TALON FS

OWNERS MANUAL AND PACKING INSTRUCTIONS

PA - A065 -FS Revision 1.0
15/1/2004

INTENTIONALLY BLANK

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. Completed a "controlled program of instruction" in the use of this parachute assembly.

- OR-

B. Read the owners manual, 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 identification and serial number label.

Warranty

PARACHUTES AUSTRALIA expressly warrants that these goods will be free from defects arising from faulty material and workmanship. The liability of Parachutes Australia is limited to the replacement of defective parts found upon examination to be defective in material or workmanship within 12 months of purchase. This warranty does not apply to goods which have:

a) Not being used in accordance with the express or implied instructions and specifications of Parachutes Australia .
b) Altered or repaired in any way.
c) Been subjected to abuse, misuse, abnormal stress or strain, or neglect of any kind.
d) Become directly or indirectly defective from wear and tear.
e) Been used after the discovery of any defect or deficiency which has not been rectified by Parachutes Australia after the purchaser has notice of such defect or deficiency.
Parachute Australia will not accept goods returned without prior arrangement.

!!! 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 that 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 FS S/N _____

DATE OF MANUFACTURE: _____

Manufactured by

Parachutes Australia

22 Bosci Road, Ingleburn NSW
Australia 2565

Under License from:-
Rigging Innovations Inc USA

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This manual was designed and produced by
Rigging Innovations Inc. & Parachutes Australia

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Section 1.0

General Information

Talon FS 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 FS 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.

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

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

Your application for authorisation 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 fulfil the requirements for TSO authorisation 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 authorised 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 authorisation 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,

CHARLES I. BIGGER
for 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 FS 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

(g) 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 Parachutes Australia. TALON FS 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 utilise 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 FS 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 a 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 detail your ability to safely jump this ***PARACHUTES AUSTRALIA*** product only. If you have answered "Yes" to all the questions, you should feel comfortable using PA equipment. However, there are additional factors that may influence your decision and ability that do not relate to PA 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,
APF Packer A , Rigger, or contact Parachutes Australia on Ph. + 61 2 98295355 for any further information or training you feel necessary.

PARACHUTES AUSTRALIA

Customer Service Policy and Limits

Harness and Containers

PA will provide no charge repair service for repairs that PARACHUTES AUSTRALIA has determined to result from defects in material or workmanship for a period of **6 months from the date of purchase**. Date of purchase and proof of purchase must be supplied to PA by the customer with the item in order to be repaired free of charge.

Safety

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

Unauthorised Modifications/Alterations

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

Improper Use

PA 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 on the part of the user (i.e. jumping already damaged equipment).

Limits

PA 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. PA may request and require additional information pertaining to the product.

Accessory Part - Replacement

PA 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.

January 2004

Table I. Parts List –

QTY	DESCRIPTION	PART NUMBER
1	HARNESS/CONTAINER ASSEMBLY CONTAINER ASSEMBLY HARNESS ASSEMBLY	6111-( ) 4111-(2) 5111-(2)
1	STEALTH RESERVE PILOT CHUTE	B021-ST
1	SQUARE RESERVE FREEBAG AND BRIDLE	B001-(FS1-8)
1	RESERVE FREEBAG SAFETY STOW LOOP	B004
1	RESERVE RIPCORD	H115(mm)
2	RESERVE STEERING TOGGLES	B002-TR
1	RESERVE CLOSING LOOP	B076
1	MAIN CLOSING LOOP	B075
2	MAIN RISERS	B016( )
2	MAIN TOGGLES	B002-TM
1	3-RING RELEASE HANDLE – UNIVERSAL	H096-T
1	MAIN DEPLOYMENT BAG	B011(FS1-8)
1	MAIN PILOT CHUTE & BRIDLE	B047-FS
1	RESERVE STATIC LINE	B006
1	OWNER'S MANUAL	A065 (FS)

NO SUBSTITUTION OF COMPONENT PARTS IS AUTHORISED !

