



HARNES/CONTAINER OWNERS MANUAL
TM162: Revision Aug 2024

AERODYNE Research LLC.
813 Flightline Blvd Unit 8,
DeLand FL 32724

(386) 279 7990 flyaerodyne.com



ICON
HARNESS/CONTAINER
PACKING MANUAL

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ISBN: 978-1519259660

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contact Aerodyne
Research, LLC. at
info@flyaerodyne.com

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Aerodyne Research is a firm participating in the global parachute industry. We design, test, and manufacture a broad array of military and sport parachutes. We also provide operational training, technical support and lifecycle support of products in the Aerodyne range. We are one of the few major skydiving companies that can provide a complete custom system: harness container, main canopy, and reserve canopy. All designed to work seamlessly together and provide an outstanding skydiving experience.

Aerodyne is both a design and manufacturer of Parachutes, Harmonized Tariff Heading 8804.00.00

The Aerodyne group has manufacturing facilities and distribution centers in Durban, South Africa, and Deland, Florida, USA. Aerodyne has been in operation for 25 years and has built up substantial experience in the industry. The company is staffed by highly experienced and skilled personnel.

Aerodyne holds United States Federal Aviation Administration, Technical Standard Order / T.S.O. C 23 d Category for a wide range of Sport Parachute Products as well as N.A.T.O. Codification with National Stock Numbers (N.S.N.s) for all military products. All products are manufactured to stringent international quality standards.

The majority of Aerodyne's production is exported internationally to approximately 50 nations worldwide.

For our Sport Parachute Division, a central distribution center in Florida, USA has been established in which high profile marketing is conducted.

The group has an ongoing and active program of Research & Development to ensure innovation and latest technology is available to its customers. Parachute testing and qualification is conducted in-house. We have pioneered a number of innovations including zpX our low pack volume, hexagonal woven zero porosity canopy fabric, and fx11 our low pack volume uncoated fabric which is used in our LPV reserves. We also have our exclusive mini force ring which greatly reduces the force required to cut away.

Aerodyne Research strives to provide customers with excellent service and ongoing support in the supply of quality and superior performance products.

The Aerodyne Team

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WARNING!

1. PROPER TRAINING AND/OR EXPERIENCE ARE REQUIRED TO LOWER THE RISK OF SERIOUS INJURY OR DEATH.

NEVER USE THIS EQUIPMENT UNLESS YOU HAVE:

A. READ THIS WARNING LABEL, APPROPRIATE OWNERS MANUAL, PACKING INSTRUCTIONS AND COMPLETED A "CONTROLLED PROGRAM OF INSTRUCTION" IN THE USE OF THIS PARACHUTE SYSTEM.

OR

B. READ THIS WARNING LABEL AND APPROPRIATE OWNERS MANUAL AND PACKING INSTRUCTIONS AND COMPLETED AT LEAST 100 RAM AIR PARACHUTE JUMPS.

2. LOWER THE RISK OF DEATH, SERIOUS INJURY, CANOPY DAMAGE AND HARD OPENINGS BY NEVER EXCEEDING THE MAXIMUM LIMITS:

- A. 136 Kg
- B. 150 Knots

HARD OPENINGS CAN CAUSE EQUIPMENT DAMAGE, SEVERE INJURY OR DEATH. PARACHUTE SYSTEMS SOMETIMES FAIL TO FUNCTION PROPERLY EVEN WHEN CORRECTLY ASSEMBLED, PACKED AND OPERATED. YOU RISK SERIOUS INJURY OR DEATH EACH TIME YOU USE THIS OR ANY PARACHUTE SYSTEM, BY DOING SO YOU WILL BE DEEMED TO HAVE EXPRESSLY AND IMPLIEDLY ASSUMED THIS RISK

AERODYNE RESEARCH, LLC
813 Flightline Blvd Unit 8,
Deland, FL 32724

**DISCLAIMER; LIMITATION OF WARRANTY ON PARACHUTE; LIMITATION OF REMEDIES;
WAIVER AND RELEASE OF WARRANTIES**

BY ACCEPTING AND USING THIS PARACHUTE, OR BY ALLOWING OTHERS TO USE IT, YOU CONFIRM THAT YOU UNDERSTAND THAT BECAUSE OF THE UNAVOIDABLE DANGER ASSOCIATED WITH THE USE OF THIS PARACHUTE, THE MANUFACTURER MAKES NO WARRANTY WHATSOEVER, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, EXCEPT A WARRANTY THAT A PARACHUTE OF SIMILAR DESIGN HAS BEEN PREVIOUSLY USED FOR PARACHUTE JUMPING. THE PARACHUTE IS SOLD, CONVEYED, LOANED, GIFTED, OR OTHERWISE DELIVERED, FURNISHED OR PROVIDED TO YOU BY THE MANUFACTURER, OR ON ITS BEHALF, AS IS, WITH ALL FAULTS, AND WITHOUT ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR USE.

THE MANUFACTURER EXPRESSLY DISCLAIMS ANY LIABILITY UNDER THE LAW, IN TORT OR OTHERWISE, FOR DAMAGES, DIRECT OR CONSEQUENTIAL, INCLUDING BUT NOT LIMITED TO DAMAGES FOR PERSONAL INJURIES, WRONGFUL DEATH, PROPERTY DAMAGE AND LOSS OF USE OF THE PARACHUTE, RESULTING FROM ANY MALFUNCTION OF THE PARACHUTE, OR FROM ANY DEFECT IN DESIGN, MATERIAL, WORKMANSHIP OR MANUFACTURE OF THE PARACHUTE, WHETHER CAUSED BY NEGLIGENCE ON THE PART OF THE MANUFACTURER, AND/OR BY ANY AND ALL MANUFACTURERS OF ANY AND ALL PARTS, ACCESSORIES, COMPONENTS, OR APPLIANCES MADE A PART OF, OR APPURTENANT TO, THE PARACHUTE.

YOU, BY YOUR USE OF THE PARACHUTE, AND/OR BY ALLOWING IT TO BE USED BY OTHERS, SPECIFICALLY WAIVE ANY LIABILITY ON THE PART OF THE MANUFACTURER FOR PERSONAL INJURIES, WRONGFUL DEATH, LOSS OF CONSORTIUM, PROPERTY DAMAGE AND LOSS OF USE OF THE PARACHUTE. YOU AGREE, AND HAVE MATERIALLY REPRESENTED TO THE MANUFACTURER, THAT YOU ARE A "HIGHLY SOPHISTICATED AND EXPERIENCED CONSUMER" WITH RESPECT TO THE PARACHUTE, AND THAT YOU ARE THOROUGHLY AWARE OF, AND EXPRESSLY ACCEPT, ANY AND ALL OF THE RISKS OF PHYSICAL INJURY, DEATH AND/OR PROPERTY DAMAGE WHICH MAY OCCUR AS A RESULT OF YOUR USE AND/OR MISUSE OF THE PARACHUTE DESIGNED BY, MANUFACTURED BY AND/OR RECEIVED FROM THE MANUFACTURER. AS A "HIGHLY SOPHISTICATED AND EXPERIENCED CONSUMER," YOU EXPRESSLY WAIVE ANY CLAIM YOU MIGHT OTHERWISE HAVE OF STRICT LIABILITY AGAINST THE MANUFACTURER.

THE WARRANTIES SET FORTH ABOVE, AND THE OBLIGATIONS AND LIABILITIES OF THE MANUFACTURER, AND YOUR REMEDIES THEREUNDER, ARE EXPRESSLY IN LIEU OF, AND YOU HEREBY WAIVE AND RELEASE THE MANUFACTURER FROM, ANY AND ALL OTHER WARRANTIES, AGREEMENTS, GUARANTEES, CONDITIONS, DUTIES, OBLIGATIONS, REMEDIES OR LIABILITIES, EXPRESS OR IMPLIED, ARISING BY LAW OR OTHERWISE, INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY AND FITNESS FOR PARTICULAR PURPOSE, AND IMPLIED WARRANTIES, INCLUDING BUT NOT LIMITED TO THOSE ARISING FROM COURSE OF PERFORMANCE, DEALING, USAGE OR TRADE, WITH RESPECT TO THE MANUFACTURER'S PERFORMANCE HEREUNDER, AND YOU AGREE THAT THE MANUFACTURER SHALL NOT BE LIABLE FOR ANY DAMAGE OR LOSS (INCLUDING BUT NOT LIMITED TO CONSEQUENTIAL DAMAGES) SUFFERED BY YOU, DIRECTLY OR INDIRECTLY, BECAUSE OF ANY DEFECT IN THE PARACHUTE. NO AGREEMENT OR UNDERSTANDING VARYING, ALTERING OR EXTENDING THE MANUFACTURER'S LIABILITY HEREUNDER SHALL BE BINDING ON THE MANUFACTURER, UNLESS IN WRITING AND SIGNED BY A DULY AUTHORIZED REPRESENTATIVE OF THE MANUFACTURER, AND BY YOU OR YOUR DULY AUTHORIZED REPRESENTATIVE.

IF YOU DECLINE TO WAIVE LIABILITY ON THE PART OF THE MANUFACTURER, OR IF YOU DECLINE TO AGREE TO ALL OF THE TERMS OF THIS "DISCLAIMER – LIMITATION OF WARRANTY ON PARACHUTE; LIMITATION OF REMEDIES; WAIVER AND RELEASE OF WARRANTIES", YOU MAY OBTAIN A FULL REFUND OF THE PURCHASE PRICE BY RETURNING THE PARACHUTE, BEFORE IT IS USED, TO THE MANUFACTURER WITHIN 15 DAYS FROM THE DATE OF YOUR RECEIPT OF THE PARACHUTE, WITH A LETTER STATING WHY IT WAS RETURNED.

1. TECHNICAL SPECIFICATIONS

1.1 INTRODUCTION

THE ICON HARNESS AND CONTAINER SYSTEM MUST BE CHECKED AND ASSEMBLED BY A QUALIFIED RIGGER.

Before assembly, check the harness, container and all components, ensuring that the Reserve and Main container sizes are compatible with the Reserve and Main canopies, and deployment systems with which it is to be used.

1.2 DESCRIPTION:

Icon is an individual harness and container system.



1.3 MARKING & LIST OF COMPONENTS

Removal of any of the TSO labels or Warning labels VOIDS the TSO and warranty.

1.3.1 TSO C23d ON LEFT RESERVE RISER

AERODYNE REASEARCH LLC. 1725 LEXINGTON AVE, DELAND, FL 32724 USA
 TSO C23d D.O.M.:
 PART NO: IX HARNESS TYPE: SERIAL NO.
 CONTAINER SIZE: VERSION: HARNESS SIZE:
 MAX. OPERATING LIMITS: 136 Kg 150 Knots
 AVERAGE PEAK FORCE DURING 4.3.4 STRENGTH TESTS: 5.45 G's

1.3.2 DATA CARD POCKET LABEL

AERODYNE REASEARCH LLC. 1407 FLIGHTLINE BLVD, UNIT 14, DELAND, FL 32724 US

MAX SPEED	Knots	Knots
MAX WEIGHT	Kg.	Kg.

LIMITATIONS: Maximum Weight and Speed is the lower of the 2 values:
 136 Kg/ 150 Knots or the Reserve Canopy TSO Maximum Limitations

1.3.3 WARNING LABEL

WARNING! 1. **PARACHUTING IS DANGEROUS.** PARACHUTE SYSTEMS AND THEIR COMPONENTS SOMETIMES FAIL TO FUNCTION PROPERLY EVEN WHEN CORRECTLY ASSEMBLED, PACKED AND OPERATED. BEFORE YOU USE THIS PARACHUTE ASSEMBLY, YOU MUST FULLY UNDERSTAND AND ACCEPT THAT YOU RISK SERIOUS PERMANENT INJURY OR DEATH EACH TIME YOU USE THIS PARACHUTE ASSEMBLY. PROPER TRAINING AND EXPERIENCE ARE REQUIRED TO LOWER THE RISK OF SERIOUS PERMANENT INJURY OR DEATH.

ALSO, YOU MUST:

A. READ AND FULLY UNDERSTAND THIS WARNING LABEL, THE APPROPRIATE OWNERS MANUAL, SUPPLEMENTAL INFORMATION AND PACKING INSTRUCTIONS, FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS (INCLUDING BUT NOT LIMITED TO WING LOADING RECOMMENDATIONS), AND ENSURE THAT YOU HAVE COMPLETED AN APPROPRIATE "CONTROLLED PROGRAM OF INSTRUCTION" IN THE USE OF THIS PARACHUTE ASSEMBLY AND EACH OF ITS COMPONENTS.

OR

B. READ AND FULLY UNDERSTAND THIS WARNING LABEL, THE APPROPRIATE OWNERS MANUAL, SUPPLEMENTAL INFORMATION AND PACKING INSTRUCTIONS, FOLLOW ALL MANUFACTURERS' RECOMMENDATIONS (INCLUDING BUT NO TLIMITED TO MANUFACTURER'S WING LOADING RECOMMENDATIONS), AND HAVE COMPLETED AT LEAST 100 RAM AIR PARACHUTE JUMPS.

2. THE RISK OF DEATH, SERIOUS INJURY, CANOPY DAMAGE AND HARD OPENINGS MAY BE LOWERED BY STRICTLY COMPLYING WITH ALL MANUFACTURERS' RECOMMENDATIONS AND SAFE PARACHUTING PRACTICES AND BY NEVER EXCEEDING THE LIMITS OF YOUR EXPERIENCE LEVEL AND THE MAXIMUM EQUIPMENT LIMITS, INCLUDING THE MAXIMUM LIMITS FOR THIS HARNESS/CONTAINER OF:

- a. Maximum Exit Weight (weight of jumper + clothing + equipment): 136 Kg (300 pounds)
- b. Maximum Opening Velocity: 150 Knots (172 mph)

1.4 TECHNICAL SPECIFICATIONS AND LIMITATIONS

SPECIFICATIONS: THE ICON HARNESS CONTAINER IS CERTIFIED UNDER TSO C23d

It is produced in different sizes to accommodate the Smart TSO C23d Range of Reserve Canopies. The ICON can be used with any certified Reserve Canopy.

