

HARNESS/CONTAINER SYSTEM (AC100-3)

OWNER'S MANUAL

THE UNINSURED

PEREGRINE MANUFACTURING INC

330 DAY STREET | BROOKLYN CT | 06234 | USA | 860-333-1461 WWW.PEREGRINEMFGINC.COM



TABLE OF CONTENTS

TABLE OF CONTENTS	ii
WARNING	ii
THANK YOU	iii
CONTACT US	iii -
USING THIS MANUAL	iv
CONVENTIONS	iv
MANUAL REVISION HISTORY	v
TECHNICAL SPECIFICATIONS	1
OPERATING LIMITATION	2
COMPONENTS	3
CANOPY COMPATIBILITY CHART	4
	5
WASHING THE CONTAINER	6
REPAIRS	6
OPERATION OF THE FALKYN	7
BEFORE JUMPING	8
USER INSPECTION	9
3-RING RELEASE SYSTEM	
RESERVE ASSEMBLY	12
HARNESS / CONTAINER INSPECTION	
APPROVED AADs	16
INSTALLING THE AAD	
INSTALLING THE UNIVERSAL RSL	20
INSTALLING THE RELEASE HANDLE	23
CUTAWAY CABLE LENGTHS	24
INSTALLING THE RESERVE RIPCORD HANDLE	25
ATTACH FREEBAG TO RESERVE PILOT CHUTE	26

TRACKING DEVICE POCKET 27
ASSEMBLING THE RESERVE CANOPY
RESERVE CANOPY INSPECTION
PACKING THE RESERVE CANOPY
BEFORE PACKING
RECOMMENDED TOOLS
PREPARE THE FREEBAG
PREPARE THE RESERVE CLOSING LOOP
SETTING THE BRAKES
PACKING THE RESERVE CANOPY
CLOSING THE RESERVE CONTAINER
SEALING THE RESERVE PIN
MAIN ASSEMBLY
ASSEMBLING THE 3-RING RELEASE SYSTEM 60
ATTACHING UNIVERSAL RSL TO RISER
ASSEMBLING THE MAIN CANOPY 64
ASSEMBLING THE PILOT CHUTE
ATTACHING THE PILOT CHUTE TO CANOPY
MAIN CLOSING LOOP 67
INSTALLING THE LEG STRAP BUNGEE 68
PACKING THE MAIN CANOPY70
COCKING THE PILOT CHUTE
SETTING THE BRAKES
PACKING THE MAIN
CLOSING THE MAIN CONTAINER

WARNING



PARACHUTING IS A HAZARDOUS ACTIVITY WITH INHERENT RISKS AND DANGERS THAT CAN RESULT IN SERIOUS INJURY OR DEATH! THERE ARE NO GUARANTEES THAT ANY EQUIPMENT WILL FUNCTION AS INTENDED, REGARDLESS OF HOW IT IS ASSEMBLED, PACKED, MAINTAINED OR USED. SERIOUS INJURY OR DEATH CAN RESULT FROM THE USE, MISUSE, OR ATTEMPTED USE OF ANY PARACHUTE EQUIPMENT. AS THE USER OF THIS EQUIPMENT, YOU ASSUME ALL RISKS OF SERIOUS INJURY, PERMANENT INJURY, OR DEATH.

!!! THE USER ASSUMES ALL RISK !!!

THANK YOU

Thank you for purchasing a Falkyn (AC100-3) Harness/Container system! It is our goal of The Uninsured Peregrine Manufacturing Inc. to produce and sell high quality sport parachute equipment that is reliable and safe. We are proud to manufacture our equipment with state-of-the-art materials, utilizing innovative engineering technology, and up to date manufacturing methods.

Peregrine Manufacturing Inc is committed to customer satisfaction by upholding our highest of quality equipment and continuous improvement; always meeting or exceeding the expectations of our customers. In this effort, it is very important for us to receive your honest feedback. Please do not hesitate to reach out to us with questions, observations, issues, or suggestions that you may have.

Again, we thank you for your choice in the Falkyn Harness/Container system and we hope for your continued loyalty in Peregrine Manufacturing Inc.



USING THIS MANUAL

The purpose of this manual is to familiarize the parachute rigger and users with the functions, features, packing procedures, and other technical specifications of the Falkyn Harness/Container system manufactured by The Uninsured Peregrine Manufacturing Inc.

The intention of this manual is NOT to be considered training of parachute jumping or packing. This manual shall be completely read and fully understood by any user who intends to use this Harness/Container system for sport parachuting. It is the responsibility of the user to be sure that the parachute system is correctly assembled, packed, maintained and used. It is also the user's own responsibility to assure that he/she is qualified for participation in sport parachuting activities.

For more information on the Falkyn Harness/Container system and general information, about Peregrine Manufacturing Inc please visit our website: http://www.peregrinemfginc.com

CONVENTIONS

These conventions are used throughout this manual:

NOTE

This symbol is used to spotlight additional information to a procedure that may be helpful to the user.

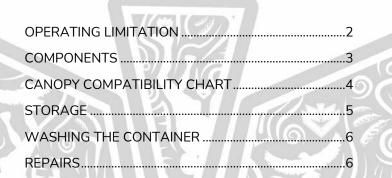
WARNING

This symbol is used to spotlight safety information and warn the user of potential danger, injury, or death.

MANUAL REVISION HISTORY

REVISION	DATE	DESCRIPTION
1.0	22APR2022	Initial release
Ì		
	6, 1	
6		
	うれし	
TE		
1		STUV Rais
	TE E	
		283 av 1911

TECHNICAL SPECIFICATIONS



OPERATING LIMITATION

H100-1 Standard Main Lift Web (Non-articulated)			
Maximum Operating Exit Weight:	250 lbs. (113 kg)		
Maximum Operating Opening Speed:	173 mph (150 kts)		
Average Test Peak Forces Measured:	5278 lbs (2394 kg)		
Test Weight:	366 lbs (166kg)		
Test Speed:	207 mph (180 kts)		
	S OCSV		

H100-2 Hip Ring Articulation Main Lift Web				
Maximum Operating Exit Weight:	305 lbs. (138 kg)			
Maximum Operating Opening Speed:	173 mph (150 kts)			
Average Test Peak Forces Measured:	5278 lbs. (2394 kg)			
Test Weight:	366 lbs. (166kg)			
Test Speed:	207 mph (180 kts)			

The Falkyn (AC100-3) Harness/Container system was tested in accordance with AS-8015b and is approved by the FAA under TSO C23d.

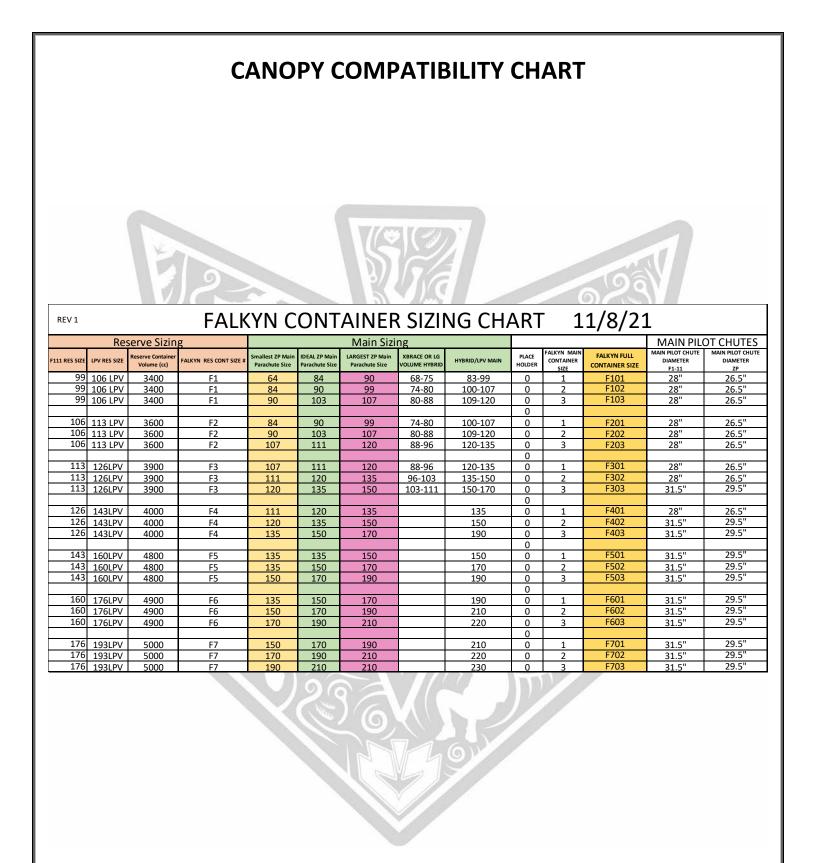
The TSO label is located on the rear of the wearer's left side, back pad. If the label is not present or has been removed, DO NOT PACK THE SYSTEM!