Section 2.0

Component Compatibility

2.1 Canopy Compatibility

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

2.2 Reserve Compatibility

To determine whether a particular reserve canopy is compatible with a TALON FS Harness & container assembly, there are several requirements that must be met. They are pack volume, deployment type, TSO certification, and placard limitations.

2.3 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 Parachutes Australia Main/Reserve Container Volume, Table II, the volume compatibility may be determined.

IMPORTANT NOTES ON VOLUME REFERENCES

Parachutes Australia (PA) maintains the PIA canopy volume measurement study. If PA 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 then PA 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.

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

The customer should tell PA 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 PA in meeting the customer's expectations.

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

2.4 Deployment Bag and Bridle

Only a Parachutes Australia reserve deployment bag and bridle assembly of the correct size and properly labelled with B001 (FS0-8) is compatible with the Talon FS.

No other deployment bag is approved for use with the TALON FS system.

Table II. TALON FS Main/Reserve Container Volumes
All numbers refer to the cubic inch volume of the containers.

Container size	Volume
FS0 Reserve/Main	300/300
FS1 Reserve/Main	325/300
FS2 Reserve/Main	325/350
FS5 Reserve/Main	400/450
FS6 Reserve/Main	450/550
FS7 Reserve/Main	550/600
FS8 Reserve/Main	600/700

Section 3.0

User Information

3.1 Main Container Packing Instructions

Assembly

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

With line check complete, attach connector links to main risers (nose of canopy on front riser, tail on rear riser). Note that risers are designated left and right. Double check that you have the proper riser on the appropriate side of canopy. The left riser identified by the RSL ring attachment.

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

KILL-LINE COLLAPSIBLE BRIDLE

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 link from bottom end of bridle. Route main bridle down through grommet in centre of bag. Pull both short loops through grommet. (*Figure 3.1)*

Attach the connector link through both short loops . Tighten the connector link finger-tight plus 1/4 turn. Pass the loop at the bottom end of bridle through the canopy attachment point (loop or ring) . Remember to route the white kill line through the middle of the link. (*Figure 3.2)*

Pass the Pilot chute, bridle and deployment bag through the end bridle loop forming a knot at the canopy bridle attachment point. (*Figure 3.3)*

To cock the kill-line pilot chute, elongate bridle by pulling pilot chute handle while holding bag down with one foot (*Figure 3.4)* Check window on bridle near pin. A cocked pilot chute will show green kill-line in the window.

Install rubber bands or Tube Stoes onto main deployment bag.
The main parachute is now ready to pack according to canopy manufacturer's instructions.

Figure 3.1

Figure 3.2

Figure 3.3

Figure 3.4

Set the 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. Stow excess steering line as deemed appropriate by length.

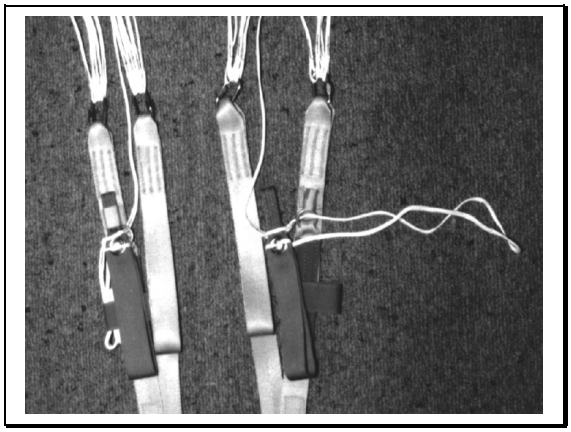

Figure 3.5

Main 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 centre. For best appearance, bulk must be distributed evenly in the bag. Route lines out centre and lock the centre locking stow. Lock the two outer locking stows and finish stowing lines to within 18" of the connector links.
Press the air out of bag at this time to flatten bag prior to placing it in container. Place the bag at the bottom of main container.

