



Training Manual

Supplement #2019

Firefighter Assistance Search Team F.A.S.T. Board Manual



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FAST Board

INTRODUCTION & DESCRIPTION

1.1 The FAST Board is a device that can be used in aiding the removal of a downed firefighter or civilian. The FAST Board is a 45” long, 18” wide device that has two (2) lashing straps that connect at one connection point. Once the lashing straps are connected they pull through a progress capture device so that the patient is secured to the board. The board has 45 ° undercuts on both sides to decrease the chance of a roll over due to debris. The upper lashing strap is rigged from the bottom of the head of the board and will overcome stairs, bullnoses, debris, and overt 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 designed specifically to fit between the beams of a ground ladder. There are three (3) oversized handles along each side of the board and one at the front (or top) that are raised 3.5” off the ground to allow for easy gripping with a gloved hand. All of the carabiners are unique to the board’s individual components allowing them to be identified by touch alone. The board can be rigged for either a vertical or a horizontal lift.

FAST Board



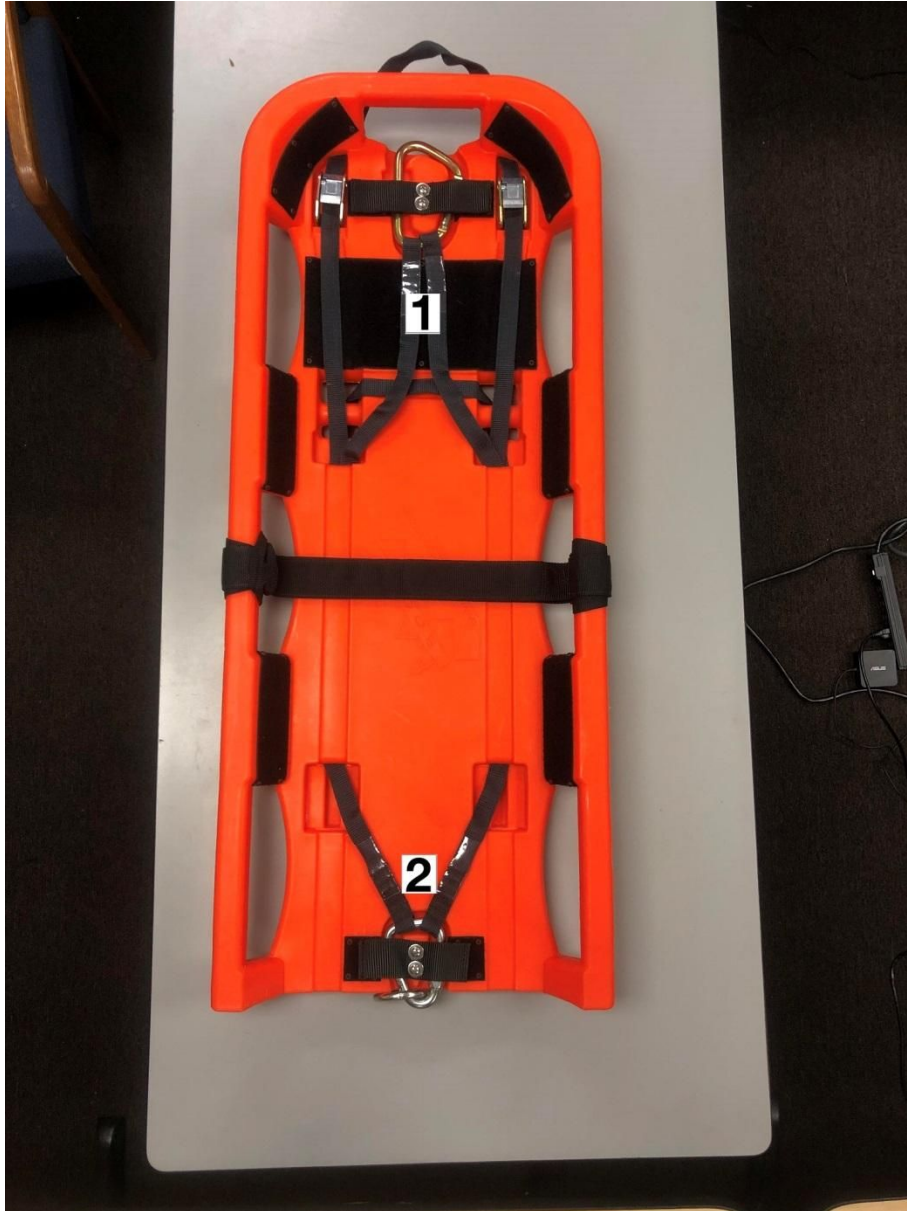
1. Upper lashing strap
2. Lower lashing strap
3. Orange rope bag w/ haul rope
4. Red horizontal bridle strap
5. Blue horizontal bridle strap
6. Multi-Loop Strap
7. Velcro keeper strap