ICON container sizes:

ICON	SMART - F111 (SQ.FT)	SMART LPV - FX11 (SQ.FT)	RESERVE CANOPY VOLUME SIZE RANGE
I1	99 - 110	110 - 120	250in ³ . min - 276in ³ . max
I2	110 - 120	120 - 135	275in ³ . min - 305in ³ . max
I3	120 - 135	135 - 150	290in ³ . min - 335in ³ . max
I4	135 - 150	150 - 175	330in ³ . min - 360in ³ . max
I5	160 - 175	175 - 190	360in ³ . min - 390in ³ . max
I6	175 - 190	190 - 220	380in ³ . min - 440in ³ . max
I7	190 - 250	220 - 250	405in ³ . min - 490in ³ . max
I8	220 - 250	220 - 250	440in ³ . min - 490in ³ . max
I9	220 - 250	250	465in ³ . min - 490in ³ . max
S5	160 - 175	175 - 190	360in ³ . min - 390in ³ . max
S6	175 - 190	190 - 220	380in ³ . min - 440in ³ . max
S7	190 - 250	220 - 250	405in ³ . min - 490in ³ . max
S8	220 - 250	220 - 250	440in ³ . min - 490in ³ . max
S9	220 - 250	250	465in ³ . min - 490in ³ . max

Use the table above to determine the Icon best suited to the size of your Reserve Canopy.

ICON	MAIN - ZP (SQ.FT)	MAIN LPV - ZPX (SQ.FT)	MAIN 21 CELL CROSS BRACED - ZP	MAIN CANOPY VOLUME SIZE RANGE
I1	90 - 96	104 - 111	71 - 81	300in ³ . min - 320in ³ . max
I2	104 - 111	117 - 124	91 - 101	320in ³ . min - 345in ³ . max
I3	124 - 140	132 - 150	101 - 111	345in ³ . min - 380in ³ . max
I4	140 - 168	168 - 188	111 - 121	380in ³ . min - 415in ³ . max
I5	168 - 188	188 - 210	-	415in ³ . min - 440in ³ . max
I6	188 - 210	210 - 230	-	440in ³ . min - 465in ³ . max
I7	210 - 230	230 - 250	-	465in ³ . min - 490in ³ . max
I8	230 - 250	250 - 270	-	490in ³ . min - 510in ³ . max
I9	250 - 270	270 - 290	-	510in ³ . min - 550in ³ . max
S5	168 - 188	188 - 210	-	415in ³ . min - 440in ³ . max
S6	188 - 210	210 - 230	-	440in ³ . min - 465in ³ . max
S7	210 - 230	230 - 250	-	465in ³ . min - 490in ³ . max
S8	230 - 250	250 - 270	-	490in ³ . min - 510in ³ . max
S9	250 - 270	270 - 290	-	510in ³ . min - 550in ³ . max

Note: This is the recommended range of canopy sizes that can fit into an ICON neXgen.

There are a host of factors that may affect the fit of a canopy into the container, including: Number of Cells, Line Type, Fabric Type: F111, ZP, ZPX or equivalent low volume fabrics. Be aware that based on these factors, some sizes mentioned outside the specifications of this table may, or may not fit into the ICON. Manufacturers also measure their canopies differently so the indicated size may be different to the measuring technique used for this table.

For any queries on fit of your canopy to an ICON Harness and Container, please contact Aerodyne for guidance.

ICON HARNESS SIZE:

The Icon Harness is produced in the following sizes:

A= X-Small **F**= Large
B= Small **H**= X-Large
D= Medium

LIMITATIONS:

MAXIMUM SPEED: 150 Knots MAXIMUM WEIGHT IS DEFINED BY THE LOWER OF THE TWO: 136 Kg OR THE RESERVE CANOPY TSO MAXIMUM WEIGHT

QUALIFIED RESERVE DEPLOYMENT SYSTEM:

FREEBAG WITH SPRING PILOT CHUTE PACKING: AS SPECIFIED IN THIS MANUAL.

MAIN DEPLOYMENT SYSTEM:

DEPLOYMENT BAG WITH HAND DEPLOYED PILOT CHUTE, STATIC LINE OR RIPCORD ACTIVATED MAIN SPRING LOADED PILOT CHUTE.

ICON PRO, SPORT, STUDENT & ACCURACY

Icon Reserve Canopy Sizing Chart

Icon Size	I1		I2		I3		I4		I5	
Reserve Size	Smart	Smart LPV	Smart	Smart LPV	Smart	Smart LPV	Smart	Smart LPV	Smart	Smart LPV
99										
110										
120										
135										
150										
160										
175										
190										
220										
250										

Icon Size	I6		I7		S7		S8		S9	
Reserve Size	Smart	Smart LPV	Smart	Smart LPV	Smart	Smart LPV	Smart	Smart LPV	Smart	Smart LPV
99										
110										
120										
135										
150										
160										
175										
190										
220										
250										

Notes:

- These sizing charts are based on packing in normal conditions using normal rigger packing techniques and skills to provide a good fit.
- This is the recommended or ideal size of Smart or Smart LPV to pack into your ICON neXgen. For more details please see the Tables on page 9 showing the maximum and minimum recommended sizes and volumes. If you have any queries about the size of Canopies to pack into the ICON, contact Aerodyne.

 Recommended Fit
 Largest Recommended

Icon Main Canopy Sizing Chart

Icon Size	I1		I2		I3		I4		I5	
Main Size	ZP Main	LPV Main	ZP Main	LPV Main	ZP Main	LPV Main	ZP Main	LPV Main	ZP Main	LPV Main
90										
96										
104										
111										
117										
124										
132										
140										
150										
168										
188										
210										

Icon Size	I6		I7		S7		S8		S9	
Main Size	ZP Main	LPV Main	ZP Main	LPV Main	ZP Main	LPV Main	ZP Main	LPV Main	ZP Main	LPV Main
188										
210										
230										
250										
270										
290										

Icon Main Canopy Sizing Chart (Sensei & Crossbraced Canopies)

Icon Size	I1	I2	I3	I4
Main Size	ZP Crossbraced Main	ZP Crossbraced Main	ZP Crossbraced Main	ZP Crossbraced Main
71				
81				
91				
101				
111				
121				

1.5 MAJOR COMPONENTS & ACCESSORIES



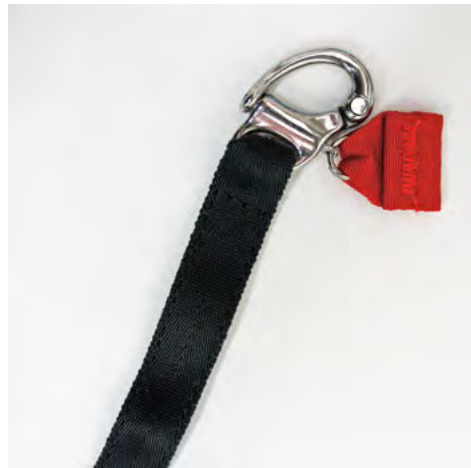
Main cutaway handle



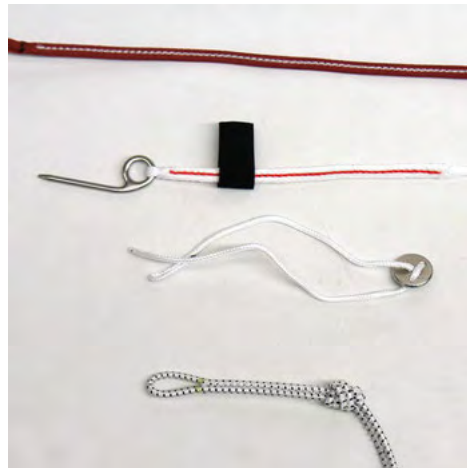
Reserve handle



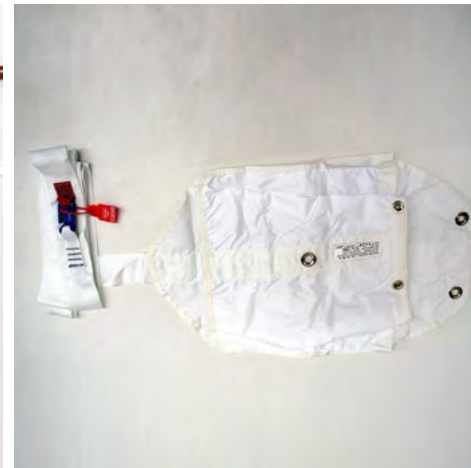
Miniforce™ risers w/toggles



RSL



Closing loops & other lanyards



Freebag w/bridle & Skyhook



Main pilot chute



Main deployment bag



Reserve pilot chute

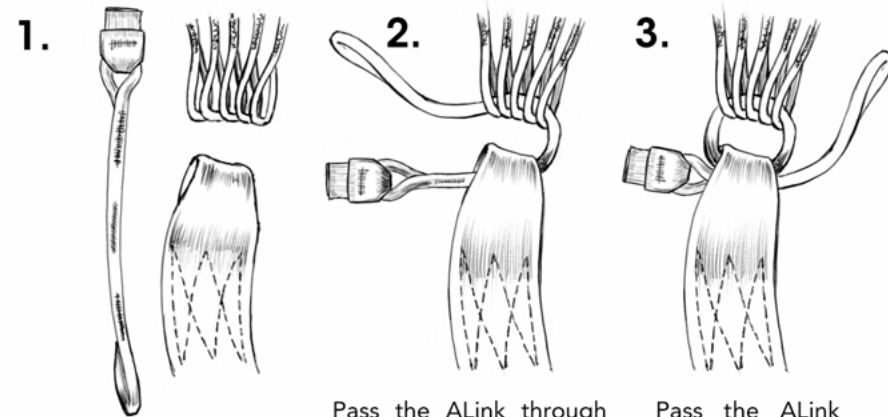
2. ASSEMBLY AND OPERATING INSTRUCTIONS

2.1 INSPECTION BEFORE PACKING AND ASSEMBLY

1. Read and understand this manual and be qualified by proper instruction for sport parachuting activities.
2. Ensure that the reserve and main canopy size is compatible with the harness-container and deployment system with which it is to be used.
3. Prior to assembly and/or packing a thorough inspection of the ICON Harness and container must be completed.
 - Reserve container
 - Main container
 - Harness
 - All cable housings
 - All stitching
 - All grommets
 - Reserve handle integrity and correct size fitted
 - Cut away housing integrity
 - Reserve risers and toggle deployment system

Take note of any worn, damaged, corroded or incorrectly rigged components, which must be repaired or replaced before the harness container is packed for use.

2.2 A-LINK ASSEMBLY

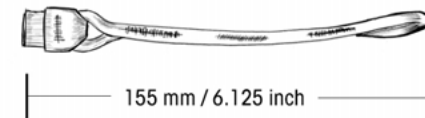


Pass the ALink through the suspension line loops and riser as shown.

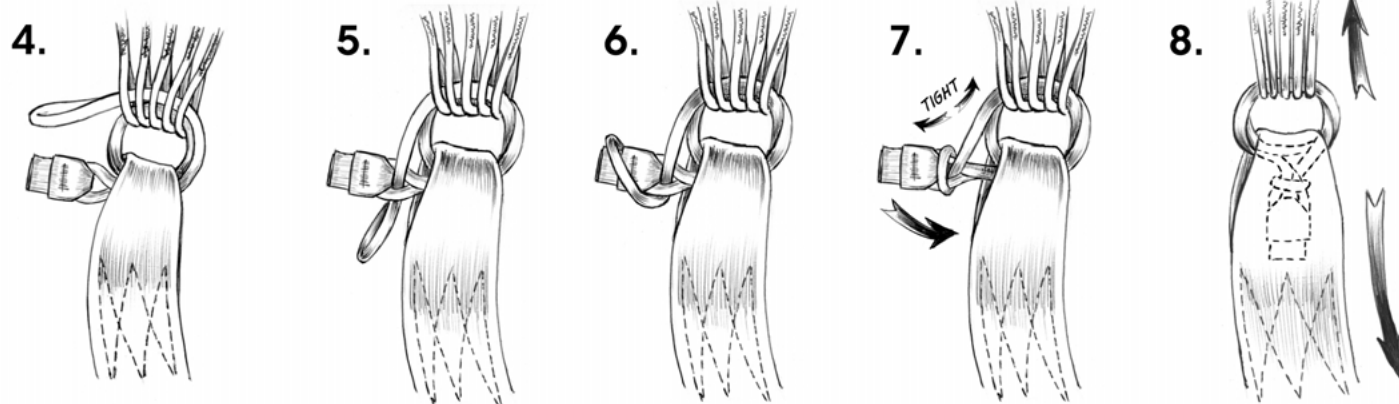
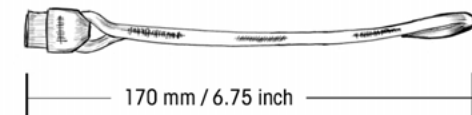
Pass the ALink loop through the riser, as shown.

Ensure that you have passed the ALink through all the suspension lines and that they are clear to move.

ALink for Main Canopies
PN: P 1487-00 (Gray Bartack)



ALink for Reserve Canopies
PN: P 1487-01 (Red Bartack)



Pass the ALink loop through the suspension lines one more time, as shown.

Pass the loop end through the tab end, as shown.

Feed the loop back over the tab.

Larkshead, as shown. Pull tight, ensure the larkshead is secure.

Tuck the tab away as shown. Hold the suspension lines and give a sharp pull to set the Link.

Check that the suspension lines can move freely over the ALink and make sure you have not passed the ALink in between the yarns of the lines.

Ensure that the ALink passes through all the suspension line loops.

Check that the suspension lines are clear to move, make sure you have not passed the ALink in between the yarns of the lines.

NOTE: It is recommended you replace the ALinks with every new lineset. Check the ALinks for excessive wear and tear, and replace when necessary. You may tack the ALink in place with a single stitch of tacking cord through one side of the riser, and knotted in the middle.

