



RIGGING INNOVATIONS, INC.

# ***TALON 2***

## ***OWNER'S MANUAL AND PACKING INSTRUCTIONS***

**\$8.00**

# **WARNING !**

**1. Training and/or experience are required to lower the risk of serious bodily injury or death.**

**NEVER use this equipment unless you have:**

**A. Read the warning label and completed a “controlled program of instruction” in the use of this parachute assembly.**

**- OR-**

**B. Read the warning label and all appropriate owners / flight manuals, 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 limits shown on the warning label.**

**Warning labels may be found in the following locations:**

**Ram-Air Parachute: Center cell top skin at trailing edge.**

**Harness/Container System: Backpad.**

## **DISCLAIMER - NO WARRANTY**

Because of the unavoidable danger associated with the use of the **TALON 2** parachute system, the manufacturer makes **NO WARRANTY**, either expressed or implied. The system is sold with all faults and without any warranty of fitness for any purpose. Manufacturer also disclaims any liability in tort of damages, direct or consequential, including personal injuries resulting from a defect in design, material, workmanship or manufacturing, whether caused by negligence on the part of the manufacturer or otherwise. By using this system, or allowing it to be used by others, the buyer **WAIVES** any liability of the manufacturer for personal injuries or other damages arising from such use.

If the buyer declines to waive liability on the part of the manufacturer, buyer may obtain a full refund of the purchase price by returning the system, **before it is used**, to the manufacturer within 15 days of the date of the original purchase with a letter stating why it was returned.

**!!! WARNING !!!**

You can substantially reduce risk by ensuring that each component of the system has been assembled and packed in strict compliance with the manufacturer's instructions, by obtaining proper instruction in the use of this system, and by operating each component of the system in strict compliance with owner's manual. However, parachute systems sometimes fail to operate properly even when properly assembled, packed and operated; so you risk serious injury or death each time you use the system.

**DANGER**

**Each time you use this parachute system  
you risk serious bodily injury or death.**

**DANGER**



**TALON 2 P/N 6111 - (2) S/N** \_\_\_\_\_

**DATE OF MANUFACTURE:** \_\_\_\_\_

**REVISION:** \_\_\_\_\_

**DATE:** \_\_\_\_\_

***Manufactured by***

***Rigging Innovations, Inc.***

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this manual designed and produced by  
RIGGING INNOVATIONS, INC.

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# ***Section 1.0***

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# ***General Information***

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## Talon 2 Certification

Several levels of TSO certification are in use today. Older parachute systems are built under TSO C23b in the Low Speed Category. Newer systems are built under TSO C-23c in either Category A, B, or C depending upon weight and speed limits. The **TALON 2** harness and container systems are approved under FAA TSO-C23c, Category B: and limited to use by persons up to 116 kg (254 lb.) fully equipped, and up to 130 knots.



U.S. Department  
of Transportation

**Federal Aviation  
Administration**

### DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

**NORTHWEST MOUNTAIN REGION  
Western Acft. Cert. Office  
PO Box 92007  
Los Angeles, CA 90009-2007**

AUG. 19 1985  
Rigging Innovations Inc.

Mr. Sandy R. Reid, President  
236 E. Third St.  
Perris, CA 92370

Gentlemen:

Rigging Innovations Inc., Talon Dual Parachute Harness & Container Assembly  
Part Number 6111-( ); Technical Standard Order C23c

Your application for authorization to use Technical Standard Order (TSO) procedures, reference your letters dated June 14, 1985, and July 29, 1985 have been reviewed. The certification of conformance with the requirements of the Federal Aviation Regulations (FAR) Part 21, Subpart O, TSO-C23c is acceptable.

The following technical data are considered to fulfill the requirements for TSO authorization and are being retained in our files:

Talon Owner's Manual, dated June 14, 1985  
Rigging Innovations, Inc. Test Summary PER 4.3.2.1., TSO-C23c dated July 2, 1985


The quality control procedures contained in your quality control manual currently on file at the Manufacturing Inspection District Office in Long Beach, CA, and your statement that those procedures will be applied to the manufacture of subject articles at the above address, are considered adequate in accordance with FAR 21.143.

Effective this date you are authorized to use TSO procedures for the subject dual parachute harness and container assembly and you may identify this article with the applicable TSO markings as required by TSO-C23c.

As a TSO manufacturer, you are required to report any failure, malfunction, of defect related to your TSO in accordance with the provisions of FAR 21.3. You must also notify the FAA when you no longer manufacture a TSO approved article as required by 21.613(b).

This authorization pertains only to manufacturing operations at the above address and this office must be notified in advance of any proposed relocation to preclude interruption while awaiting quality control approval of your new facility

Sincerely,

  
for **CHARLES I. BLIZMER**  
Manager, Western Aircraft  
Certification Office

## **Rigger Qualifications**

To pack and maintain this parachute system, the *FAA Senior or Master Rigger - or foreign equivalent* - must possess a BACK rating endorsement to his or her certificate. Since **these systems are certified only with square reserve parachutes** the rigger must be trained to pack ram-air parachutes prior to certifying the **Talon 2** system for emergency use.

***FAR Part 65.127( )No certificated parachute rigger may -***

- (e) Pack, maintain, or alter a parachute in any manner that deviates from the procedures approved by the administrator OR the manufacturer of the parachute; or*
- (f) Exercise the privileges of his certificate and type rating unless he understands the current manufacturer's instructions for the operation involved.*

**ANYONE** who circumvents Rigging Innovations, Inc. instructions is in violation of FAR Part 65.127 and is, therefore, performing an illegal procedure.



## ***"Am I Qualified to Use this Equipment?"***

As the new owner of a Rigging Innovations, Inc. **TALON 2** parachute system, before you use it, it is very important that you can answer yes to several questions. Only by doing so can you be assured that you have the necessary training and/or experience to safely utilize modern parachute equipment of this type.

**Question 1:** *Does my experience level and /or training qualify me for using this equipment?*

Advanced equipment such as the **TALON 2** have features requiring a certain level of experience and training in order to be used safely.

**Question 2:** *Have I been briefed or trained in the operation of this equipment by qualified personnel such as an Instructor or Licensed Rigger?*

If you have progressed to the level where you are qualified to jump advanced equipment, or if you have been trained on other types, there may be certain features of this system that you are unfamiliar with. Make sure that you have received a thorough briefing from a certified Instructor or Rigger for the type of equipment you are about to jump.

**Question 3:** *Does the equipment fit properly?*

Can you see and/or reach the main deployment handle, 3-ring release handle, reserve ripcord and RSL? This equipment is built in a variety of container sizes, lengths, and widths, and a custom pre-sized harness. These configurations along with options such as pull-out and BOC main deployment make compatible sizing to the individual extremely important to the safe operation of the system. If the system does not fit properly, the handles may be inaccessible or may move during the jump thereby causing problems in the air.

The above questions have dealt with your ability to safely jump this **RIGGING INNOVATIONS** product only. If you have answered "Yes" to all the questions, you should feel comfortable using R.I. equipment. However, there are additional factors that may influence your decision and ability that do not relate to R.I. products. If you have any questions or feel uneasy about using this harness and container system, do not hesitate to ask a qualified Parachute Instructor, FAA Certified Parachute Rigger, or contact Rigging Innovations at 520-466-2655 for any further information or training you feel necessary.

# RIGGING INNOVATIONS INC.

## **Customer Service Policy and Limits**

### **Harness and Containers**

RI will provide repair service at no charge for repairs if RIGGING INNOVATIONS INC. has determined the problem results from defective material or workmanship for a period of **six months from the date of purchase**. Date of purchase and proof of purchase must be supplied to RI by the customer with the item in order to be repaired free of charge.

### **Safety**

RI will perform all Mandatory Service Bulletins repairs or modifications due to SAFETY concerns free of charge.

### **Unauthorized Modifications/Alterations**

RI will charge for repair service when the damage is caused by unauthorized modification or alteration of the product. RI reserves the right to refuse to repair any product so modified or altered.

### **Improper Use**

RI will charge for repairs that results from improper use, or from abuse such as exposure to chemicals, saltwater, improper washing, improper packing, excessive exposure to sunlight, or negligence of the part of the user (i.e. jumping already damaged equipment).

### **Limits**

RI reserves the right to refuse service on equipment for which materials and / or manufacturing patterns and specifications no longer exist.

### **Configuration**

Articles sent in for repair should be sent in with all parts. RI may request and require additional information pertaining to the product.

### **Accessory Part - Replacement**

RI will recommend replacement of component parts based on inspection when safety is a factor due to normal wear and tear or maintenance of the product.

### **Product Improvement**

Product improvements will be available as an option to customers.

