

# **FAST Board Training Manual**

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### Contents

About the Company and the FAST Board	3
INTRODUCTION	4
FAST Board components and accessories	5
Introduction to the FAST Board components	6
DEPLOYMENT OF THE FAST BOARD	8
USING THE FAST BOARD WITH THE ARS MULTI-LOOP STRAP	10
To use the FAST Board for a horizontal raise	12
To use the FAST Board for a vertical raise	12
Resetting the FAST Board	13
FAST BOARD TRAINING TAKEAWAYS	14
Frequently Asked Questions	15
Contact Information	16

## About the Company and the FAST Board

From FAST Board Creator, Eric Allen:

"FAST Rescue Solutions (FRS) started from a need that was present when I started with the Fire Department in 1996. That need became even more clear in 2004 when I joined my department's first Special Operations team.

That need was the movement and removal of downed personnel and civilians from a hazardous environment. In the past, the mindset was to adapt rope rescue to emergency evacuation. FRS is taking the opposite approach — we are taking emergency evacuation and integrating it into rope rescue."

FAST Rescue Solutions is dedicated to developing *innovative products and training solutions that meet the constantly evolving challenges encountered by first responders*. Our mission is to develop products and training that surpass currently accepted industry standards and that meet the operational challenges of the real world. Our team of Subject Matter Experts brings over a century of combined experience in firefighting, RIT, technical rescue, law enforcement (including SWAT, Mobile Field Force, and bike patrol), and training Military Units.

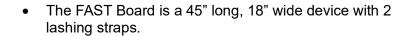
The FAST Rescue Board is the ultimate rescue platform designed for maximum versatility and ease of use. Originally designed for Rapid Intervention in firefighter rescue, this system also excels in Confined Space, Hazardous Materials, Active Shooter Response, and all other areas of patient packaging, extrication, and transport. With the addition of the FAST Flotation Device, the FAST Board is setting a new standard for water and ice rescue. Constructed with industry-standard webbing and hardware, the innovative rapid packaging features will have your patient packaged and moving in seconds.



### INTRODUCTION

The FAST Board is a device that can be used to aid in the removal of a downed firefighter or civilian.

### AT A GLANCE:



- With a single-point connection, the lashing becomes a 3-point harness.
- Once the lashing straps are connected, they pull through the cam buckles to secure the patient to the Board.
- The Board has 45° undercuts on both sides to decrease the chance of a rollover due to debris.
- The upper lashing strap is rigged under the leading edge at the head of the Board and will help overcome stairs, bullnoses, debris, and vertical overhangs.
- The Board can be placed on its side at a 45 angle to reduce the horizontal profile from 18" to 13.5".
- The base of the Board is tapered to 11" to reduce drag and is explicitly designed to fit between the beams of a ground ladder.
- There are three oversized handles along each side of the Board and one at the front/top that are raised 3.5" off the ground to allow easy gripping with a gloved hand.
- All the carabiners are unique to the Board's components, allowing them to be identified by touch alone.
- The Board can be rigged for either a vertical or a horizontal lift using the included accessories.
- The Board shown includes the optional LED lighting package, which allows the Board increased visibility.





# FAST Board components and accessories

 Upper lashing strap\* & XL "D" carabiner

Shown attached to carabiner with protective caps.

- 2. Orange haul line bag with haul line
  The haul line is 75' of 7.5mm bail-out compliant,
  heat-resistant rope, double-overed, and knotted
  every 12" to 16" for positive handholds and
  mechanical advantage. The total length of the
  tied rope is approximately 22'.
- 3. Blue horizontal bridle strap
  92" of 1" webbing with sewn eyelets at each end
   forms the base of horizontal bridle
- 4. Red horizontal bridle strap 80" of 1" webbing with sewn eyelets at each end – forms the top of horizontal bridle
- 5. Velcro cross strap
- Integrated LED lighting unit (shown, optional)

Internally mounted white LED lighting unit provides over an hour of illumination

7. Rapid Deployment Bag with ARS Multi-Loop Strap

MLS features 1" tubular webbing with sewn loops which can be used in several configurations

8. Lower lashing strap\* with tri-link and grab ring



\*Our lashing is 100% Kevlar webbing and has a tensile strength of 5,500 lbs. Lashing meets NFPA 1971 & 1981 standards and passes both heat and flame tests

## Introduction to the FAST Board components



The FAST Board consists of the Board and two (2) lashing straps. The upper lashing strap connection point is an oversized "D" carabiner, secured at the head of the Board with Velcro.