2.3 AAD INSTALLATION PROCEDURE (SKYHOOK & NON-SKYHOOK)



1. Insert the AAD unit into the spandex pocket.

2. Secure excess cable as per AAD manufacturer.

3. Cover excess cable with the velcro flaps.



4. Insert the cutter through the proper routing.

5. Align the cutter hole with that of the closing flap.

6. Route the AAD Control unit through the Back pad.



7. Insert the control unit in the Back pad window.

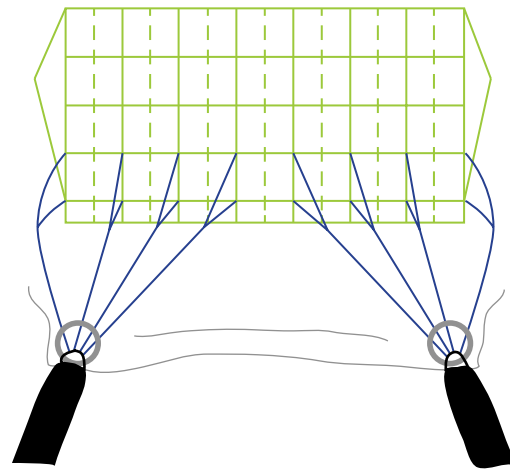
8. Turn AAD unit ON for a startup check.

NOTE: Aerodyne has approved that the following Automatic Activation Devices (AAD), when properly installed, are compatible with all Icon systems and do not interfere with their normal manual operations: Cypres, Vigil, Mars.

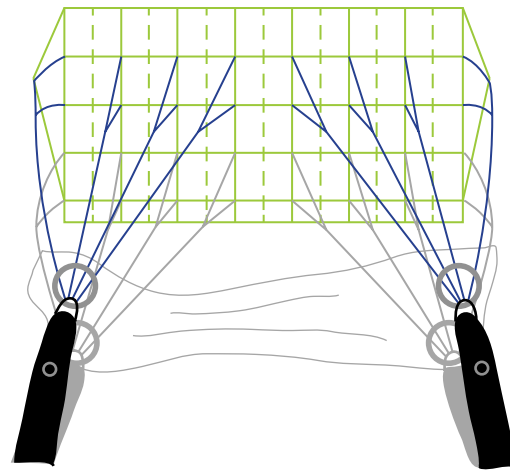
2.4 RESERVE ASSEMBLY

2.4.1 CONNECTING THE CANOPY TO THE CONTAINER

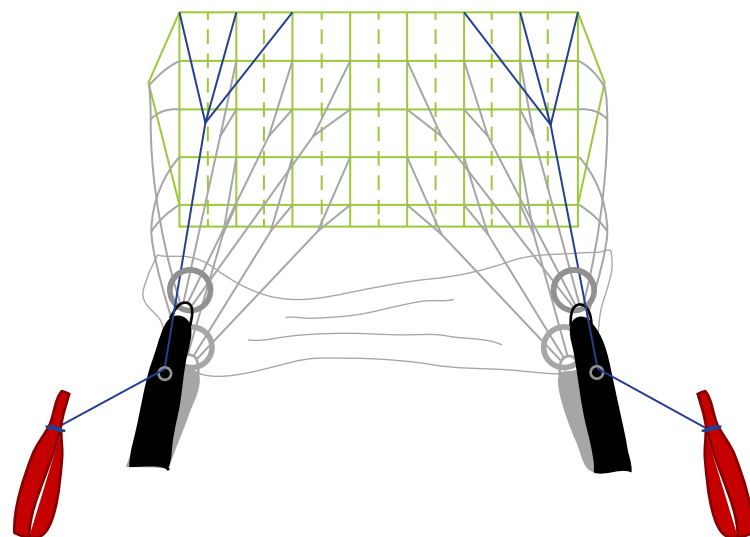
1. Connect front lines to the front risers. Pass the lines through the front slider grommets.
For connection see section 2.2.



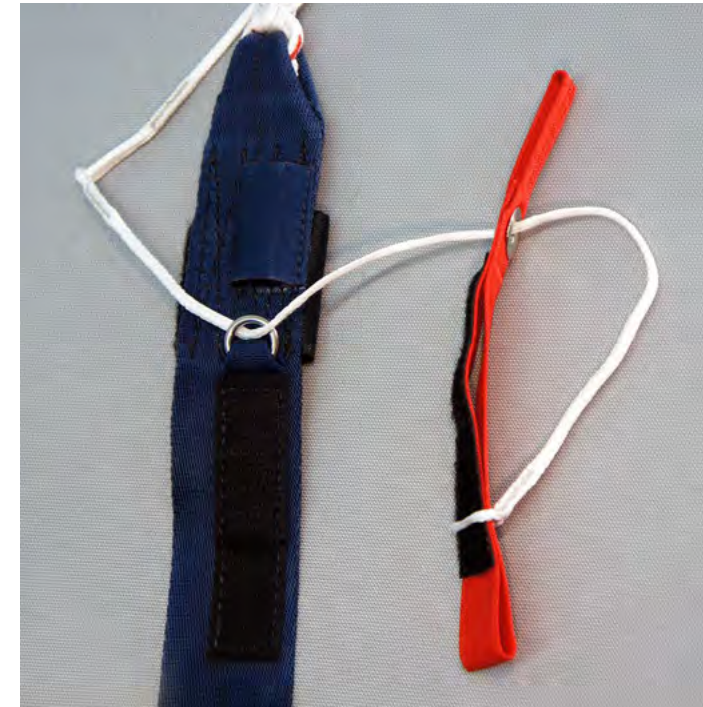
2. Connect rear lines. Pass the line through the rear slider grommets.
For connection see section 2.2.



3. Connect the steering lines. Pass the steering lines through the rear slider grommet and through the guide ring on the rear reserve riser.
For assembly of steering toggle see section 2.4.2.



2.4.2 RESERVE TOGGLE ASSEMBLY



1. Pass the lower steering line through the rear riser guide ring, through the toggle grommet.



2. Loop around the toggle. Pull tight.



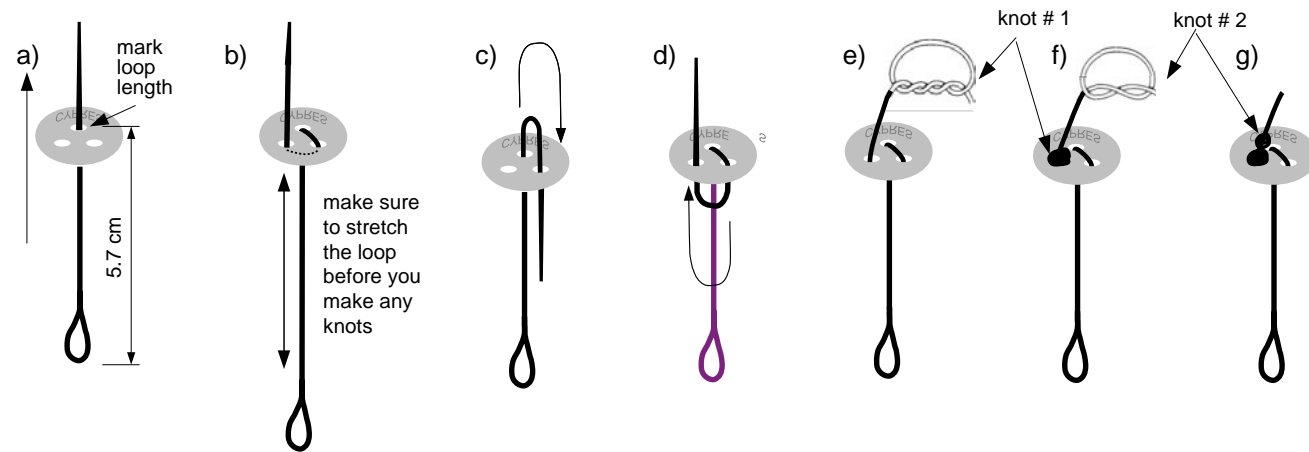
3. Set the toggle into the lower steering line break loop. Slide the toggle finger into the pocket.



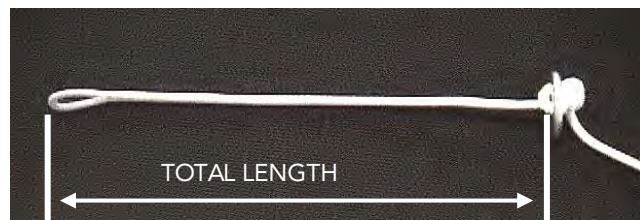
4. Stow the extra line and close the Velcro. Fix and secure the toggle on the rear riser.

2.4.3 RESERVE CLOSURE LOOP ASSEMBLY

Only use the approved reserve closure loop supplied by the AAD manufacturers with the Icon Container! To set the reserve closure loop and washer use the following method as shown:



Adjust the length to the specifications below and tighten the knot.



Icon Size	Reserve Loop Length
11	100 – 115
12	105 - 120
13	105 - 120
14	110 – 125
15	115 – 130
16	120 – 135
17	125 – 140
18	130 – 145
19	130 – 145

Measurement in millimeters (mm)

NOTE: These are recommended closure loop lengths. Use these lengths as a guide only. Loop lengths may vary based on packing techniques and experience, climatic conditions and variables within different canopy sizes and fabrics.

Rigger must determine loop length that the pull force is not less than 5 lbs (22.2 N) applied in the direction requiring the lowest pull force. And no more than 22 lbs (97.9 N) applied in the direction requiring the greatest force.

2.4.4 PACKING THE RESERVE CANOPY

For packing of the Reserve canopy, follow the reserve canopy manufacturer's warnings, instructions, and recommendations.

For the closing of the Reserve Container follow the Icon Manual's warnings, instructions, and recommendations.

NOTE: Packing of the Reserve Canopy and Container must be completed by a qualified rigger. When packing the reserve, minimize fabric in the center of bag so that a nest is built for the pilot chute to sit into (See pic. 4 on section 2.4.6).

2.4.5 STOWING THE RESERVE LINES



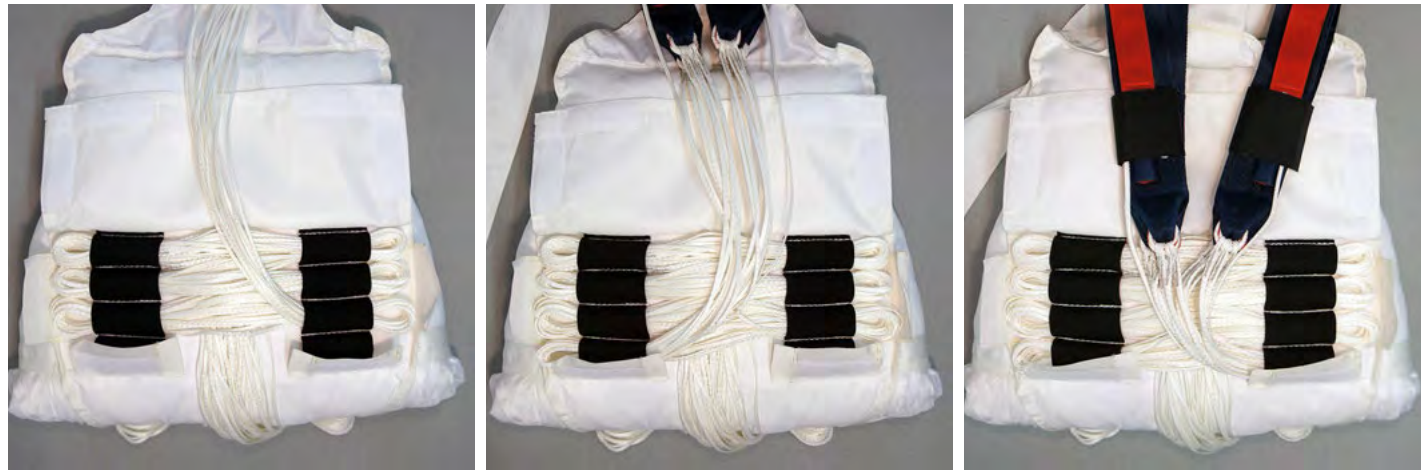
1. Position Freebag as shown.
2. Place first stow in elastic keeper at top, opposite side to last locking stow at opening of Freebag.
3. Place the next stow in the opposite side top elastic.



- 4.
 - 5.
 - 6.
- Continue from side to side until you have placed the last stow in the last available elastic keeper at the bottom of the Freebag.

NOTE: Stows should not extend more than 1 inch (2.5 cm) beyond the elastic keeper.

Leave enough excess line to allow the risers to lay flat under the Freebag to the outside edge of the pack tray.



7.

8.

9.



10.

11.

NOTICE TO RIGGER:

THE MANUAL LISTS AND DETAILS THE PACKING OF THE ICON NEXGEN IN THE THREE FOLLOWING CONFIGURATIONS:

2.4.6 PACKING THE ICON WITH AEROMARD

2.4.7 PACKING THE ICON WITH A SKYHOOK

2.4.8 PACKING THE ICON WITH RSL ONLY

2.4.9 PACKING THE ICON WITH NO RSL AND NO SKYHOOK

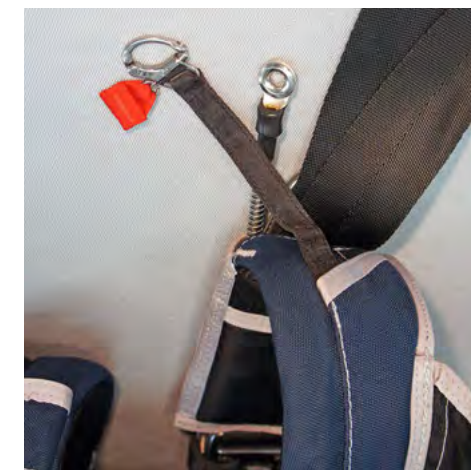
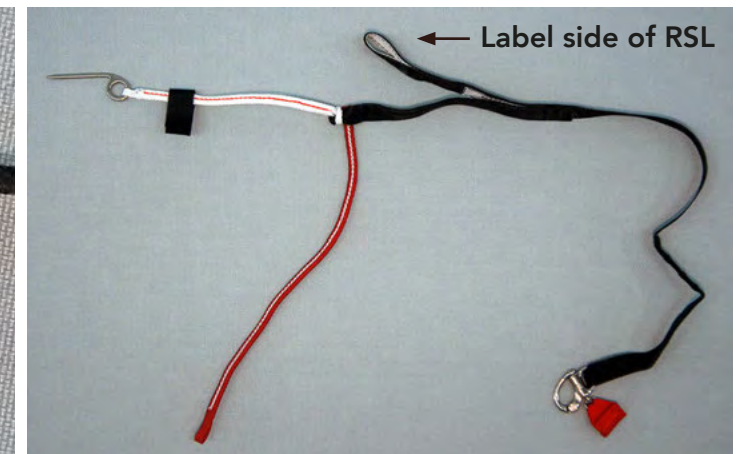
PLEASE REFER TO THE RELEVANT SECTION IN DETAIL. FAILURE TO FOLLOW THIS MANUAL AND INSTRUCTION COULD RESULT IN DEATH OR SERIOUS INJURY.