May 1997

**Table I. Parts List -**

QUANTITY	DESCRIPTION	Part Number
1	HARNESS/CONTAINER ASSEMBLY	6111-( )
	CONTAINER ASSEMBLY	4111-(2)
	HARNESS ASSEMBLY	5111-(2)
1	STEALTH RESERVE PILOT CHUTE	2237-( )
1	SQUARE RESERVE FREEBAG AND BRIDLE	2113-( )
1	SAFETY STOW LOOP	2911-(2)
1	RESERVE RIPCORD	2511-(3)
2	RESERVE STEERING TOGGLES	2611-(2)
1	RESERVE CLOSING LOOP	2913-(4)
1	MAIN CLOSING LOOP	2913-(5)
2	MAIN RISERS	2411-( )
2	MAIN TOGGLES	2621-(5)
1	3-RING RELEASE HANDLE	2521-( )
1	MAIN DEPLOYMENT BAG	2122-( )
1	MAIN PILOT CHUTE T.O.P. P.O.P.	2241-( ) 2242-( )
1	MAIN BRIDLE T.O.P. KILL LINE BUNGEE COLLAPSIBLE STANDARD NON-COLLAPSIBLE  P.O.P. KILL LINE BUNGEE COLLAPSIBLE STANDARD NON-COLLAPSIBLE	2323-(1) A or B 2322-( ) 2321-(1)  2323-(2) 2323-(3) 2321-(2)
1	RSL LANYARD TALON 2 CLASSIC PRO	2811-(4) 2811-(5)
1	OWNER'S MANUAL AND REGISTRATION CARD	1311-(2)

**NO SUBSTITUTION OF COMPONENT PARTS IS AUTHORIZED !**

# Section 2.0

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# Component Compatibility

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## **Canopy Compatibility**

**IMPORTANT** It is imperative that the rigger and the owner understand what canopies are compatible with a particular model of Rigging Innovations, Inc. harness/container Assembly. *IF INCOMPATIBLE CANOPIES ARE USED WITH THIS TALON 2 SYSTEM, IT COULD FAIL TO OPERATE AS DESIGNED RESULTING IN SERIOUS INJURY OR EVEN DEATH TO THE USER..*

## **Reserve Compatibility**

To determine whether a particular reserve canopy is compatible with a **TALON 2** harness/container assembly, there are several requirements that must be met. These are pack volume, deployment type, TSO certification, and placard limitations.

### **Volume**

The pack volume of a canopy is determined by using the standard Parachute Industry Association (PIA) volume measurement as determined by PIA Technical Standard TS-104 in its most current edition. By cross referencing this measurement to the Rigging Innovations, Inc. Main/Reserve Container Volume, Table II, the volume compatibility may be determined.

## **IMPORTANT NOTES ON VOLUME REFERENCES**

Rigging Innovations maintains the PIA canopy volume measurement study. If R.I. has not tested a particular make and model canopy in our volume chamber we cannot be responsible for its fit in a given size container. We will accept orders for specific size rigs if no reference to canopy make or model is made. However, if canopy sizes are stated on an order form R.I. will determine what is the best container size for those canopies.

Proper container sizing is one of the more difficult processes in determining the correct size of main to reserve canopy compatibility. Volume testing by the Parachute Industry Association has shown a volume variable of up to 20% for a given canopy model.

The PIA canopy volume may be based on a single sample and should serve only as a rough guide in selecting the correct size of container to canopy. Factors such as temperature, humidity, age, number of jumps and packing technique affect the volume of a given canopy.

Reserve canopy technology has not progressed at the same pace as main canopies. Often the reserve canopy volume determines the container size. Today's high performance main canopies allow jumpers to fly much smaller volume canopies than an appropriate size reserve canopy for the individual's weight and experience.

R.I. generally takes a conservative approach when selecting the appropriate container size for a given canopy combination. R.I. sizes containers a little on the loose side to ease packing, while making the **TALON 2** more comfortable and durable.

The customer should tell the dealer the type of packing and fit that suits their experience and requirements, i.e. firm, ideal or soft pack. Write the customers' preference on the order to assist R.I. in meeting your expectations.

RI will not assume responsibility for fit if a customer or dealer specifies a particular container size that may be marginal for the canopy combination.

### ***Deployment Bag and Bridle***

Only a Rigging Innovations reserve deployment bag and bridle assembly of the correct size and properly labeled with P/N 2116 - ( ) is compatible with the **Talon 2**. **No other deployment bag is approved for use with the TALON 2 system.**

**Table II. TALON 2 Main/Reserve Container Volumes**

All numbers refer to the cubic inch volume of the containers.

<b>Container size</b>	<b>Volume</b>
T0 Reserve/Main	250/275
T1 Reserve/Main	275/300
T2 Reserve/Main	375/375
T3 Reserve/Main	335/375
T4 Reserve/Main	375/420
T5 Reserve/Main	415/475
T6 Reserve/Main	475/550
T7 Reserve/Main	550/650
T8 Reserve/Main	600/700

## ***Deployment Type***

There are 5 different canopy deployment methods in common use. Of these, only TYPE 5 is approved for use in the Rigging Innovations, Inc. **TALON 2** harness/container assembly. The description and example is as follows:

Type 5:           Free Bag: Canopy stowed in bag and lines stowed on/in bag.  
                      Examples: PD reserve Canopies, Super Raven M series, Tempo

## ***Orange Warning Label Placard Data***

As part of the manufacturers requirements, the ORANGE WARNING LABEL located on the back pad must be filled in by the Rigger assembling and packing the **TALON 2**. FAILURE TO COMPLETE THE ORANGE WARNING LABEL WILL RESULT IN THE TSO BEING NULL AND VOID!

The data required for the warning label is obtained from the canopy manufacturer and should be found on the canopy warning label or data panel.

Please note that there may be instances where one model canopy may have TWO DIFFERENT placard limitations; one as a reserve and one as a main. An example of this is the Precision Super Raven 4 canopy. As a reserve it is limited to 254 lb. maximum gross weight. However, as a main it is placarded at 288 lb. Make sure that your Rigger marks the correct space with the right category information.

# Section 3.0

# User Information

## 3.1 Main Container Packing Instructions

### Assembly

*Note: these instructions assume the use of RI Velcro-less Toggles.*

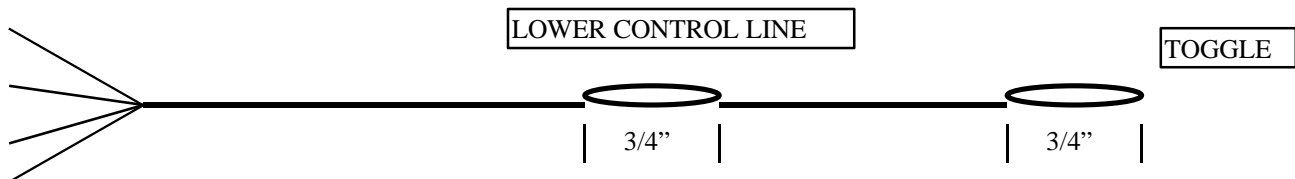
**Step 1** Lay out main parachute, flake canopy, and check lines for straightness and continuity.

**Step 2** With line check complete, attach connector links to main risers (nose of canopy on front riser, tail on rear riser). Note that risers are marked on back with an L or R to designate left and right. Double check that you have the proper riser on the appropriate side of canopy.

**Step 3** Route steering lines through guide rings on rear risers. Attach steering toggles to lower control lines in accordance with canopy manufacturer's instructions or standard practice. Double check that toggle is secure and knot will not slip.

**CAUTION:** Some canopies have brake setting loops large enough that they can pass over and below the toggle loop where the control line attaches, or over and below the knot which forms the loop for attaching the toggle. Either occurrence may cause difficulty releasing the brakes.

**Step 4** Check that elongated diameter of canopy brake-setting loop and toggle-attach loop is 3/4" max. Zigzag, hand stitch, or re-tie loops as needed to reduce the loop length to 3/4 inch.



**Step 5** Attach risers to harness making sure you have left on left and right on right.

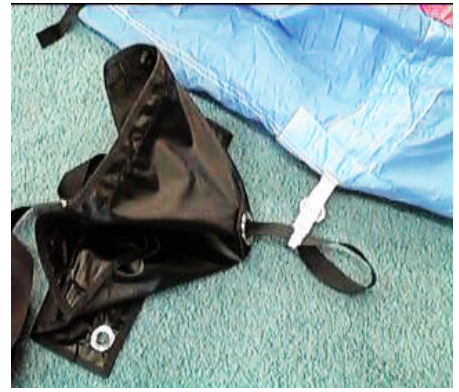
## MAIN DEPLOYMENT BAG ATTACHMENT

### STANDARD & BUNGEE COLLAPSIBLE BRIDLES

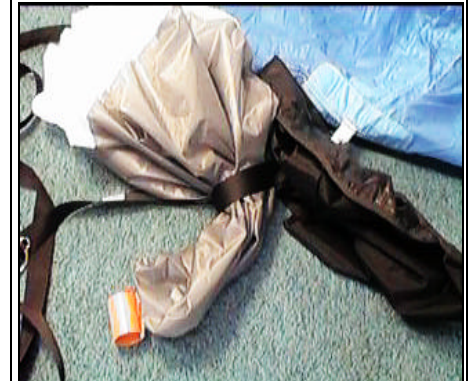
Route loop end of main bridle down through grommet in top of bag, through canopy attachment point, (ring or loop) (*Figure 1*) then back through grommet.

With loop end through the grommet, pass pilotchute through the loop. (*Figure 2*)

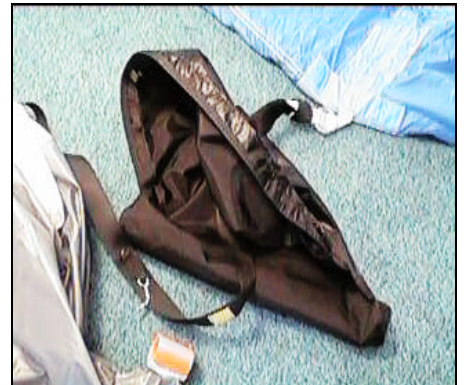
Pull knot down through grommet and tighten knot around canopy attachment point. (*Figure 3*)



*Figure 1*



*Figure 2*



*Figure 3*



## KILL-LINE COLLAPSIBLE BRIDLES

**WARNING:** *Improper installation or use of the kill-line pilot chute can lead to high speed malfunctions which may be fatal. Kill-line pilot chutes MUST be cocked each time the parachute is packed.*

Remove connector links from bottom end of bridle. Route main bridle down through grommet in center of bag. Pull both short loops through grommet. (Figure 4)

Attach one connector link through both short loops and AROUND BRIDLE. Attach bottom end of bridle to canopy attachment point (loop or ring) with second connector link. Remember to route bottom link through white kill-line. (Figure 5)

Tighten both connector links finger-tight plus 1/4 turn. Mark links with a small “slip indicator” dot of brightly colored nail polish.

