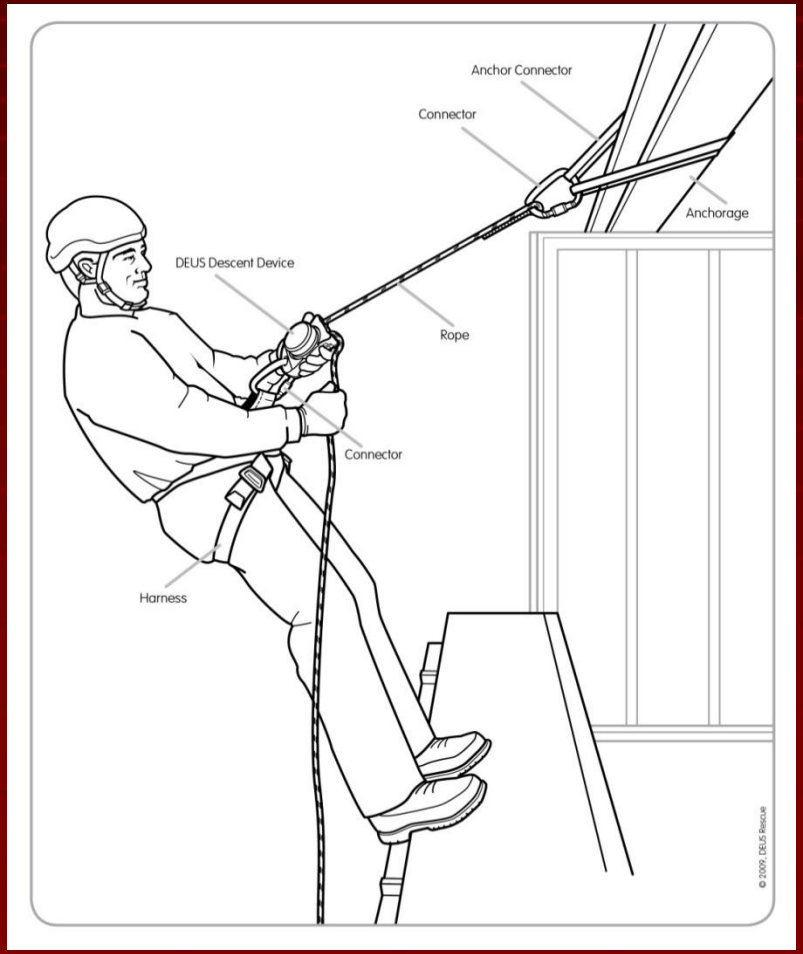
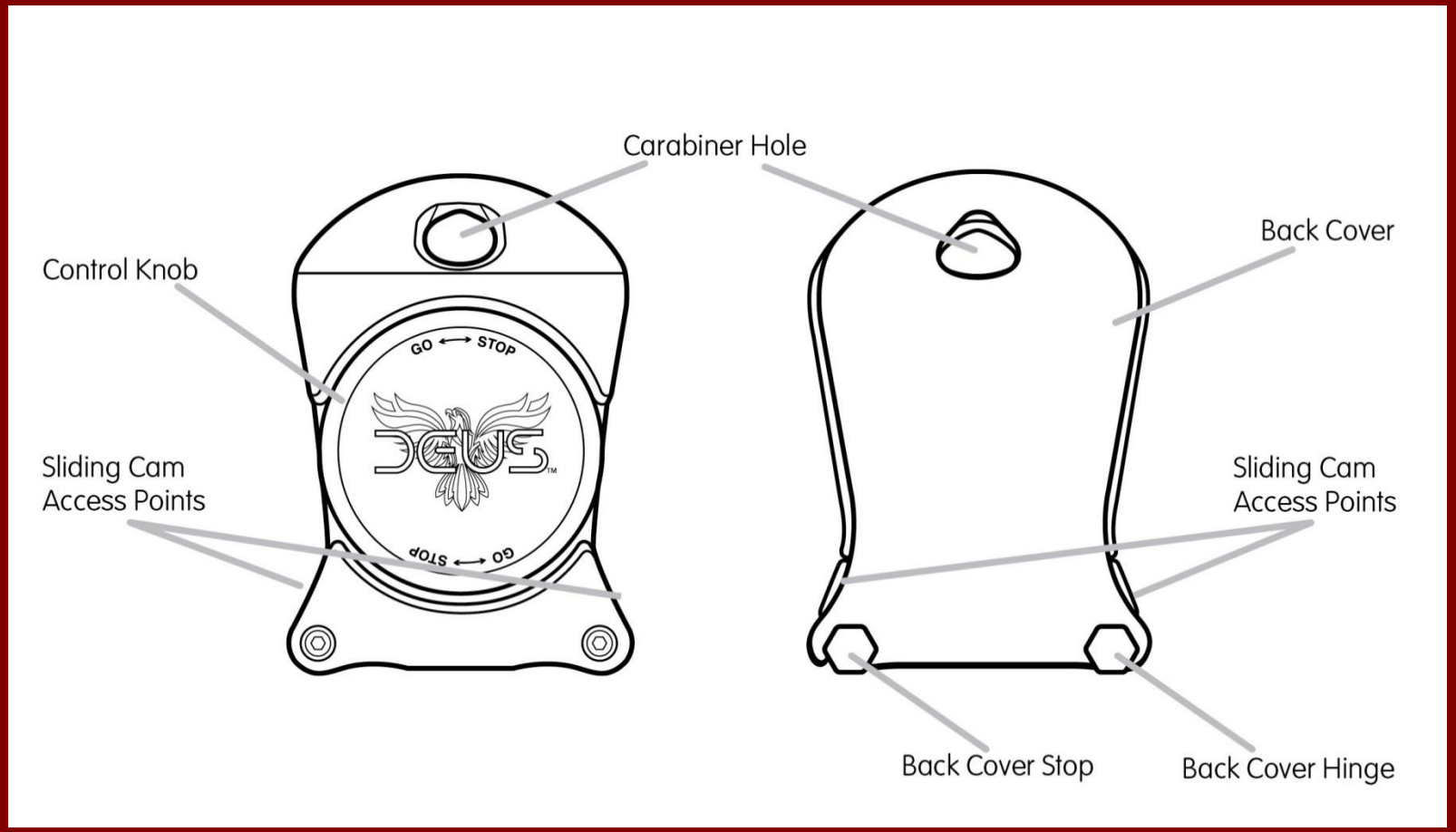
Rush Fire District
DEUS Training

