CONTERRA

User Instructions

235g
11mm-12.5mm rope

ΔV Delta Vee Fire™ Rescue Tool

The unique multi function tool for rigging and rescue

Δ (Delta) = Change

V (Vee) = Velocity

ΔV = Change in Velocity

KEEP THESE INSTRUCTIONS

Refer to these instructions before and after each use.

Read and understand warnings before first use. Failure to follow instructions may result in user suffering serious consequences. Retain a copy for your permanent records. Retain a second copy to keep with the device.

LIMITED WARRANTY

The original retail buyer is guaranteed that the ΔV(Delta Vee Fire) is free from defects in material and workmanship as originally sold, for one year following purchase unless otherwise indicated by law. If you receive a defective product, return it to us and we will replace it subject to the following conditions: We do not warrant products which show normal wear and tear or that have been used or maintained improperly, modified or altered, or damaged in any manner.

If you have any questions, comments or concerns, contact us at:

1600 Kentucky Street, suite A-3
Bellingham, WA 98229 • USA
1.360.734.2311 • info@conterra-inc.com

MADE IN THE USA

DAMAGE

If your Delta Vee Fire™ is impacted or shock loaded to the point that you can see deformation, dings or cracks in the device, remove from service and replace it. Do not expose this device or rope/webbing to flame or high temperatures. (SEE LIFESPAN, INSPECTION AND RETIREMENT)

There are no user repairable parts to this device. Do not attempt any field repairs or alteration of any kind.

If visible corrosion or deterioration is found to be present on your Delta V Fire, retire and replace the device.

CARE AND MAINTENANCE

The ΔV(Delta Vee Fire) must not come into contact with corrosive materials such as battery acid, battery fumes, solvents, chlorine bleach, antifreeze, alcohol or gasoline. After contact with saltwater or salt air, always rinse, and store dry.

Find more Conterra technical rescue hardware at:
www.conterra-inc.com/collections/conterra-made-rescue-hardware

And use Discount Code **MoreConterra10** to save 10% on your next order of Conterra made rescue hardware.
Limit one use per customer.

LIFESPAN, INSPECTION AND RETIREMENT

The lifespan of this device depends upon how often you use it and on the conditions of its use. With proper care the lifespan of this device is five to ten years. With frequent use and proper care the lifespan of a metal product is two to five years. The shelf life of this device is indefinite.

- Inspect your gear for signs of damage and wear before and after each use.
- Damaged gear must be retired and destroyed to prevent future use.
- Things that reduce the lifespan of the ΔV: Falls, abrasion, wear, saltwater/air or harsh environments.
- If there is wear or gouging deeper than about 1mm, retire the device.
- If corrosion forms, retire the device.
- If any deformation (bends) or cracks are noticed, retire the device.
- If any sharp spots form, retire the device.
- If you have any doubts about the dependability of your gear, retire it.
- Do not loan this device to others, or use it if you obtained it second hand.

USER INFORMATION

PLEASE READ!

Climbing, caving, rescue, rope access, and other activities involving the use of this device are inherently dangerous. You are responsible for your own actions and decisions. Even when this device is properly used, loss, injury or death could occur. By using this device you agree to hold harmless Conterra Inc, its owners, employees, or agents. If you do not agree to the above, do not use the device. Return the device for a full refund. If you agree to the above, and decide to use the device, before use you must:

Read and understand all instructions
- Get specific professional hands on training in its proper use.
- Become acquainted with its capabilities and limitations.
- Understand the inherent risks involved with the use of this device.

FAILURE TO HEED OR UNDERSTAND ANY OF THESE WARNINGS MAY RESULT IN INJURY OR DEATH

WARNINGS

- Always clip this device in to your harness with a locking carabiner. Be sure that you attach the carabiner and device according to your harness manufacturer's instructions.
- Make sure hair, loose clothing and your brake hand do not get caught in the device during use.
- Never take your braking hand off the rope or ropes, unless the devices is locked off or otherwise made secure.
- Fast rappelling or lowering can cause any device to become hot and possibly damage the rope sheath or your harness, as well as burn you. We recommend a speed of less than 10m per minute.
- New dry treated ropes and smaller diameter ropes feed through belay/rappel devices faster, which can be more difficult to control when belaying or rappelling.
- If you are using soft/ worn ropes or ropes with loose sheaths, understand that sheath bunching can occur. This can cause the rope to jam in the device.
- Always consider how best to carry out a rescue in case you or others are in trouble. (See next page).