To cock kill-line pilot chute, elongate bridle by pulling pilot chute handle while holding bag down with one foot. (Figure 5b) Check window on bridle near pin. A cocked pilot chute will show green kill-line in the window. (Figure 5c)

**Step 7** Install rubber bands provided onto main deployment bag.

The main parachute is now ready to pack according to canopy manufacturer’s instructions.

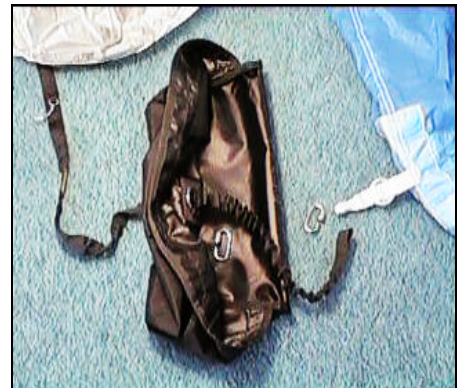


Figure 4



Figure 5a



Figure 5b

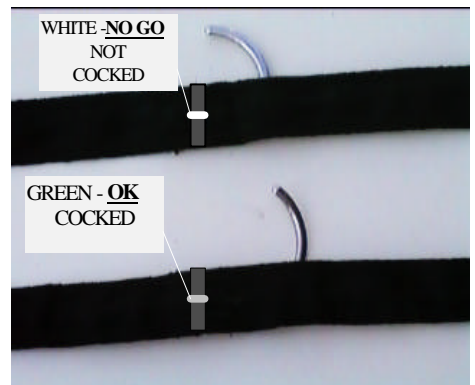


Figure 5c

**Step 8** Set deployment brakes by pulling steering lines down until locking loops are just below guide rings on main risers. Insert main toggle upper end into locking loop on steering line and into fabric loop above the guide ring. The steering line should be outboard of the toggle and pocket. Lower end of toggle is inserted into fabric loop below the guide ring.

Stow excess steering line as deemed appropriate by length. On canopies with a small amount of excess steering line the excess may be tucked through lower toggle loop on riser before inserting toggle. (Figure 6) For larger canopies with a larger amount of excess line. a rubber band or tube stow may be attached to the connector link or top of riser and the line may be stowed there. (Figure 7) Other methods exist and are acceptable for stowing this line.

### **Packing**

**Step 1** When packing the main canopy, dress it approximately 4” wider than bag (2” each side) to fill out sides and not concentrate bulk in the center. For best appearance, bulk must be distributed evenly in the bag. Route lines out center and lock two center locking stows. Lock two outer locking stows and finish stowing lines to within 18” of connector links.

**Step 2** Press air out of bag at this time to flatten bag prior to placing it in container. Place bag at bottom of main container. Route main risers over shoulders and deep into riser cover channels on either side. Main toggles face inboard.

**Double check that KILL-LINE PILOTCHUTE is cocked. A green mark should be visible in window opposite curved pin.**

**Step 3** Place bag into main container with lines to bottom of container. (Figure 8) **FAILURE TO PLACE LINES TO THE BOTTOM OF CONTAINER COULD RESULT IN A PILOTCHUTE IN TOW.** Kneeling on bag, push it into corners of container while pulling up on side flaps.

### **Main Container Closing -Throw-Out (T.O.P.)**

**Step 1** Route main bridle across top of bag and out upper right corner of container with yellow Velcro out. (Figure 8)

**Step 2** Close main flaps in the order stamped on each flap. #1 - Top ; #2 - Bottom ; #3 - Right side ; #4 - Left side . Pull flaps into place and lock with curved pin. Mate yellow Velcro on #1 flap. (Figure 9)

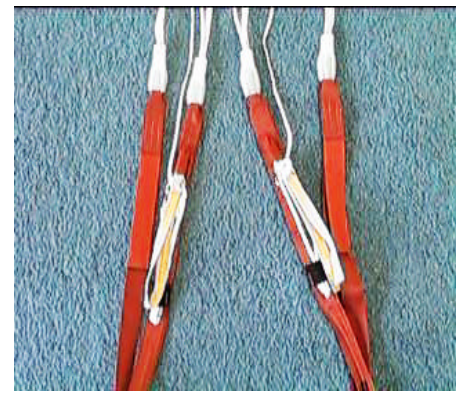


Figure 6



Figure 7

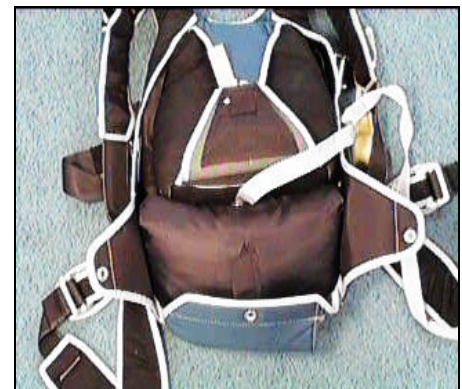


Figure 8

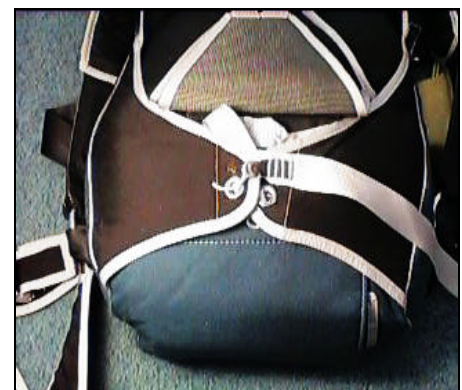


Figure 9



**Step 3** Next mate bridle Velcro on the right hand side of bottom flap. Note that some container sizes and/or configurations will not have Velcro on the bridle and bottom flap (i.e. containers equipped with BOC Cover).

### **FOLDING THROW-OUT PILOTCHUTE (T.O.P.)**

**Step 1** Place pilotchute on a flat surface with the handle down and spread to its full size. (Figure 10)

**Step 2** Fold pilotchute in half. (Figure 11)

**Step 3** Fold pilotchute into thirds and S-fold bridle on top as shown. (Figure 12)

**Step 4** Fold pilotchute into thirds again so the result is a flat package about the same width as spandex pocket. (Figure 13)

**Step 5** Fold to the same length as spandex pouch. (Figure 14)

**Step 6** Slide pilotchute into spandex pocket so that only handle protrudes. Close tongues of the BOC cover. (Figure 15)

**NOTE: Avoid damage to Cypres cables.** Do not stand the rig on its top while closing the tongues.



Figure 10



Figure 11

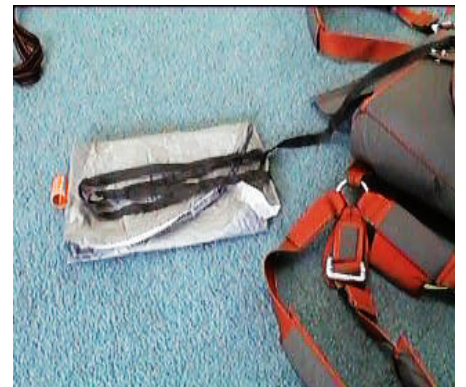


Figure 12

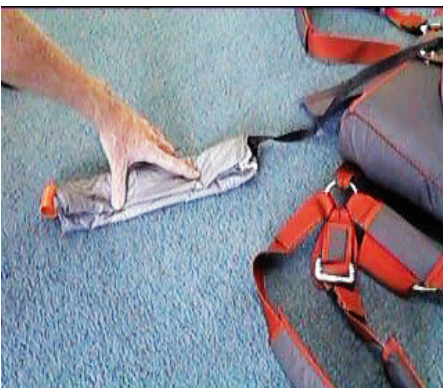


Figure 13



Figure 14

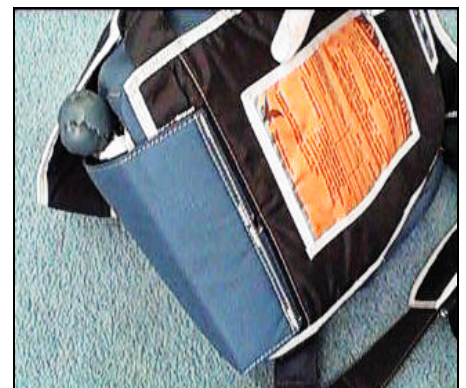


Figure 15

## **Pull-Out Pilotchute (P.O.P.)**

**Step 1** Double check that KILL-LINE PILOTCHUTE is cocked. Green mark should be visible in window near bottom of bridle. Lay pilotchute with mesh facing up. Pull center of pilotchute where the handle and bridle are attached outward to edge of pilotchute. Fold fabric over so mesh is covered. (Figure 16)



Figure 16

**Step 2** Fold pilotchute in an organized manner so that mesh is protected by canopy fabric and the bridle is exposed. Place pilotchute under bottom main closing flap so that handle and lanyard exit bottom right corner of container. (Figure 17) “S” fold bridle and place it under the pilotchute. Double check that lanyard is clear and free to move through grommet on bridle.

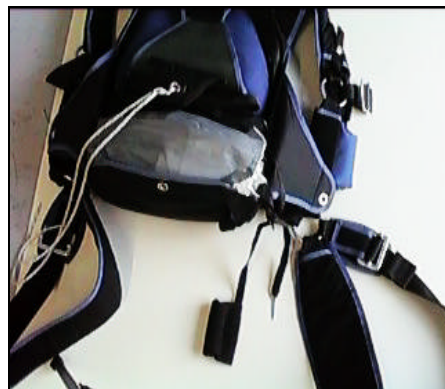


Figure 17

**Step 3** Close container in the numbered sequence (#1 -top, #2 -bottom, #3 -right, #4 -left) making sure handle exits lower right hand corner. Secure locking loop with straight pin on the end of pull-out lanyard. (Figure 18) Grommet tab should be exposed at bottom corner. Lanyard should be free from handle through grommet to pin.