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(pic.1)

1. Upper lashing Strap
2. Lower lashing Strap

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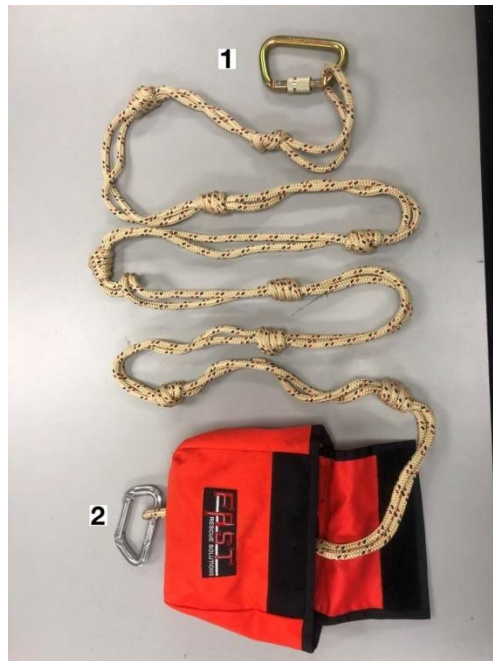
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1.2 The components of the FAST Board consist of the following:

- a) The FAST Board consists of the board and two (2) lashing straps. The lashing straps are 100% Kevlar webbing and have a 5,500 lbs tensile strength. They meet NFPA 1971 & 1981 standards and pass both heat and flame tests. The upper lashing strap connection point is an oversized “D” carabiner that is secured at the head of the board with Velcro. The strap is stored in the board itself and passes through 2 cambuckles (1790lb work load) that act as the progress capture ending at the tightening loop to which the locking “D” carabiner from the orange rope bag is connected. 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. *(See Picture #1)*
- b) The orange rope bag contains approximately 22’ of 7.5mm Sterling Escape Tech Rope (heat resistant up to 932 ° F) and is knotted every 12” for positive handholds and mechanical advantage lashing points. There is a locking “D” carabiner on the working end of the rope that is secured to the upper lashing strap and a non-locking carabiner on the terminal end of the rope that is through the eyelet at the bottom of the bag. *(See Picture #2)*



(pic.2)

1. Working End Carabiner
2. Terminal End Carabiner

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- c) 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 (top handgrip). 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 (bottom hand-grip) (See Picture # 3)



(pic.3)

- d) The black bag contains the Anderson Multi-Loop Rescue Strap. This strap is approximately 7 feet and is double to create two 3’ 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. (See Picture # 4)



(pic.4)

- e) 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.

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DEPLOYMENT

- 1.3** 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 await the arrival of the FAST Board to initiate removal. Members should use any and all readily available methods and tools on hand (i.e. personal webbing, converting SCBA into harness, etc.) Members must advise the IC 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 team should be deployed. The RIT team, or available members, should bring the FAST Board, along with any other necessary equipment to assist in the removal.
- 1.4** The rescue team can consist of as few as two (2) firefighters. Typically the team will have three (3) or more. One (1) 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 located in so that the exit path can be maintained.
- 1.5** Loading a firefighter can easily be accomplished with one Rescuer. Teamwork will make the job easier. One (1) firefighter should position the FAST Board between themselves with the patient about mid-span on the board. Roll the patient on to their side by pushing their air bottle away from you. As the patient begins to roll move the board closer with your knees. (The picture below (*picture #5*) was taken so you can see the position of the FAST Board in relation to the patient). Line up the bottom of the board with patient's waistline. Having the patient's waistline at the end of the board will facilitate bending around tight corners. The firefighter that is loading must first detach the orange rope bag from the board prior to "scooping" the patient onto the board. However, the rope should remain attached to the upper lashing. Work to get the patient's arm under their chest. With the patient and the board in position get a firm handhold on their pack and pull them towards yourself 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 and a grab ring.) Connect the XL "D" carabiner to the tri-link. The "O" is a lift rated ring so it is alright to connect the "O" to the XL "D" carabiner, but it is preferable to make the connection to the tri-link. (*See Picture #6*)
- 1.6** 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 not wearing a SCBA you can "scoop" them so that they are face up or with their arms at their sides. (*See Picture #5*)

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(pic.5)



(pic.6)

Deployment of upper and lower lashing strap

Connect Oversized “D” Carabiner to Tri-Link

- 1.7 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.
- 1.8 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 adequately 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. (See Picture #7)

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(pic.7)

NOTE: Boot on board between upper lashing strap

PULL *SLOWLY* TO CINCH

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1.9 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 entire system as in **Section 3.7** (See Picture #8)



NOTE: Feed rescue strap handle through Tri-Link



NOTE: Attach rescue strap handle to oversized “D” carabiner



(pic.8)

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- 1.10** 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 and 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.***
- 1.11** 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.
- 1.12** 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. (See Picture #9)



(pic.9)

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.