Firefighter Bailout

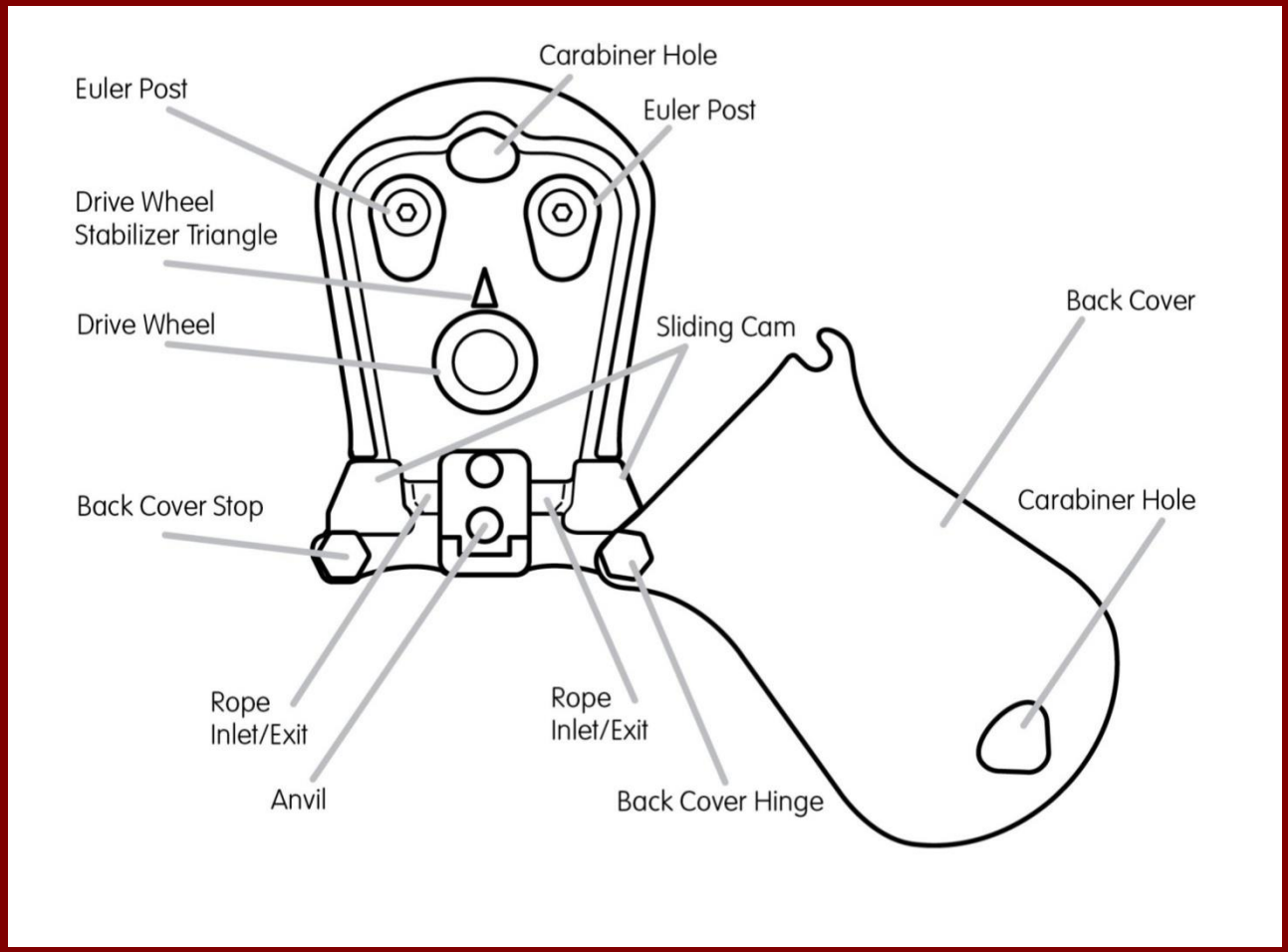
Parts of a Vertical Descent/Rescue System