Figure 18

**Step 5** Mate handle Velcro with pocket Velcro (Figure 18) and fold into pocket. Be sure that lanyard is hidden by upper end of pocket. Also make sure the Velcro is mated securely. (Figure 19)

**DO NOT TRAP LANYARD UNDER BOTTOM FLAP STIFFENER. TRAPPING BRIDLE WILL CAUSE A DIFFICULT OR IMPOSSIBLE PULL.**



Figure 19



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## 3.2 3-RING™ RELEASE ASSEMBLY

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### **Threading 3-Ring™ Release Housings**

The **TALON 2** 3-Ring™ system utilizes a combination of non-metallic Teflon™ lined channels and flexible metal housings. This combination of materials called *hybrid housings*, ensures smooth, consistent release forces. Threading release cables is different from full metal housings but may be easily done without special tools.

**Step 1** Thread cable on release handle through fabric channel created by chest strap and then through channel located under the 3-Ring™ cover on right side of harness. Both cable ends should then protrude from top of cover next to right 3-Ring™ hardware. Fasten release handle to Velcro on back side of right main lift web just below chest strap. (Figure 20)

**NOTE:** On *Multi-flex* harnesses (with two harness rings on each side) cables do not pass through chest strap but enter a fabric channel beginning just below chest strap at corner of right shoulder pad.

**Step 2** Thread long cable into metal housing on right side and out left side just short of left side fabric release cable channel. (Figure 21)

**Step 3** Thread right and left cables through fabric release cable channels with grommets on ends. (Figure 22)

**Step 4** Route fabric channel on left side underneath Type 8 back strap (early models) or under reserve risers only (later models) just above 3-Ring™ hardware. (Figure 23)



Figure 20



Figure 21

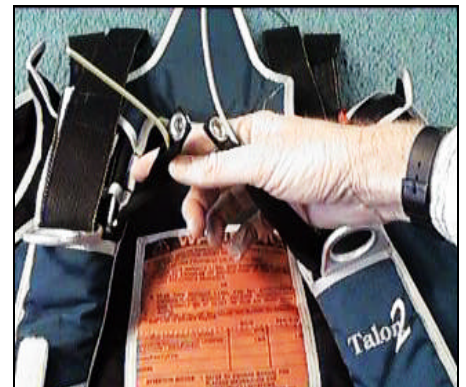


Figure 22

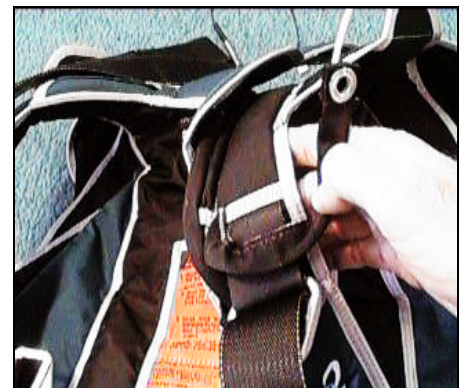


Figure 23

## Assembling 3-RING™ Release with Type-8 Standard-ring and Type-17 Mini-ring Risers

**Step 1** With riser rings and loop facing away from harness, pass larger riser ring through harness ring from the rear and fold riser ring upward. (Figure 24)



Figure 24

**Step 2** Pass small riser ring through middle ring and fold small ring upward. (Figure 25)



Figure 25

**Step 3** Pass loop from top to bottom around small ring and through riser grommet. Double check that loop goes only around the small ring and not second ring also. Do not twist loop. (Figure 26)

**Step 4** Place grommet on end of fabric release cable housing over loop and hold it in place while pushing yellow cable through loop. Stow loose end of yellow cable in channel on back side of riser. (Figure 27)

**Step 5** Repeat Steps 1 through 4 with other riser.

**Step 6** Connect RSL snap shackle to left main riser. Route RSL lanyard directly from bottom pocket to riser ring. Avoid entangling RSL with any other component. Double check risers for correct assembly. Inspect from side. (Figure 27b) Only 1 item through each ring, all rings lay parallel and white loop routed through top ring only.

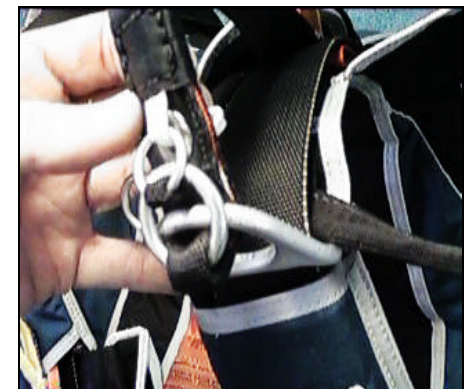


Figure 26

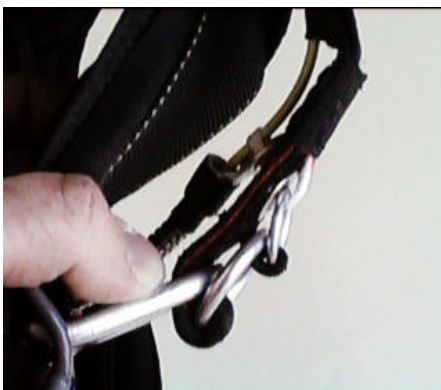


Figure 27b



Figure 27



## Assembling 3-RING™ Release with Type-17 Integrity Risers

**Step 1** Begin with smooth side of riser facing forward. With riser rings and loop facing towards harness, pass larger riser ring through harness ring from front and fold middle ring upward. (Figure 28)



Figure 28

**Step 2** Pass small riser ring through middle ring and fold small ring upward. (Figure 29)



Figure 29

**Step 3** Route locking loop upward through small ring and through grommet located on tab. Double check loop only passes through small ring and not second ring also. Do not twist loop. (Figure 30)

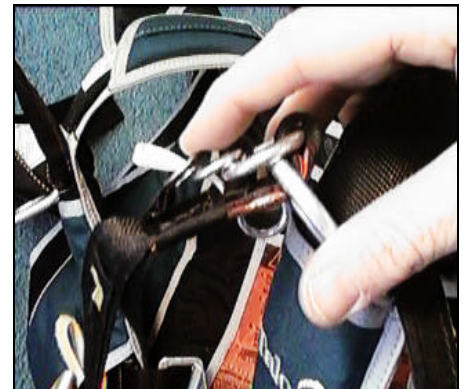


Figure 30

**Step 4** Place grommet on end of fabric release cable housing over grommet in tab sewn to riser and allow locking loop to protrude through last grommet. Push end of cable through loop. Stow loose end of cable in channel provided on back side of riser. (Figure 31)

**Step 5** Repeat Steps 1 through 4 with other riser.

**Step 6** Connect RSL snap shackle to left main riser. Route RSL lanyard directly from bottom pocket to riser ring. Avoid entangling RSL with anything else.

Double check risers for correct assembly. Inspect from side. (Figure 31b) Only 1 item through each ring, all rings lay parallel and white loop routed through only 1 ring.

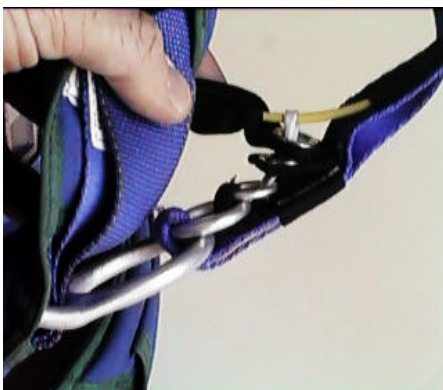


Figure 31b



Figure 31

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## 3.3 Reserve Static Line Lanyard (RSL) System

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### Concept:

The Reserve Static-line Lanyard or RSL system is a lanyard attached from the left main riser to a ring around the reserve ripcord cable. Upon releasing a malfunctioned main canopy the lanyard automatically pulls the cable which pulls the pin on the reserve ripcord. This results in activation of the reserve with a minimum loss of altitude. Through the use of the RSL system, a greater degree of safety is realized.

It must be stressed however, that the RSL is simply a backup to manual activation of the reserve ripcord In the event of a malfunction, the jumper must pull the reserve ripcord manually even though the RSL may activate the reserve faster. There have been fatal cases where the RSL has been disconnected but the jumper waited for the RSL activation.

### Installation - TALON 2

The **TALON 2** RSL System must be installed when the reserve is packed since the reserve ripcord **MUST** pass through the ring as the ripcord is installed.