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- 1.13** 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 (2) 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 of the steps so the FAST Board can overcome the bullnose of the steps.
- 1.14** To use the FAST Board for a horizontal raise: Feed the red webbing on the inside of the top handgrip on one side, underneath the FAST Board, and through the inside of the top handgrip on the other side. Feed the blue webbing on the inside of the bottom hand-grip on one side, underneath the FAST Board, and through the inside of the bottom handgrip on the other side. (See Picture #10)



(pic.10)

- 1.15** To use the FAST Board for a vertical raise: Wrapping the upper lashing strap around the head handle grip will stop the system from continuing to tighten, and will help in the extrication if your high point anchor doesn't allow for enough travel. However, this does not have to happen for a lift or lower if time and situation doesn't allow. If time does allow you can use one of the horizontal bridle straps as a safety strap. (See Picture #11)



(pic.11)

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- 1.16** Key points to remember when using the FAST Board.
- a) Be proficient with the FAST Board and all of its components.
 - b) The FAST Board is not for use in all situations.
 - c) Load the patient correctly onto the FAST Board.
 - d) Communicate.
 - e) Think.
 - f) Train Hard.

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RESETTING

- 1.17** 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 robe bag attachment point is just about the top of the board and the board is ready to be reused.
- 1.18** To completely restore the FAST Board:
- Remove all of the rope/webbing bags. Inspect the upper and lower lashing straps, cambuckles, 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 cambuckles down, the second should slowly retract the upper lashing strap by pulling on the oversized “D” carabiner. Ensure that both sides of the upper lashing strap are equal and stop when the upper lashing strap will allow the orange rope bag carabiner to be just over the top of the board. *(See Picture #12)*. 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. *(See Picture #13)*



(pic.12)



(pic.13)

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(pic.14)

- d) Attach the locking “D” carabiner to the upper lashing strap strap and secure it to the Velcro keeper. Place the Orange Rope Bag on the Velcro attachment.
(See Picture #15)



(pic.15)

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- e) Place the red bag on the right side upper Velcro attachment. The blue bag on the left upper side Velcro attachment and the Multi-Loop Strap on the lower right side Velcro attachment. (See Picture #16)

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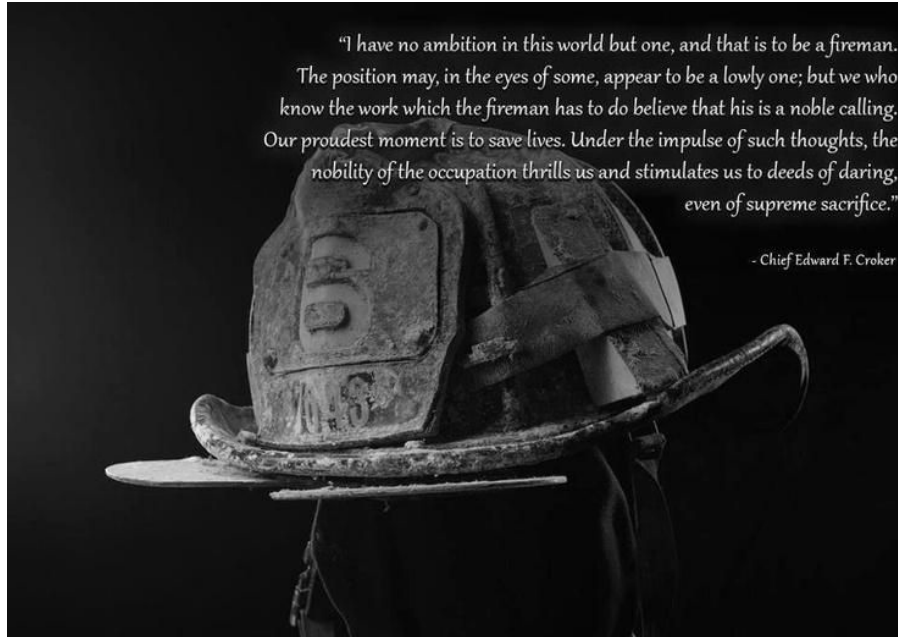
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"I have no ambition in this world but one, and that is to be a fireman. The position may, in the eyes of some, appear to be a lowly one; but we who know the work which the fireman has to do believe that his is a noble calling. Our proudest moment is to save lives. Under the impulse of such thoughts, the nobility of the occupation thrills us and stimulates us to deeds of daring, even of supreme sacrifice."

- Chief Edward F. Croker

**Special Thank You to
John Paul Shirley
and the**

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