uninsured United Parachute Technologies LLC.









VECTOR SE

Users Manual

Student Addendum Version to the Vector 3 Manual





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WARNING

Sport parachuting is a hazardous activity that can result in injury or death.

Parachutes sometimes malfunction, even when they are properly designed, built, assembled, packed, maintained and used. The results of such malfunctions are sometimes serious injury or death.

The U.S. Parachute Association estimates that there about 35,000 skydivers in the USA, and these jumpers made approximately 2.2 million jumps in 2001. The association reported 35 skydiving fatalities that year, meaning the probability of dying on a skydive is approximately 1 in 64,000. Experts estimate that hundreds of people are also injured.

Some of these deaths and injuries are the result of equipment malfunction.

If you use your Vector SE, or if you allow someone else to use it, you are acknowledging sport parachuting's risk and accepting the fact that the Vector SE and its components may malfunction. If you are not willing to accept the risks of sport parachuting, or if you are not willing to accept the possibility that your Vector SE or its components may malfunction and perhaps cause you to be injured or killed, then you may return your Vector SE for a full refund before it is used. Details on how to do this are printed below.

This manual is applicable to the Vector 3 bearing the serial number:

DISCLAIMER – NO WARRANTY

Because of the unavoidable danger associated with the use of this harness and container assembly, the manufacturer (The Uninsured United Parachute Technologies, LLC) makes no warranty, either expressed or implied. This rig is sold with all faults and without any warranty of fitness for any purpose. The manufacturer also disclaims any liability in tort for damages, direct or consequential, including personal injuries, resulting from a malfunction or from a defect in design, material, workmanship or manufacturing whether caused by negligence on the part of the manufacturer or otherwise.

By using this rig, or allowing it to be used by others, the buyer waives any liability for personal injuries or other damages arising from such use.

If the buyer declines to waive liability on the part of the manufacturer, buyer may obtain a full refund on the purchase price by returning the parachute harness and container, before it is used, to the manufacturer within 30 days from the date of original purchase with a letter stating why it was returned.

Take note that neon and fluorescent colored fabrics and tapes fade rapidly. Color brilliance may be lost within a year of manufacture. The Uninsured United Parachute Technologies, LLC, Inc assumes no responsibility for this action.

Save this manual, your rigger may not have an applicable manual and will need it to service your Vector SE. This manual does not cover the correct assembly and packing procedures for the older Vector models.

The Vector-SE Student Container

Why: In 2002 UPT decided that an upgrade to the then Vector 2 student rig was required. We had already stopped production of the Vector 2 sport system, but we had continued to produce the Vector 2 student system as a low cost alternative to DZO's, but we identified a need to keep up with the times and update to the latest technology of the day.

Engineering: We went about the design in the following fashion. First of all we wanted a container that was still cost effective, comfortable, easy to use and easy to maintain - while also utilizing the latest technology to ensure the safest container for low experience jumpers. Many other manufacturers had gone the route of adding student options to their sport rig, which is not very cost effective and is difficult to maintain, with features not necessarily beneficial to student operations.

Comfort: We based the backpad and yoke on our already popular Vector 3 container - we also added extra foam padding to the legpads with double wide webbing. The legpads also have a simple form of adjustment to fit a wider range of jumpers.

Cost: We purposely costed the container below that of our sport container. We were able to do this by simplifying the container without compromising safety and strength. For example, we changed the centre flap design to a 3 stripe instead of a 5 stripe design which saved an hour of production costs. We also removed the full wraparound corners of the main container, but still maintained excellent bridle protection. We reduced the amount of options available thus requiring less time in the production and inspection process.

Ease of use: We removed the internal riser covers to make packing simpler for inexperienced jumpers. We also added the reserve and AAD windows so instructors could perform more effective gear checks without opening flaps, especially useful in smaller aircraft. The external riser covers were designed to be easily replaced. All components are less expensive to replace, adding to your bottom line.