**Step 1** Install ring end of RSL lanyard first. Mate lanyard to Velcro on underside of reserve top flap (#4 flap). Route ripcord through metal housing and through ring on RSL lanyard. Route ripcord pin through opening in underside of reserve top flap (*Figure 32*) and out between inner and outer layers. (#4 flap)

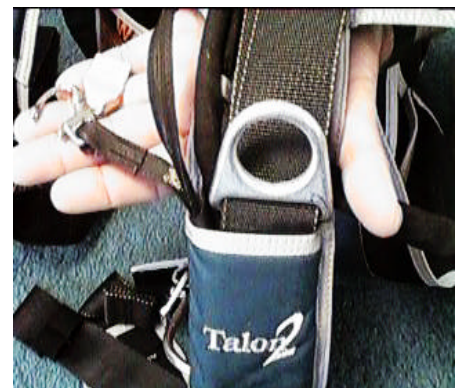
**Step 2** Insert stiffened end of RSL lanyard into sleeve which protrudes from inside upper corner of 3-Ring cover. Loose end of RSL lanyard with snap shackle faces forward. (*Figure 33*)

**Step 3** Attach RSL snap shackle to ring on left riser. (*Figure 34*) It is important that lanyard is routed directly from pin to left riser without passing under, around or through any housings or other attachments. **INCORRECT RSL ROUTING WILL RESULT IN POTENTIALLY FATAL CONSEQUENCES!**

**If you have any doubts or questions about routing or installation of the Reserve Static-line Lanyard System, the TALON 2 should not be jumped until it has been inspected by a competent Rigger familiar with the system.**



*Figure 32*



*Figure 33*



*Figure 34*



---

## **3.4 Harness Adjustments and Fitting**

---

The **TALON 2** is designed to have only three points of adjustment. They are chest strap and the two leg straps. Note that the **TALON 2** is equipped in most cases with floating leg straps. These pads should be placed to best fit wearer needs just prior to final tightening of the leg straps. After optimum comfort location is chosen, the pads can be hand-tacked or stitched in place. All other harness dimensions are fixed. Adjustments should be made in the following manner:

**Note:**

**Rigging Innovations' articulated harnesses (F.A.S.T. and Multi-Flex) offer superior fit and comfort when worn properly. Please pay special attention to the following instructions, especially regarding rig placement high on your back. Your articulated harness should be worn TIGHT! Loose adjustment is magnified by the articulation at the rings. Learn to adjust your harness snugly on the ground and you will feel the advantage in the air and under canopy.**

1. Put rig on and fasten chest strap. Fasten and tighten leg straps to snug but not tight. Bend forward at your waist and hoist your rig from the bottom so it sits high on your back. Adjust floating leg straps so that front end of pad is within 3-4" of metal leg strap adapter. Tighten leg strap the rest of the way.  
Stow loose ends of leg straps in elastic keeper and in the opening at end of pad so they will not flap in free fall or be mistaken for pilotchute, release or ripcord handles. Keeping elastic keepers up against the hardware will prevent leg strap tension changes which sometimes occur during your ride to altitude.
2. Locate the following and familiarize yourself with their visual and physical locations:
  - a.) Main Pilotchute handle. (BOC, TOP, or POP)
  - b.) 3-Ring Release handle.
  - c.) Reserve Ripcord handle.Release and ripcord handles should be far enough forward so that they are easy to see and grab.
3. For BOC and TOP, practice pulling pilot chute out of pouch while lying on your stomach to ensure that you can pull it. Make sure that you are satisfied with pull force needed to extract pilot chute from spandex pocket.
4. For Pull-out pilotchute, practice pulling pilotchute while lying on your stomach. Make sure handle is accessible and that pull force is not too great.
5. The hip junction or FAST Ring should be near the top of your pelvis. When suspended, a 2 or 3 inch gap is normal between your shoulder and shoulder pad. You should be able to reach toggles easily and collapse slider while hanging under canopy.

**Note:**

**If you have any questions about these instructions, you should seek the help of a certified Rigger or contact *Rigging Innovations, Inc.* at 520.466.2655**

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## **3.5 Maintenance Procedures**

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The **TALON 2** begins its life as one of the finest pieces of parachute equipment you can buy. It is up to the owner to maintain it in top condition. Below are certain areas that you and/or your rigger should check on a regular basis to ensure proper operation and long life of your equipment.

### ***Before Each Jump You Should Check:***

1. All ripcord and 3-Ring™ housings for tackings, damage or obstructions.
2. Reserve ripcord pins, cables, handles and pockets for proper seating, wear and/or damage.
3. Main deployment activation devices (BOC, TOP, and Pull-out) for wear and placement. Also check routing of bridles for twists, etc.
4. Main risers routed smoothly over shoulders and riser covers closed properly.
5. 3-Ring™ release mechanism assembled properly and excess cable stowed properly.
6. All harness webbing and hardware for wear or damage.
7. **All flaps closed in proper sequence and tucked in.**

#### **Note:**

IF ANY WEAR OR UNUSUAL CONDITION IS FOUND, CONSULT RIGGING INNOVATIONS, INC. OR A QUALIFIED PARACHUTE RIGGER IMMEDIATELY!

### ***After Putting Your Rig On, Check:***

1. Reserve ripcord handle secure in its pocket.
2. Chest strap is properly threaded and free end secured.
3. Leg straps are properly threaded and free ends are stowed. Floating leg pads positioned for best comfort.

### ***3-Ring™ Release Maintenance***

The following procedure should be done weekly or every 25 jumps, whichever comes first. If rig is subjected to unusual abuse, such as exposure to excessive dust or sand, or if it is dragged, it should be inspected immediately.

**Step 1** OPERATE RELEASE SYSTEM ON THE GROUND. Pull release cable completely out and disconnect risers.

**Step 2** While the system is disassembled, closely inspect it for wear.

- a. Check nylon loops on risers to be sure they are not frayed.
- b. Check Velcro on release handle and harness to ensure that it will adequately hold handle.
- c. Check stitching that holds harness hardware to main lift web and hand tackings that hold cable housings in place.
- d. Check metal housing ends for sharp edges or deformation.

**Step 3** VIGOROUSLY TWIST AND FLEX riser webbing on each side where it passes through the big ring to remove any *set* or deformation in webbing. Failure to do this might result in a hesitation when the release is activated with a low-drag malfunction such as a streamer or bag-lock.

**Step 4** Check inside of release housing for gravel or other obstructions. Use the cable to dislodge gravel. Inspect housing/channels for dents or cuts or other damage.

**Step 5** Clean and lubricate release cable with a silicone spray. Spray on a paper towel and firmly wipe the cable a few times. A THIN invisible film should remain - too much will attract grit or dirt. Failure to clean release cables could result in higher than normal pull force during breakaway.

**Step 6** Reassemble system properly, in accordance with instructions given in this manual. Double check it. Do a continuity check to make sure canopy is straight and risers are not reversed.

Regular, careful and thorough compliance with this maintenance procedure will prolong the life of the 3-Ring™ release system, and help to ensure its operation during breakaways.

**Note:**

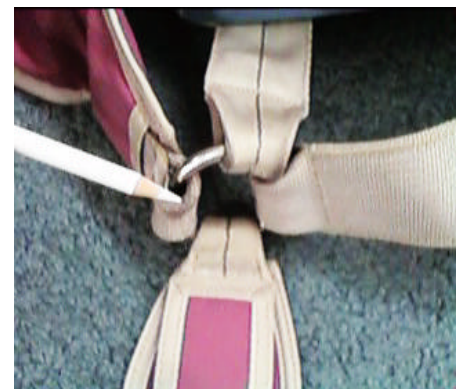
IF ANY WEAR OR UNUSUAL CONDITION IS FOUND, CONSULT RIGGING INNOVATIONS, INC. OR A QUALIFIED PARACHUTE RIGGER IMMEDIATELY!

## 120 Day Maintenance

Your Rigger should thoroughly inspect your **TALON 2** at every repack cycle to ensure that all components are in airworthy condition. ***These areas should include:***

1. Reserve pilotchute, bridle, deployment bag, housing, and ripcord.
2. Reserve canopy fabric and lines.
3. Reserve connector links tight.
4. Ripcord pocket secure.
5. Main bridle and pilot chute for wear or damage.
6. Harness and container in good airworthy condition.
7. Flex-Ring buffers. Inspect inside of buffers for excessive wear. (*Figure 35*)

Buffers are designed to absorb wear before the harness webbing. The inside should look shiny and smooth and may be discolored from hardware finish. If buffers are cut or frayed, it may be caused by damaged hardware or foreign matter (dirt) imbedded in the material. If wear is excessive, rig should be grounded and returned to Rigging Innovations for repair.



*Figure 35*

## ***Major Alterations / Repair***

***Rigging Innovations, Inc.*** does NOT authorize major alterations or repairs to the **Talon 2** harness and container systems. Any major alterations or repairs must be made by the manufacturer or a designated R.I. Service Center. Contact ***Rigging Innovations, Inc.***, at 520-466-2655, for the name of an R.I. Service Center in your area.

## 3.6 Rig Cleaning - CORDURA®

Table III - CORDURA® Recommended Stain Removal Methods \*

STAIN	REMOVAL METHOD
Coffee, Fruit Juice, Milk, Soft Drinks, Tea, Tabasco Sauce, Wine, Urine	Detergent <sup>1</sup> /blot/water/blot
Catsup, Chocolate, Blood	Detergent/blot/ammonia <sup>2</sup> /blot/water/blot
Mustard	Detergent/blot/vinegar <sup>3</sup> /blot/water/blot
Spicy mustard (turmeric), Kool- Aid®	Solvent <sup>4</sup> /blot/detergent/blot/vinegar/blot/water/blot
Cooking oil, Crayon, Lipstick, Mayonnaise, Motor oil, Show polish	Solvent <sup>4</sup> /blot/detergent/blot/water/blot
Chewing gum	Freeze with ice cube/ scrape/solvent/blot/ detergent/blot/ water/blot
Furniture polish, Ink (Permanent)	Paint remover <sup>5</sup> /blot/solvent/blot/detergent/blot/ ammonia/blot/vinegar/blot/water/blot
Furniture polish, Shoe polish	Seek the help of a professional upholstery cleaner
<p><b>Notes on Cleaning Agents</b>            The following procedures should be used with all cleaning agents. A clean, white cloth dampened with the recommended cleaning agent should be used in an inconspicuous place to test for color-fastness. Optimum cleaning will be achieved by not over-wetting the cloth and by turning it frequently to keep it clean. Rings can be avoided by working from the outer edge of the spot toward the center. This process should be repeated until the spot is removed or there is no further transfer to the cloth.</p> <p><sup>1</sup>Detergent.....One teaspoon neutral powder detergent (e.g. Tide or All) in 1 pint warm water.</p> <p><sup>2</sup>Ammonia.....A 3% solution.</p> <p><sup>3</sup>Vinegar.....White vinegar or a 10% acetic acid solution</p> <p><sup>4</sup>Solvent.....Dry cleaning fluid - preferably 1.1.1 trichlorethane</p> <p><sup>5</sup>Paint remover.....Paint remover with no oil in it.</p> <p>NOTE: Oily and greasy stains --- In addition to the recommended method, some stains (e.g. perspiration/body oils) respond well to dry cleaners such as "HOST" (Racine Industries), "CAPTURE" (Milliken) and "K2R" (Texize). Carefully follow directions on the label.</p>	

\* Recommendations based on fabrics finished with Du Pont Teflon® WBC Soil and Stain Repellent for CORDURA®. The methods were effective on stains that were allowed to sit untreated overnight. Removal is usually easier when stains are cleaned immediately.