Step 3. Route main risers over shoulders and close the main riser covers and route the main risers down along side the reserve container. Main toggles face towards each other, i.e. inboard.

Step 4. Place bag into main container with the lines to bottom of container. Push the top of the bag down into the container while pulling up on the centre flap to seat the bag in the container (Figure 3-9 & 3-10).

Figure 3-9

Figure 3-10

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

Main Container Closing - B.O.C.

Step 1. Route the main bridle across top of bag and out the right side of container.

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

Hint! When pulling the closing loop through each grommet, push the previous flap with the left hand while the right hand pulls the closing loop through the flap. *(Figure 3-13)* This will keep any wrinkles out of the side panel.

Make sure that the window of the kill-line bridle faces up and that the green center line is visible.
(Figure 3-14)

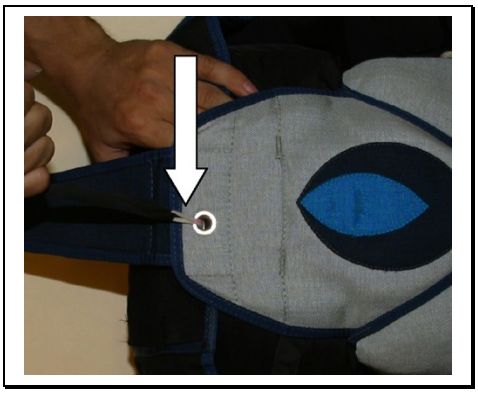
Figure 3-12


Figure 3-13


Figure 3-14

Step 3. Tuck the bridle under the bottom of the top flap and then right under the side flap until the bridle is near the mouth of the BOC pocket. *(Figure 3-15 &3-16)*


Figure 3-15


Figure 3-16

Folding the BOC Throw-out Pilot chute

Step 1. Place pilot chute on a flat surface with the handle down and spread to its full size. (*Figure 3-17)*
Step 2. Fold pilot chute in half. (*Figure 3-18)*
Step 3. Fold the bottom edge upward towards and even with the handle. (*Figure 3-19)* This should be approximately the length of the pocket.

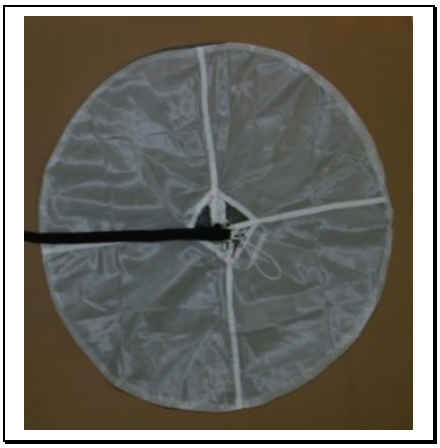

Figure 3-17

Figure 3-18

Figure 3-19

Step 4. Fold pilot chute into thirds. "S" fold the bridle in the centre and then fold the sides of the pilot chute over the bridle so the result is a flat package about the same width as the pocket (*Figure 3-21)*

Step 5. Slide pilot chute into spandex pocket *including the handle taking care as to not excessively stretch the pocket opening .The only bulk under the elasticised front of the BOC pocket should be the 2 lengths of tape that connects the handle to the pilot chute Pat the pocket flat with the hand from the closed end towards the mouth of the pocket until the handle is exposed. (Figure 3-22)*

Step 6. *Tuck the upper corners of the pocket under the side flaps. Massage the pocket as needed to smooth out the pilot chute.*

Figure 3-20

Figure 3-21

Figure 3-22

3.2 3-RING™ RELEASE ASSEMBLY

Threading 3-Ring™ Release Housings

The **TALON FS** 3-Ring™ system utilises flexible metal housings. This ensures smooth, consistent release forces. Threading the release cables is easily done without special tools.

Step 1. Thread the long cable into the long metal housing on right side until it comes out left end.