UL CERTIFIED SAFETY US MH46963

THE DELTA VEE FIRE MEETS THE AUXILIARY EQUIPMENT AND DESCENT CONTROL DEVICE REQUIREMENTS OF NFPA 1983, INCORPORATED IN THE 2022 EDITION OF NFPA 2500.

AUXILARY EQUIPMENT RATED FOR GENERAL USE (G) MBS 44 kN

DESCENT CONTROL DEVICE RATED FOR GENERAL USE (G) FOR ROPE DIAMETERS 11-12.5MM. THIS DESCENT CONTROL DEVICE HAS PASSED THE MANNER OF FUNCTION AND HOLDING LOAD TESTS USING THE FOLLOWING ROPE:

- CMC, G11 LIFELINE, 283112, 11MM
- PMI, MAX WEAR HUDSON CLASSIC PROFESSIONAL, RR125OW046M, 12.5MM

Additional information regarding Descent Control Devices and Auxiliary Equipment can be found in NFPA 1500 and NFPA 1858 and NFPA 1983, incorporated in the 2022 edition of NFPA 2500.

LOG:

The sample log suggests records that should be maintained by the purchaser or user of rescue

Equipment Inspection and Maintenance Log

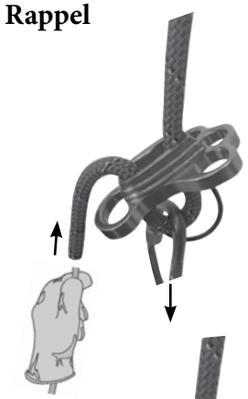
Item _____ # _____ Date in Service _____

Brand/ Model _____ Strength _____

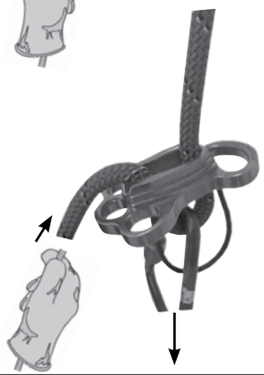
Date	How used/ Maintained	Comments	Name

Basic Rappel

Less friction-
In feed line on round side.

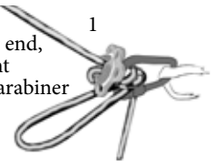


More friction-
In feed line on "V" side.

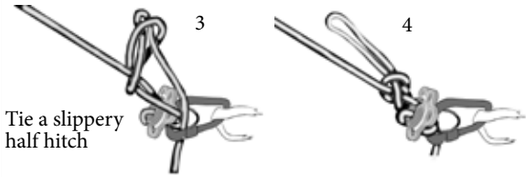


Tying off the ΔV Fire

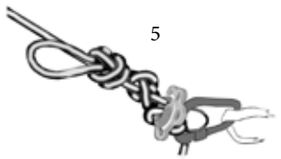
Using free end, pull a bight through carabiner