# Section 4.0

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# Rigger Information

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## 4.1 Orange Warning Label Placard Data

As Part of the manufacturers requirements, the ORANGE WARNING LABEL located on the back pad must be filled in by the Rigger assembling canopies to the **TALON 2**. FAILURE TO COMPLETE ORANGE WARNING LABEL WILL RESULT IN THE TSO BEING NULL AND VOID!

	MAIN	RESERVE
<b>MAXIMUM DEPLOYMENT SPEED:</b>		
<b>MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT):</b>		
<b>MANUFACTURER:</b>		
<b>MODEL:</b>		
<b>ATTENTION RIGGERS:</b>	<ul style="list-style-type: none"><li>• REFER TO OWNERS MANUAL FOR PLACARD INFORMATION AND COMPATIBILITY LIMITATIONS.</li><li>• FILL IN DATA WITH WATERPROOF PEN.</li><li>• CHANGE DATA ON LABEL IF A DIFFERENT CANOPY IS INSTALLED</li></ul>	

The data required for the warning label is obtained from the canopy manufacturer and should be found on the canopy warning label or data panel.

Please note that there may be instances where one model canopy may have TWO DIFFERENT placard limitations; one as a reserve and one as a main. An example of this is the Precision Super Raven 4 canopy. As a reserve it is limited to 254 lb. maximum gross weight. However, as a main it is placarded at 288 lb. Make sure that your Rigger marks the correct space with the right category information.

## 4.2 Parachute Assembly Inspection Form

**! Note: Count all Tools Before Starting Assembly**

**Qty:**

### **A** Harness and Container

manufacturer:

model:

date of manufacture:

serial no:

**Initial After Each Item If No Discrepancies Are Found**

**Initials**

- | 1.  | Main lift web  |  |
|-----|--|--|
| 2.  | Chest and leg straps   |  |
| 3.  | Harness hardware and connectors                              |  |
| 4.  | 3-ring release   |  |
| 5.  | Pilotchute pocket  |  |
| 6.  | Reserve ripcord, handle pocket, cable housing                |  |
| 7.  | Cutaway handle, attachment point, cable housing and channels |  |
| 8.  | Container flaps and grommets                                 |  |
| 9.  | Closing loop length (main and reserve)                       |  |
| 10. | Comments:  |  |

### **B** Main Canopy and Pilotchute

manufacturer:

model:

date of manufacture:

serial no.:

**Initial After Each Item If No Discrepancies Are Found**

**Initials**

- | 1.  | Risers and 3-Ring                  |  |
|-----|------------------------------------|--|
| 2.  | Connector links and slider bumpers |  |
| 3.  | Slider grommets, tapes, fabric     |  |
| 4.  | A-lines and attachment points      |  |
| 5.  | B-lines and attachment points      |  |
| 6.  | C-lines and attachment points      |  |
| 7.  | D-lines and attachment points      |  |
| 8.  | Steering lines and toggles         |  |
| 9.  | Canopy cells and cross-ports       |  |
| 10. | Slider stops ( on canopy )         |  |
| 11. | Bridle line, d-bag stop, pin       |  |
| 12. | Pilotchute and handle or pud       |  |
| 13. | Deployment bag                     |  |
| 14. | Comments:                          |  |

# C

## Square Reserve Canopy and Pilotchute

manufacturer:

model:

date of manufacture:

serial no:

### Initial After Each Item If No Discrepancies Are Found

### Initials

	Initial After Each Item If No Discrepancies Are Found	Initials
1.	Risers	
2.	Connector links	
3.	Sliders & Grommets	
4.	A-lines and attachment points	
5.	B-lines and attachment points	
6.	C-lines and attachment points	
7.	D-lines and attachment points	
8.	Steering lines and toggles	
9.	Canopy cells and cross ports	
10.	Slider stops ( on canopy )	
11.	Deployment bag and safety stow	
12..	Bridle line	
13.	Pilotchute	
14.	Packing card and information	
15.	Comments:	

# D

## Assembly of Square Reserve Canopy

### Initial After Each Item If No Discrepancies Are Found

### Initials

	Initial After Each Item If No Discrepancies Are Found	Initials
1.	Inspection of canopy and Container completed (parts A & C )	
2.	Continuity of all lines	
3.	Slider on correctly	
4.	Rapide link barrels tightened properly	
5.	Steering lines tied to toggles on mark	
6.	Steering line length equal to each other	
7.	Safety stow on deployment bag installed	
8.	Packing card filled out	
9.	Packed according to manufacturers instructions	
10.	Reserve pin sealed	
11.	Fill out warning label	
12.	Comments:	



# E

## Assembly of Main Canopy to Container

Initial After Each Item If No Discrepancies Are Found		Initials
1.	Inspection of canopy and Container completed (parts A & B )	
2.	Continuity of all lines	
3.	Slider on correctly	
4.	Release handle cables are proper lengths	
5.	Rapide link barrels tightened properly	
6.	Steering lines tied to toggles on mark	
7.	Steering line length equal to each other	
8.	D-bag, bridle and pilotchute are attached properly	
9.	Packing card filled out Fill out warning label	
10.	Comments:	

**! Note: Count all tools after assembly and packing is completed to ensure that none were left in the canopy or container.**

Qty:

**Signature of Rigger(s) Inspection**

Signature:

Date:

Print Name and Seal Symbol:

Signature:

Date:

Print Name and Seal Symbol:

General Comments:

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## 4.3 Ram-Air Reserve Packing Instructions

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**Prior to assembling and packing a square reserve into a TALON 2, the rigger must thoroughly read and understand these instructions.** The rigger must determine reserve and container compatibility based upon volume, deployment type and placard information. Only reserve canopies that have been assigned weight and speed limits by the canopy manufacturer are approved for use in the TALON 2. The rigger who assembles the reserve is responsible for completing the Orange Warning label. Refer to the Rigging Innovations Warning Label Placard Data Sheet for proper information.

*NOTE: Minimum qualification; FAA Senior or Master Parachute Rigger or foreign equivalent.*

### 4.3.1 Assembling Reserve System

*Rigging Innovations mandates PRO (Proper Ram-air Orientation) packing on the floor for packing TALON 2 reserve containers. PRO packing results in the best bulk distribution and greatest comfort for the wearer. The molar method is used to insert parachute into deployment bag.*

**Step 1** Assemble an appropriate size parachute to the TALON 2 harness and container system ensuring the following:

- a. Line continuity is correct.
- b. Connector link bumpers installed and tied per canopy manufacturer's instructions.
- c. Connector links are tightened finger tight plus one quarter turn of the barrel.  
**WARNING:** If Maillon Rapide links are too tight, barrels will crack.
- d. Mark connector links with a "tell tale" dot of nail polish.
- e. Steering lines are routed through rear grommets on slider.
- f. Steering lines are routed through guide rings on rear risers.
- g. Steering toggles are securely attached.
- h. Automatic Activation Device correctly installed.
- i. Closing loop length is checked. (See Table IV for approximate length).

## 4.3.2 Table IV -Approximate Closing Loop Lengths

**NOTE:** The loop length recommended in this chart is an **approximation** based on packing experience in our facility. Variables such as canopy size, temperature, humidity, and packing technique will affect the optimum loop length.

**IT IS THE RIGGER’S RESPONSIBILITY TO ENSURE THE RIPCORD PULL FORCE DOES NOT EXCEED 22 Lb. (10 Kg.).**

A = Loop length from knot to end.

B = Loop length installed ( grommet to end ).

<b>CONTAINER SIZE</b>	<b>A</b>	<b>B</b>
T0	4.5”	3.0”
T1	4.0”	2.5”
T2	4.5”	3.0”
T3	4.0”	2.5”
T4	4.0”	2.5”
T5	4.5”	3.0”
T6	4.0”	2.5”
T7	4.0”	2.5”
T8	4.5”	3.0”

NOTE: Only Cypres brand closing loops are approved for use with “loop-cutter” Automatic Activation Devices. Thicker loops made from other materials are dangerous because they may slow pack opening and reserve deployment.

## 4.3.3 Cypres AAD Reserve Installation

Only modern, electronic “loop cutter” type AADs have been tested and approved for use with the **TALON 2** system. The most popular brand of loop cutter AAD is the Cypres manufactured by Airtec GmbH, in Germany. The very small container volumes and closing configuration of **TALON 2**’s prevent the use of older pin puller AADs.

The **TALON 2** comes “Cypres-ready” from the factory with all the pockets, channels and other parts necessary for direct installation of the AAD without further modification. The following instructions tell the rigger how to install a CYPRES in the **TALON 2**. However, it is important that the rigger also have a current copy of the CYPRES Rigger’s Guide to become familiar with the total CYPRES concept. Also, the rigger should have a CYPRES Rigger’s Kit containing several useful tools when installing a CYPRES.