The strap is stored inside the Board and passes through 2 cam buckles (1790lb workload) that act as the progress capture. The large locking "D" carabiner from the orange rope bag is connected to the upper lashing.

When the haul line is pulled, the upper lashing will tighten. The large locking D carabiner will slide along the upper lashing to help balance the load.

The lower lashing strap connection point is a 12mm tri-link that is secured at the bottom of the Board with Velcro and has a metal "O" ring for ease of location/deployment. The strap is stored inside of the Board.





The haul line is 75' of 7.5mm bail-out compliant, heat-resistant rope, double-overed, and knotted every 12" to 16" for positive handholds and mechanical advantage. The total length of the tied rope is approximately 22'.

There are non-locking carabiners at each end of the rope. One carabiner is on the working end and is secured to the upper lashing strap.

The other carabiner is on the terminal end of the rope through the eyelet at the bottom of the bag.

The red webbing bag is located on the right side of the FAST Board and contains a red

80" piece of 1" webbing with sewn eyelets on each end that forms the head of the horizontal bridle (laced through the top handhold openings). The blue webbing bag is located on the left side of the FAST Board and contains a blue 92" piece of 1" webbing with sewn eyelets on each end that forms the base of the horizontal bridle (laced through the bottom handhold openings)



### FRONT BACK



The black bag contains the Anderson Multi-Loop Rescue Strap. This strap is approximately 7 feet and can be doubled to create two 3.5' foot sections with a non-locking carabiner in the middle. There are closed loops at both ends that can be used as handles or wristlets and it is sewn every 8" to create handholds or attachment points. The Anderson Multi-Loop Rescue Strap can be used in conjunction with the FAST Board or alone.

The Velcro strap that is attached to the middle handgrip can be used to secure equipment to the FAST Board. This strap is for securing equipment only. It has no weight rating and is not a part of the rescue system.

The optional lighting package contains a fully integrated system featuring internally mounted white LED lighting and a rechargeable battery pack providing over an hour of illumination, increasing your visibility in dark and smoky environments.



### DEPLOYMENT OF THE FAST BOARD

The FAST Board is a tool used in aiding with the removal of a downed firefighter or civilian. Should members reach or encounter a downed firefighter or civilian they must initiate removal immediately. Members should not wait for the arrival of the FAST Board to begin removal. Members should use all readily available methods and tools (i.e., personal webbing, converting SCBA into harness, etc.). Members must advise the IC (Incident Commander) of the location of the downed firefighter/patient and any special equipment that may be needed to assist in the removal. If available, the RIT should be deployed. The RIT, or available members, should bring the FAST Board, along with any other necessary equipment to assist in the removal.

The rescue team can consist of as few as two firefighters. Typically, the team will have three or more. One firefighter should act as the officer and place themselves at the base of the stairs (if in a basement), or at the entrance to the room/area that the patient is in so that the exit path can be maintained. Loading a firefighter can easily be accomplished with one rescuer, although teamwork will make the job easier.



Position the FAST Board between the rescuer and patient about mid-span on the Board. Roll the patient on their side by pushing their air bottle away from you. As the patient begins to roll, use your knees to push the Board closer to the patient, aligning the bottom of the Board with the patient's waistline. This will help facilitate bending around tight corners.

The firefighter that is loading must first detach the orange rope bag from the Board before loading the patient onto the Board. However, the rope should remain attached to the upper lashing.