Step 2. Thread the short cable into the short housing until it comes out the right end.

Assembling 3-RING™ Release

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 3-29)*

Step 2. Pass small riser ring through middle ring and fold small ring upward. (*Figure 3-30)*

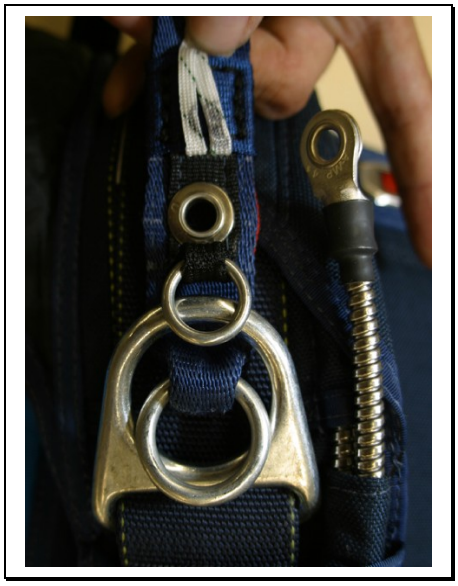

Figure 3-29

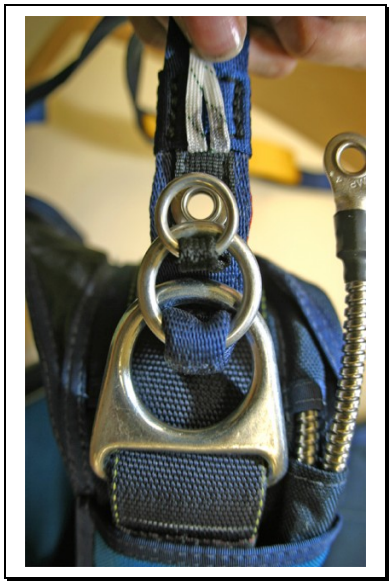

Figure 3-30

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 3-31)*

Step 4. Place grommet on end of 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 of rear riser. (*Figure 3-32)*

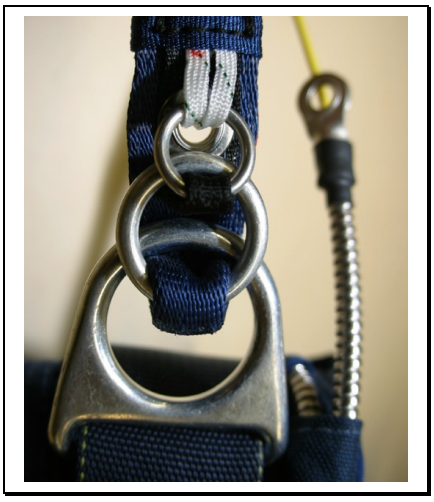

Figure 3-31

Figure 3-32

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

Step 6. Connect the RSL snap shackle to left main riser. Double check the risers for correct assembly. Inspect from side. (*Figure 3-33)* Only 1 item through each ring, all rings lay parallel, and white loop routed through only small ring and then through the terminal end of housing.

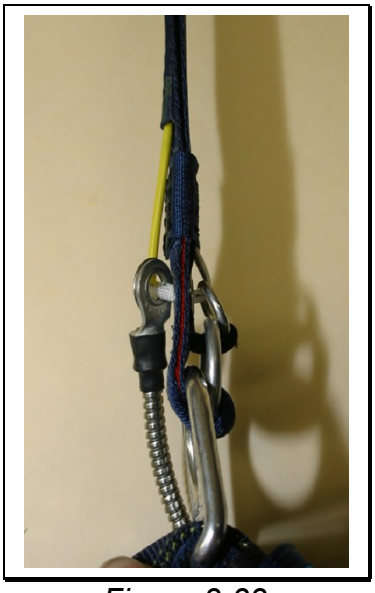

Figure 3-33

3.3 Reserve Static Line Lanyard (RSL)

The Reserve Static-line Lanyard system (RSL) is a lanyard attached from the left main riser to a ring around the reserve ripcord cable. The RSL is connected to the main riser by a stainless steel release shackle. Upon jettisoning a malfunctioned main canopy the reserve ripcord cable is pulled by the RSL ring that the cable passes through. Which , in turn, releases the pin from the reserve closing loop. 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 realised. 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.