**Step 1** Reserve locking loop supplied with CYPRES MUST be used. Special discs supplied with CYPRES must also be used to make knots for locking loop.

**Step 2** Adjust locking loop to appropriate length in accordance with Table IV. Install locking loop into container.

**Step 3** Install CYPRES processing unit into Spandex pocket on divider wall at bottom of reserve container. (Figure 36).

**Step 4** Thread cutter unit up through grommet and then through Spandex channel on inside of right reserve side flap. Push cutter through elastic keeper next to grommet and align hole in cutter with grommet. (Figure 37).

**Step 6** Carefully coil excess cutter cable under Velcro closure flap located on right end of Cypres installation pocket. DO NOT bend or kink excess cable. (Figure 38)

**Step 7** Carefully push control unit through channel on bottom of reserve container from bottom to top. *Note: channel begins at lower extreme of reserve riser cover flap and is between riser cover flap and pack tray stiffener* (Figure 39).

**Step 8** Gently slide control unit through slit in upper right corner of reserve pack tray and into clear pocket. Double check that control button, display and red light are visible in pocket window. (Figure 40)

**Step 9** Pull slack in control cable back down into pack tray leaving about 1/2" (1 cm) slack where cable curves into slit. Coil excess cable neatly without kinks or sharp bends into pocket on pack tray at bottom of stiffener. (Figure 41)



Figure 36



Figure 37

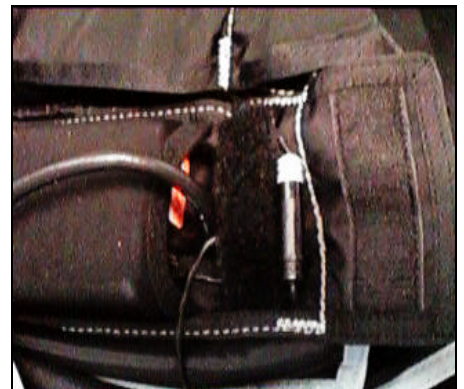


Figure 38

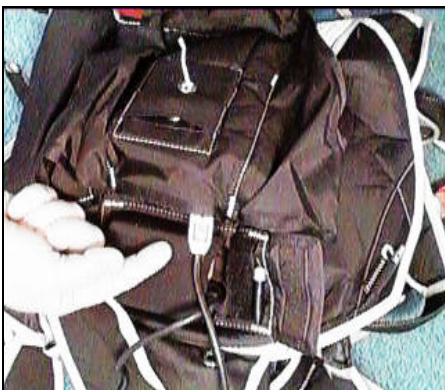


Figure 39



Figure 40



Figure 41

## 4.3.4 FOLDING RESERVE PARACHUTE

### **Recommended Tools List:**

1. 1- Tie cord - red or brightly colored (30" recommended.)
2. 1-packing weight, 22 Lb. (10 Kg.)
3. 4-plastic or rubber tipped packing clamps, (PONY size 3202)
4. 1-Packing Paddle 18" or longer (50 Cm.)
5. 1-Pull-up cord, 72" (1.82 M)
6. Gun Cleaning Rod, .22 CALIBER (5.56 MM)
7. 1-Knee-board Closing Plate
8. 1-Temporary pin



**!! WARNING !!: T-Bars or "Positive Leverage Closing Devices" are prohibited. Under no circumstances are T-Bars to be used when packing TALON 2 containers. These tools can damage containers and cause impossible ripcord pull forces.**



## Parachute Packing Instructions

**NOTE: Minimum qualification; FAA Senior or Master Parachute Rigger or foreign equivalent.**

Rigging Innovations mandates PRO (Proper Ram-air Orientation) packing on the floor. This is the method used in the testing and certification and results in the best bulk distribution and the greatest comfort for the wearer. The molar method is used to insert parachute into deployment bag.

**Step 1** Using the tie cord, anchor the risers securely and evenly at the connector links. (Figure 43) Lay 22 pound (10 kilogram) packing weight on container.

**Step 3** Lay parachute neatly on its left side. Pull top skins until top skins and line groups are evenly tensioned as shown in (Figure 44).

**Step 4** Using 4 packing clamps, place one clamp directly above each line group holding all 7 cells of the parachute together at top skin. (Figure 44.)

**Step 5** Split the nose of parachute by folding 3 cells underneath toward the tail and against the floor, leaving 4 cells laying flat.

**Step 6** Kneeling at top of parachute - facing harness - slide your left hand under the top 3 cells halfway between A clamp and B clamp. (Figure 45)

Holding light tension on B lines, raise B clamp and move it left until B clamp is in line with A clamp and flake the top three cells out to your left. (Figure 46) Still holding B clamp, shift left hand to other side of center cell and flake 3 cells back to your right. B clamp is now in line with A clamp on the floor.

**Step 7.** Repeat Step 6 with "C" and "D" clamps making B-C and C-D folds as in Step 6.

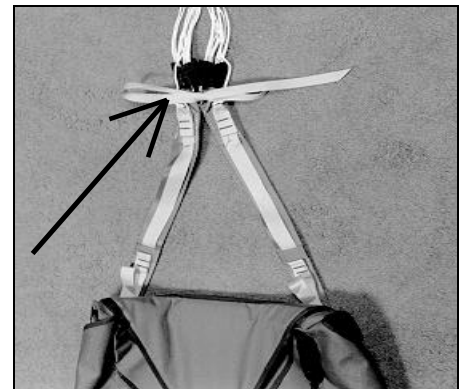


Figure 43



Figure 44



Figure 45



Figure 46

## Dress the Folded Parachute

**Step 8** Kneel on right side of parachute. Gently push tail panels away from you. Locate and grab all 8 "D" line attachment points. Gently flake 4 bottom skins outboard between line groups to dress the C-D folds. (Figure 47) Repeat for both B-C and A-B folds.



Figure 47

**Step 9** Grasp suspension lines at base of stabilizers. Gently flake stabilizer fabric until it is all outboard of the lines. (Figure 48)



Figure 48

**Step 10** Spread tail of parachute placing one set of steering lines to each side of parachute. Pull center of tail up toward top of parachute and double check that folds between line groups are neat and continuous between top skins and bottom skins. Check that all lines and line attachment points are in center (in wind channel). (Figure 49)



Figure 49

**Step 11** Set deployment brakes. Pull toggles down until brake loop is below guide ring on riser. Insert steering toggle tip through brake loop and into keeper above guide ring. (Figure 50) Stow excess steering line in Velcro keeper. (Figure 51) Mate toggle Velcro to riser.



Figure 50



Figure 51

**Step 12** Flake tail with an even number of panels to each side (usually 7 folds per side). Double check that stabilizers are still flat and laying outboard of lines. (Figure 52)



Figure 52



**Step 13** Pull slider up to slider stops at base of stabilizers. Lay slider flat in wind channel. Lay slider grommets side by side to minimize lumps. (Figure 53)



Figure 53

**Step 14** Make appropriate stacking folds in one of the following manners:

- a. Canopies 170 square feet and smaller - lay cleaning rod across stabilizers just above slider bumpers. Grab all lines below canopy and make a short fold. (Figure 54)
- b. Canopies larger than 170 square feet - pull center tail towards top of canopy. Make two folds to put slider in middle of stacked canopy. (Figure 55)

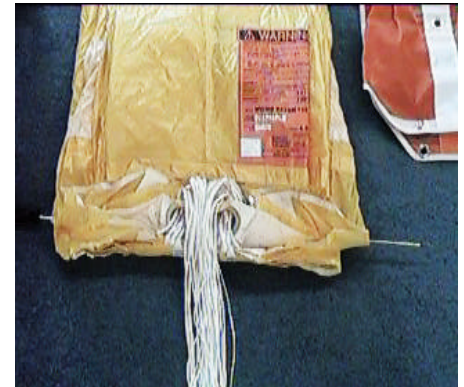


Figure 54

**Step 14** Pull center tail down even with bottom of stacked canopy. Kneel on parachute label to prevent shifting. Beginning at right side of center tail, fold or roll right edge under to same width as deployment bag. Remove "D" clamp and clamp right corner of tail.

**Step 15** Continue folding/rolling right edge of parachute until 3 nose cells are visible. Remove "C" clamp. Clamp 3 nose cells to right side of parachute.

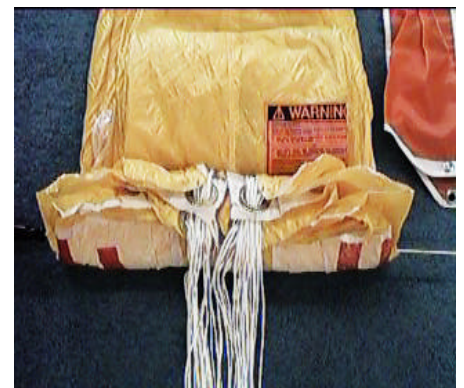


Figure 55

**Step 16** Repeat steps 14 and 15 on left side. Using "B" clamp and "A" clamp. (Figure 56)



Figure 56



## Putting Parachute in Deployment Bag

**Step 17** Lay deployment bag beside canopy with line stow pocket underneath. Align bottom edges of deployment bag and canopy. Lay cleaning rod across d-bag grommet. Fold top of canopy towards container. Clear canopy nose. (Figure 57)

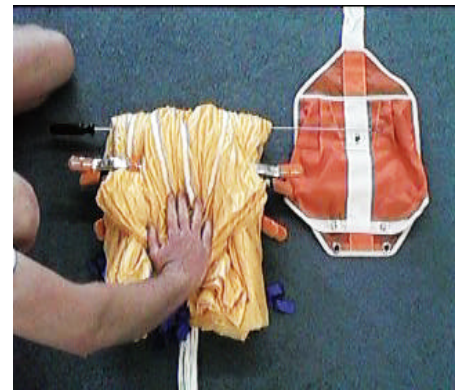


Figure 57

**Step 18** Fold canopy towards top. Following center seam, spread top of canopy to create Molar shape. Ideally only the center cell remains in center, leaving plenty of room for AAD and pilotchute. Wrap molar strap around center cell. Pull molar strap tight and lock. (Figure 58)



Figure 58

**Step 19** Gently reach under parachute. Raise parachute 4 inches and slide d-bag under parachute until bottom edge of closing flap lays under lower edge of canopy.