Technology and safety: The Skyhook system was made a standard feature on all SE containers. This is the latest greatest reserve deployment system. This feature adds to the wellbeing and confidence of the student after a cutaway, besides getting the reserve out in about 33 meters. This container is also built with UPT's usual high standard of quality and support to ISO 9001:2000 standard.

SE PART IDENTIFICATION



PILOT CHUTE ASSIST

(OPTIONAL) P/N 045-005-002

DIRECT BAG ASSIST

(OPTIONAL) P/N 045-005-001

BRIDLE EXTENTION LOOP

ALSO USED FOR DIRECT BAG ASSIST (OPTIONAL) P/N 045-005-003



MAIN BRIDLE

FOR SPRING LOADED PILOT CHUTE (OPTIONAL) P/N 021-006-004



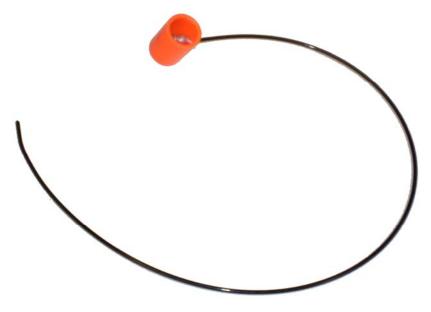
LEFT SIDE MAIN ACTIVATION

FOR SPRING LOADED PILOT CHUTE (OPTIONAL) P/N 033-005-001



LEFT OPEN BOC HANDLE

(OPTIONAL) P/N 033-005-003



MAIN RIPCORD

ORANGE TUBULAR HANDLE,
BLACK CABLE
(OPTIONAL)
P/N 033-001-001



STATIC LINE (OPTIONAL) P/N 035-001-001



MAIN SPRING LOADED PILOT CHUTE (OPTIONAL) P/N 021-006-009



MAIN HAND DEPLOYED PILOT CHUTE WITH NON COLLAPSIBLE BRIDLE (OPTIONAL)

(OPTIONAL) P/N 021-003-004



STANDARD MAIN BAG

(OPTIONAL) P/N 026-001-***



SE MAIN BAG

WITH DIRECT BAG ATTACHMENT AND WITH KICKER PLATE FOR SPRING LOADED PILOT CHUTE (OPTIONAL)
P/N 026-013-*** Rev 1

NOTE:

This deployment bag replaces both:

Main bag with direct bag attachment.
 P/N 026-013-*** Rev 0

And

 Main bag with kicker plate for spring loaded pilot chute.
 P/N026-012-***

VECTOR SE NOMENCLATURE

P/N 200-000-001





Carry Handle (OPTIONAL)

Canopy Data Sheet

Warning Label



In the pocket behind this WARNING label is the Canopy Data Sheet, TSO Label, and Packing Data Card.

PLEASE FILL OUT AND MAINTAIN THIS CANOPY DATA SHEET!!!

	MAIN	RESERVE
MAXIMUM DEPLOYMENT SPEED	KNOTS	KNOTS
MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT)	LBS	LBS
MANUFACTURER		
MODEL		
MAXIMUM DEPLOYMENT SPEED	KNOTS	KNOTS
MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT)	LBS	LBS
MANUFACTURER		
MODEL		
MAXIMUM DEPLOYMENT SPEED	KNOTS	KNOTS
MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT)	LBS	LBS
MANUFACTURER		
MODEL		
MAXIMUM DEPLOYMENT SPEED	KNOTS	KNOTS
MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT)	LBS	LBS
MANUFACTURER		
MODEL		
MAXIMUM DEPLOYMENT SPEED	KNOTS	KNOTS
MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT)	LBS	LBS
MANUFACTURER		
MODEL		

INSTALLING THE LEFT OPEN BOC HANDLE



1. First, make sure the Velcro, yellow Lolon cable and spandex are in good serviceable condition.



2. Begin by threading the yellow Lolon cable through the first loop on the container then the next on the spandex pocket.