Assembly of the RSL:

The **TALON FS** 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 the stiffened section of the lanyard into the pockets on the lower rear the left rear reserve riser. The ring end goes towards the Reserve Canopy and the snap shackle goes towards the harness
3-ring *(Figure 3-34)*

Step 2. Route the reserve ripcord through the housing and out the top. Fold the ends of the lanyard inboard of the riser. Lay the riser over the shoulder and place the lanyard ring between the 2 guide rings. Make sure the rings are folded back towards the reserve container. Route the ripcord through the rings and into the short housing under the top reserve top flap *(Figure 3-35)* Route the ripcord between the inner and outer reserve flaps. The ripcord is now in place and ready to close the container.

Step 3. Attach the RSL snap shackle to ring on left riser. *(Figure 3-36)*

Figure 3-34

Figure 3-35

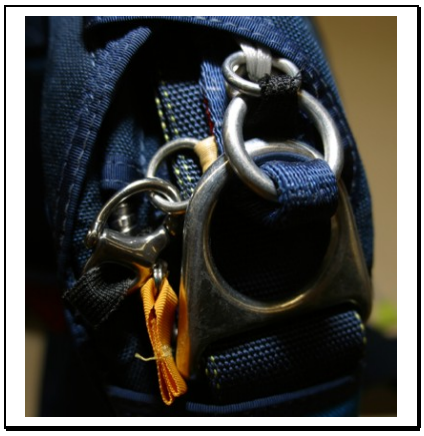

Figure 3-36

IT IS IMPORTANT THAT THE LANYARD IS ROUTED DIRECTLY FROM THE CABLE 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 the installation of the Reserve Static-line Lanyard System, the TALON FS should not be jumped until it has been inspected by a competent rigger, familiar with the system.

3.4 Harness Adjustments and Fitting

Note:
Parachutes Australia's 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.

The **TALON FS** is designed to have only three points of adjustment. They are the chest strap and the two leg straps.

Step 1. Put rig on and fasten chest strap. Fasten and tighten leg straps to snug but not tight. Note that the TALON FS "V-flex" leg strap configuration is different than other designs. When fitted correctly, the leg strap does a reverse twist as it passes from the upper leg strap to the lower leg strap. *(Figure 3-37)* It may seem strange at first but the resultant comfort of the design is far superior than any other.

Step 2. Bend forward at your waist and hoist your rig from the bottom so it sits high on your back *(Figure 3-38).* Tighten the leg straps so that they're tight but not uncomfortable or restrictive.

Figure 3-37

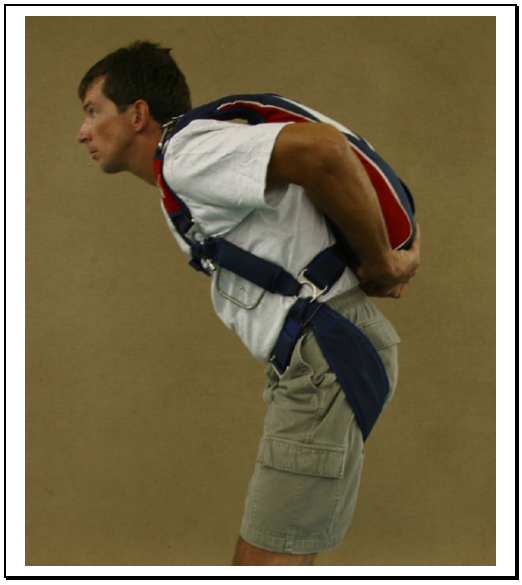

Figure 3-38

Step 3. Straighten up and tighten the chest strap. If the harness is sized correctly, the tension of the harness can be varied by tightening or loosening the chest strap.