Parts of a DEUS 3000-Series Controlled Descent Device



Parts of a DEUS 3000-Series Controlled Descent Device

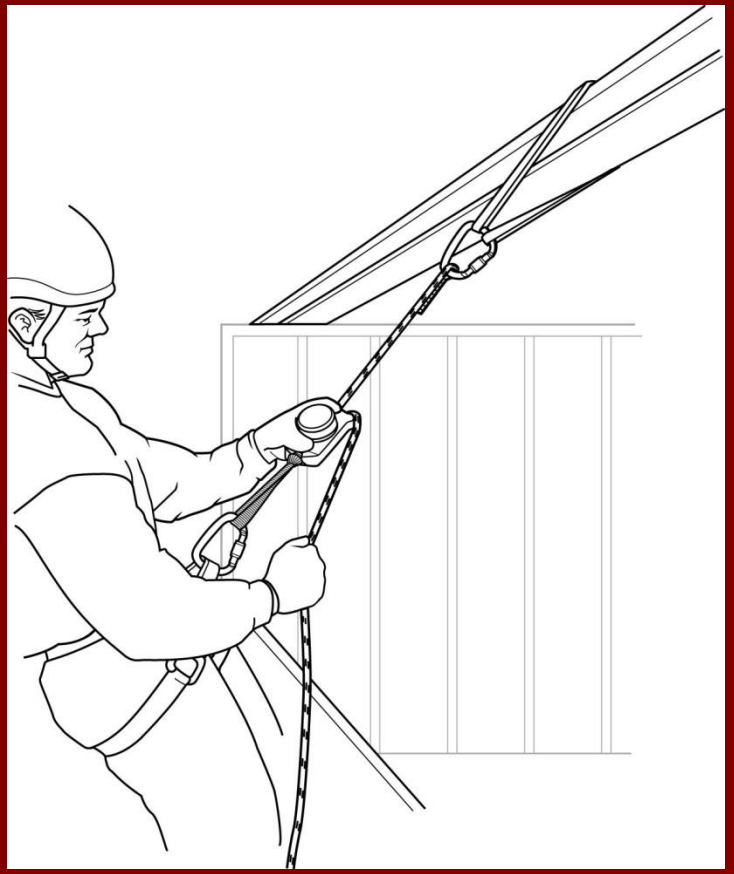


Rigging a DEUS 3000-Series Controlled Descent Device

“Escape” Rigging with webbing sling

“Soft” connection

Device is connected to user and anchor is connected to one end of rope. User controls descent.

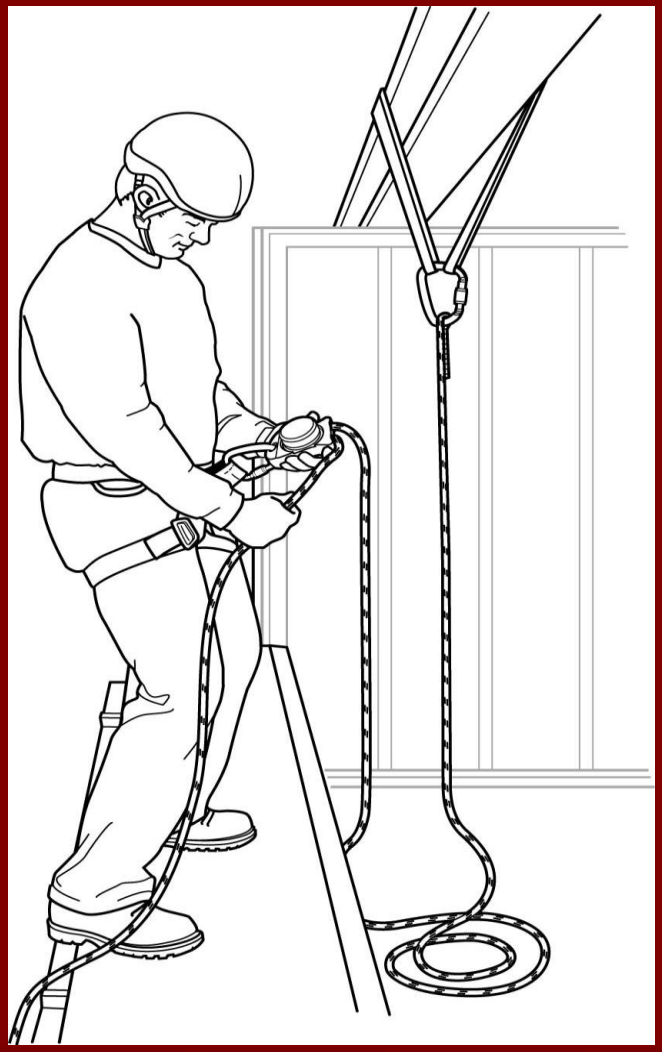


Rigging a DEUS 3000-Series Controlled Descent Device

Incorrect Rigging

Remove all slack in the descent system before beginning descent.