2.4.6 PACKING THE ICON WITH AEROMARD

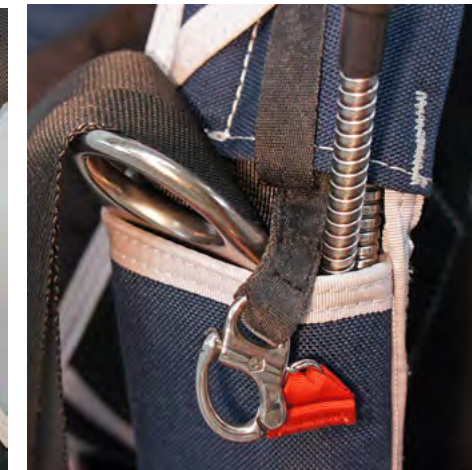
You will need:

- Red Skyhook Lanyard
- Reserve Pin
- Marine Eye Reserve Ripcord
- RSL
- Elastic Staging Loop (optional)
*If staging loop used, refer to Skyhook page 31 for instructions.

1. Loop the Red Lanyard through the non-labeled loop on the RSL. Repeat with the White Lanyard. To avoid catching the Velcro on the lanyard, slightly bend the Velcro parallel to the lanyard and pull in one quick but gentle motion.



2. Place the RSL on the righthand side yoke.



3. Tuck away excess RSL line as shown into the tuck flap and the opening on the yoke.



4. RSL prepared and ready for connection to risers.





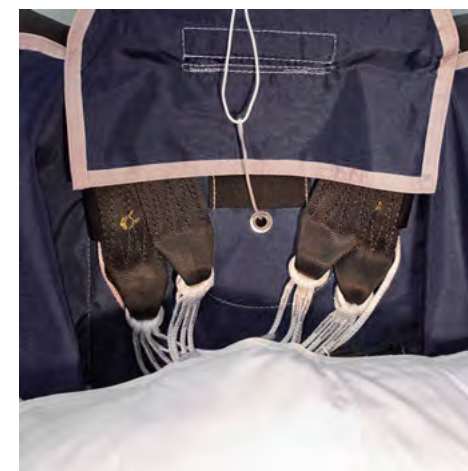
5. Route cutaway cables through their respective housings & attach the handle to the velcro.
6. Insert the left cutaway cable through the labeled loop on the RSL (reserved for the cutaway cable). Next attach the Velcro on the white lanyard to flap #5.
7. **CAUTION:** Verify routing of AAD cables not to be entangled in any way with the RSL.

NOTE:

To examine and adjust the length of the cutaway cables: Load the harness slightly and pull the cutaway cable until just before they release from the loops. The left cutaway cable (No RSL) should be approximately 1 inch shorter than the right cable (connected to the RSL) to ensure optimal sequence of release of risers.



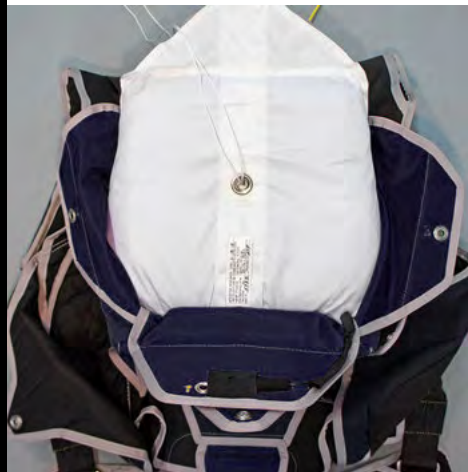
8. Prepare the freebag shape as shown on the pictures above.
9. Thread reserve closing loop through both grommets. Thread pull-up cord through closing loop.



10. Lay the risers flat against the container wall.



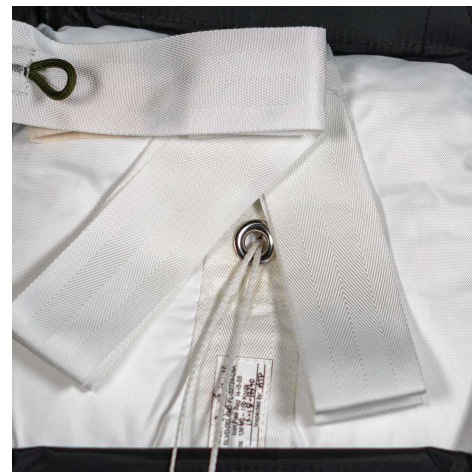
11. Place the Freebag in the reserve container and thread Reserve loop pull-up cord through Freebag center grommets.



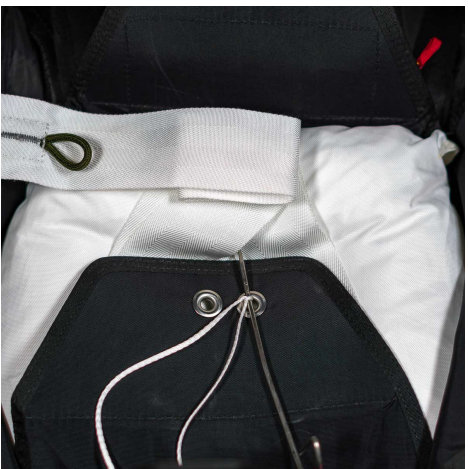
12. Rotate Freebag into reserve container filling lower corners of reserve container.



13. To ensure proper AAD activation make sure your reserve loop is threaded through the AAD cutter.



14. Fold bridle in V-shape pattern as shown, leaving exposed green loop exiting the left side.



15. Close reserve #1 flap.



16. Close reserve #2 flap ensuring the bridle exits the left side with green loop exposed.



17. Insert the green loop into the green tuck tab.



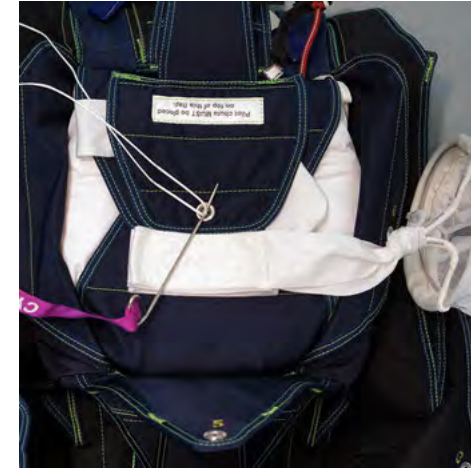
18. Feed the red MARD Lanyard into the red tuck tab. Leave 3 inches excess red lanyard.



19. Lay the bridle over flap #2, routing the red MARD lanyard loop through the bridle grommet from bottom to top.



20. Insert reserve bridle Bulge Pin through red lanyard loop and green pin housing while seating magnets. Ensure red loop has passed the bulge of the pin.



21. Close #2A cover flap and fold bridle crossways as shown.



22. Pass the pull up cord cleanly through the pilot chute from bottom to top plate.



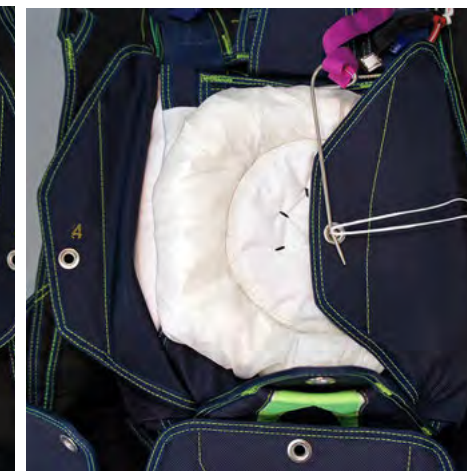
23. Ensure the lower spring coil is up against the spring ejector plate and that the excess bridle sits under the pilot chute without catching the fabric under the spring.



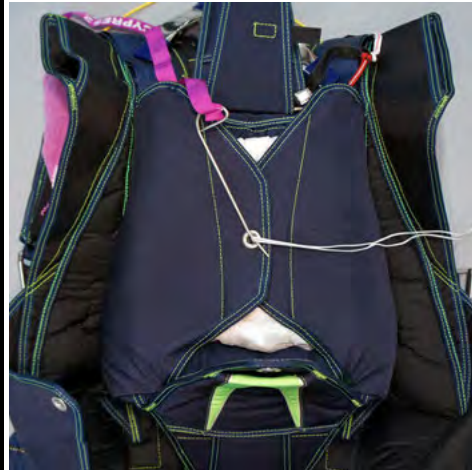
24. Press the pilot chute down into position and hold with a temporary pin. Make sure not to catch the pilot chute fabric under the plate or between the spring coils.



25. Neatly roll the Pilot Chute Fabric up against the outer rim of the Reserve Pilot Chute. Do not tuck the Reserve Pilot Chute Fabric under the lateral closing Flaps #3 and #4.



26. Close the right flap (#3).



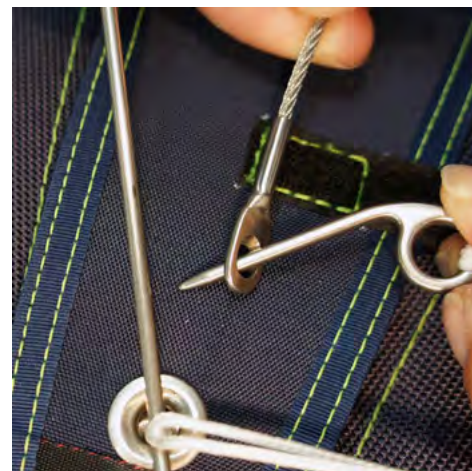
27. Close the left flap (#4).



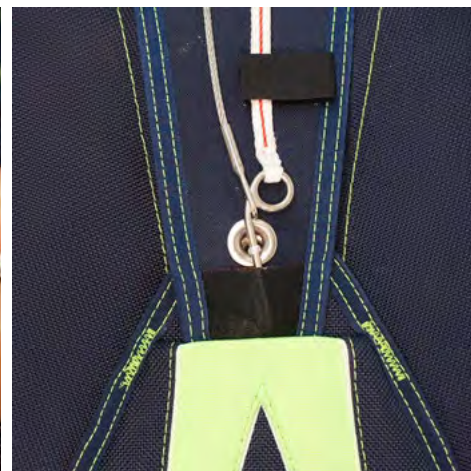
28. Close the bottom flap #5.



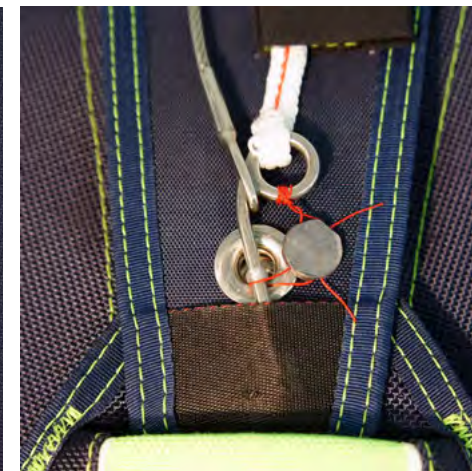
29. Close top flap #6.



30. Insert the reserve pin through the eye of the reserve cable. Make sure pin is inserted in the same direction as the angle of the opening in the ripcord's eye.



31. Insert the reserve pin through the eye of the reserve cable and tuck it under the protector pocket.



32. Seal with rigger's thread and lead seal per applicable regulations.



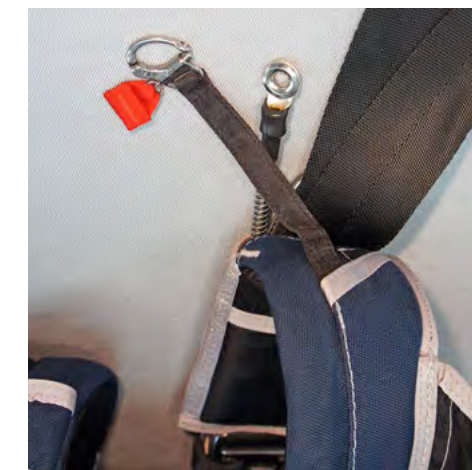
33. Close the final cover flap and tuck the tabs under the #6 flap.

