the Survivor™ Harness on. After snuging up the Chest Strap, adjust both Leg Straps to your specific size **WITH YOUR NORMAL BUNKER GEAR ON.** You want the Survivor™ Harness ready to go and already adjusted to your size either for practice or duty.
- 2 Remove the Survivor™ Line Bag 60 and Line from the Survivor™ Harness prior to practicing. Start by removing the FireHook™ from the end of the Line. Open up the looped end of the line, slide it over top of the FireHook™ point and pull the line back through the Slot. Photo 2



Photo 2



- 3 Pull the Survivor™ Line Loop back through the 1EDS Rack, the Kevlar Brake and the Line Guide. Photo 3**



**Photo 3**

- 4 Remove the Survivor™ Line Bag 60 from the Survivor™ by lifting the Survivor™ Line Bag 60 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 Survivor™ Line Bag 60 Loop Velcro Strap downward from underneath the front Hook Velcro Guide and pull the Survivor™ Line Bag 60 free. Photos 4A, 4B.**



**Photo 4A Rear**



**Photo 4B Front**

- 5 **Reverse the procedure to attach the Survivor™ Practice Bag 40.** 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. **Helpful Hint** - Fold the Survivor™ Practice Bag 40 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

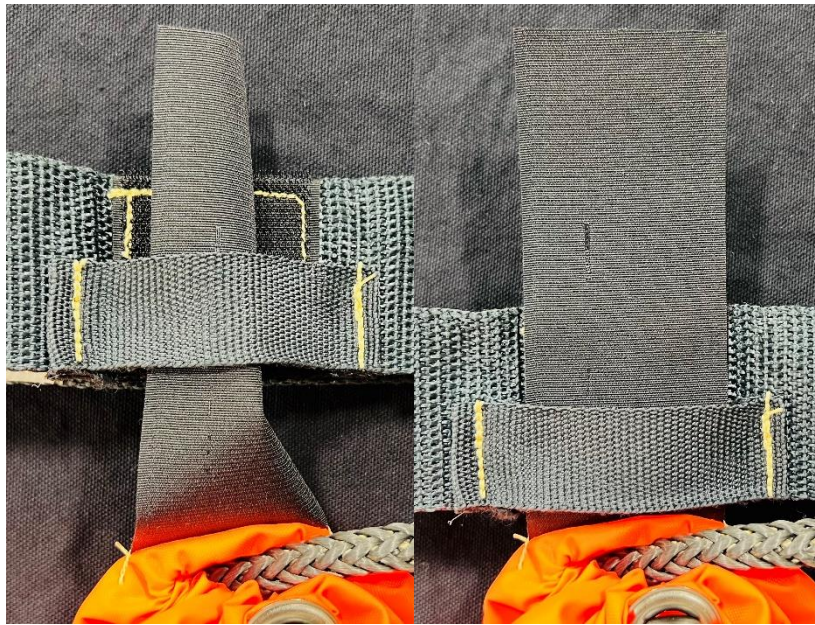


Photo 5A, Front Folded

Photo 5B, Front

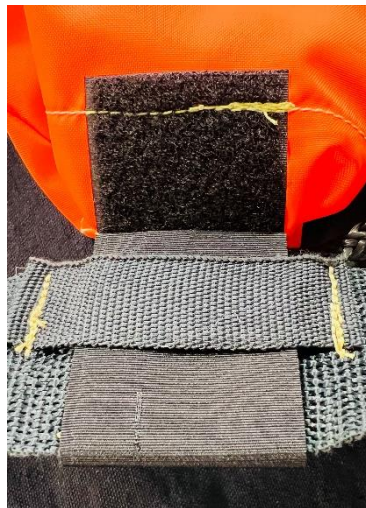


Photo 5C, Rear



- 6 Thread the Survivor™ Practice Bag 40 Line Loop through the Line Guide, Kevlar Brake and 1EDS Rack. Extend the line until you have approximately 12 inches of line out of the top of the 1EDS Rack. Extending the Line Loop from the 3 EDS Rack to the far end of the Hook Velcro on the Chest Strap is 12 inches. 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™ to the Line Loop by inserting the Line Loop through the FireHook™ slot. Place the end of the Line Loop over the FireHook™ point, pull the Line Loop down over the FireHook™ and tighten the Line Loop on the end of the FireHook™ slot. Photos 7A, 7B