REMOVAL OF THE TSO LABEL, VOIDS THE TSO AND ALL CERTIFICATION APPROVALS







STORAGE

While the parachute equipment is not in use, it is recommended to store the equipment in a cool, dark, and dry place where temperature and humidity can be maintained.

Textiles/materials used in the manufacturing of parachute equipment are susceptible to the following items and should be avoided:

Ultraviolet Light, Sunlight & Direct LED light	This will quickly and permanently weaken the textiles/materials on your Falkyn. Prevent this damage from happening, by keeping your equipment out of direct light as much as possible.
Excessive Heat	Excessive heat, like the trunk of your vehicle on a hot sunny day, could cause damage the textiles/materials on your Falkyn and your canopies. Avoid excessive heat as much as possible.
Fresh Water	Fresh water will not damage your Falkyn, but excessive agitation could weaken the weave of the fabrics and potentially cause colors to bleed.
Salt Water	Salt water may damage textiles and cause corrosion on hardware, it must be immediately and thoroughly washed off with fresh water.
Acids (Bleach)	Acids will damage your Falkyn. Avoid placing your equipment where there may be have been acid present. If discoloration of materials is present or you suspect your equipment came into contact with acid, immediately have it thoroughly inspected by a certified rigger.
Petroleum Based	While these may not damage your equipment; they will stain your equipment.
Products (Oil,	Consult a certified rigger to remove such contaminations.
Grease)	
Sand /Soil	Try to avoid contact with sand and soil. Sand can cause abrasion and weaken the fabrics over time. Soil/Mud should be gently brushed off after it has dried. Consult a certified rigger if your equipment has been heavily contaminated by either.
Rodents/Pests	Rodents and pests could potentially damage your equipment. Keep rodents and pests away from your equipment.

WASHING THE CONTAINER

Your container should only be washed by an FAA certified Rigger.

It may be desired to have your container washed if it's excessively dirty.

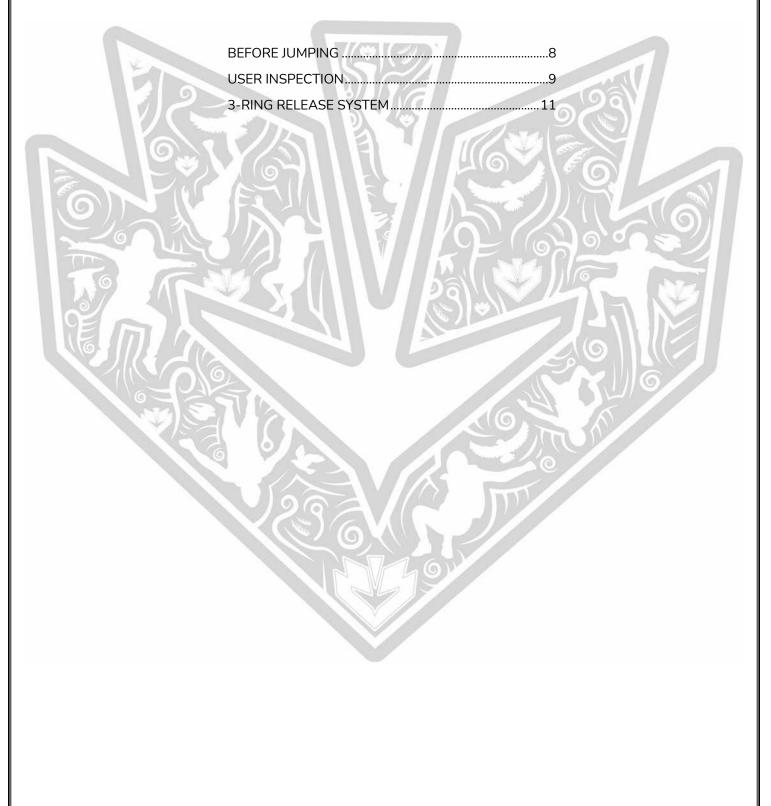
- Disassemble entire rig prior to washing and cover any exposed Velcro
- Remove: cutaway handle, reserve handle, packing data card and closing loops
- PMI recommends using lukewarm/cold soapy water and WOOLITE® detergent
- Ideal washing method is to use a large tub, let rig soak for 1-3 hrs. and rinse several times until water is no longer soapy
- Dry the rig with a fan to speed up drying time DO NOT DRY IN DIRECT SUNLIGHT!!

PLEASE DO NOT WASH YOUR CONTAINER IN A WASHER MACHINE :)

REPAIRS

Peregrine Manufacturer Inc, highly recommends that all major repairs to the FALKYN (AC100-3) Harness/Container system be made directly at the manufacturer's facility.

OPERATION OF THE FALKYN



BEFORE JUMPING

WARNING

Before using your new FALKYN (AC100-3) Harness/Container System, you must:

- Read and understand this manual
- Be properly trained and qualified to participate in sport parachuting activities

GEAR CHECK PRIOR TO DONNING RIG

- AAD
- Reserve Pin Position and Ripcord Routing
- Main Pin Position and Bridle Routing
- 3 Handles
- 3 Ring Release System (L+R)
- 3 Straps (Chest & Legs x2)

GEAR CHECK AFTER DONNING RIG

"CHECK OF 3's"

- 3 HANDLES in correct sequence of use
- 3 RING RELEASE SYSTEM (L+R)
- 3 STRAP correctly routed
- Main Pin Check

Perform Check of 3's: After Donning Rig • In Loading Area • Prior to Exiting

USER INSPECTION

IF THERE ARE ANY VISIBLE SIGNS OF WEAR OR DAMAGE, HAVE YOUR RIG THOROUGHLY INSPECTED BY A CERTIFIED PARACHUTE RIGGER OR OUR MANUFACTURING FACILITY BEFORE NEXT USE.

Prevention of accidents is of prime importance in the sport of parachuting. One way to reduce these accidents is to inspect the equipment on a consistent schedule and to perform preventative maintenance whenever necessary.

The following checklist is provided for a framework in developing your own inspection and maintenance schedule. It is suggested that inspections be performed every 20 jumps or every month, whichever is more frequent.

1. Main Pilot Chute: Watch for fraying of the tapes which attach the handle to the top of the pilot chute. If the tape is frayed, have it replaced. Also inspect the stitches on the tape, if they are missing have it repaired. Unnoticed damage could result in the handle coming off when you are trying to pull the pilot chute out of its pouch, and it may be impossible to deploy the main parachute.

The length of the centerline on a "kill-line" type bridle is very important and critical. When fully cocked, it must be at least as long as the suspension tapes on the mesh of pilot chute, preferably about one inch longer. If the centerline is shorter than the suspension tapes, the pilot chute is very close to a configuration in which a drastic loss of drag can occur resulting in a delayed opening. It is relatively simple to inspect the centerline, if you do not understand or know how to have a certified rigger show you.

- 2. Main Bridle: Check the entire length of bridle for abrasion or cuts in material and/or missing stitching. Pay close attention to the attachment of the curved pin. The tape material must be replaced if it is frayed and any broken stitches must be resewn or repaired. Failure to inspect could result in the curved pin detaching from the bridle during deployment leaving the jumper with a pilot chute in tow from a closed container.
- **3. Main Deployment Bag:** Inspect the attachment of the bridle to the main deployment bag. If damage is present, have it replaced. Be sure that the locking stow rubber bands are in good condition. If a locking-stow breaks during deployment, the canopy could be released from the d-bag out of sequence and directly into deploying lines, inviting an entanglement.
- **4. Risers:** Inspect the risers. The control line guide rings should be inspected to assure that their attachment to the riser is secure and the ring has no damage. Check the securing/locking loop for

fraying, and check the grommets for any sharp edges which could damage the loop. The control toggles should fit snug in the stowing pockets, have repaired if not snug. Loose control toggle stow pockets, could result in a toggle fire during opening.