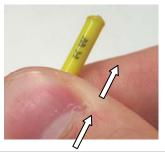
3. Continue threading all the way across finishing with the end loop on the container.

Mate handle to Velcro and stow excess cable in end channel as shown.

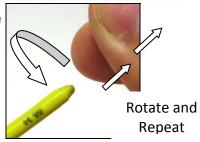
NOTE:

New cables may need to be trimmed to fit and the end smoothed. See following burning tip.









INSTALLING THE RIPCORD (SPRING LOADED PILOT CHUTE)



1. Insert black ripcord cable into channel as shown.

NOTE:

New ripcord cable may need to be trimmed. Trim at 5" to 8" past the grommet. Heat the ends with a lighter and carefully smooth the ends with your finger.

See tips on previous page.

ATTACHING THE BRIDLE LINE (SPRING LOADED AND HAND DEPLOY PILOT CHUTE)



ATTACHING THE BAG AND BRIDLE LINE Methods A and B



Method A

NOTE:

If your Drop Zone does not use Direct Bag Static Line, this method is probably best for you.

Pass the red Type 17 attachment through the canopies pilot chute attachment (PCA), then through the grommet to the outside of bag.



View from outside of the bag



Use a larks head knot to attach the bag stop end of the bridle to the <u>RED Type 17</u> static line attachment.

- Main Canopies PCA

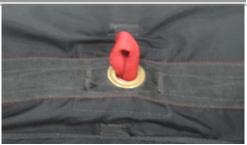


Method B:

NOTE:

If your Drop Zone <u>uses Direct</u> <u>Bag Static Line</u>, this method is probably best for you.

When switching between different deployment systems, this method will insure an inexperienced packer doesn't inadvertently attach the static line to the top of the parachute.



Pass the bag stop end of bridle line through the #4 grommet.



Then attach to the canopies PCA with a stainless steel #4 or #5 Rapid link.

INSTALLING THE LEFT SIDE MAIN ACTIVATION HANDLE

(SPRING LOADED MAIN PILOT CHUTE)



Mate the hook Velcro of the activation handle to the pile Velcro on the left side flap as shown.



NOTE:

If the rig is equipped with a left open BOC, the handle should be relocated to the inside of the pouch. This is to insure it will not interfere with the primary left side handle in any way.

Please refer to the two (2) following methods.



Method A:

Push the handle to the right as show, and then mate the pile Velcro from the spandex pocket to the hook Velcro on the back side of the handle.



Method B:

Fold a 7 ½" piece of hook Velcro in half and sew it together on 5 sides.



Push the handle to the right then attach this double sided piece of hook Velcro to the BOC to close it off.



The 3 ¾" sandwiched Velcro will hold release handle inside the BOC pouch.

NOTE:

When adding hook Velcro to anything, always make sure the hook piece is shorter than its pile mate.

ATTACHING THE PILOT CHUTE ASSIST (SPRING LOADED PILOT CHUTE)



Using a Larks Head knot, attach the static line assist to the pilot chute and static line.

- Out-ward facing pile Velcro on the pilot chute.
- In-wards facing hook Velcro on the static line.

The two (2) are then mated together as shown.

ATTACHING THE PILOT CHUTE ASSIST (HAND DEPLOY PILOT CHUTE)

Using a Larks Head knot, attach the static line assist to the pilot chute and static line.

NOTE:

- Ensure the pilot chute assist passes through the main bridles knot when forming the larks head knot. This is to ensure the pilot chutes thin 3/8" support tapes don't take any of the loads on deployment.

- Out-ward facing pile Velcro on the bridle/with pilot chute.
- In-wards facing hook Velcro on the static line.

The two (2) are then mated together as shown.

ATTACHING THE STATIC LINE (DIRECT BAG DEPLOYMENT)



Pass the red Type 17 though the grommet as shown.