Photo 7A

Photo 7B



8 The Survivor™ 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 34. After donning the Survivor™, attach the FireHook™ 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 1EDS Rack, Brake Handle, Kevlar Brake, and how they work. Lower yourself to a seated position, stopping several times by **pushing down towards your feet on the Kevlar Brake Handle.** Photos 9A, 9B





Photo 9A





Photo 9B



- 10 After each ground practice, there will be 3-5 feet of line pulled from the Survivor™ Practice Bag 40. To continue with ground practice, stand up and tie the line up tight to your anchor point and repeat. You can take the FireHook™ off for this purpose if needed.
- 11 If at anytime during a descent the line fails to slide up through the 1EDS 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 Survivor™ Practice Bag 40. Grab the line between the 1EDS Rack and the Kevlar Brake and forcefully shove down on the line forming a loop. This will pull more line from the Survivor™ Practice Bag 40. Next feed the line up into the 1EDS Rack with your hand allowing it to slide through the 1EDS Rack. Photo C



Photo C

- 12 **AFTER A FEW 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 1EDS 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 SEE WHAT WORKS BEST FOR YOU.**
- 13 **After you have completed practicing from the ground and are confident with the Survivor™ and Kevlar Brake, you can then practice from heights.**
- 14 **See REPACKING THE SURVIVOR™ PRACTICE BAG 40 on Page 50. Then re-thread the line per paragraph #6 this section and replace the FireHook™.**
- 15 **Repack the Survivor™ in its Cargo Pouch and place it in the Bunker Pants Cargo Pocket or on a belt prior to actual descending practice. See REPACKING THE SURVIVOR™ HARNESS on Page 55. PRACTICE LIKE IT'S REAL!!**
- 16 **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.**
- 17 **After you have finished practicing with the Survivor™ Harness, be sure to remove the Survivor™ Practice Bag 40 and replace it with the Survivor™ Line Bag 60.**
- 18 **The maximum number of practice descents is a function of inspection. Any sign of damage, defect or unsafe condition, immediately remove the Survivor™ Practice Bag 40, Line, FireHook™ and/or Survivor™ Harness from service.**



## REPACKING THE SURVIVOR™ PRACTICE BAG 40

- 1** After the Survivor™ Practice Bag 40 Line has been used to descend remove the line completely from the FireHook™, 1EDS Rack, Kevlar Brake, Line Guide and Survivor™ Practice Bag 40. Pull the remaining line up through the 1EDS Rack by removing the two Barrel Knots and the Overhand Knot. Make sure you replace the three Knots when repacking the Survivor™ Practice Bag 40. The end of the line must be attached to the Survivor™ Practice Stuff Bag 40 to prevent the end of the line from tangling with the line as it exits the bag. NO LOOSE ENDS.
- 2** Before repacking the line into the Survivor™ Practice Bag 40, make sure you lay the line out straight and remove any twist or knots in the line that may have formed. 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 Line 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 27 INCHES from the end of the line.  
Photos 3A, 3B, 3C, 3D