2.4.7 PACKING THE ICON NEXGEN WITH A SKYHOOK

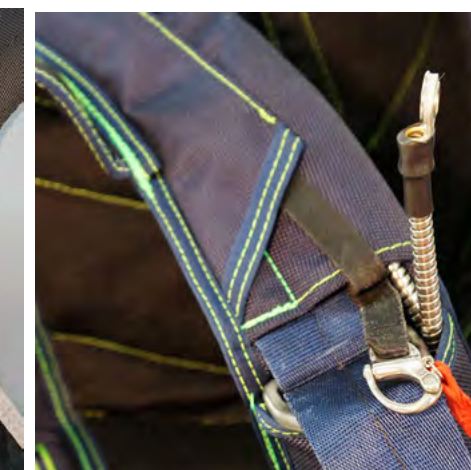
You will need:

- Red Skyhook Lanyard
- Reserve Pin
- Marine Eye Reserve Ripcord
- RSL
- Elastic Staging Loop (optional)

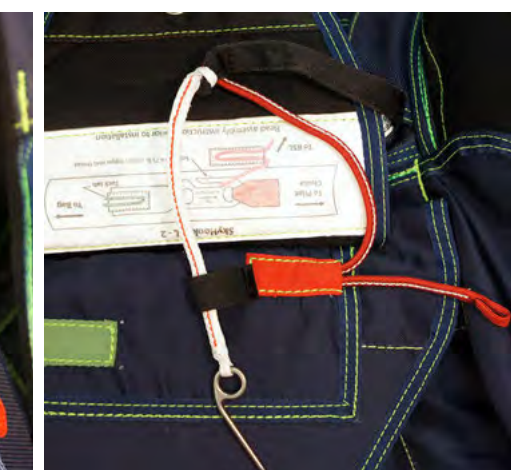
1. Loop the Red Lanyard through the non-labeled loop on the RSL. Repeat with the White Lanyard. To avoid catching the Velcro on the lanyard, slightly bend the Velcro parallel to the lanyard and pull in one quick but gentle motion.



2. Place the RSL on the righthand side yoke.



3. Tuck away excess RSL line as shown into the tuck flap and the opening on the yoke.



4. Insert the Red Lanyard into its designated tuck tab on flap #2. Leave 2" of red lanyard exposed for connection to the Skyhook.





5. Route cutaway cables through their respective housings & attach the handle to the velcro.
6. Insert the left cutaway cable through the labeled loop on the RSL (reserved for the cutaway cable). Next attach the Velcro on the white lanyard to flap #5.
7. **CAUTION:** Verify routing of AAD cables not to be entangled in any way with the RSL.

NOTE:

To examine and adjust the length of the cutaway cables: Load the harness slightly and pull the cutaway cable until just before they release from the loops. The left cutaway cable (No RSL) should be approximately 1 inch shorter than the right cable (connected to the RSL) to ensure optimal sequence of release of risers.



8. Prepare the freebag shape as shown on the pictures above.
9. Thread reserve closing loop through both grommets. Thread pull-up cord through closing loop.



10. Thread the Elastic Staging Loop (**optional**) through both grommets parallel to reserve closing loop. Thread second pull-up cord as shown.
11. Lay the risers flat against the container wall.
12. Place the Freebag in the reserve container and thread Staging loop pull-up cord & Reserve loop pull-up cord through Freebag center grommets.





13. Rotate Freebag into reserve container filling lower corners of reserve container.



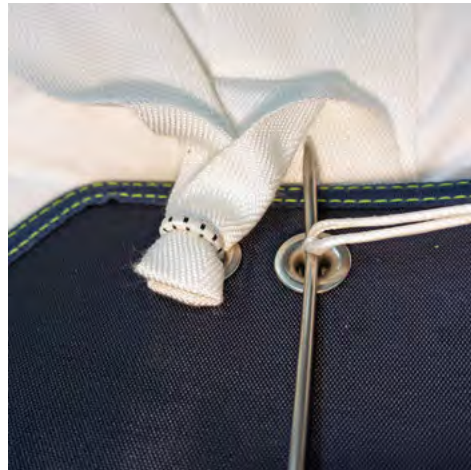
14. To ensure proper AAD activation make sure your reserve loop is threaded through the AAD cutter.



15. Close reserve #1 flap, then place bridle on top as shown.



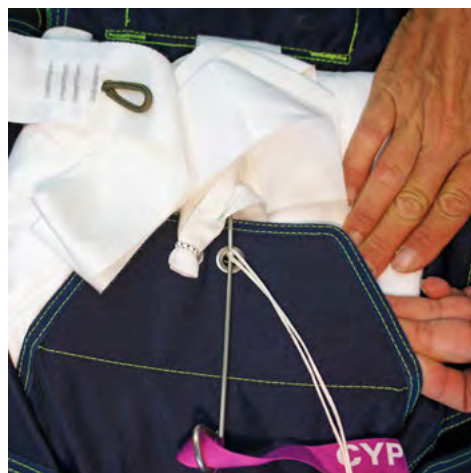
16. Tri-fold reserve bridle lengthwise.



17. Fold and tuck bridle 1/2 inch into Elastic Staging Loop.



18. Fold bridle in "V" as shown.



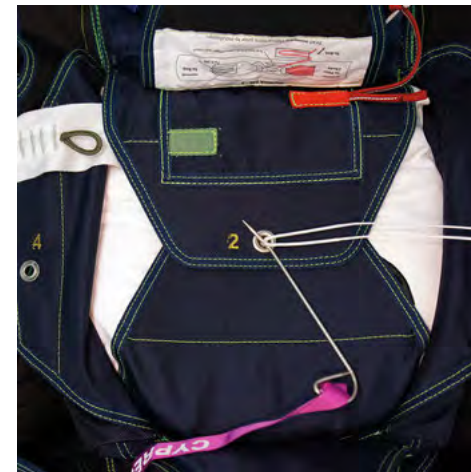
19. Tuck reserve bridle under the #1 flap.



20. Tuck reserve bridle under the #1 flap.



21. Secure reserve bridle under #1 flap.



22. Remove Staging Loop pull-up cord then close #2 flap.



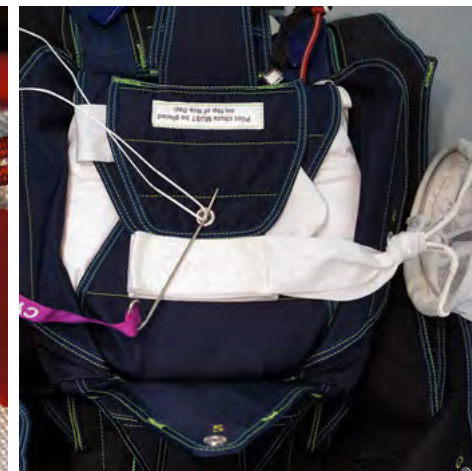
23. Insert the green loop into green tuck tab.



24. Lay the Skyhook bridle over flap #2. Attach the red lanyard to the Skyhook.



25. Secure red lanyard with one turn of 4 lb. break strength red seal thread.



26. Close #2A cover flap and fold bridle crossways as shown.



27. Pass the pull up cord cleanly through the pilot chute from bottom to top plate.



28. Ensure the lower spring coil is up against the spring ejector plate and that the excess bridle sits under the pilot chute without catching the fabric under the spring.



29. Press the pilot chute down into position and hold with a temporary pin. Make sure not to catch the pilot chute fabric under the plate or between the spring coils.

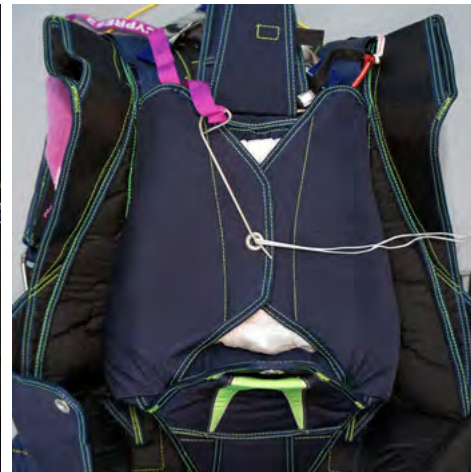


30. Neatly roll the Pilot Chute Fabric up against the outer rim of the Reserve Pilot Chute. Do not tuck the Reserve Pilot Chute Fabric under the lateral closing Flaps #3 and #4.





31. Close the right flap (#3).



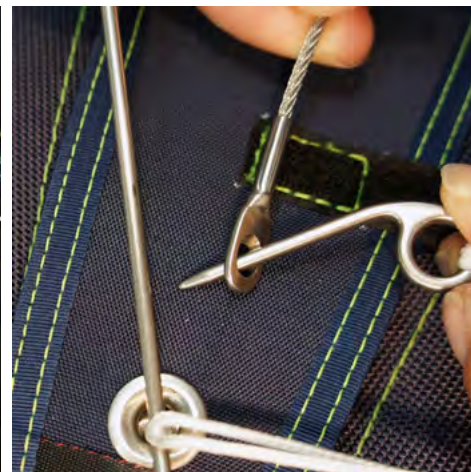
32. Close the left flap (#4).



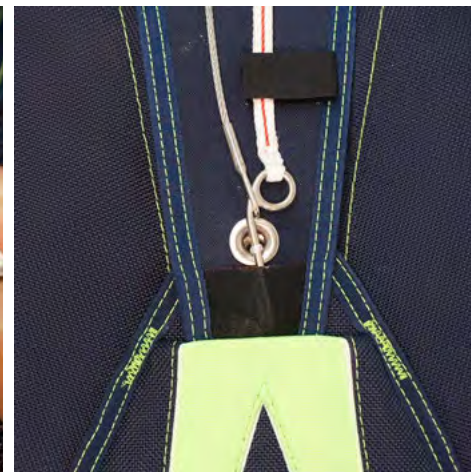
33. Close the bottom flap #5.



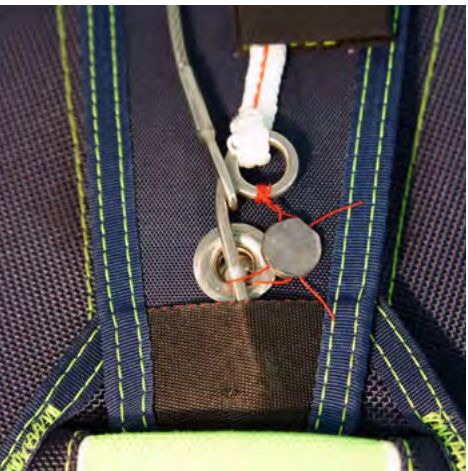
34. Close top flap #6.



35. Insert the reserve pin through the eye of the reserve cable. Make sure pin is inserted in the same direction as the angle of the opening in the ripcord's eye.



36. Insert the reserve pin through reserve closing loop and tuck it under the protector pocket.



37. Seal with rigger's thread and lead seal per applicable regulations.



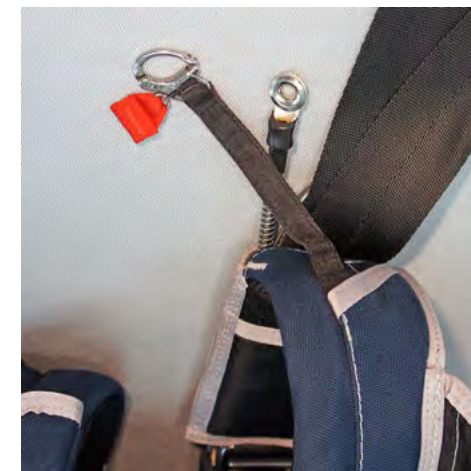
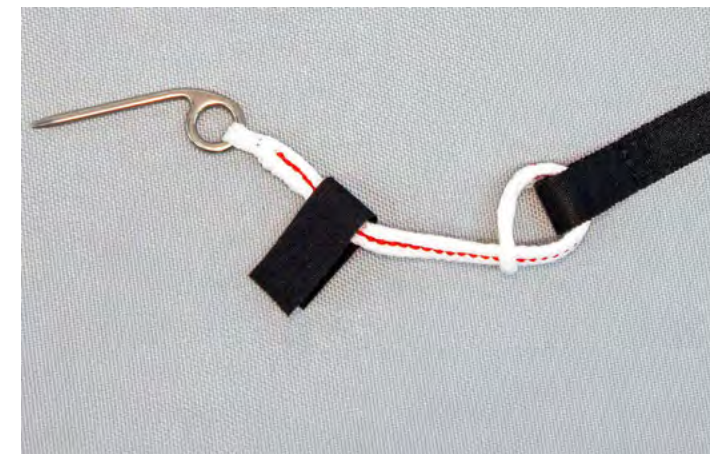
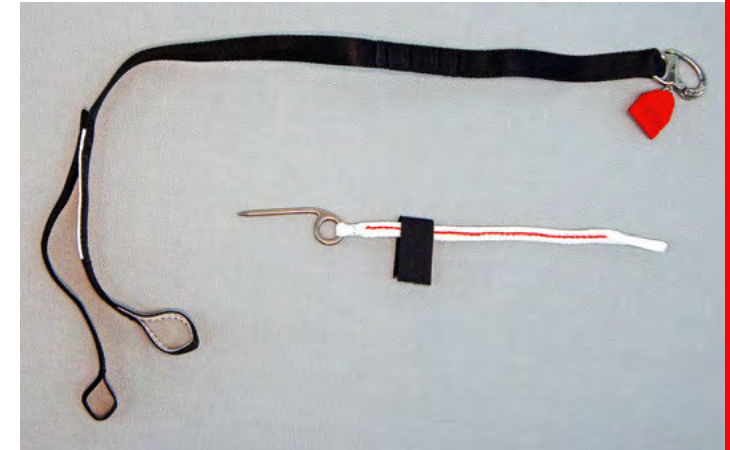
38. Close the final cover flap and tuck the tabs under the #6 flap.

2.4.8 PACKING THE ICON NEXGEN WITH RSL ONLY (NO MARD)

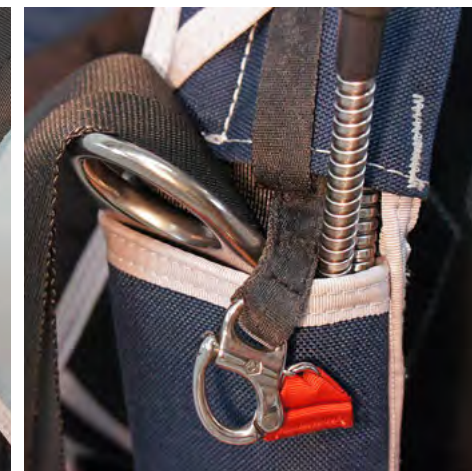
You will need:

- RSL
- Reserve Pin
- Marine Eye Reserve Ripcord

1. Loop the pin's White Lanyard through the open loop on the RSL. Notice not to loop it through the labeled loop for the Cutaway cable. Careful not to catch the Velcro onto the lanyard itself. To avoid this, slightly bend the Velcro parallel to the lanyard and pull in one quick but gentle motion.