**Step 20** Kneel on closing flap of d-bag between suspension lines to prevent shifting. Fold or roll right "ear" until it is same width as "ear" in deployment bag. Fold ear to same length as deployment bag. Push ear into top of deployment bag. (Figure 59)

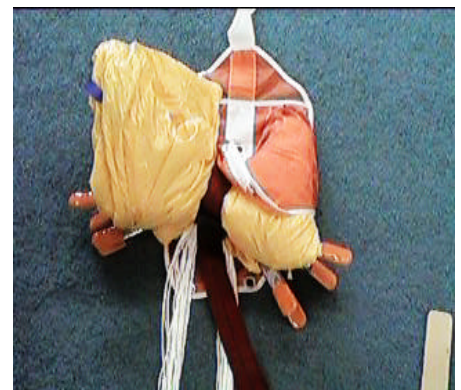


Figure 59

**Step 21** Repeat Step 20 on left "ear".

**Step 22** Fold deployment bag top flap over canopy. Insert temporary pin into one loop of safety stow. Pull other end of safety stow through grommet on deployment bag lip. Insert 3 inch bight of suspension lines into loop of safety stow. (Figure 60)

**Step 23** Remove temporary pin. Make second locking stow with a 3 inch bight of suspension lines. Adjust safety stow until sewn portion is concealed in channel.

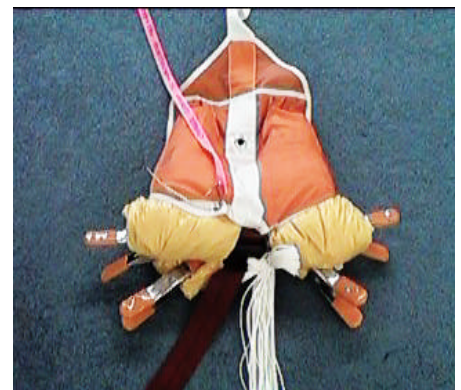


Figure 60

**Step 24** Remove all clamps and the molar strap. Dress the canopy folds and the mouth of the bag. If it looks like too much canopy is sticking out of lower corners, it is probably correct, especially if an AAD will be packed into the rig. If no AAD is installed, adjust canopy bulk so bagged canopy is flat across bottom. (Figure 61)



Figure 61

**Step 25** Sit on bridle. Gently pull lines and rotate d-bag until it lays in your lap. Open line stow pocket and stow suspension lines in pocket in a "Figure 8" pattern. Leave last 8 to 10 inches of suspension lines exposed. Distribute line bulk evenly to minimize lumps. Close line stow pocket. Do not allow hook Velcro to contact lines. (Figure 62)

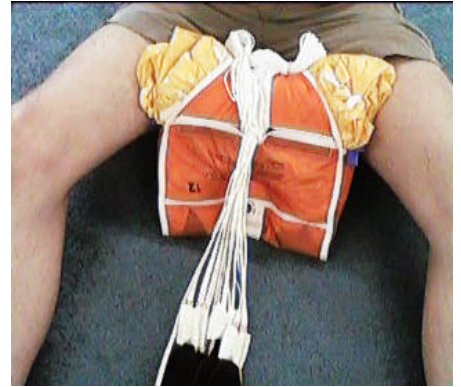


Figure 62

### **Placing Deployment Bag in Container**

**Step 26** Grab all 4 connector links with one hand. Grab bridle with other hand. Rotate deployment bag to bottom end of reserve container so that d-bag lays upside down on main container.

**Step 27** Lay risers along outboard edge of reserve container with front risers just inboard of rear risers. (Figure 63)

**Step 28** Close internal riser covers and insert tabs into pockets on pack tray. Thread pull-up cord through closing loop and pass both ends through grommet in center of deployment bag.

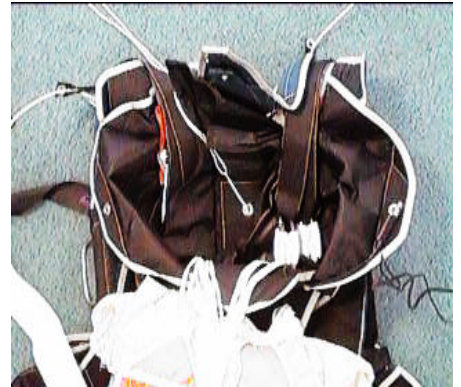


Figure 63

**Step 29** Pivot deployment bag on its closing flap to lay right side up on reserve container, centered on closing loop. Reserve d-bag opening is towards main container with line stow pocket on reserve pack tray.

**Step 30** S-fold bridle to slightly narrower than top internal flap. Clamp bridle to inner top flap. (Figure 64)

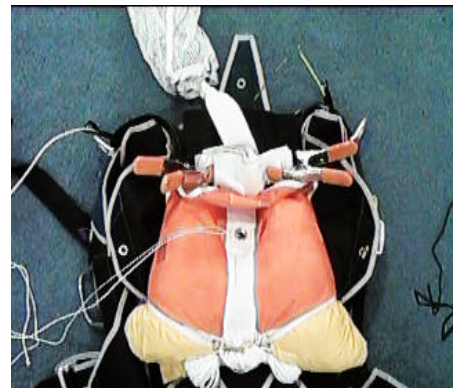


Figure 64



## Closing the Container

**Step 31** Close inner top flap (rectangular flap with no grommet) so lower edge touches d-bag grommet. Bridle is clamped to this flap.

**Step 32** Use .22 caliber (5.56 mm) gun cleaning rod to thread pull-up cord through Stealth pilotchute from bottom to top.

**Step 33** Center base of pilotchute on center grommet of d-bag. Compress pilotchute while stuffing fabric and mesh inside spring coils. Stuff more fabric and mesh under lower edge of pilotchute cap to enhance taper. Point yellow arrow on top of pilotchute toward top of container. Secure with temporary pin. (Figure 65)

**WARNING!** Do not leave fabric outside of spring coils as a coil lock could occur and pilotchute launch may be inhibited.

**Step 34** Double check reserve riser and AAD cable routing. Gently push lower corners of d-bag into container. **HINT:** Pushing lower corners into reserve container is a 6 or 8 step process: a little left, ... a little right ... a little left, etc.

**Step 35** Thread cord through AAD cutter and grommet on right side flap #1. (Figure 66) Pull #1 flap almost closed. Insert packing paddle from right shoulder between bag and #1 flap and twist clockwise until d-bag is clear of pilotchute cap. Secure #1 flap with temporary pin.

**Step 36** Thread pull-up cord through grommet on left side flap #2. Pull #2 flap almost closed. Insert packing paddle from left shoulder and twist counter-clockwise until d-bag is clear of pilotchute cap. Secure #2 flap with temporary pin.

**Step 37** Pull inside bottom flap up over safety stow and lines. Close bottom flap #3. Secure with temporary pin. (Figure 67) Double check that d-bag is clear of pilotchute cap. At this point, you should only be able to pull 1/2" - 3/4" of loop through the first two flaps. If you can pull more, the loop is too long. Open container and shorten loop.

**Double check that reserve ripcord passes through RSL ring before step 38!**

**Step 38** Close top flap #4 and secure with ripcord. (Figure 68)

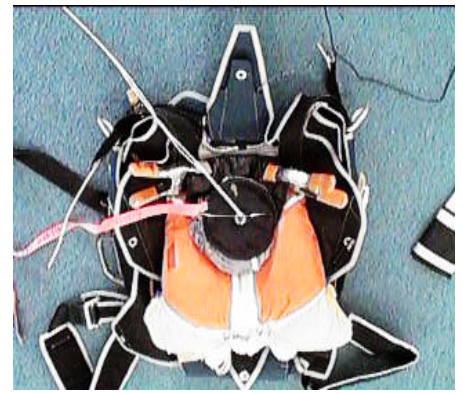


Figure 65



Figure 66

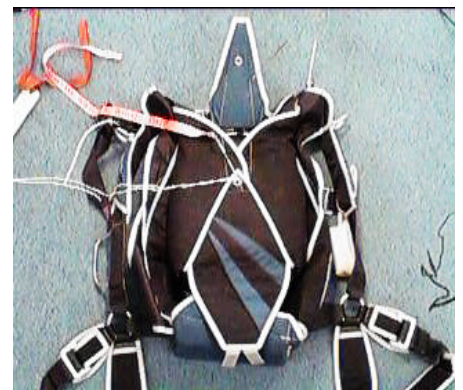


Figure 67



Figure 68

**CAUTION:** Place closing plate on bottom edge of top flap. Placing closing plate or kneeling on pin protector flap will kink or break the flap. Rigger should determine how tight closing loop is and decide whether to perform a pull test.

**WARNING: MAXIMUM ALLOWABLE PULL FORCE ON RESERVE RIPCORD  
22 POUNDS (10 KILOGRAMS).**

Once rigger is satisfied that pull force is less than 22 pounds (10 kilograms) seal ripcord and log pack job.

**Step 39 COUNT YOUR TOOLS!**

**COMPLETE PLACARD DATA ON ORANGE WARNING LABEL.**

**FAILURE TO COMPLETE ORANGE WARNING LABEL WILL VOID THE TSO.**