- **5. Control Toggles:** The attachment of the control line to the control toggle is important. Check for fraying and be sure that the knot is secure or loop has a bartack stitch present. Check all finger trap sections and securing knots or bartacks. If a control line breaks or a toggle comes off the line when a jumper is near the ground, the jumper may not be able to regain control prior to landing.
- 6. Closing Flap Grommets and Hardware: Inspect for any sharp edges that could potentially damage the closing loop. Replace if necessary.
- **7. Closing Loops:** At the first sign of fraying, replace the closing loop. If a closing loop breaks at an inappropriate time, it can cause serious injury or death and should be avoided at all costs.
- 8. Harness: Inspect all exposed parts of the harness webbing for fraying, cuts, or abrasion wear and tear. If the edges of any harness webbing is worn or cut in depth more than 1/8", it must be repaired or replaced. Broken harness stitching must be repaired or replaced immediately to avoid further degradation.

The list provided above includes several items which often are neglected even though they may pass through the hands of the jumper every time the parachute is packed. In a complete system there are other components not manufactured by Peregrine Manufacturing, which should be inspected according to the instructions provided by their manufacturer. This includes both main and reserve canopies, AADs, and any other item of which that is combined with the use of the AC100-3 system.

3-RING RELEASE SYSTEM

REQUIRED PERIODIC MAINTENANCE

The 3-Ring Release System has been in use for many years with excellent results. Although the system is as durable as the rest of the Harness/Container assembly, it requires periodic maintenance and inspection to ensure proper operation. Generally, it is NOT recommended that the risers be attached to the harness when new and "forgotten." Like all skydiving gear, the 3-Ring Release should be carefully inspected and operated on a regular basis. The procedures below should be done at least every month. This is especially important if the rig has not been used for a month or more, such as during the winter. Immediate inspection is required if it has been subjected to abuse such as a being dragged across the runway, a water landing, or exposure to a lot of dust or sand.

- **1.** Every month operate the 3-Ring Release System on the ground. Extract the cable completely from the housings and disconnect the risers.
- 2. While the system is disassembled, closely inspect it for wear. Check the locking loops (the ones that pass over the smallest ring and through the grommet) to be sure they are not frayed or damaged.
- **3.** On the main lift web, check the Velcro on the cutaway handle to be sure it is clean and adequately holds the handle.
- 4. Check the cable ends for a smooth finish. The ends are finished at the factory to have a smooth, tapered surface. This prevents the cable from hanging up in the loop. Check the cable ends and consult a rigger or the manufacturer if a burr or "hook" is present.
- 5. Check the stitching, including that which holds the large rings to the harness.
- 6. Pull downward on the housings. They shouldn't move downwards more than 1/2 inch.
- **7.** Take each riser and vigorously twist and flex the webbing near where it passes through each ring. The idea is to remove any set or deformation of the webbing. Do the same thing to the white loop. (FIG. 1)
- 8. Check the housings for dents or other obstructions. Use the cable to do this.
- **9.** Clean and lubricate the release cable with Silicone. Put a few drops or light spray onto a paper towel and firmly wipe the cable a few times. A thin, invisible film should remain--too much will attract grit and dirt, or could become tacky in cold weather. Too much may require more force to extract the cable during a breakaway.
- **10.**Inspect the fittings at the end of each housing. If one of these fittings were to come off the housing, a riser might release prematurely.
- **11.** If any damage is found, consult a rigger or the manufacturer before using the system.
- **12.**Reassemble the 3-Ring Release System. Have a qualified instructor or certified rigger double check that you reassembled the 3-Ring Release System correctly.

It's important to maintain the system even more frequently in humid, muddy or freezing conditions. If the Harness/Container system becomes immersed in mud or muddy water, clean the 3-Ring Release System with a mild solution of soap and fresh water. **Any rusted or corroded components must be replaced.**

RESERVE ASSEMBLY

A DECEMBER OF A	
HARNESS / CONTAINER INSPECTION	13
APPROVED AADs	16
INSTALLING THE AAD	16
INSTALLING THE UNIVERSAL RSL	20
INSTALLING THE RELEASE HANDLE	23
CUTAWAY CABLE LENGTHS	24
INSTALLING THE RESERVE RIPCORD HANDLE	25
ATTACH FREEBAG TO RESERVE PILOT CHUTE	26
TRACKING DEVICE POCKET	27
ASSEMBLING THE RESERVE CANOPY	28
RESERVE CANOPY INSPECTION	31

HARNESS / CONTAINER INSPECTION

LIMITS AND GUIDELINES FOR DAMAGE:

Limits and guidelines for webbing are applicable to all sections of the harness. To include reserve risers, main lift web, lateral/diagonal and leg straps.

At every repack cycle, the entire Harness/Container system should be thoroughly inspected. Completion of this inspection and annotation on the packing data card implies that the certifying party has inspected and deemed the harness, container and all applicable components to be airworthy and ready for use.

The following checklist is a guideline for ALL Harness/Container components be inspected at every reserve repack or assembly:

1. Main Pilot Chute: Watch for fraying of the tapes which attach the handle to the top of the pilot chute. If the tape is frayed, have it replaced. Also inspect the stitches on the tape, if they are missing have it repaired. Unnoticed damage could result in the handle coming off when you are trying to pull the pilot chute out of its pouch, and it may be impossible to deploy the main parachute.

The length of the centerline on a "kill-line" type bridle is very important and critical. When fully cocked, it must be at least as long as the suspension tapes on the mesh of pilot chute, preferably about one inch longer. If the centerline is shorter than the suspension tapes, the pilot chute is very close to a configuration in which a drastic loss of drag can occur resulting in a delayed opening.

- 2. Main Bridle: Check the entire length of bridle for abrasion or cuts in material and/or missing stitching. Pay close attention to the attachment of the curved pin. The tape material must be replaced if it is frayed and any broken stitches must be resewn or repaired. Failure to inspect could result in the curved pin detaching from the bridle during deployment leaving the jumper with a pilot chute in tow from a closed container.
- **3. Main Deployment Bag:** Inspect the attachment of the bridle to the main deployment bag. If damage is present, have it replaced. Be sure that the locking stow rubber bands are in good condition. If a locking-stow breaks during deployment, the canopy could be released from the d-bag out of sequence and directly into deploying lines, inviting an entanglement.
- **4. Risers:** Inspect the risers. The control line guide rings should be inspected to assure that their attachment to the riser is secure and the ring has no damage. Check the securing/locking loop for fraying, and check the grommets for any sharp edges which could damage the loop. The control toggles should fit snug in the stowing pockets, have repaired if not snug. Loose control toggle stow pockets, could result in a toggle fire during opening.

- **5. Control Toggles:** The attachment of the control line to the control toggle is important. Check for fraying and be sure that the knot is secure or loop has a bartack stitch present. Check all finger trap sections and securing knots or bartacks. If a control line breaks or a toggle comes off the line when a jumper is near the ground, the jumper may not be able to regain control prior to landing.
- 6. Closing Flap Grommets and Hardware: Inspect for any sharp edges that could potentially damage the closing loop. Replace if necessary.
- **7.** Closing Loops: The reserve closing loop MUST be replaced at every reserve repack. It is good practice to replace the main closing loop during the reserve repack cycle as well.
- 8. Harness: Inspect all exposed parts of the harness webbing for fraying, cuts, or abrasion wear and tear. If the edges of any harness webbing are worn or cut in depth more than 1/8", it must be repaired or replaced. Broken harness stitching must be repaired or replaced immediately to avoid further degradation. Inspect all hardware on Harness/Container is free from damage.

9. ACE RSL Components:

- a. Inspect the ACE pin for burrs, sharp edges, nicks, cuts or bends
- b. Inspect the ACE modification main body and the green check window tab
 - Check stitching securing main body to bridle
 - Check 2" polyester channel
 - Check all plastic inserts for breaks
 - Inspect the #0 SS grommet, be sure that it is properly installed ,no nicks, cuts or rough edges.
 - Inspect the Dyneema line for broken strands, burns or any other damage
 - Ensure the 4 bar tacks (securing Dyneema line) are present, 3 intersecting the line and 1 on top of the line.
- c. Inspect the Air Snare pocket (on Reserve Container Sub-Flap): Check for broken threads, holes or burns
- d. Inspect the Ace Air Snare: check for broken strands, burrs or rough edges on the ring and or burns inside the larks head loop area.
- e. Inspect the Universal RSL Lanyard: Inspect the shackle for function, check the collin's lanyard loop, for broken strands, burrs or burns inside the larks head loop area.