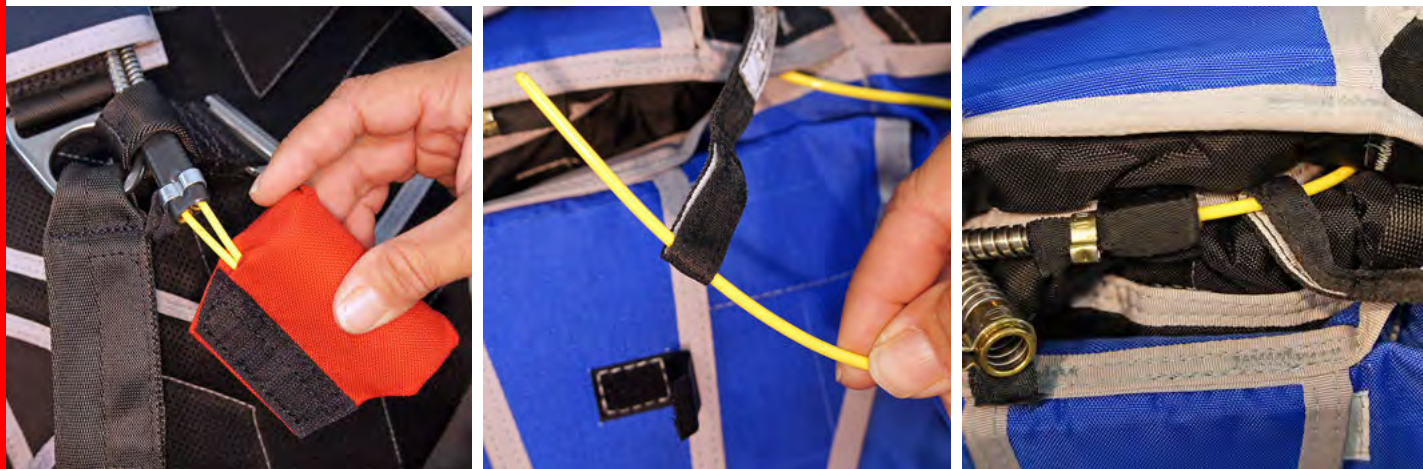
2. Place the RSL on the right riser.



3. Tuck away excess RSL line as shown into the tuck flap and the opening on the yoke.



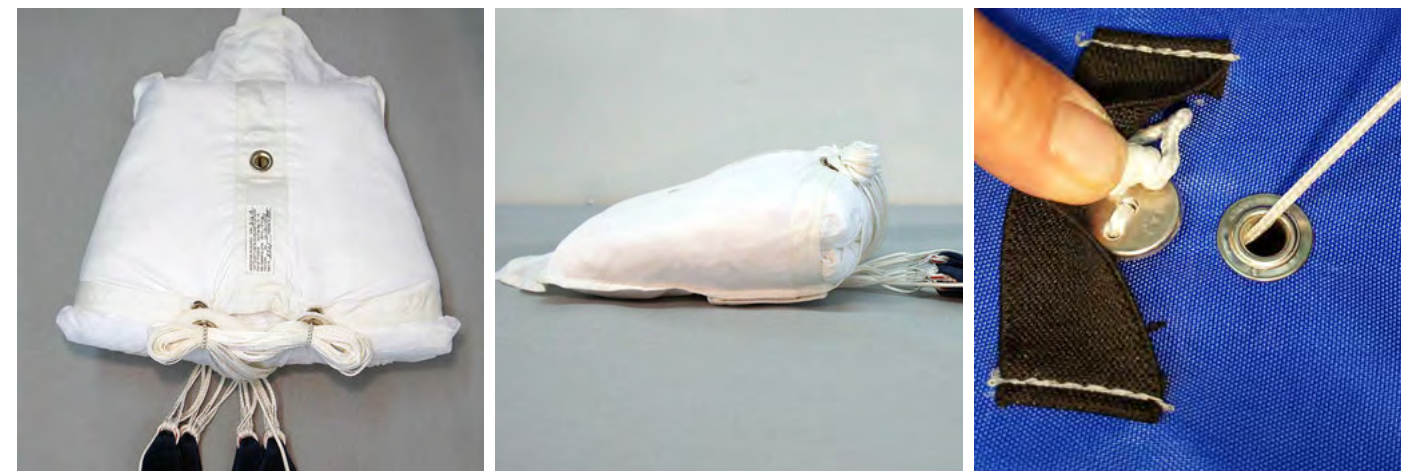
4. RSL Prepared and ready for connection to Riser.



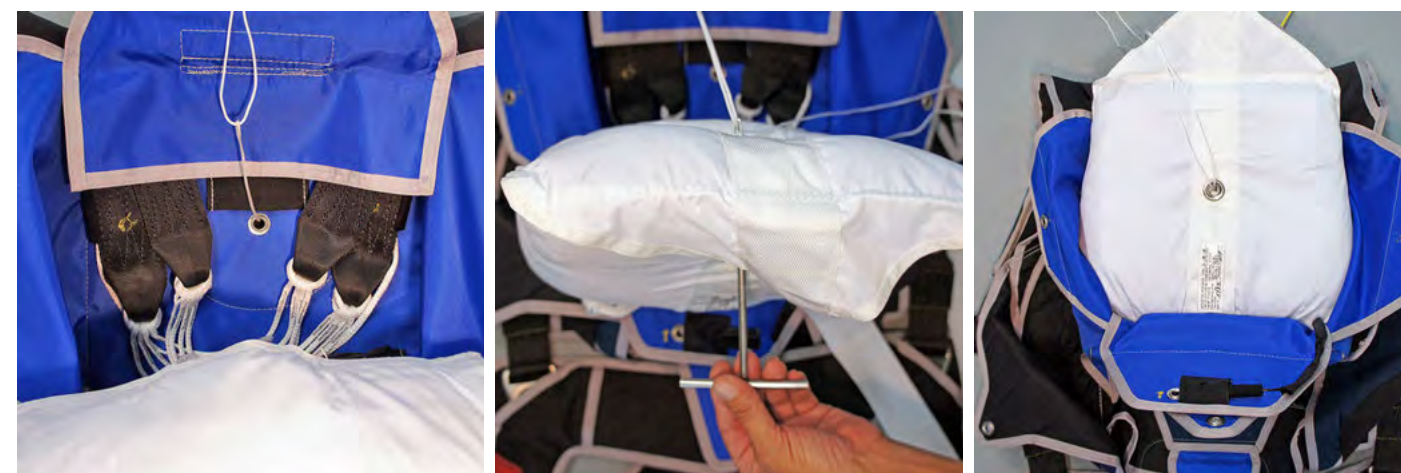
5. Route cutaway cables through their respective housings & attach the handle to the velcro.
6. Insert the left cutaway cable through the labeled loop on the RSL (reserved for the cutaway cable). Next attach the Velcro on the white lanyard to flap #5.
7. **CAUTION:** Verify routing of AAD cables not to be entangled in any way with the RSL.

NOTE:

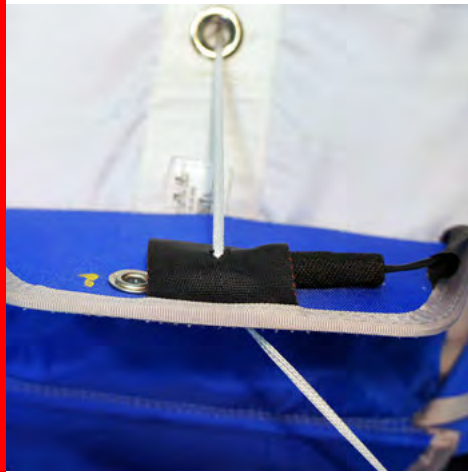
To examine and adjust the length of the cutaway cables: Load the harness slightly and pull the cutaway cable until just before they release from the loops. The left cutaway cable (No RSL) should be approximately 1 inch shorter than the right cable (connected to the RSL) to ensure optimal sequence of release of risers.



8. Prepare the freebag shape as shown on the pictures above.
9. Thread reserve closing loop through both grommets. Thread pull-up cord through closing loop.



10. Lay the risers flat against the container wall.
11. Place the Freebag in the reserve container and thread the reserve loop pull-up cord through Freebag center grommets.
12. Rotate Freebag into reserve container filling lower corners of reserve container.



13. To ensure proper AAD activation make sure your reserve loop is threaded through the AAD cutter.



14. Fold bridle in V-shape pattern as shown. Leave a minimum of 4 ft of bridle to base of reserve pilot chute.



15. Close reserve #1 flap.



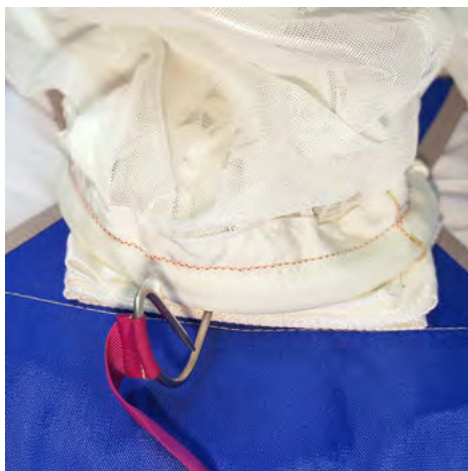
16. Close reserve #2 flap.



17. Close #2A cover flap and fold bridle crossways as shown.



18. Pass the pull up cord cleanly through the pilot chute from bottom to top plate.



19. Ensure the lower spring coil is up against the ejector plate and that excess bridle sits under pilot chute without catching fabric under spring.



20. Press the pilot chute down into position and hold with a temporary pin. Make sure not to catch the pilot chute fabric under the plate or between the spring coils.



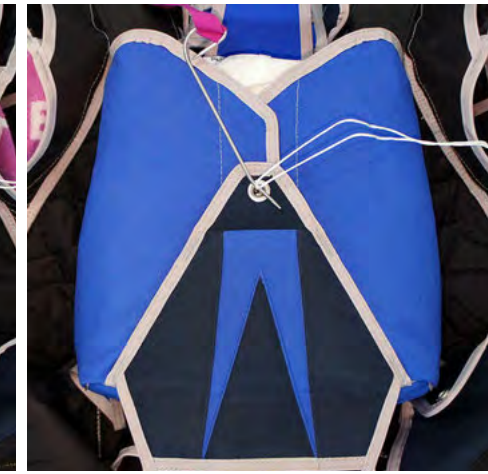
21. Neatly roll the Pilot Chute Fabric up against the outer rim of the Reserve Pilot Chute. Do not tuck the Reserve Pilot Chute Fabric under the lateral closing Flaps #3 and #4.



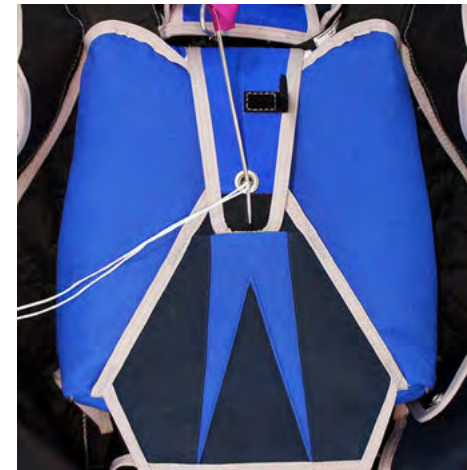
22. Close the right flap (#3).



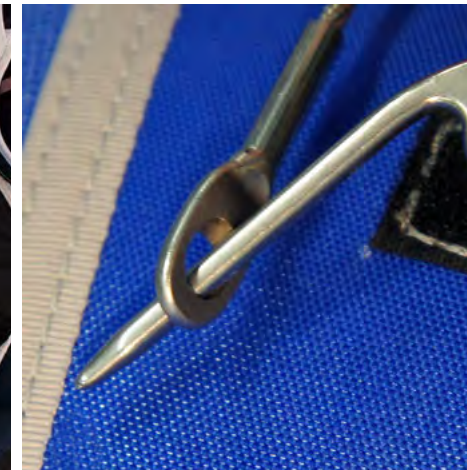
23. Close the left flap (#4).



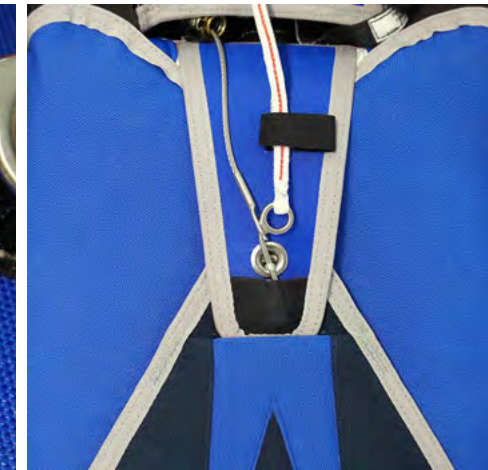
24. Close the bottom flap (#5).



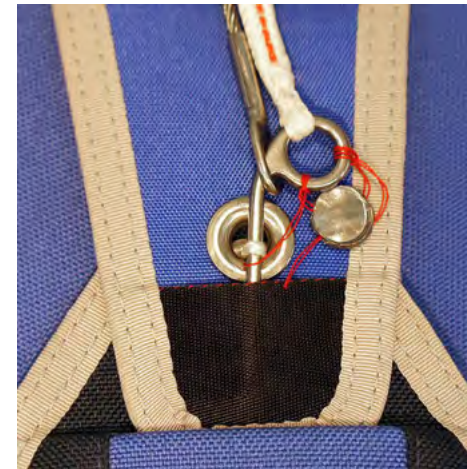
25. Close the top flap (#6).



26. Insert the reserve pin through the eye of the reserve cable. Make sure pin is inserted in the same direction as the angle of the opening in the ripcord's eye.