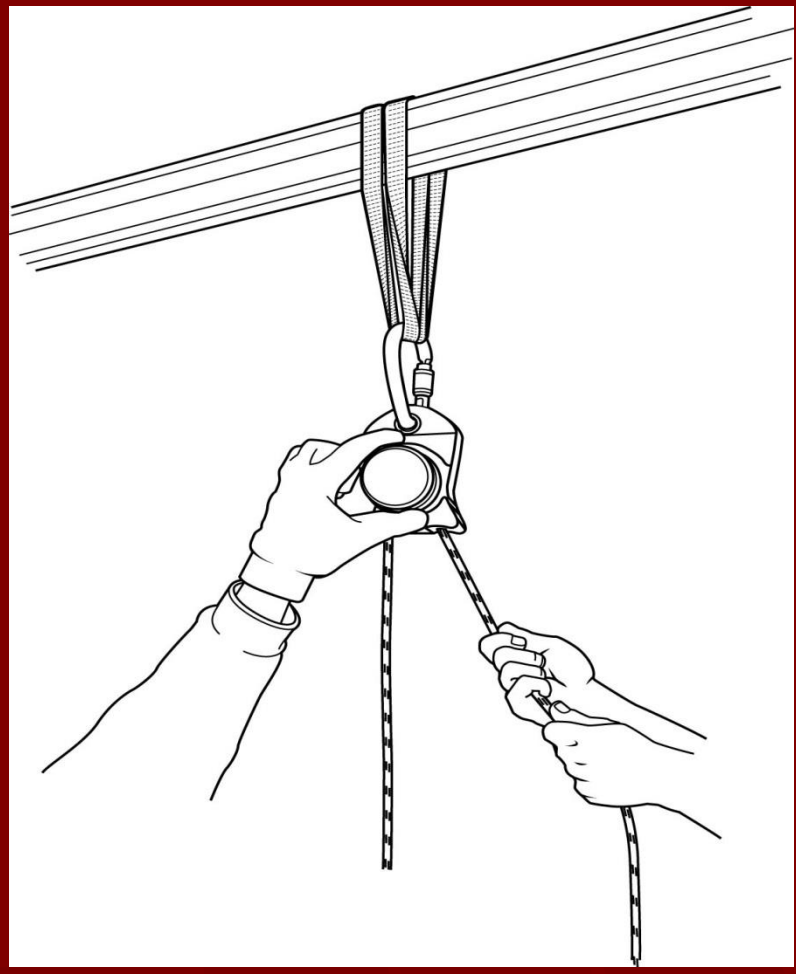
Impact loading of a descent system can cause serious injury or death.



Rigging a DEUS 3000-Series Controlled Descent Device

“Rescue” Rigging to a high anchor

Device is connected to anchorage and person descending is connected to one end of rope. Rescuer controls descent.



Rigging a DEUS 3000-Series Controlled Descent Device

“Rescue” Rigging to a low anchor

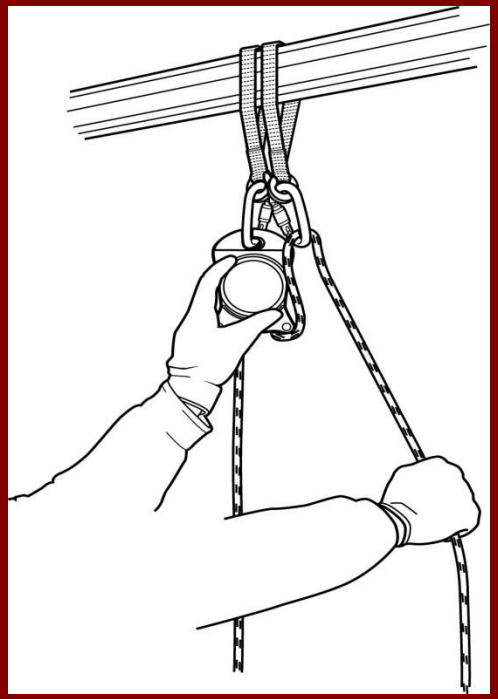
Device is connected to an anchorage and person descending is connected to one end of rope. Rescuer controls descent.