10. Reserve Ripcord Handle:

- a. **Metal:** Inspect the entire length of cable for broken strands of wire, pin swedge, and ball/shank. If any strands of wire are broken, the ripcord must be replaced with OEM approved parts. ** Any bent or damaged pins must be replaced**
- b. **Spectra:** Inspect the entire length of the spectra ripcord handle for any damaged. frayed, or broken strands.

- **11.Release (Cutaway) Handle:** Inspect the cables for any kinks, dents, or other damage. The tip of the cables should have a smooth finish to them, as to not damage the locking loop on risers. Replace if damaged.
- **12.Metal Housings:** Be sure the ends of the release and ripcord housings are secured with tacking or clamps. Assure that they are tight and permanently attached to the harness and/or appropriate pocket area.
- 13. Flap Stiffeners: Inspect for damage or cracks. Broken or cracked stiffeners must be replaced.
- **14.Reserve Free Bag** Inspect that all fabric is free from fraying, tears, or damage. All stitching is present and free of damage. The grommets are properly seated without damage. Replace component(s) of damage is found.
- **15.Reserve Pilot Chute:** The pilot chute spring is free of damage or kinks. The nylon and mesh materials are free from damage, a hole larger than three squares of the material pattern <u>MUST</u> be replaced!

APPROVED AADs

Peregrine Manufacturing Inc. has determined approval for installation based on installation validation of the unit into standardized pockets and channels within the Falkyn (AC100-3) Harness/Container system.

The following table provides AADs authorized for installation and use in the Falkyn (AC100-3) Harness/Container:

Manufacturer	Model	
Airtec	CYPRES 2 - Expert	-
Airtec	CYPRES 2 - Speed	0
Airtec	CYPRES 2 - C-Mode	
Airtec	CYPRES 2 - Wingsuit	
AAD	VIGIL	6
AAD	VIGIL 2	Y
AAD	VIGIL Cuatro	
MarS a.s.	M2	റ്
MarS a.s.	M2 Multi	

Reference from FAA AC105-2e (section 13-d: AAD Installation)

WARNING

Indication of the Harness/Container manufacturer's authorization for AAD installation in no way represents approval or validation of the AAD's ability to function. Various possible malfunction scenarios are present when installing a non-regulated part into a TSO'd/regulated system. User assumes all liability with installation of such devices and does so with full understanding of the risks involved.

The FAA accepts the installation (addition of pockets, channels, guides, etc., required for the AAD assemblage in the parachute container) of each make/model AAD as part of the paperwork that is submitted by the parachute manufacturer during the TSO approval for parachute Harness/Container systems. The TSO approval by the FAA and the AAD approval by the manufacturer (mentioned, for example, in § 105.43(b)) are for the installation only, and are based on AAD operation not interfering with normal function of the parachute. A retrofit installation, or installation of a make or model AAD other than those specifically authorized for use by the parachute manufacturer for a particular TSO or Military Specifications (MIL-SPEC)-approved parachute, constitutes an alteration to that parachute (see paragraph 16). Manufacturer and retrofit installations are done in consultation and agreement with the AAD manufacturer, and in accordance with established test procedures such as PIA Technical Standard (TS)-112, Harness/Container - AAD Installation Test Protocol.

INSTALLING THE AAD

This system has been equipped with a pocket and sleeve system to allow for an AAD to be installed. Compatibility with Falkyn (AC100-3) Harness/Container system does not certify the AAD unit in any way.

Refer to the AAD manufacturer's instructions for proper installation of the unit within the pockets and Harness/Container system.

1. In accordance with the AAD manufacturer's instructions, place the AAD unit into the pocket located at bottom of reserve tray.

2. Pass the control unit and cutter cable both under the Type 3 Tape holder.

3. Route the cutter cable into the Type 3 channel and out the slot mid-way up. Secure to floor plate with provided elastic keeper and align hole for closing loop directly over grommet.





4. Route the control unit cable completely through the Type 3 channel and out the top. Pull enough slack out of the cable to place the control unit into the window on the back pad.

5. Place the control unit into the slot cut at the top center of the reserve container back pad. Seat the control unit so the LCD display and button are both visible through the clear window on the back pad.





6. Slide the tuck flap over the cables and under the Type 3 Tape holder.



7. Insert the packing paddle into slot on tuck flap and using paddle insert tuck flap into pouch.





8. Double check the AAD is properly installed and that all cables have enough slack for reserve to be placed into container tray.



9. Route the reserve closing loop through the back of floor plate, through grommet, and directly through the cutter.

WARNING

THE CLOSING LOOP MUST BE ROUTED THROUGH THE CUTTER FOR PROPER FUNCTION OF AAD!!!

NOTE

Recommended reserve closing loop length: 3.1"-3.5" (80-90mm)



INSTALLING THE UNIVERSAL RSL

1. Locate and completely unfold the RSL channel so the underside is exposed as shown. (The RSL channel is located on the wearer's right-side yoke and underneath the reserve riser.)

2. Place the RSL into position with the red Collin's Lanyard directly against the binding tape located on outboard portion of the unfolded channel.





3. Fold the end of red lanyard at 90° so it is now perpendicular to the RSL. Adjust the RSL position by sliding up/down to ensure the top of folded red lanyard lines up with the corner of outermost channel.





4. While keeping the RSL in the correct position, fold the entire length of the channel two times to completely fold closed. Ensure the red lanyard loop is exposed enough for cutaway cable to pass through. Adjust the fold location to lengthen/shorten if necessary.



5. Place the orange <u>ACE Air Snare</u> on top of the reserve flap containing the orange <u>Air Snare</u> <u>Pocket</u>. Ensure there are no twists in the RSL and that the orange and black lanyards are attached to RSL in proper orientation as shown. Fold the ACE Air Snare Lanyard in 1/3 and insert the folded end into the pocket, with the ring end exiting towards the grommet.

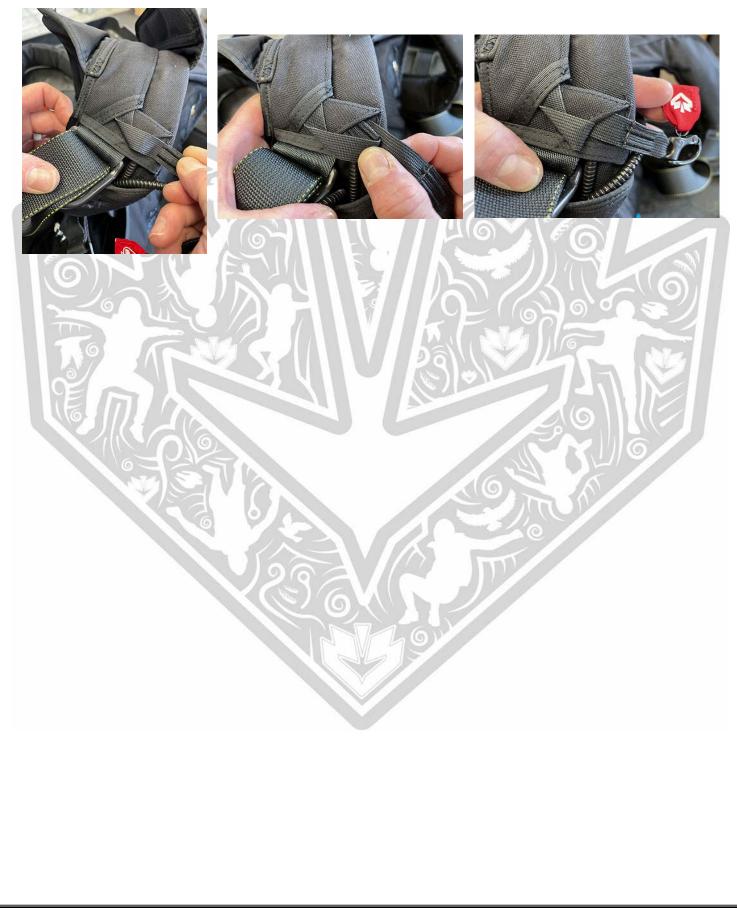




6. On the last reserve closing flap, place the reserve pin into position by forming a bight with the two orange bartacks closest to the pin, and tucking the bight into the elastic keeper as shown.