27. Insert the reserve pin through reserve closing loop and tuck it under the protector pocket.



28. Seal with rigger's thread and lead seal per applicable regulations.



29. Close the final cover flap and tuck the tabs under the #6 flap.

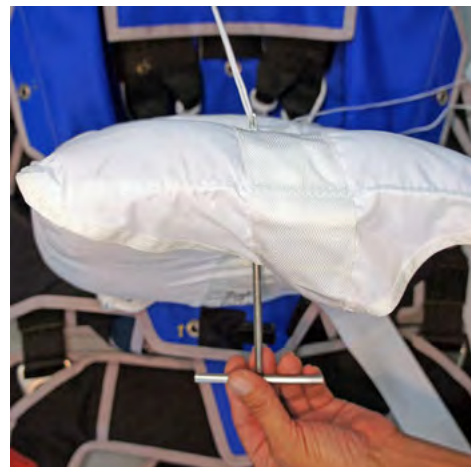
2.4.9 PACKING THE ICON NEXGEN WITH NO RSL AND NO SKYHOOK

1. Prepare the freebag shape as shown on the pictures above.

2. Thread reserve closing loop through both grommets. Thread pull-up cord through closing loop.



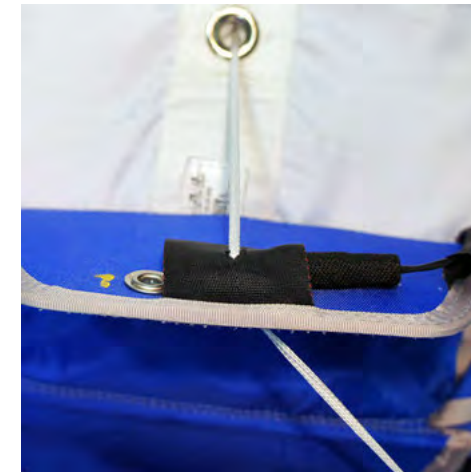
3. Lay the risers flat against the container wall.



4. Place the Freebag in the reserve container and thread the reserve loop pull-up cord through Freebag center grommets.



5. Rotate Freebag into reserve container filling lower corners of reserve container.



6. To ensure proper AAD activation make sure your reserve loop is threaded through the AAD cutter.



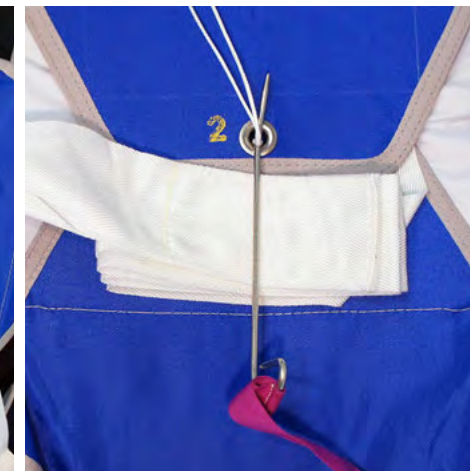
7. Fold bridle in V-shape pattern as shown. Leave a minimum of 4 ft of bridle to base of reserve pilot chute.



8. Close reserve #1 flap.



9. Close reserve flap #2.



10. Close #2A cover flap and fold bridle crossways as shown.



11. Pass the pull up cord cleanly through the pilot chute from bottom to top plate.



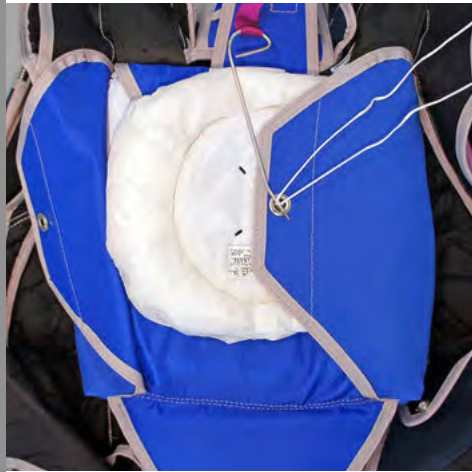
12. Ensure the lower spring coil is up against the ejector plate and that excess bridle sits under pilot chute without catching fabric under spring.



13. Press the pilot chute down into position and hold with a temporary pin. Make sure not to catch the pilot chute fabric under the plate or between the spring coils.



14. Neatly roll the Pilot Chute Fabric up against the outer rim of the Reserve Pilot Chute. Do not tuck the Reserve Pilot Chute Fabric under the lateral closing Flaps #3 and #4.



15. Close the right flap (#3)



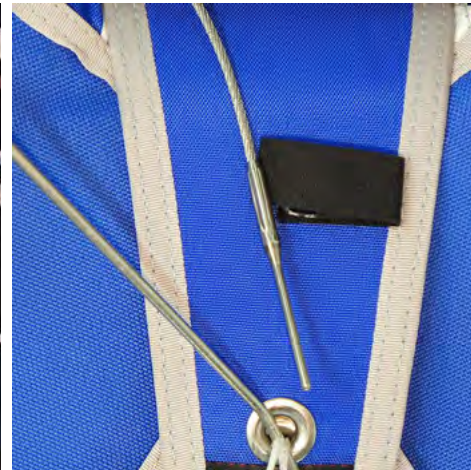
16. Close the left flap (#4)



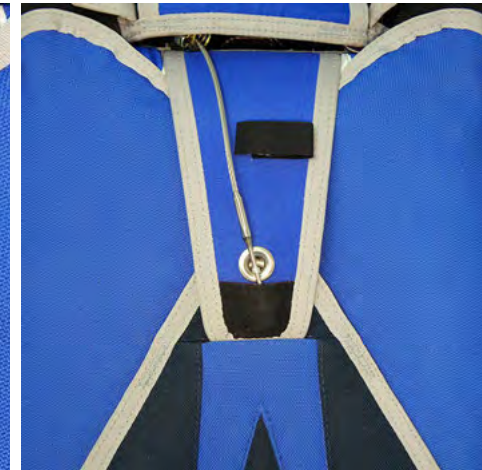
17. Close the bottom flap (#5)



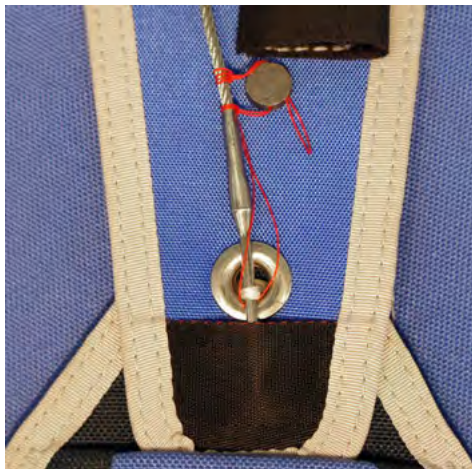
18. Close the top flap (#6)



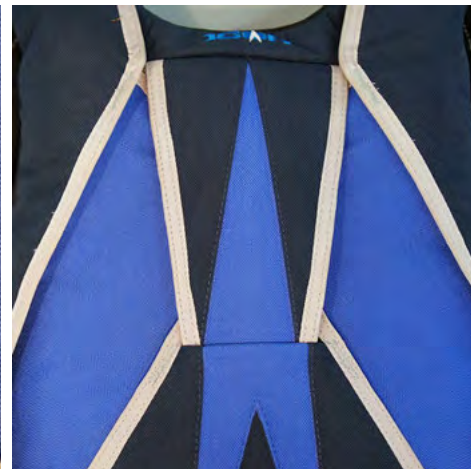
19. Use a Direct Pin reserve ripcord.



20. Insert the reserve pin through reserve closing loop and tuck it under the protector pocket.



21. Seal with rigger's thread and lead seal per applicable regulations.



22. Close the final cover flap and tuck the tabs under the #6 flap

2.5 MAIN ASSEMBLY

2.5.1 ALINKS ASSEMBLY

Assemble the main canopy's soft link as explained on chapter 2.2

2.5.2 MINIFORCE™ THREE RING RISER INSTALLATION

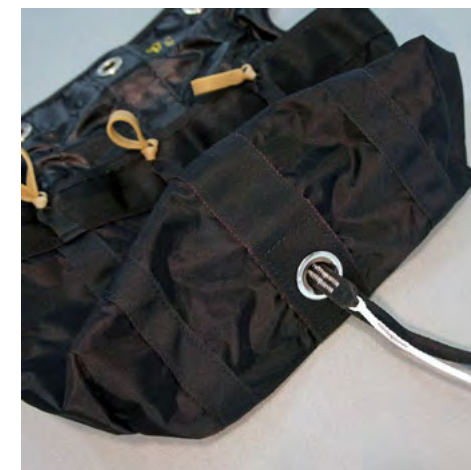


2. Left hand side.

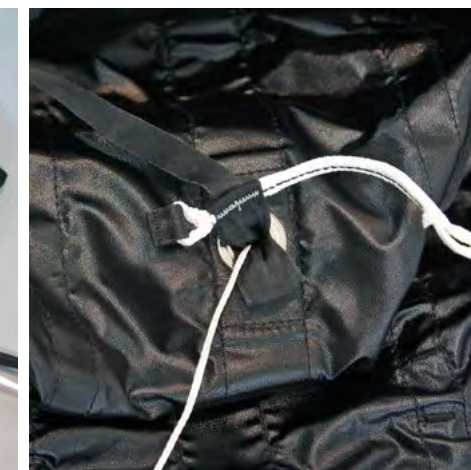


3. Insert the cutaway cable into the Anti-twist Housing.

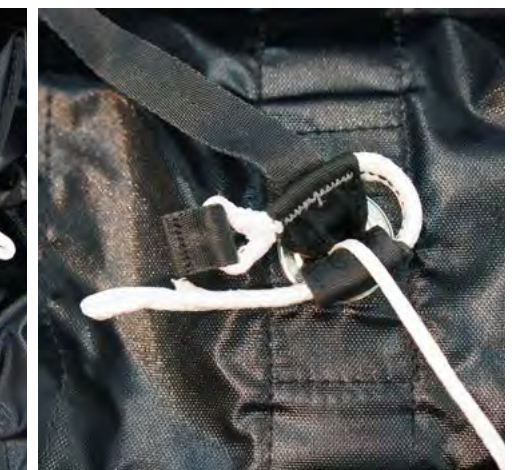
2.5.3 MAIN DEPLOYMENT & D-BAG ASSEMBLY



1. Thread the end loop through the D-bag's bottom grommet from the outside until it stops with the confluence wrap.



2. Make sure to pull into the D-bag as much as possible to facilitate installing the ALink. Follow next steps to complete ALink installation.



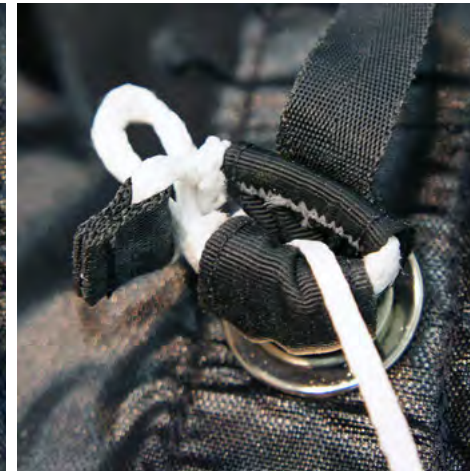
3. Pass the ALink through the empty bridle loop as shown.



4. Pass the ALink through the through the bridle stow as shown.



5. Pass the ALink through the first loop a second time.



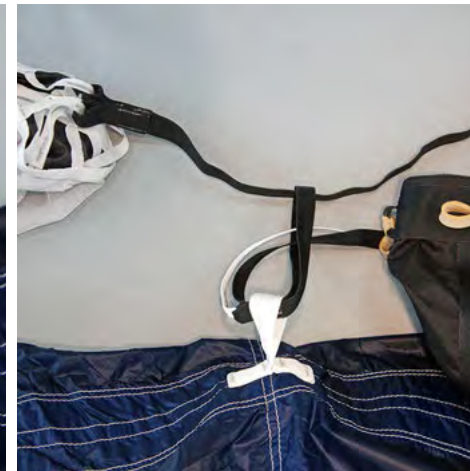
6. Pass the loop end through the tab end as shown.



7. Feed the back over the tab and larkshead as shown. Pull tight.



8. Thread the end loop of the bridle through the canopy's attachment point.



9. Thread the pilot chute and D-bag through the bridle's end loop.



10. Larkshead as shown.



11. Tighten as shown.

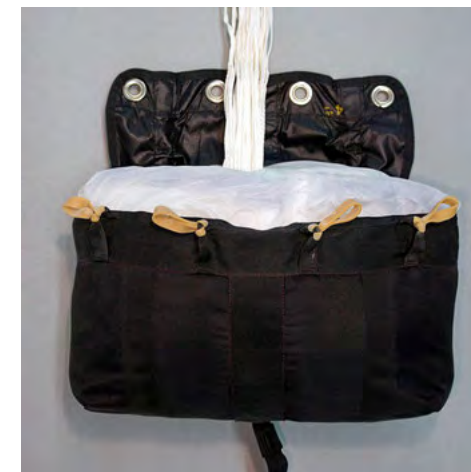


12. Pull the pilot chute to assure it is cocked.



13. Make sure coloured mark shows at the bottom of the bridle window.

2.5.3.1 CLOSING THE MAIN D-BAG



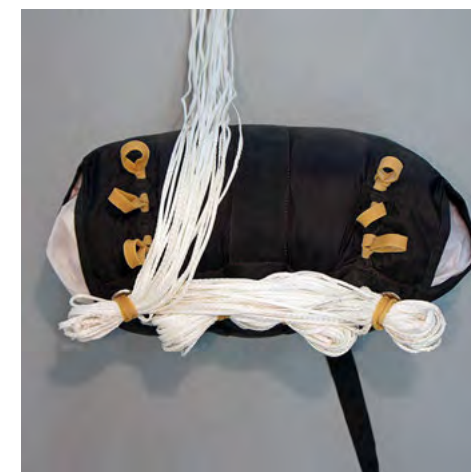
1. Place the main canopy in the D-Bag as shown



2. Stow the first center stow.



3. Stow the second center stow. as shown. Continue stowing the top stows, starting at the mouth of the D-Bag.



4. Top view stowing the top stows.



5. Continue to stow the top stows as shown.

2.5.3.2 CLOSING THE MAIN D-BAG (SEMI-STOWLESS)



1. Place the main canopy in the D-Bag as shown.
2. Stow the first center stow as shown.
3. Continue to the outside stows, ensuring stows are free and clear.