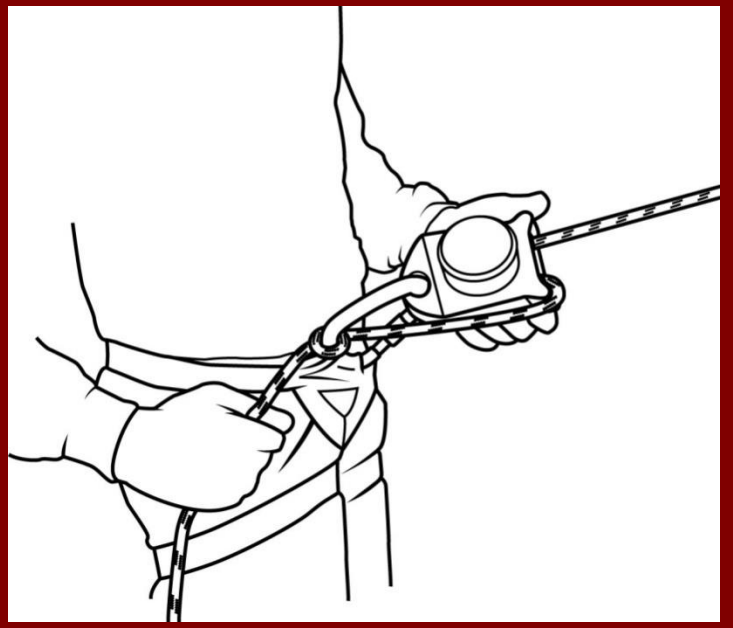
Using the Control Knob

Turn clockwise to stop and counterclockwise to go

Two fingers is enough – no need to over-tighten or over-loosen

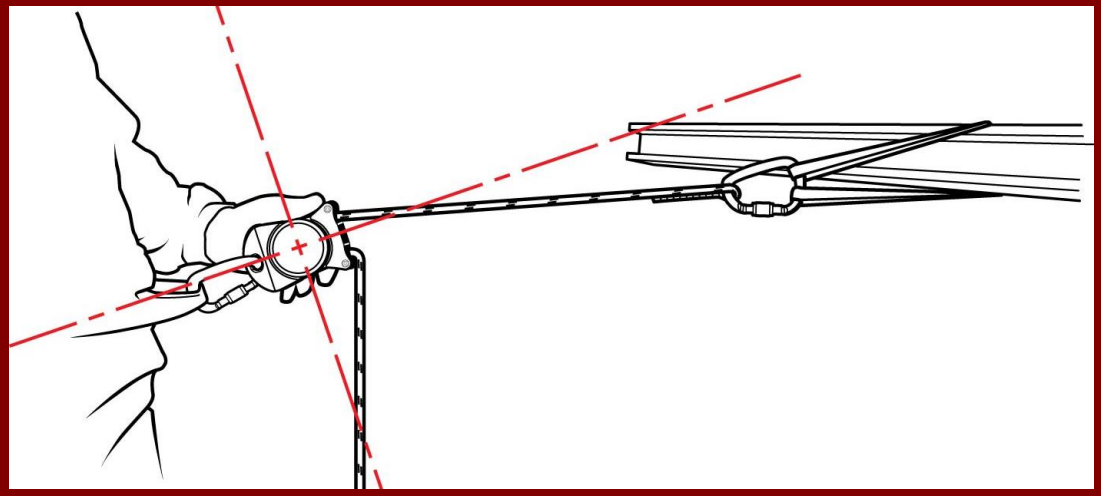
Manual Braking





Manual braking of a DEUS 3000-series controlled descent device is accomplished by: a) manually controlling the flow of rope through the device by holding the tail of the rope with a gloved hand, and b) bending the rope over a rounded objected to increase Euler friction.

Releasing Rope Tension



To release rope tension for horizontal travel:

1. Turn the control knob all the way to the “go” position
2. Release all tension on the free end of the rope
3. Rotate the frame of the DEUS 3000-series device so that the tensioned side of the rope crosses the centerline of the frame OR center the sliding cam by pressing the extended side
4. Back away from the anchor

Releasing Rope Tension

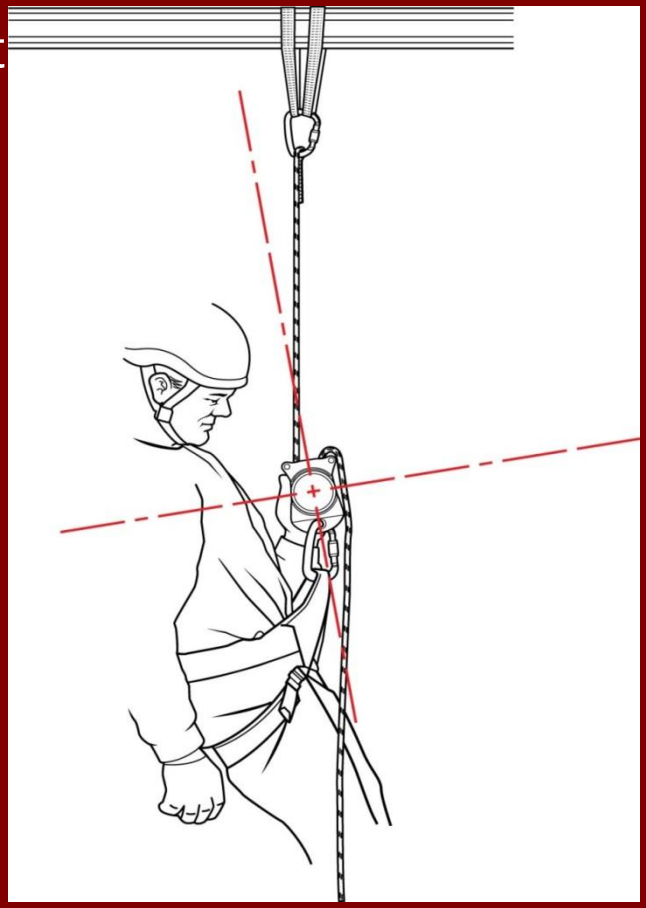
To manually pull rope through the device:

1.Turn the control knob all the way to the “go” position
2.Position both sides of the rope so they are parallel to the centerline of the device.
3.Center the sliding cam with your fingers.
4.Pull the side of the rope you want lengthened.