7. Make a fold on RSL and stow stiffened portion into provided pocket. Ensure there is enough slack for shackle to attach to riser and be free and clear.



INSTALLING THE RELEASE HANDLE

 Insert the release cables into the release housings. Pull the long cable out of the first portion of the split housing. Seat the release handle into the pocket and mate the Velcro.

NOTE

Insert and place the handle as far up into the pocket as possible, limiting the exposed release cables.



2. The long release cable MUST pass through the red loop on the end of the Collin's Lanyard and then routed into the second portion of the split housing. Pull the long cable entirely out of the second portion of split housing.



3. Tuck the Collin's Lanyard window cover flap into pocket provided.



CUTAWAY CABLE LENGTHS

- When measuring the release cables, measure from the CENTER of the grommet located at the end of each housing.
- Before measuring, ensure that the release handle is properly installed.
- If trimming is necessary, the inner steel cable MUST be completely covered and free from sharp edges.



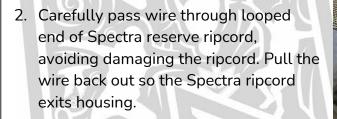
Wearer's RIGHT (short side) 7" (178mm) Wearer's LEFT (long side) 6" (153mm)





INSTALLING THE RESERVE RIPCORD HANDLE

1. Insert the 10 gauge stainless steel wire all the way through the reserve ripcord housing.











3. Insert the reserve closing pin into the loop on reserve ripcord. Seat the release handle into the pocket and mate the Velcro.





NOTE

Insert and place the handle as far up into the pocket as possible, limiting the exposed spectra cord.

ATTACH FREEBAG TO RESERVE PILOT CHUTE

1. Route the loop end of bridle through the 3 loops on reserve pilot chute.

2. Route the Freebag and entire length of bridle through the loop end of bridle.





3. Evenly tighten the lark's head knot and ensure the bridle webbing is flat within the knot to reduce the bulk.



TRACKING DEVICE POCKET

NOTE

A pocket for a tracking device has been provided on the reserve Freebag Bridle.

1. Insert the tracking device all the way down into pocket.



2. Slide the tracker up into the pocket flap and ensure device cannot be seen when looking into pocket.



ASSEMBLING THE RESERVE CANOPY

1. Lay the container face down with the risers fully extended and free of any twists.



2. Prep all 4 reserve risers by pinching the flat folded edge at end of risers. By pinching your fingers together between the risers, you should form a 45° angle evenly on both sides.





3. Attach the reserve canopy to the risers and steering toggles in accordance with the reserve canopy manufacturer's manual instructions.

NOTE

Hanging the canopy by the tail will assist with assembly and inspection.



STEERING LINE ATTACHMENT TO TOGGLES

1. Route the steering line loop end through the <u>BACK SIDE</u> of toggle grommet.

2. Pass line loop end around the bottom of toggle, slide upward towards grommet, and tighten into position.





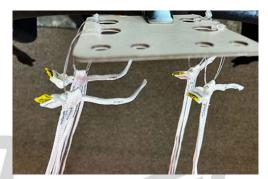
Steering lines correctly attached to toggles:





INSTALLING SLINKS

1. Prep the slinks by placing each slink through each line group while still attached to line card.



2. Pass slink through riser, then back through lines and riser a second time.







3. Pass loop end through under tab.

4. Feed tab back through loop.



4. Pull slink tab tight and rotate entire slink so tab is positioned between the risers.

RESERVE CANOPY INSPECTION

PERFORM A FULL INSPECTION OF THE RESERVE CANOPY:

In accordance with the reserve canopy manufacturer's manual instructions

PERFORM A LINE CONTINUITY CHECK OF THE RESERVE CANOPY:

In accordance with the reserve canopy manufacturer's manual instructions

OR

In accordance with Chapter 5-14 in the FAA Parachute Rigger Handbook (FAA-H-8083-17A)

https://www.faa.gov/sites/faa.gov/files/regulations_policies/handbooks_manuals/aviation/ prh_change1_changes.pdf

PACKING THE RESERVE CANOPY

BEFORE PACKING	
RECOMMENDED TOOLS	
PREPARE THE FREEBAG	
PREPARE THE RESERVE CLOSING LOC)P34
SETTING THE BRAKES	
PACKING THE RESERVE CANOPY	
CLOSING THE RESERVE CONTAINER	
SEALING THE RESERVE PIN	

BEFORE PACKING

Only proceed to packing the reserve canopy AFTER completing ALL sections of the "RESERVE ASSEMBLY" chapter in this manual.

Please read through the entirety of this chapter, before you begin packing the reserve canopy.





PREPARE THE FREEBAG

1. Thread the bridle through one end of safety stow loop. This will hold the safety stow in place when making the first line stow.



2. Insert the locking pull up cord through both grommets of the Freebag and secure with overhand knot or metal ring on bottom side of the bag.





PREPARE THE RESERVE CLOSING LOOP

1. Thread a pull-up cord through the reserve closing loop.

NOTE

Recommended reserve closing loop length: 3.1"-3.5" (80-90mm)

NOT Pre-Stretched, but the knot MUST be seated tight.



SETTING THE BRAKES

1. Insert the top toggle tab through the cat's eye of the steering line, below the guide ring. Ensure the excess brake line is towards the outboard side.

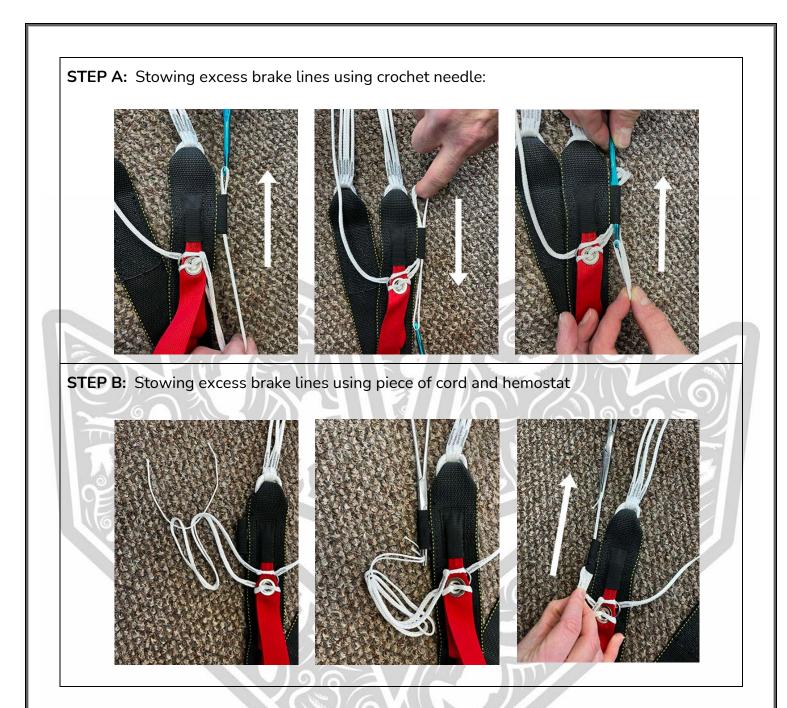


2. Secure the toggle by inserting the bottom and top tabs into the pockets provided on the risers.



3. Stow the excess brake line in an S-Folded pattern as shown, using either step A or B.





4. Repeat steps 1-3 for the other toggle. Ensure the stowed excess brake lines are not positioned higher than the 45° folded portion of riser (red dotted line in photo).

WARNING

Excess brakes stowed past the red dotted line, as shown in photo, increases the risk of entanglement with tab on Slinks and slider grommets.



PACKING THE RESERVE CANOPY

- 1. "Pro Pack" the canopy in accordance with the reserve canopy manufacturer's manual instructions. This includes flaking the canopy, splitting the nose, and quartering the slider.
- 2. Perform reduction folds of the material between the A/B, B/C and C/D lines groups on both sides.