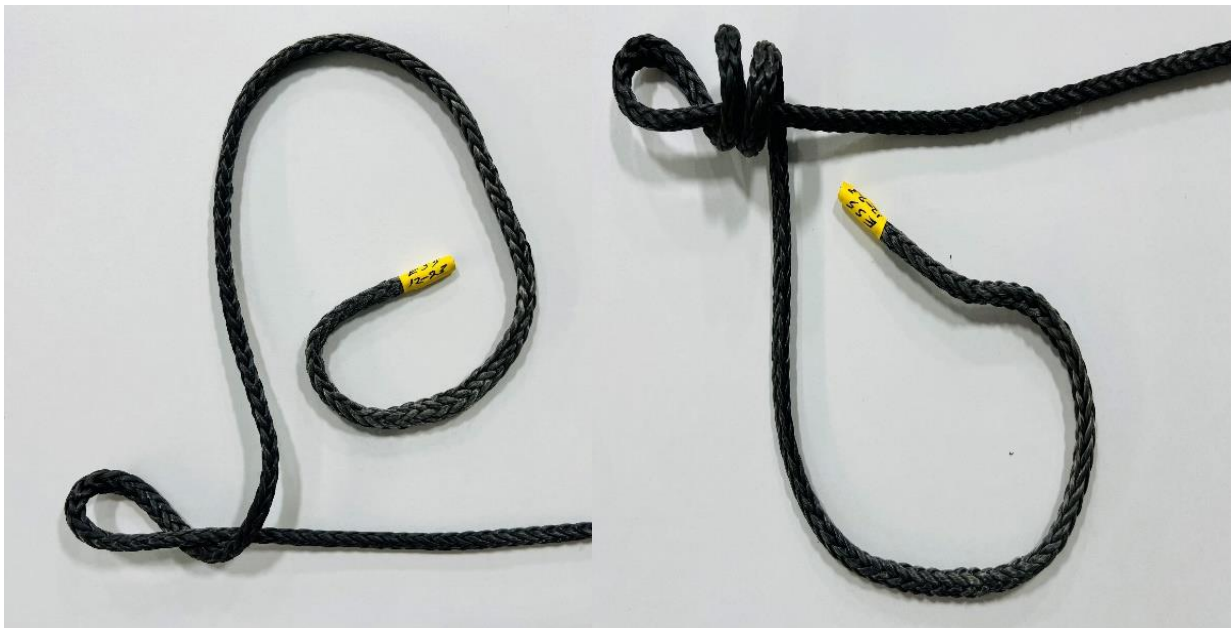


Photo 3A

Photo 3B



Photo 3C



Photo 3D

- 4 After the First Barrel Knot is tied, there will be approximately 18 inches of line free end left. Tie a Overhand Knot next to the First Barrel Knot.  
Photo 4



Photo 4

- 5 Place the end of the line into the Survivor™ Practice Bag 40 and pull it out of the bottom Grommet Hole until the Overhand Knot stops it. Photo 5



Photo 5

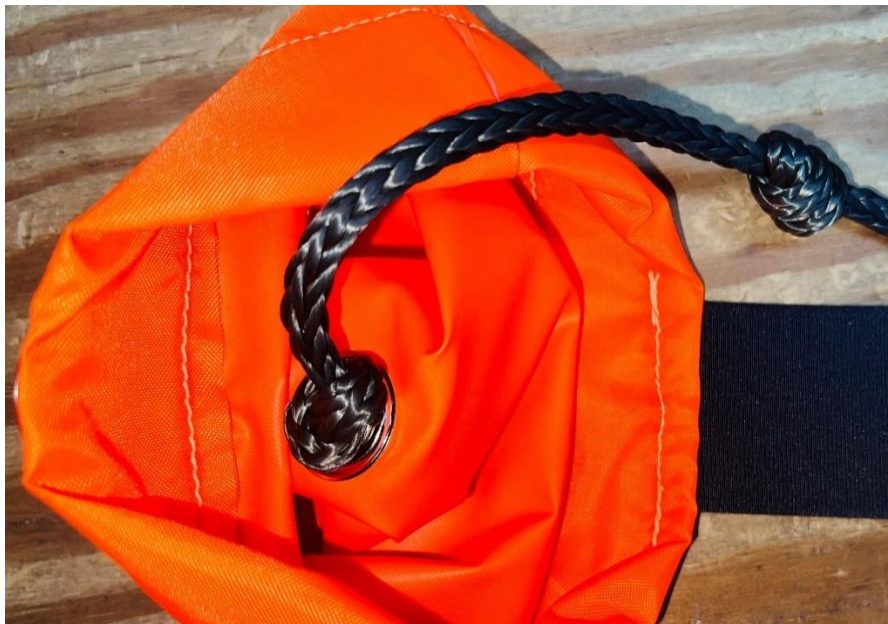


- 6 Tie the Terminal Barrel Knot in the end of the line. Make sure 2 inches of line free end remain after the Terminal Barrel Knot has been tightened.  
Photo 6**