Place the patient's arm over their chest. With the patient and the Board in position, firmly grasp their pack and pull them towards you while, at the same time, pushing the elevated side of the Board to the ground. The Board will act as a scoop and the patient will settle onto the Board.

The size of the team will dictate how the lashing is deployed, whether it is one person deploying both the top and bottom straps or it is done by multiple rescuers.

Training point: Try to keep hand contact on the hardware until the connection is made.



Deploy the upper lashing strap with the oversized "D" carabiner and the lower lashing strap with the tri-link (An "O" ring is attached to the tri-link as a grab ring.)

Connect the XL "D" carabiner to the tri-link.

Ideally, you want to "scoop" the patient so that they are face down on the Board with their arms across their chest however, if the patient is conscious and/or not wearing an SCBA you can "scoop" them so that they are face up or with their arms at their sides.

If the patient is wearing an SCBA you should make sure that the connection point is off to one of the sides of the SCBA unit and not directly on top.

Once the upper and lower lashing straps are connected, all that is necessary to tighten the system and secure the patient to the FAST Board is to pull the haul line.

To secure the patient more robustly one of the rescuers can go to the head of the FAST Board, grab the rope from the orange rope bag and place their foot in between the upper lashing strap.

Pull on the rope SLOWLY until the patient is tightly secured. Pulling on the rope quickly can "shock load" the strap and may cause the cams to tighten without securing the patient to the Board.



Ensuring that the patient is loaded correctly onto the FAST Board is key to the overall success of the operation.

### USING THE FAST BOARD WITH THE ARS MULTI-LOOP STRAP

If the patient is too large for the upper and lower lashing straps to be secured, use the Anderson Multi-Loop Rescue Strap (black bag) to extend the adjustment straps.

Take one of the handle straps on the Multi-Loop Strap and feed it through the tri-link on the lower lashing strap.







Secure the handle with the oversized "D" carabiner on the upper lashing strap. Pull on the opposite side of the Multi-Loop Strap to tighten the straps and then secure the Multi-Loop Strap using the loops to the oversized "D" carabiner. Tighten the system.

Once the patient is secured to the FAST Board the firefighter at the head of the board should deploy the rope from the orange rope bag approximately 2-3". This allows the firefighter to have a good center of gravity to pull the board with their legs. This prevents them from being bent over or pulling with their back and compressing their diaphragm. The firefighter at the foot should cross the patient's legs in an "X" shape and place them on their shoulders.

# THE FIREFIGHTER AT THE FOOT IS IN CHARGE AND MAKES ALL OF THE CALLS FOR THE MOVEMENTS.

For long hauls, the firefighter at the head of the FAST Board can wrap the rope from the orange rope bag around his waist and either: Clip it onto itself using the non-locking carabiner at the eyelet or, if wearing one, their Gemtor harness.



If multiple firefighters are available, the orange rope bag rope can be used at the various handholds or can be clipped back on itself to create a 2 person drag.

For tight corners: Place the board on its side and have the firefighter at the foot push out. Due to the patient being placed on the board at the waistline the body position will help facilitate the movement around the tight corner.

When removing a patient up steps no firefighters should be on the stairwell. The FAST Board should be brought to the base of the steps. The rope from the orange rope bag should be deployed to the top of the steps with two firefighters to haul. The firefighter at the foot should remain in place.

# The firefighter at the foot continues to MAKE ALL OF THE CALLS for the movement.

The firefighter at the foot may need to pull the firefighter back slightly off the steps so the FAST Board can overcome the bullnose of the steps.

### To use the FAST Board for a horizontal raise



Feed the red webbing on the inside of the top handholds on one side, underneath the FAST Board, and through the inside of the top handholds on the other side. Feed the blue webbing on the inside of the bottom handholds on one side, underneath the FAST Board, and through the inside of the bottom handholds on the other side.

### To use the FAST Board for a vertical raise



Wrapping the upper lashing strap around the head handhold will stop the system from continuing to tighten and will help in the extrication if your high point anchor does not allow for enough travel.