Releasing Rope Tension

To release rope tension to increase descent speed in “Escape” mode:

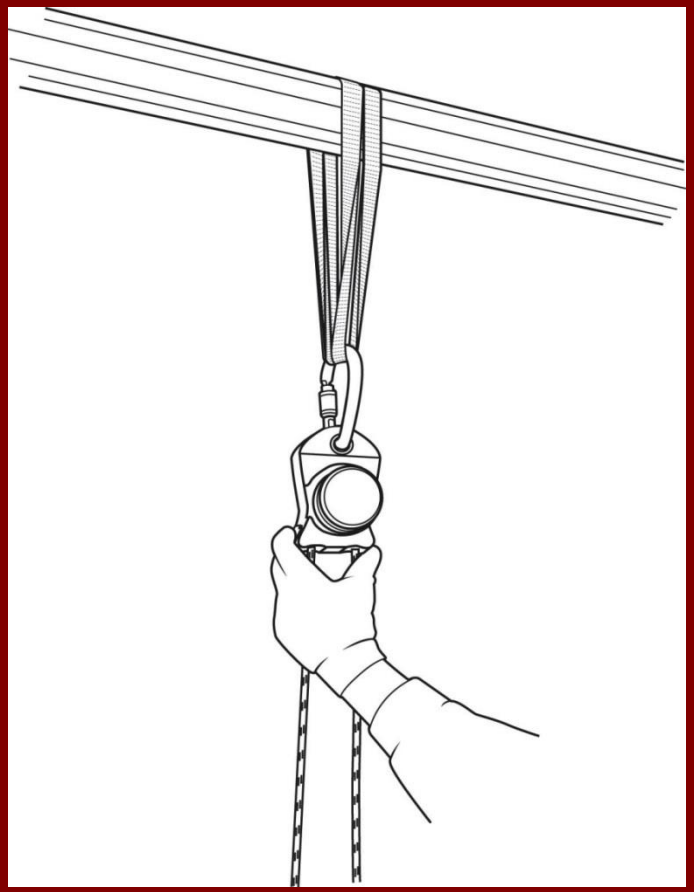
1.Turn the control knob all the way to the “go” position
2.Release all tension on the free end of the rope
3.Rotate the frame of the DEUS 3000-series device so that the tensioned side of the rope approaches crossing the centerline of the frame OR center the sliding cam by pressing the extended side
4.Release to resume normal speed



Releasing Rope Tension

To release rope tension to increase descent speed in “Rescue” mode:

1.Turn the control knob all the way to the “go” position
2.Release all tension on the free end of the rope
3.Center the sliding cam by pressing the extended side
4.Release to resume normal speed



Care & Maintenance

- Check the rope path
- The drive wheel triangle
- Main body bolts (tightness)
- Sliding cams
- Control knob (smoothness)
- Full stop/drive wheel stops
- Full/go drive wheel goes
- Cover closes smoothly
- Main body (bends/cracks)
- Device closes smoothly (w/rope)

Transition

- Transition is the most dangerous part of ANY controlled descent

Numbers to Remember

- Maximum hands-free descent velocity
  - 3 meters per second

Numbers to Remember

Expected life of ropes

- Fire Brite-

  One time use

- Training-

  50 descents

- 7.5 mm diameter

FSterling SafeTech 8 mm Fire Escape Rope

- Polyester sheath
- Technora (400˚ +)
- Nylon inner core

Technora is one of the newest and highest strength fibers available. Stronger than steel with very low stretch and no creep. Excellent abrasion resistance.

Numbers to Remember

How many brakes are in the system?

4

- Disc brake
- Centrifugal
- Figure 8
- Manual tailing

** (sliding cams)**

Big Brother

DEUS 7300T

- Direct drive centrifugal brake
- Hands-free operations
- Soft engagement
- Speed limited 3m/sec
- Works in either direction

Big Brother

- Uses DEUS 12mm rope only
- Certified NFPA 1983 standard
- System certified 22kN MBS

  22kN=5000 lbs

We ALWAYS Use A Safety in Training!

T12 Lanyard

- 12” long
- Sewn from two 3/4” layers of 5000 lb Technora webbing
- Certified by UL to meet the NFPA1983
- “Bow tie” in front
- Heat resistant to 930° F

Keeping Records

Descent Number	Date	Descent Length	Rope Condition	Inspected By
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				

IMPORTANT! This log must be kept with the FLC descending unit and filled out after each use.
The rope must be replaced with a new AES LifeCender Technora® replacement rope only!
DO NOT USE ANY OTHER TYPE OF ROPE WITH THE FLC DESCENTING UNIT!