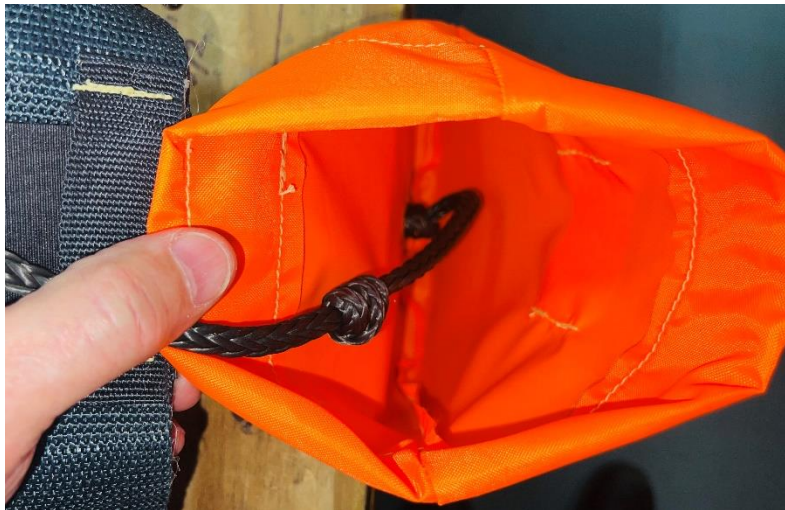
**Photo 6**

- 7 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 Survivor™ Practice Bag 40 inside Bottom Grommet. Photo 7**



**Photo 7**

- 8 Hold the Survivor™ Practice Bag 40 where it attaches to the Chest Strap, while holding the line with the same hand. Photo 8**



**Photo 8**

- 9 With the other hand, grab the line next to the Chest Strap and push the line in a back and forth motion into the bottom corners of the Survivor™ Practice Bag 40. Pushing the line back and forth from corner to corner allows the line to lay in a ribbon fashion in the bag. Continue to do this until all of the line except the Line Loop is in the Survivor™ Practice Bag 40. While you are repacking the Survivor™ Practice Bag 40 re-exam the line again. Any sign of damage, defect, or unsafe condition, remove line from service immediately. Photo 9**



**Photo 9**



- 10 Tighten the Cordlock on the Kevlar Draw Cord until the Survivor™ Practice Bag 40 opening is almost completely closed on the line. There should only be enough room in the opening to insert a finger next to the line. Place an Overhand Knot in the Kevlar Draw Cord next to the Cordlock to prevent the Cordlock from sliding and allowing the Survivor™ Practice Bag 40 to open. Photo 10



Photo 10

- 11 Place the remaining Kevlar Draw Cord underneath the Survivor™ Practice Bag 40 Label. The Survivor™ Practice Bag 40 is now repacked and ready for more practice. Photo 11