NOTE:

This deployment bag replaces both:

Main bag with direct bag attachment.
 P/N 026-013-*** Rev 0

And

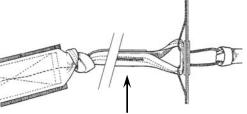
 Main bag with kicker plate for spring loaded pilot chute.
 P/N026-012-***



Attach the end of the loop end of static line to the Red Type 17 loop with a Larks Head knot.

NOTE:

Optionally, the direct bag assist (*originally used for round parachutes*) may be installed.



W/ Bridle extension loop

NOTE:

DO NOT ATTACH THE MAIN PCA TO THE BAG!!!

MAIN CLOSING



All main container closing instructions in this manual begin with the:

- ➤ MAIN CANOPY ASSEMBLED
- ➢ BRAKES ALREADY SET
- CANOPY FOLDED
- CANOPY BAGGED
- > AND LINES STOWED

As shown to the left.

Please refer to the Vector 3 manual for all the fore mentioned instructions as needed.

MAIN CLOSING INSTRUCTIONS

BOC (HAND DEPLOY PILOT CHUTE) WITH LEFT OPEN BOC HANDLE

Packing a Vector SE with the BOC (hand deployed pilot chute) is no different from the sport model. Please refer to the sport manual for closing instructions.

RIPCORD (SPRING LOADED MAIN PILOT CHUTE) WITH LEFT SIDE MAIN ACTIVATION



NOTE:

The Velcro on the center flap is not used for this application. Therefore it is smart to cover it with a piece of pile Velcro so it cannot come into contact with anything.



Lay bagged canopy in pack tray with the lines facing to the bottom of container as shown.



After laying the deployment bag into the container (lines down) neatly tuck the risers down along side of the reserve container and close riser covers.

NOTE:

Make sure the risers lay on top of the riser cover tuck pocket.



Neatly figure 8 the entire bridle and lay it on the top of the bag.



Thread a pull-up cord onto the 2" closing loop as shown then pass it through the center of the pilot chute spring and out the grommet in the top.

Center base of the pilot chute on the bag and compress. Gather the pilot chute fabric around the base.

Use the black ripcord cable to pin and hold in place.





Thread the pull-up cord though the bottom flap and close.

At this point pinning to hold in place is not necessary if you're kneeling on top of the pilot chute and container.



Thread the pull-up cord though the top flap and close.



SEE IMPORTANT WARNING NEXT PAGE!

Thread the pull-up cord though the left then right side flaps and before closing, pass the ripcord cable through the left side main activation lanyard as shown.

NOTE:

Always close ripcord/right side **LAST**!!!

WARNING:

With a ripcord (*spring loaded pilot chute*) and left side main activation handle, do not close the left side flap last.



The left side main activation lanyard can catch on the side flap.



MAIN CLOSING INSTRUCTIONS PILOT CHUTE ASSIST STATIC LINE (SPRING LOADED MAIN PILOT CHUTE)



NOTE:

The Velcro on the center flap is not used for this application. Therefore it is smart to cover it with a piece of pile Velcro so it cannot come into contact with anything.



Lay bagged canopy in pack tray with the lines facing to the bottom of container as shown.



After laying the deployment bag into the container (lines down) neatly tuck the risers down along side of the reserve container and close riser covers.

NOTE:

Make sure the risers lay on top of the riser cover tuck pocket.



Neatly figure 8 the entire bridle and lay it on the top of the bag.





Thread a pull-up cord onto the 2" closing loop as shown then pass it through the center of the pilot chute spring and out the grommet in the end.

Center base of the pilot chute on the bag and compress. Gathering the pilot chute fabric around the base.

Use the black ripcord wire to pin and hold in place.

NOTE:

The type of aircraft used will determine what side the static line is routed. If the door is on the left side of the aircraft, the static line should be routed out the right side of the container as show below. On a right door aircraft the static line should come out the left.