However, this does not have to happen with a lift or lower if time and the situation do not allow. If time does allow you can use one of the horizontal bridle straps as a safety strap.

## Resetting the FAST Board

The FAST Board does not have to be completely restored prior to reuse. If the situation dictates, or the rescue of multiple patients must be made, simply depress the locking cam buckles on the upper lashing strap, retract the upper lashing strap so that the rope bag attachment point is moved to the top of the board and the board is ready to be reused.

To completely restore the FAST Board:

Remove all the rope/webbing bags. Inspect the upper and lower lashing straps, Cam buckles, connection points, and the board itself for damage. Clean using a mild soap if required.

Inspect the rope/webbing for damage. Clean using a mild soap if required. Allow to dry and do not dry in direct sunlight. Repack in bags. Stuff the haul line into the orange rope bag. The Multi-Loop Strap and red and blue bridle straps are rolled.

Ideally 2 firefighters should be used to restore the upper lashing strap. Ensure the upper lashing strap is fully extended. As one firefighter holds the Cam buckles down, the second should slowly retract the upper lashing strap by pulling on the oversized "D" carabiner towards the foot of the board.

Ensure that both sides of the upper lashing strap are equal and stop when the upper lashing strap allows the orange rope bag carabiner to be just over the top of the board.

Insert the excess upper lashing strap into the board and then restore the oversized "D" carabiner to its keeper. Place the inner straps in the center of the board to allow the orange rope bag to be placed onto the Velcro.

Scan QR code below for reset video.



### FAST BOARD TRAINING TAKEAWAYS

Be proficient with the FAST Board and all its components

The FAST Board is not for use in all situations

Load the patient correctly onto the FAST Board

Communicate

**Think** 

**Train Hard** 

"Don't train until you get it right,
Train until you can't get it wrong!"



## Frequently Asked Questions

#### What are the measurements and ratings for the FAST Board?

The FAST Board is 46" L x 18" W x 4.5" H and weighs 22 lbs. with standard accessories. The Kevlar lashing has passed the NFPA 1971/1981 flame test and heat test and is rated to 5500 lbs. The 7.5mm Sterling "Escape Tech Fire Escape" rope is rated at 3900 lbs. and has passed the NFPA 1983 Fire Escape as well as the NFPA 1971/1981 Flame Test and Heat Test. The Horizontal bridle straps are rated at 9000 lbs.

#### When using the FAST Board why do you package face down?

We package face down to protect the face-piece, to help contain the arms, and to give good access to the buddy breathing hose line and UAC valve.

### Has the face-piece ever gotten displaced?

We have not had any reports from our customers about face-pieces becoming displaced.

#### What is the average time for a rescue operation using the FAST Board?

With the FAST Board and proper training, we have found that the average time for a rescue operation is 5 minutes.

# What is the difference in time for packaging a firefighter in other systems versus how long it takes to package a firefighter using the FAST Board?

Using other systems, the time to package a firefighter can be anywhere from 5 to 15 minutes. With the FAST Board and proper training, we have reduced that time from 25 to 30 seconds.

#### Is the LED Lighting System Waterproof?

The lights are waterproof, the battery and its connections are encased in silicone in a sealed, water-proof box. We have done extensive testing in water and have had no issues.

#### What is the average time to fully charge the LED Lights?

With the old charger (see photo below) It takes 8 to 10 hours to fully charge the lights. With the new charger, it takes 3 to 4 hours. *If you have an old charger, please contact us at info@fastrescuesolutions.com* 

#### How long does a full charge last for the LED Lights?

On a full charge the lights will last over an hour when left on. They will last approximately 3 weeks on standby, though we highly recommend charging the lights at least once a week to keep them ready for action.

### **Contact Information**

FAST Rescue Solutions 401 E. 4<sup>th</sup> Street BLDG 8 FL 3 Bridgeport, PA 19405 215-776-8969

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Training Questions: <a href="mailto:training@fastrescuesolutions.com">training@fastrescuesolutions.com</a>