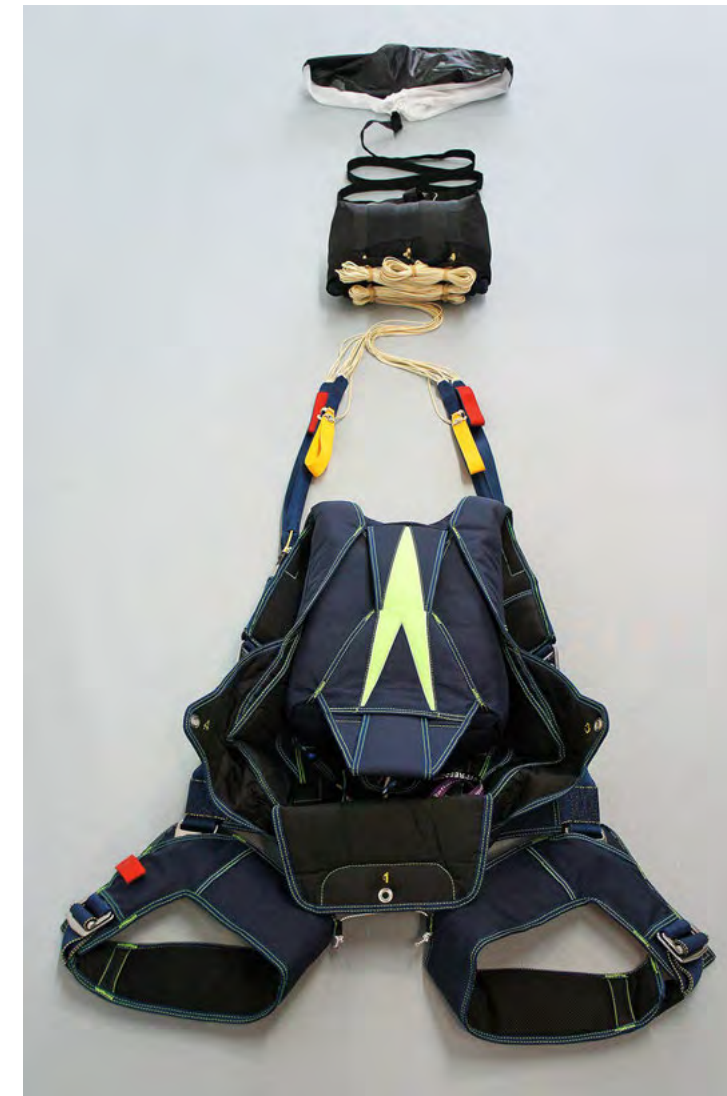
4. Open the line stow flap and begin to figure 8 line placement.
5. Continue to figure 8 between tuck tabs, exit lines at center.
6. Rotate the bag forward on top of the lines.

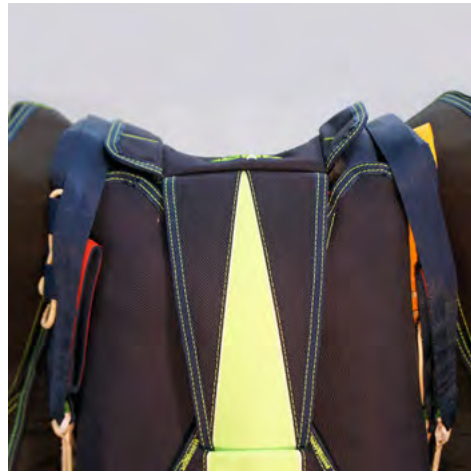


7. Tuck the side tabs into the tab pockets.
8. Stow the top tuck tabs.
9. Deployment bag is now ready to be placed in container.

2.5.4 PACKING THE MAIN CONTAINER

Main assembly before closing the main container:





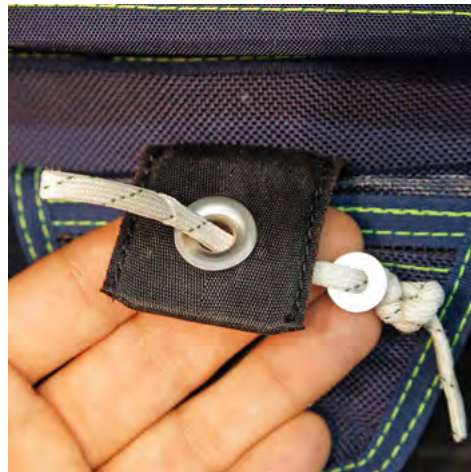
1. Place the main risers along sidewalls inside external riser covers.



2. Close riser covers over the risers



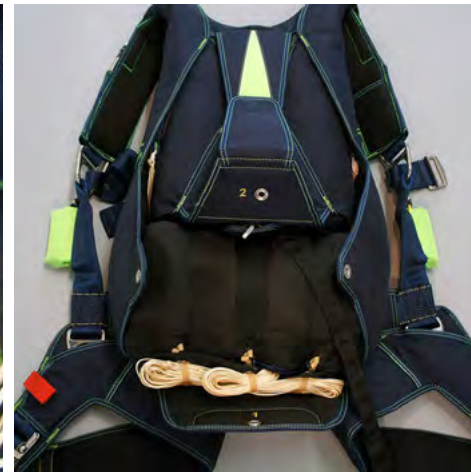
3. Adjust the closure loop length by moving the knot.



4. Pull closure loop into position. Place the washer and knot in the webbing pocket



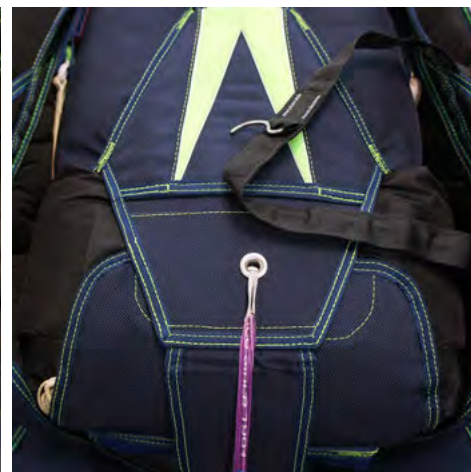
5. Place the main deployment bag in the pack tray with the lines facing down.



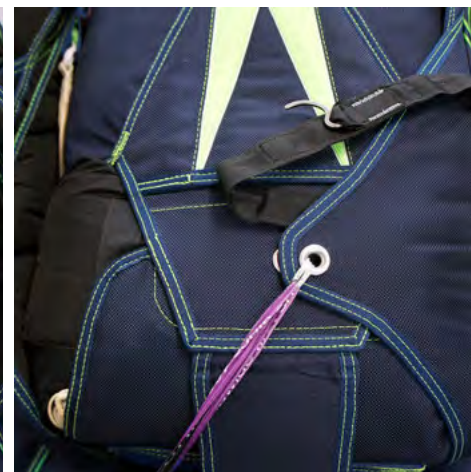
6. Pass the closure loop through the lower flap (#1).



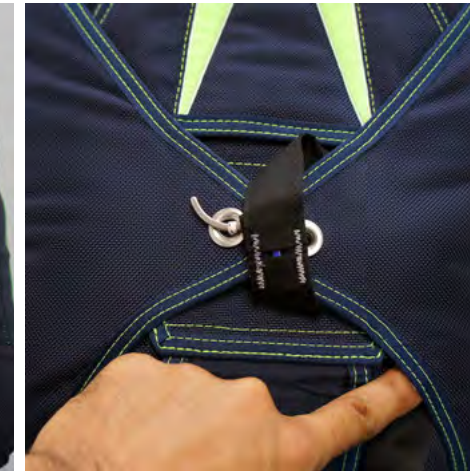
7. Followed by the upper flap (#2).



8. Pass the closing loop through the grommet on the right side flap (#3), making sure the bridle is exiting from the top right of the flap.



9. Pass the closing loop through grommet on the left side flap (#4), and insert the closing pin.



10. Slide the remaining bridle under the right lateral flap



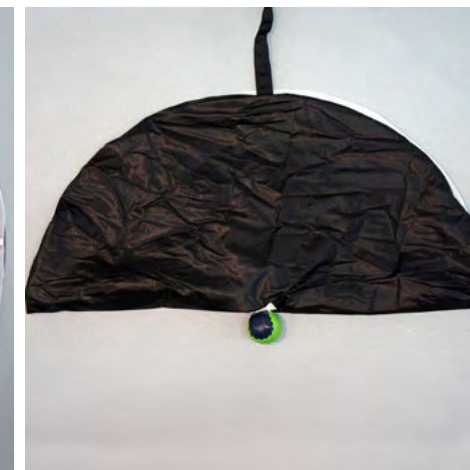
11. Close the main cover flap.

2.5.5 FOLDING THE PILOT CHUTE

Main assembly before closing the main container:



1. Insure that the center line is free.



2. Fold the hand deploy pilot chute as shown.



3. Fold as shown.



4. Fold as shown.



5. Fold in half, top to bottom, as shown.



6. Fold excess bridle on top of the pilot chute.



7. Fold left side as shown.



8. Fold right side as shown.



9. Stow pilot chute in BOC Pocket as shown.



10. Ensure pilot chute is secure and can be accessed by jumper.

2.5.5.1 FREEFLY HANDLE



1. Insert pilot chute into BOC as shown.

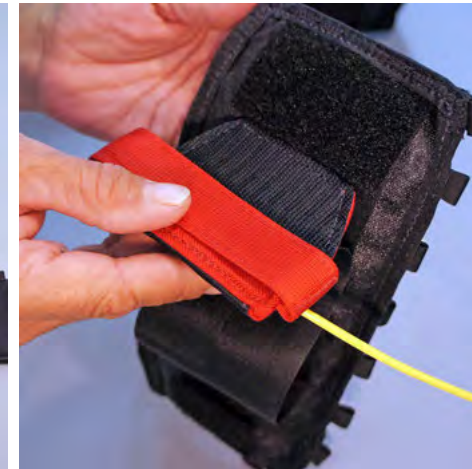


2. Tuck handle tab under the bridle cover.

2.6 AFF REMOVABLE BOC POCKET ASSEMBLY



1. AFF removable BOC.



2. Mate the 3 inch webbing bridle strip/handle hook to pile on underside of BOC pocket.



3. Stow the 3 inch webbing bridle as shown.



4. Thread yellow cable through white loops.



5. Thread yellow cable through 1st loop on BOC. Alternate base loop with pocket loop until completely threaded.



6. Thread yellow cable through loop under Type 12.

3. ICON MAINTENANCE & REPAIRS

The ICON is built with the latest design and production technologies.

Qualified personnel:

All maintenance on the ICON Harness & Container must be done by the Manufacturer or a qualified rigger.

Attention:

The ICON is certified under TSO C23d. The TSO label is sewn on the left reserve riser. If this label is not present do not pack the rig.

REMOVAL OF THE CERTIFICATION OR WARNING LABEL VOIDS THE TSO AND ALL CERTIFICATION APPROVALS.

3.1 INSPECTION FREQUENCY

RESERVE:

Reserve maintenance and packing: Verify local regulations on reserve canopy maintenance. If none are available, follow these recommendations. Service the reserve canopy at 1 year intervals in normal conditions of use and storage. If the conditions are different, the time between maintenance operations may be reduced by the user.

MAIN:

One month or 50 jumps.

3.2 MAINTENANCE PROCEDURE

Operations on the reserve canopy:

WARNING: A reserve canopy is not always used in ideal conditions. It is possible that your rig or some components are damaged during use (Burns, broken stitching, moisture, etc.). For these reasons it is necessary to check all the minor and major components before making a decision to reuse and repack it.

IF THERE ARE ANY VISIBLE SIGNS OF WEAR OR DAMAGE, HAVE YOUR RIG INSPECTED BY A QUALIFIED RIGGER FOR ADVICE ON REPAIR OR REPLACEMENT OF PARTS.

WARNING: NEVER USE SLIDER BUMPERS ON THE RESERVE CANOPY.

CHECK:

- All stitching
- Webbing - tapes – binding tapes – fabric integrity
- Plastic plate integrity
- Hardware for sharp edges or damage
- Grommets for damage

ACCESSORIES:

- CYPRES reserve closure loop replaced as needed
- Cutaway handle cables are clean and in good condition with no damage to cable coating
- Cutaway cable maintenance:
 - Use clean cloth and wipe away cables with silicone spray.
 - Thread back through housings, remove, clean
 - Repeat until cutaway cables can be removed clean.
- Reserve handle. Look for no sharp edges and that swaging is in good condition
- Reserve Freebag stitching and grommets. Replace shock cord if damaged
- Reserve bridle is in good condition
- Reserve pilot chute fabric, spring attachment & condition

OPERATIONS ON THE MAIN HARNES AND CONTAINER EVERY 50 JUMPS

INSPECTION OF ALL COMPONENTS

HARNES CONTAINER CHECK:

- All stitching
- Webbing – tapes – binding tapes – fabric integrity
- Plastic plate integrity
- Hardware for sharp edges or damage
- Grommets for damage
- Replace main closure loop with new

ACCESSORIES:

- Main D-bag stitching, tapes and change rubber stowing bands
- Main bridle & kill line stitching and kill line condition
- Hand deploy pilot chute stitching, mesh & fabric condition
- Main risers and three ring miniforce system
- Toggle's stitching and pin

Miniforce™ three ring maintenance: release the three ring system every 50 jumps and knead the webbing by twisting risers.

5. NOTES