Trainers should keep records of:

- Department training
- DEUS 3100s
- Rescue ropes
- Training Ropes

Rapid Deployment

By having your DEUS 3100, escape rope and hook prepackaged there is little time lost when you decide to GO!

Packing the System

- Stuff the rescue rope into the pouch
- For Right side deployment Flash hook opposite the hinge side.
- “Anchors Away”
- For Left side Deployment Flash hook at the hinge side.
- “Hook to the Hinge”

Packing the System

Attach the lanyard to the DEUS 3100

When inserting the lanyard the twist goes back to front.

GIRTH

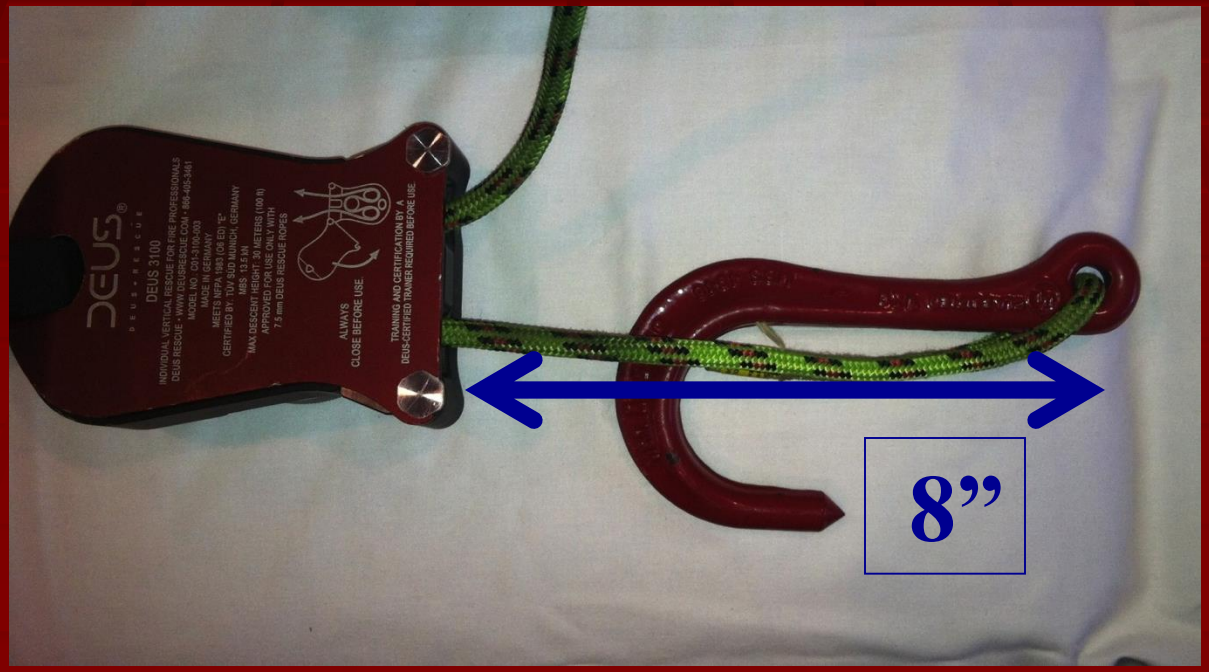
BASKET

Packing the System

Stuff all DEUS rope into the Pequa pouch.

Packing the System

Leave approximately 8” of rope from the Flash hook to the DEUS 3100



Packing the System

- Lay the DEUS 3100 into the Pequa pouch.
- The knob of the DEUS should face away from the label. (towards the body)
- The hook end of the rope should be on top.

Packing the System

- Lay the rope over the top of the velcro and close the flap of the pouch.
- Slide the Flash hook into the keeper as pictured.

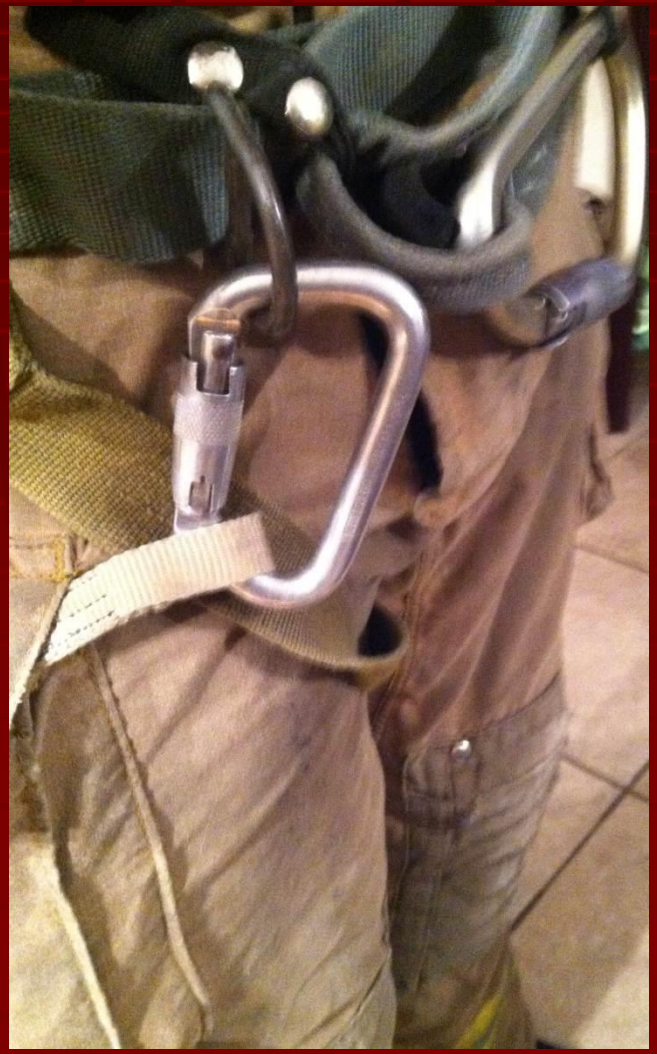
It is very important that the rope lay over the velcro for proper deployment of the system.