3. Gather necessary tools for the folding of the canopy.

Helpful Hint: Use of an overhand knot to tie the Reserve Bridle around the suspension lines below the slider helps to temporarily control the lines during packing process.



NOTE

The use of tools will assist with maintaining control over the canopy, but are optional.

 Using the center cell of canopy tail, working from center outward, left and right, begin to form the cocoon shape to the width of the free bag.





5. S-Fold 3 cells of the nose under the canopy on each side, leaving the center cell exposed.





6. Dress up the cocoon shape, so it is close to the width of the Freebag.



7. Fold the tail up slightly, exposing the slider.



8. Produce the first S-Fold. The ideal position of grommets is midway of this S-fold. Use of packing paddles and/or a closing plate are helpful.



9. Remove the tools used to perform the first S-fold.



10.Fold the tail back down over the first S-fold. If using clamps, position them to the bottom rather than the sides.

NOTE

Use of a wooden packing paddle to insert and dress the canopy is helpful, especially to fill the ears of the Freebag.



11. Fold the canopy back over the first S-fold.





12. Ensure cells 1-3 are facing towards the left.

Position the center cell of nose and split left and right.

Ensure cells 4-9 are facing towards the right.

Position Freebag in place.



13. Slide the Freebag over the folded canopy up to the soft bodkin.



14. Fold the canopy back over the first S-Fold to complete the second S-Fold.



15. Follow the center seam towards nose of canopy and gather the material to form the molar shape.





16. Form each ear and place into Freebag.





17. Separate the slider grommets to the outside of center, in order to make room for the AAD.



18. Close the opening of the Freebag by forming two bites in the suspension lines and stowing with the safety stow.

Stow bite length: 1.5" - 2.5"

NOTE

Use of a wooden packing paddle to insert and dress the canopy is helpful, especially to fill the ears of the Freebag.



19. Prepare to stow the remaining suspension lines by covering the hook Velcro with a flagged loop Velcro strip.



20. Stow the suspension lines with S-folds extending from each side of the line stow pouch. Leave approximately 4"- 6" of excess line out of the pouch. Remove the Velcro protector and close the line stow pouch by mating the Velcro completely, leaving NO hook Velcro exposed.





CLOSING THE RESERVE CONTAINER

1. Place the packed Freebag over the main container tray, leaving access to adjust the risers into position. Fan the risers where links are attached to evenly distribute bulk.

NOTE Use of clamps are helpful to hold the container flaps open



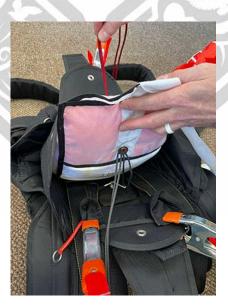




2. Fold the bottom of the reserve toggles towards the bottom of container.



3. At this point your pull up cord should already be routed through the reserve closing loop. Use the locking pull up cord to pass the pull-up cord through both Freebag grommets and to the top side of the Freebag.





4. Position the packed Freebag into the reserve tray filling the bottom corners. Close the wearer's bottom reserve flap and secure it with the temporary closing pin. Ensure the Freebag grommets are directly aligned with the grommet on the floorplate, this will help to properly fill the container.



5. Ensure the top inner sub flap is positioned flat under the Freebag and over the reserve risers.



6. Tuck the top angled portion of the reserve free bag under the free bag routing reserve bridle out the top, as shown.





7. V fold the reserve bridle, placing the first 2 folds to wearer's right side and the second 2 folds to wearer's left side, ending with the ACE as shown. Tuck the folds under the first flap. (Picture on left has first flap open to show orientation of folds). Adjust the length of last fold as needed for the correct position of ACE.



8. Close the ACE reserve flap and secure it with temporary closing pin. Ensure the position of the grommet on ACE is directly under the grommet on flap when folded across, adjust bridle folding lengths if necessary.



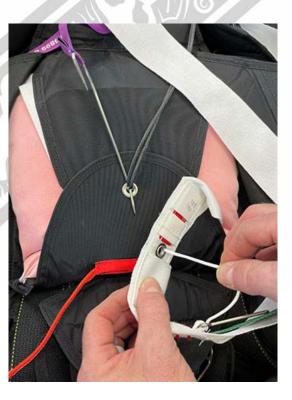


9. Place the orange <u>ACE Air Snare</u> on top of the reserve flap containing the orange <u>Air Snare</u> <u>Pocket</u>. Ensure there are no twists in the RSL and that the orange and black lanyards are attached to RSL in proper orientation as shown. Fold the ACE Air Snare Lanyard in 1/3 and insert the folded end into the pocket, with the ring end exiting towards the grommet.

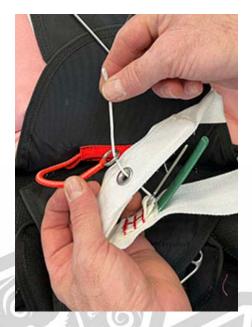




10.Locate and route the looped end of the dyneema line down through the grommet on the bridle (ACE Modification).



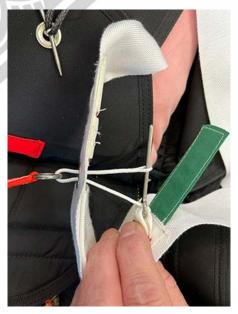
11. Route the looped end of the dyneema line through the ring on the end of the ACE Air Snare.



12. Route the looped end of dyneema line back up through the grommet on the bridle (ACE Modification).

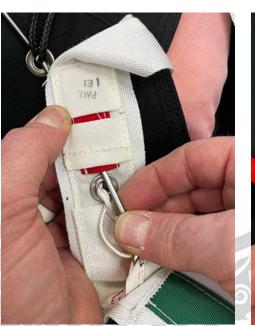


13. Place the end of the ACE pin through the loop of the dyneema line.



14. Carefully insert the ACE pin into the red pocket.

Do not force the pin, only the blade portion of the pin should contact the ID of the grommet.





WARNING

The ACE Air Snare and lanyards should ALWAYS be free and clear of any entanglements or obstructions.

15. Place the end of the green tab and route it down through the sleeve, past the check window, and seat it into the lower portion of the pocket.







WARNING

If at any time you see **RED** in the check window you must go back and verify:

- 1. Pin is still seated in the red pocket
- 2. Dyneema line is still secure



You will see **GREEN** in the check window when:

- 1. Pin is still securing dyneema line and properly secured in red pocket
- 2. Green tab is completely inserted into sleeve

The ACE RSL is now in *STANDBY MODE* and you may proceed to the next step.



16. Using a crochet needle (or suitable tool), locate the dyneema line and pull the excess up through the grommet. Place the excess dyneema line under the 2" bridle line sleeve.

NOTE

This should seat the ring on the air snare up against the grommet on the underside of bridle.



17. Position the ACE on the ACE reserve flap as shown and ensure the ACE air snare remains stowed in pocket. Fold excess bridle at 90° towards bottom of container.



- 18. Close the ACE protector flap and secure it with temporary closing pin.
- In other the proceed of
- 19. Make another 90° fold and S-fold the remaining of bridle as shown.

NOTE

Positioning the temporary pin over the folded bridle will assist with keeping the folds in position during the next step.

20. Pass the pull-up cord through the pilot chute spring and out through the grommet in the top plate. This is easily accomplished using a rifle cleaning rod.

WARNING

The pull up cord must be properly routed through the center of spring, clear and free of any spring coils.





21. Center the pilot chute over the closing loop.

While keeping the fabric away from spring, fully compress the pilot chute straight down and secure it with the temporary pin.

Ensure the pilot chute base is still centered and spring is clear of any fabric.







22. Roll the pilot chute material across the top, down towards the center white top plate.

23. Roll the left and right side of pilot chute material leaving only the bottom portion unfolded.





24. Close the wearer's right reserve flap and secure it with temporary closing pin.





25. Close the wearer's left reserve flap and secure it with

temporary closing pin.

26. Flatten the bulge on the sides of the reserve tray.

27. Evenly fold the remainder of pilot chute at bottom.

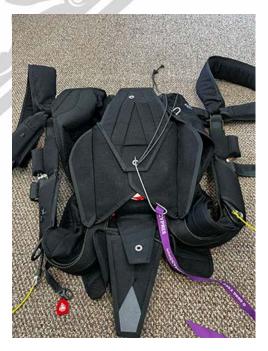


28. Evenly tuck the folded pilot chute under the two side flaps as shown.





29. Close the bottom flap and secure it with temporary closing pin



30. Close the last reserve flap and secure it with reserve closing pin.

WARNING

The orange reserve ripcord loop end MUST be attached to the reserve pin.