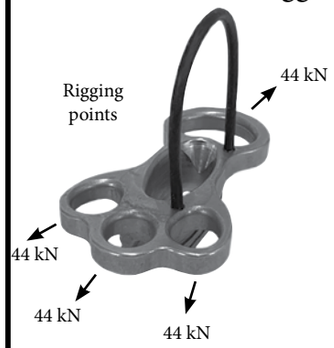
Tie a slippery half hitch

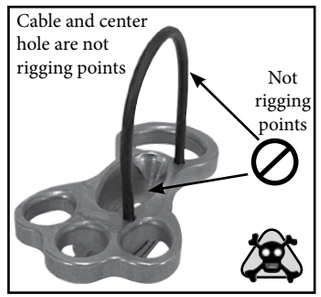


Finish with an overhand safety

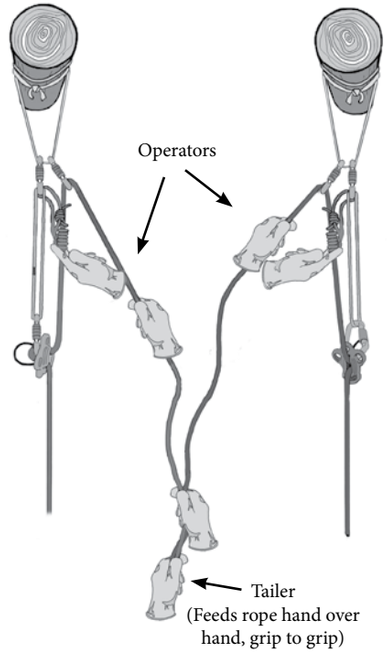


Rigging plate



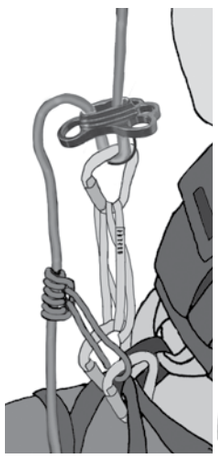


Component Based Lower Rescue system

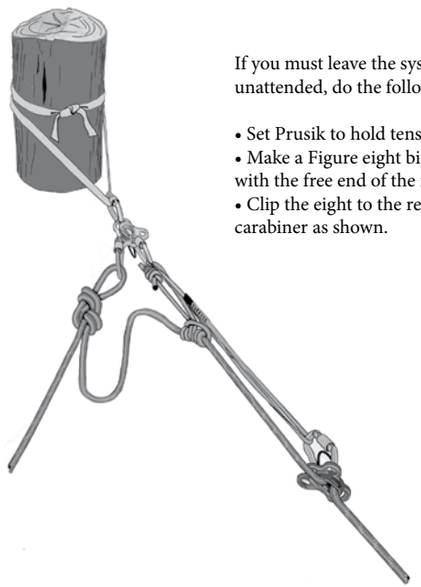


Extended Rappel

- Extend your ΔV Fire up to roughly chin level.
- Use a Prusik attached to rappel point of your harness as a back up / auto stop.
- Size Prusik and extension so that the Prusik cannot reach the ΔV Fire.
- It is recommended that an extension and backup Prusik should be used for any rappel during mountaineering, or rescue operation.



Tying off a rescue System (Lower)



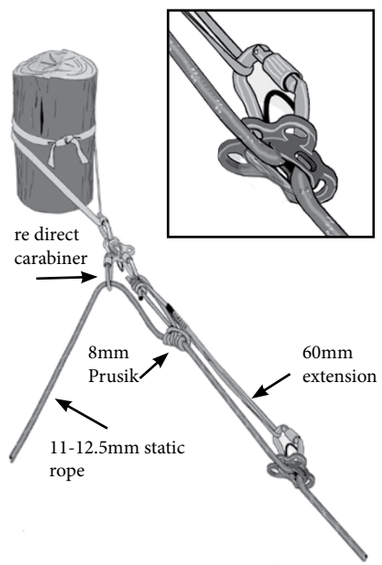
If you must leave the system unattended, do the following:

- Set Prusik to hold tension.
- Make a Figure eight bight with the free end of the rope.
- Clip the eight to the redirect carabiner as shown.

Component based rescue lower

WARNING

Component rescue lower is an advanced technique, and should not be attempted without professional instruction and practice in a controlled environment. (For more in depth information on this technique, refer to the "Technical Rescue Riggers Guide" 4th ed by Rick Lipke)



Component based rescue system points

- All carabiners should open DOWN and away from obstacles. Micro oscillations caused by a tensioned main line running over objects can vibrate screw gates open.
- Use High Directional Anchors (HDA) when ever possible.
- Rig so that there is a minimum of 3m of rope in service for 12.5mm rope and 5m of rope for 11mm rope between the lowering device and the patient /rescue package.
- DCD extension should be about 60 cm long, and have a breaking strength of ≥ 20kN
- During lowering operations, make sure that the tailer feeds the ropes HAND OVER HAND, GRIP to GRIP, and not simply sliding the rope through hands.
- Rope tail(s) must be secured to an object, "closing the Loop", so that they cannot run free through the system.
- Any DCD will cause a rope to break below its rated strength. This is called the "position of function" strength. The Delta-Vee Fire causes an 11mm nylon or polyester static rope to break at about 17kN, and a 12.5mm nylon or polyester static rope to break at about 20kN. This is important because it directly relates to margins of safety. More information is available in the "Technical Rescue Riggers Guide" 4th ed by Rick Lipke.