Thread the pull-up cord through the bottom flap first, then the top/center flap second and close simultaneously.

NOTE:

Pinning is not necessary at this point if you stay on top of it.



Thread the pull-up cord through the right side flap and draw it to the center.



Thread the pull-up cord through the left and last side flap.

Close and pin as shown.

SEE STOWING THE STATIC LINE ON PAGE 31

MAIN CLOSING INSTRUCTIONS PILOT CHUTE ASSIST STATIC LINE (HAND DEPLOY PILOT CHUTE)



NOTE:

The Velcro on the center flap is not used for this application. Therefore it is smart to cover it with a piece of pile Velcro so it cannot come into contact with anything.



Lay bagged canopy in pack tray with the lines facing to the bottom of container as shown.



After laying the deployment bag into the container (lines down) neatly tuck the risers down along side of the reserve container and close riser covers.

NOTE:

Make sure the risers lay on top of the riser cover tuck.



Neatly figure 8 the entire bridle and lay it on the top of the bag.





Neatly S-fold the pilot chute and lay on the center of the main bag.

NOTE:

The type of aircraft used will determine what side the static line is routed. If the door is on the left side of the aircraft, the static line should be routed out the right side of the container as show below. On a right door aircraft the static line should come out the left.



Thread the pull-up cord through the bottom flap first, then the top/center flap second and close simultaneously.



Thread the pull-up cord through the right side flap and draw it to the center.



Thread the pull-up cord through the left and last side flap.

Close and pin as shown.

SEE STOWING THE STATIC LINE ON PAGE 31.

MAIN CLOSING INSTRUCTIONS DIRECT BAG STATIC LINE



NOTE:

The Velcro on the center flap is not used for this application. Therefore it is smart to cover it with a piece of pile Velcro so it cannot come into contact with anything.



The Canopies Pilot Chute Attachment (PCA) MUST BE DISCONECTED FROM THE INSIDE OF THE BAG. Please follow the instructions on page 17 (ATTACHING THE STATIC LINE (DIRECT BAG DEPLOYMENT)

Lay bagged canopy in pack tray with the lines facing to the bottom of container as shown.

After laying the deployment bag into the container neatly tuck the risers down along side of the reserve container and close riser covers.



NOTE:

Make sure the risers lay on top of the riser cover tuck.



NOTE:

The type of aircraft used will determine what side the static line is routed. If the door is on the left side of the aircraft, the static line should be routed out the right side of the container as show below. On right door aircraft the static line should come out the left.



Thread the pull-up cord through the bottom flap first, then the top/center flap second and close simultaneously.



Thread the pull-up cord through the right side flap and draw it to the center.



Thread the pull-up cord through the left and last side flap.

Close and pin as shown.

STOWING THE STATIC LINE



For **LEFT** door aircraft where the static line comes out the top right side, push the excess black cable under the left side flap.



Push the excess slack static line under the flap it comes out of.



For **RIGHT** door aircraft where the static line comes out the top left side, push the excess black cable into the ripcord channel.



Close the pin cover.



Stow static line as shown.

NOTE:

Stow must be tight; double wrapping the rubber bands is strongly advised.



Stow static line snap in appropriate side spandex pocket.

ADJUSTABLE HARNESS NOMENCLATURE



DONNING AND ADJUSTING THE VECTOR SE HARNESS



Determine fit. To the left is an example of a good fit.

The leg pads may be adjusted to accommodate most all leg sizes and configurations.



If the container hangs low as shown below and chest strap sits hi, the MLW is most likely to long. If the chest strap doesn't sit hi and the rig still hangs low, the student has a very short torso.



NOTE:

Correct threading of the chest strap.