Packing the System

Place DEUS system into your bunker Pant pocket.

Packing the System

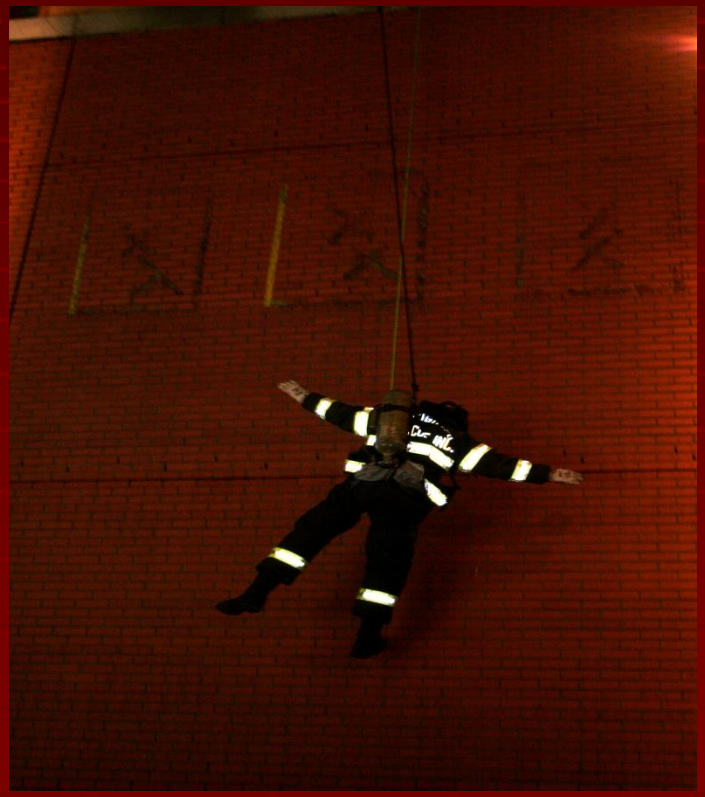
- Attach Lanyard to sliding “D” ring of the harness with a self locking carabiner



Deployment of System

- Reach into pocket
- Grab Flash hook
- Pull straight up and away from pocket
- DEUS 3100 and rope will pull clear
- Place hook to window sill and descend safely

Sometimes- It's Just Time To Go!



Get out safely, even when there are NO ladders around!

Firefighter Survival

Why do firefighters end up in life threatening situations?

What are the warning signs?

What actions can be taken?

Firefighter Survival

- Failure to recognize deteriorating conditions

Firefighter Survival

- Trucks getting into position ahead of hoseline- Rabbit Tool
- Tight stairs/small landings
- Altered buildings
- Arrival sequence
- Available manpower

  “Crew size”

Why Firefighters Get Trapped

Water Loss

Equipment Malfunction

- Burst length
- Hydrant OOS
- Pump problems

Water Delay

- Slow line placement

Why Firefighters Get Trapped

- **Modern PPE**
- Encourages More Aggressive searches
- Decreases Ability To Identify Changing Conditions
- **Poor Air Management**
- **Building Collapse**
- **Poor Communication**

Failure to Pass On Critical Information

Why Firefighters Get Trapped

- Failure To Monitor Handi-talkie
- Failure To React To Incoming Information
- Failure To Notify When Encountering A Problem

Proper Size-Up

- If you’re an additional unit - what’s your assignment?
- Info starts at receipt of alarm
- Progress reports
- Additional info en-route

Proper Size-Up

- Occupied Vs. Vacant
- Residential Vs. Commercial
- Room/Contents Vs. Structure
- Building Under Renovation
- Weather Conditions

Proper Size-Up

- All Members Must Evaluate The Situation
- Is The Action You Are Taking Justified?
  - Residential/Commercial
  - Occupied/Vacant
  - People Trapped/Dead

Risk Vs. Reward

- Can A Search Be Conducted Under The Protection Of A Handline?

Do Not Risk Your Life For A Building!

There Is Much More To Discuss

But That's Another Class!