31. Position the pull up cord from resting on top of the pin to the side of the pin and SLOWLY remove.

WARNING

Removing pull-up cord too quickly can damage closing loop with friction/heat.

32. Form a bight in the black lanyard and tuck it into the elastic keeper.



SEALING THE RESERVE PIN

NOTE

- 1. Seal the reserve pin in accordance with your parachuting association's regulations.
- 2. There are multiple variations to seal a rig, below is one preferred method.
- Fold sealing thread in half and make two lark's head knots around the reserve pin. Location of knots shall be positioned between the two lanyards and on eyelet side closest to grommet.



2. Pass one end of the thread under the pin and around the opposite side of the closing loop.



3. Pass both ends of thread through each slot on seal. Secure the seal into position ensuring the seal cannot move freely and the rigger's identifying mark is fully prescribed into the seal. Trim excess thread.



4. Tuck the reserve pin cover side flaps under only the last reserve closing flap. Tuck the end of pin cover flap into pocket provided.



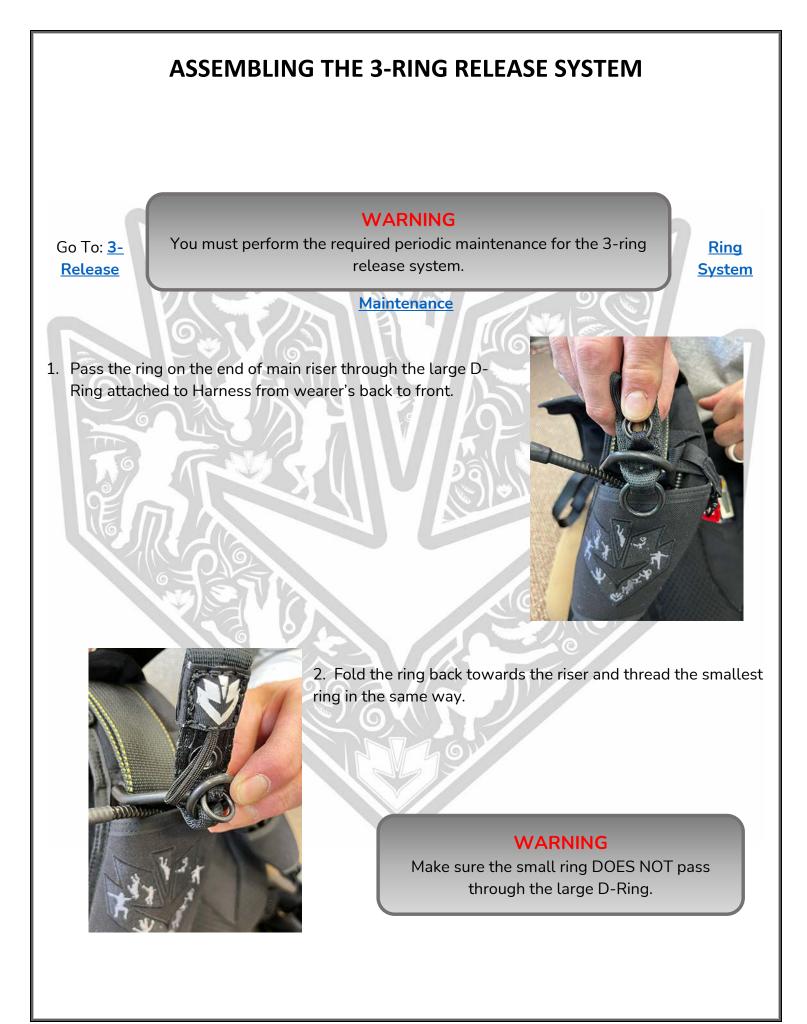


MAIN ASSEMBLY

5

a

ASSEMBLING THE 3-RING RELEASE SYSTEM	60
ATTACHING UNIVERSAL RSL TO RISER	63
ASSEMBLING THE MAIN CANOPY	64
ASSEMBLING THE PILOT CHUTE	65
ATTACHING THE PILOT CHUTE TO CANOPY	66
MAIN CLOSING LOOP	67
INSTALLING THE LEG STRAP BUNGEE	



3. Pinching the small ring into position, route the locking loop over the small ring only and then through the riser grommet so it exits the back of riser.

4. While pinching the locking loop to maintain position, pass the loop through the grommet.

Secure the 3-Ring release assembly by inserting the yellow cutaway cable through the locking loop.

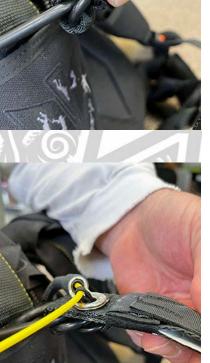
Ensure no twists in the locking loop and the flat side of cable housing grommet rests against riser.

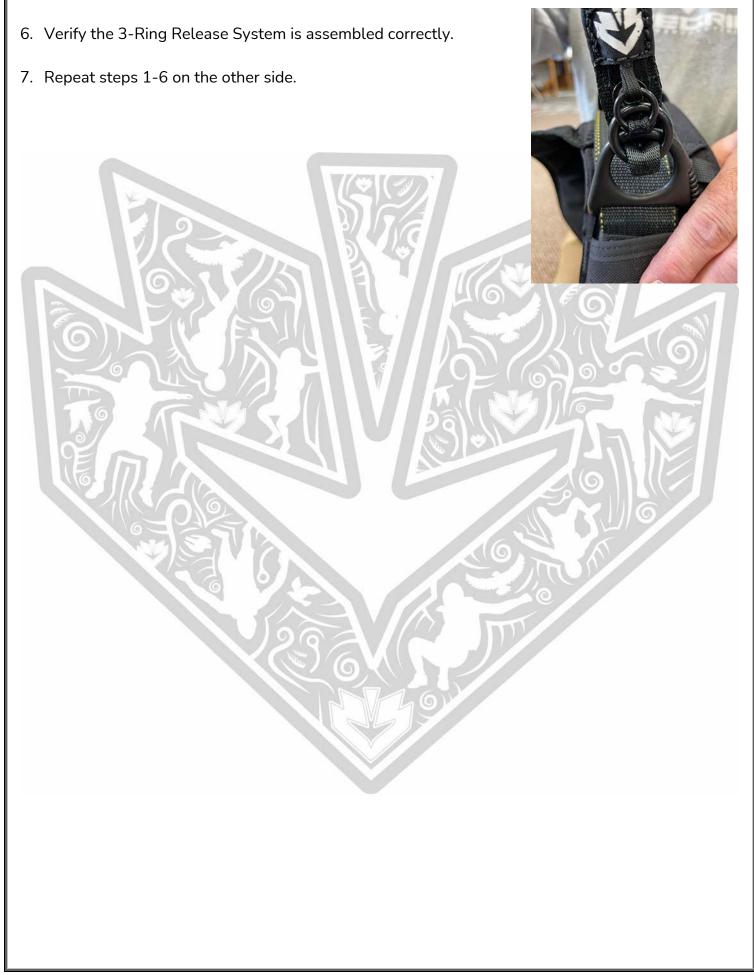
5. Stow the excess cutaway cable inside the protective pocket/sleeve on the rear of riser. Ensure the cable goes INTO the housing.