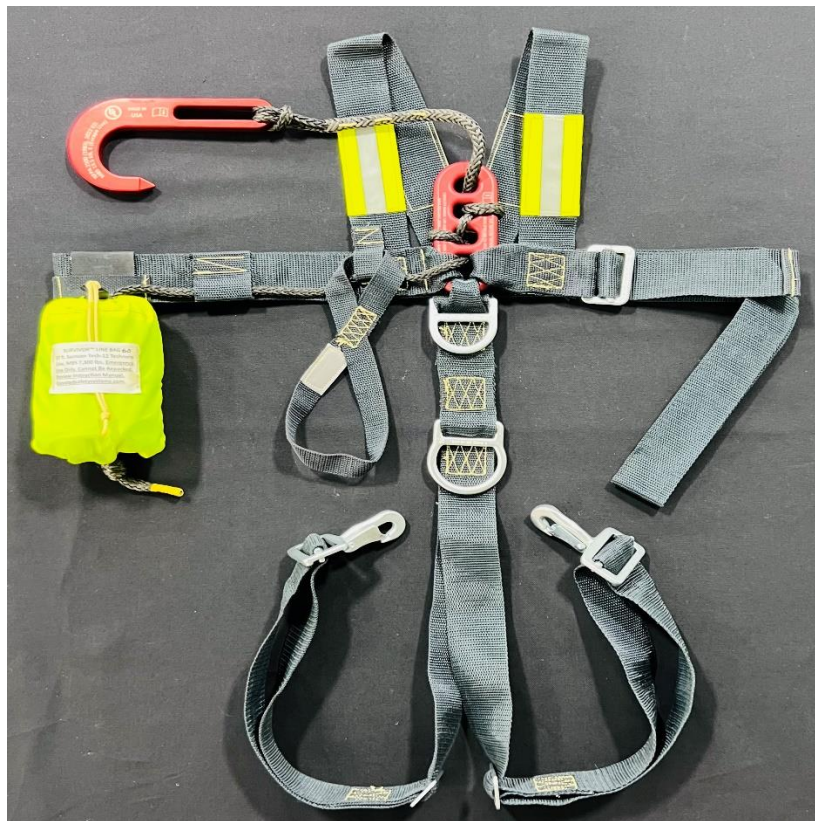
Photo 11

**After practice has concluded, make sure the Survivor™ Line Bag 60 has been reattached to the Survivor™ Harness, the line properly reinstalled with the correct line configuration level and the FireHook™ reattached to the 12 inches of extended line. Then repack the Survivor™ 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!**

### **REPACKING THE SURVIVOR™ HARNESS**

**Prior to repacking, make sure the Leg Straps are adjusted to your size while wearing your normal Bunker Gear and SCBA.**

- 1 Lay the Survivor™ 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 Survivor™ Line Bag 60 on the left as shown. Photo 1**



**Photo 1**



- 2 Lay the FireHook™ next to the 1EDS Rack and insert the point of the hook up into the opening formed where the Chest Strap wraps around the 1EDS Rack on the Right side looking down. Photo 2**



**Photo 2**

- 3 Fold both Leg Strap Snap Buckles together up to the the Snap Buckle D Ring. Photo 3**



**Photo 3**

- 4 Fold the remaining Leg Straps up over to the Snap Buckles and place a rubber band over the Leg Straps to hold them in place. Photo 4



Photo 4

- 5 Fold the Chest Strap across the 1EDS Rack and FireHook™. Photo 5



Photo 5



**6 Lay the folded Leg Straps up over the Chest Strap and 1EDS Rack. Photo 6**



**Photo 6**

**7 Fold the end of Chest Strap back to the FireHook™. Photo 7**



**Photo 7**

- 8 Lay the Survivor™ Line Bag 60 on top of the folded Chest Strap next to the FireHook™. Photo 8



Photo 8

- 9 Start the folded Survivor™ into the Cargo Pouch with the Label up on the Cargo Pouch. **NOTE** – This positioning places the Shoulder Straps “V” on the rear side of the Cargo Pouch and against the leg while being carried in a cargo pocket of Bunker Pants, or against the body while wearing the Cargo Pouch on a belt. **Helpful Hint** - 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 Survivor™. Fold the rear Cargo Pouch flap backwards to attach to the table Hook Velcro. Photo 9



Photo 9



- 10** Once the Survivor™ is in the Cargo Pouch, the Shoulder Straps will still be extended. Photo 10



**Photo 10**

- 11** Fold the Shoulder Straps over the Survivor™ Harness placing 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 11



**Photo 11**

- 12 Fold and tuck the Top Cargo Pouch Flap underneath the Survivor™ Harness and Shoulder Straps. Photo 12**



**Photo 12**

- 13 Fold the Bottom Cargo Pouch Flap up over the Top Flap and attach it to its Velcro. Photos 13A, 13B**