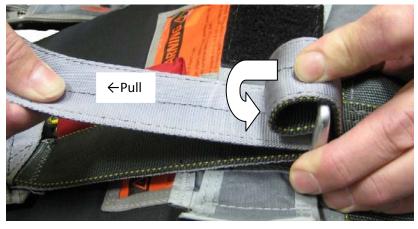


←Pull

To shorten the MLW:

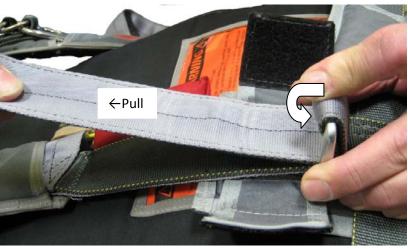
Open the Velcro covers, rotate 3 bar adapter up then push the required length of MLW through the 3 bar adapter.

As shown in the 4 photos to the left, grip with your fore finger to hold in place and pull with your opposite hand.



To Lengthen the MLW:

Open the Velcro covers, rotate 3 bar adapter up then push out to the required length of MLW through the 3 bar adapter.





Lay the 3 bar adapter back down and close the Velcro covers.

NOTE:

Make sure no hook Velcro is exposed and cannot come into contact with other parts of the rig.



Tuck the dead end onto its elastic keeper.



Stow remaining excess strap into the rear of leg pad cover.



After tightening the leg straps, thread the excess through the elastic keeper on the rear of leg strap.



The entire excess length of leg strap is pulled through.



Fold/roll up excess and stow in keeper as sown.

DONNING THE VECTOR SE FIXED HARNESS

NOTE:

The Vector SE fixed harness is no different from the sport model. Please refer to the Vector 3 sport manual for donning instructions.

FXC INSTALATION

NOTES:

- 1. The Vector SE does not come setup standard for the FXC model 12000 Installation. It must be ordered specifically for FXC model 12000 use.
- 2. Please refer to the FXC model 12000 manual and regularly check for any recent product service bulletins.
- 3. Fitting an FXC to a Vector SE reserve container requires altering it from its original form and should be done only by a Master Parachute Rigger or Equivalent.

VECTOR SE MOUNTING INSTRUCTIONS



Mark the center of the #6 closing flap, using a straight edge as shown to the left.



With the FXC Armed and in the off position, insert the RLS pin into the FXC terminal ends.

Lay the mounting bracket in place and mark for the mounting holes.



NOTE:

After mounting the housing, the FXC marine eye terminal end should be able to just touch the grommet as shown.

Check this before punching the holes.



CAREFULLY punch the 2 mounting holes using a 1/8" (3mm) punch.

NOTE:

Make sure nothing is in the way when punching.





After punching the holes, center and sew a piece of 1"x 2" Velcro to the back side of the #6 closing flap. Then transfer the holes through the Velcro.

Lightly searing the holes afterword is optional.



Insert power unit into the provided pocket located in the left side reserve pack tray exactly as shown.



Hand tack pocket closed using supper tack or equivalent.



View of hand tack (close-up).



Bend the housing to align and mount the housing in place, using the FXC supplied housing mounting brackets and screws.





NOTE:

Mounting base may need to be altered from its original form.



View after mounting the housing.

Stow the control unit housing under the Velcro flap provided in the over shoulder area.



NOTE:

After mounting, cover the 1"x 2" pile Velcro with an equal length of hook Velcro.



Stow the control unit housing under the Velcro flap provided to the right of the ring cover.



-Loosen the mounting clamp screws located on the back side of the control unit. Slide clamp onto the provided Type 17 strap and tighten screws.



FXC INSTALLATION IS COMPLETE.

Please refer to the following page for assemble and packing information. Assembling and packing the reserve in a Vector SE with an FXC mounted is no different from the sport model without an FXC. Please refer to the Vector 3 sport manual for reserve assembling and packing instructions and the following note.



NOTE:

 Make sure the RSL pin passes through both marine eye terminal ends when closing the last reserve flap at packing.

ADDITIONAL MISCELLANEOUS OPTIONS:



CARRY HANDLE (OPTIONAL)



BELLY BAND (OPTIONAL)

Notes:	