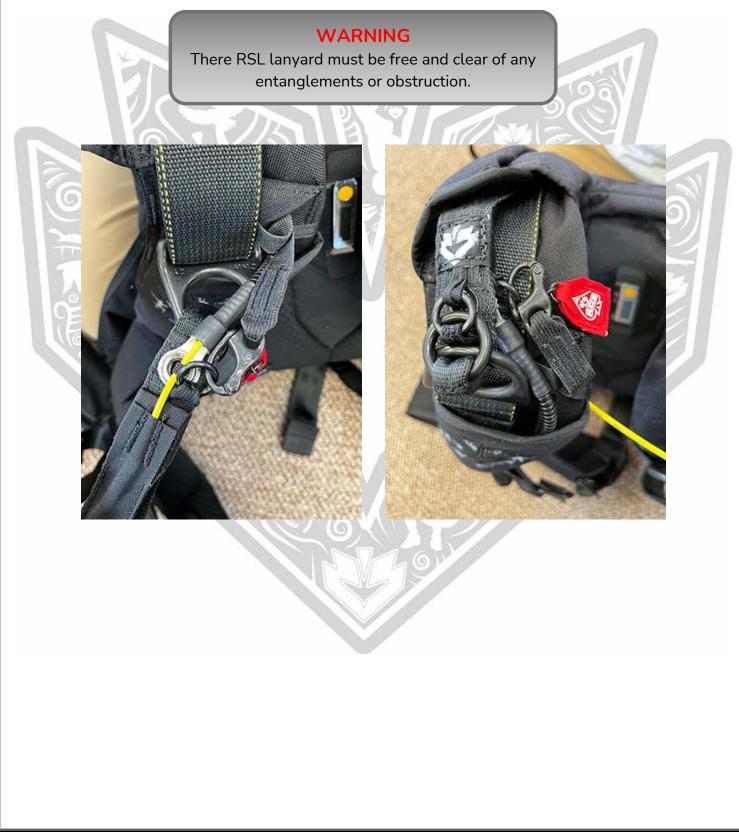






ATTACHING UNIVERSAL RSL TO RISER

- 1. Locate and verify the riser with RSL ring attached is assembled to the wearer's right side.
- 2. Open the RSL shackle and secure it to the RSL ring attached to riser.



ASSEMBLING THE MAIN CANOPY

- 1. Attach the main canopy to the risers and steering toggles in accordance with the main canopy manufacturer's manual instructions.
- 2. Refer to <u>Steering Line Attachment Procedures</u> in this manual, for Attaching Steering Lines to Toggles.
- 3. Refer to Installing Slinks Procedures in this manual, for Installing Slinks.

PERFORM A LINE CONTINUITY CHECK OF THE MAIN CANOPY:

In accordance with the main canopy manufacturer's manual instructions

OR

In accordance with Chapter 5-14 in the FAA Parachute Rigger Handbook (FAA-H-8083-17A)

https://www.faa.gov/sites/faa.gov/files/regulations_policies/handbooks_manuals/aviation/prh _change1_changes.pdf

PERFORM A FULL INSPECTION OF THE MAIN CANOPY:

In accordance with the main canopy manufacturer's manual instructions

ASSEMBLING THE PILOT CHUTE

1. Route the looped end of the pilot chute bridle through the deployment bag grommet, ensuring that the looped end exits the grommet to the inside of bag.

2. Pull the bridle through the deployment bag until the stopper meets the grommet. Using pliers squeeze the stopper to wedge through grommet.

ATTACHING THE PILOT CHUTE TO CANOPY

1. Locate the main canopy pilot chute attaching bridle. Route the loop end of bridle through the bridle attached to canopy.

2. Roll the d-bag and pass it through the loop end of pilot chute bridle.





 Pull the remainder of bridle through loop forming the larks head knot.
Sinch the larks head knot tight, while avoiding twists in the bridle loop.





MAIN CLOSING LOOP

- Replace the main closing loop if damaged more than 25%.
- The length of the main closing loop will vary depending on the main canopy's packing volume. The main closing loop must be sized appropriately to sufficiently hold the main container flaps closed and pin protected.

NOTE

To remove/install the main closing loop it is highly suggested to use a tool aide, such as a pull up cord or crochet hook.



W IN



INSTALLING THE LEG STRAP BUNGEE

NOTE

The use of a leg strap bungee is optional.

1. Locate the back of the left leg strap pad and untuck the butt bungee attachment tab. Secure the bungee to the attachment tab using a double over hand knot and trim excess.



2. Using hemostats, pull the bungee through the channel so the attachment tab also pulls into channel.



3. Using hemostats pull the free end of bungee through the channel on the left leg strap.





4. Secure the free end of bungee to the attachment tab on right leg pad.

5. Using your hand pull the bungee tight until the right side attachment tab is pulls into the channel.



PACKING THE MAIN CANOPY

COCKING THE PILOT CHUTEError! Bookmark not defined. SETTING THE BRAKES .. Error! Bookmark not defined. PACKING THE MAIN...... Error! Bookmark not defined. CLOSING THE MAIN CONTAINERError! Bookmark not defined.

COCKING THE PILOT CHUTE

WARNING

The pilot chute MUST be fully cocked in order to properly function. This should be done prior to placing canopy into deployment bag,

1. Anchor the bag by stepping on the d-bag and pull out on the pilot chute handle until the centerline is tight.

2. To verify that you have fully cocked the pilot chute, check to see that the green portion of the kill-line is visible in the window on the bridle and sway the pilot chute back and forth to check drag production or "inflation".



SETTING THE BRAKES

1. Insert the top toggle tab through the cat's eye of the steering line, below the guide ring. Ensure the excess brake line is towards the outboard side.



- 2. Secure the toggle by inserting the bottom and top tabs into the pockets provided on the risers.
- 3. S-fold the brake toggle excess and stow it in the keepers provided on the back side of each main riser.

PACKING THE MAIN

1. Pack the main canopy in accordance with the main canopy manufacturer's manual instructions.

NOTE

Deployment bag shown in the following steps is the Blaze bag. Refer to the online video for detailed instructions on packing the semi stowless deployment bag

2. Double stow both locking stows.



3. S-fold the lines into the line stow pouch and secure both tuck tabs into their pockets.



CLOSING THE MAIN CONTAINER

 Prepare the main container by opening all the riser cover flaps and main closing flaps. Thread a pull-up cord through the main closing loop.

- 2. Transfer the D-bag over the reserve with line stows down while being careful not to rotate.
- 3. Lay the main risers over the reserve risers and alongside the reserve container. Fan the risers to minimize bulk.





4. Close the side riser cover flaps over the risers.



5. Using the pull up cord to lift the bottom of reserve, place the D-bag into the main container with line stows towards the bottom of container.





6. Temporarily tuck the bridle under top closing flap off set to right. Ensure the closing loop is free and clear to the left and bridle free and clear to the right. The closing pin is positioned at the bottom right corner of main container.



 Route the pull-up cord and closing loop through the bottom flap grommet and draw it closed. Maintain the bridle position keeping it on top of bottom flap.

Note:

Keep the bottom flap as far up as possible during remaining of closing sequence to allow side flaps to close properly.



PMI-FALKYN REV 1.0

8. Route the pull-up cord and closing loop through the top flap grommet and draw it closed to align grommets.

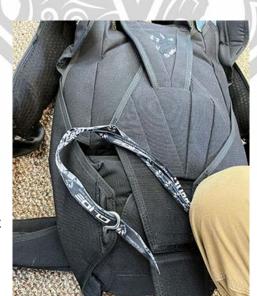
9. Route the pull-up cord and closing loop <u>UP</u> through the underside of D-Ring located on right flap and draw it closed aligning D-Ring to grommet. Maintain bridle with closing pin 2-3 inches out of lower right.

10. While holding the right flap in place, route the pull-up cord and closing loop <u>DOWN</u> through the topside of D-Ring located on left flap and draw close aligning D-Rings to almost touch.









 Insert the closing pin into closing loop end ensuring the pin is free and clear of previous routed closing loop and D-rings. Closing pin orientation will resemble the number 6.

12. Release tension on pull-up cord so closing pin now rests against the underside of the left D-Ring. Hold closing pin in place and remove pull-up cord.





WARNING

The pilot chute MUST be fully cocked in order to properly function. If green is not visible in check window do not proceed.

13. Position bridle excess alongside bottom right flap and tuck both bridle layers under the right side flap to the BOC pocket.



14. Fold pilot chute in half with Nub handle tab facing upward.

15. Fold pilot chute into thirds by folding both sides inwards.





16. Fold pilot chute in half by bringing side with bridle exposed to side with handle. S-Fold bridle in the center.





17. Fold pilot chute into thirds by folding both sides inwards.





18. Insert folded pilot chute into BOC pouch in orientation shown.



19. Insert the Nub handle tab into pocket with tab facing away from the BOC pocket.





20. Close the outboard main riser cover flap. Tuck the inboard flap into magnetic pocket provided on outboard flap. Repeat for other side.