**Photo 13A**



**Photo 13B**



- 14** Insert the loaded Cargo Pouch into the cargo pocket of the Bunker Pants with the Label up. The loaded Cargo Pouch can also be placed on a belt with the Velcro Belt Loops located on the rear of the Cargo Pouch. Photos 14A, 14B



**Photo 14A**



**Photo 14B**

- 15** Fold the Cargo Pocket Flap over and attach it to its Velcro to complete the Survivor™ packing and the closing of the Bunker Pants Cargo Pocket. Photo 15



**Photo 15**

## OTHER EMERGENCY APPLICATIONS FOR THE SURVIVOR™

Anytime an emergency descent is needed, it can be performed with the Survivor™. If there is a vehicular accident over a steep hill. If there is a child who has fallen into a deep hole. The Survivor™ has endless uses to quickly lower emergency personnel to victims. The Survivor™ 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 1EDS Rack and the Kevlar Brake, no additional line will be able to transition up through the 1EDS Rack. If this loop is made large enough, it can be placed around a victim's 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 1 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™ and re-threading the 1EDS Rack. Refer to Page 12 for Sizes, Weights, and Line Configuration Levels. If a longer descent is required, remove the Survivor™ Line Bag 60 and attach the optional Survivor Line Bag 100, 150 or 200 for descent distances from 100 to 200 feet.



Photo 1



## LABELS

Survivor™ Harness, Elevated Safety Systems, 4115 Dragon Hwy. Cameron WV 26033  
Elevatedsafetysystems.com, 304-686-3224. Made in USA. Meets Evacuation Harness  
Requirements of ANSI/ASSE Z359.4-2013. Descent Device in Accordance with ANSI/  
ASSE Z359.9-2021. DO NOT REMOVE THIS LABEL!  
MFG. \_\_\_\_\_ . SMALL/MEDIUM Fits Chest Size 30-70" . Fits Height 4'8" to 6'3" .

Survivor™ Harness, Elevated Safety Systems, 4115 Dragon Hwy. Cameron WV 26033  
Elevatedsafetysystems.com, 304-686-3224. Made in USA. Meets Evacuation Harness  
Requirements of ANSI/ASSE Z359.4-2013. Descent Device in Accordance with ANSI/  
ASSE Z359.9-2021. DO NOT REMOVE THIS LABEL!  
MFG. \_\_\_\_\_ . LARGE/X-LARGE Fits Chest Size 40-80" . Fits Height 5'5" to 6'7" .

**Survivor™ Practice Bag 40**  
**37 ft. Samson Tech-12 Line,**  
**MBS 7,300 lbs. Stuff Bag.**  
**Review Instruction Manual.**  
**Elevatedsafetysystems.com.**

**Survivor™ Line Bag 60**  
**57 ft. Samson Tech-12 Technora**  
**Line, MBS 7,300 lbs. Emergency**  
**Use Only. Cannot Be Repacked.**  
**Review Instruction Manual.**  
**Elevatedsafetysystems.com.**

**Survivor™ Line Bag 100**  
97 ft. Samson Tech-12 Technora  
Line, MBS 7,300 lbs. Emergency  
Use Only. Cannot Be Repacked.  
Review Instruction Manual.  
Elevatedsafetysystems.com.

**Survivor™ Line Bag 150**  
147 ft. Samson Tech-12 Technora  
Line, MBS 7,300 lbs. Emergency  
Use Only. Cannot Be Repacked.  
Review Instruction Manual.  
Elevatedsafetysystems.com.

**Survivor™ Line Bag 200**  
197 ft. Samson Tech-12 Technora  
Line, MBS 7,300 lbs. Emergency  
Use Only. Cannot Be Repacked.  
Review Instruction Manual.  
Elevatedsafetysystems.com.

### **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.

Elevatedsafetysystems.com





**BE PREPARED!**

**Elevated Safety Systems LLC, 4115 Dragon Hwy, Cameron WV, 26033.  
[Elevatedsafety.com](http://Elevatedsafety.com). 304-686-3224. PROUDLY MADE IN THE USA.**