Step 4. Stow loose ends of leg straps in elastic keepers and in the opening at end of pad so they will not come out and flap in free fall or be mistaken for pilot chute, 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.
Locate the following and familiarise yourself with their visual and physical locations:

a) Main pilot chute handle.
b) **3**-Ring release handle.
c) Reserve ripcord handle.

Release and ripcord handles should be far enough forward that they are easy to see and grab.

Step 5. Practice pulling pilot chute out of pouch while lying on your stomach to ensure that you can extract the pilot chute from the Spandex pocket ensuring that you are satisfied with the force required for extraction..

Step 6. For most people, the hip junction rings should be near the top of your pelvis but, this may not be ideal for all individuals. When suspended, a 2 or 3 inch gap is normal between your shoulder and shoulder pad. You should be able to reach the 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 *Parachutes Australia on Ph. + 61 2 9829 5355 or email: rigging@parachutesaustralia.com*

3.5 Maintenance Procedures

The **TALON FS** 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 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 PARACHUTES AUSTRALIA 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 insure that it will adequately hold handle.
c. Check stitching that holds harness hardware to main lift web and any 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 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 release cable itself to dislodge gravel or any foreign matter. Inspect housing/channels for dents or cuts or other damage.

Step 5 Remove any oil or foreign matter that may have been present inside the release housings that have contaminated the release cables with a clean cloth. To reduce the force required to extract the release cables from their housings apply a silicon coating to the release cables by pulling the cables through a cloth that has had silicon applied. An example of a suitable silicon product is CRC Brand #808 Silicon Spray.

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 PARACHUTES AUSTRALIA OR A QUALIFIED PARACHUTE RIGGER IMMEDIATELY!

Inspection & Maintenance at Scheduled Reserve Repack Cycle

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

1. Reserve pilot chute, bridle, deployment bag, housing, and ripcord.
2. Reserve canopy fabric and lines.
3. Reserve connector links tight with connector link covers secured
4. Ripcord pocket secure.
5. Main bridle and pilot chute.
6. Harness and container overall in good airworthy condition.
7. Flex-Ring buffers. Inspect inside of buffers for excessive wear. (*Figure 3.5)*

Figure 3.5

Buffers are designed to absorb wear before the harness webbing. The inside should look shiny and smooth and may be discoloured 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, the harness should be grounded and returned to Parachutes Australia for repair.

Major Alterations / Repair

Parachutes Australia does NOT authorise major alterations or repairs to the **Talon FS** harness and container system unless completed by the manufacturer or a repairer designated by Parachutes Australia.

3.6 Rig Cleaning - CORDURA®

CORDURA® Recommended Stain Removal Methods *

STAIN	REMOVAL METHOD
Coffee, Fruit Juice, Milk, Soft Drinks, Tea, Tobacco Sauce, Wine, Urine	Detergent[1] /blot/water/blot
Catsup, Chocolate, Blood	Detergent/blot/ammonia[2]/blot/water/blot
Mustard	Detergent/blot/vinegar[3]/blot/water/blot
Spicy mustard (turmeric), Kool- Aid®	Solvent[4]/blot/detergent/blot/vinegar/blot/water/blot
Cooking oil, Crayon, Lipstick, Mayonnaise, Motor oil, Show polish	Solvent[4]/blot/detergent/blot/water/blot
Chewing gum	Freeze with ice cube/ scrape/solvent/blot/ detergent/blot/ water/blot
Furniture polish, Ink (Permanent)	Paint remover[5]/blot/solvent/blot/detergent/blot/ ammonia/blot/vinegar/blot/water/blot
Furniture polish, Shoe polish	Seek the help of a professional upholstery cleaner

Notes on Cleaning Agents

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 colour-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 centre. This process should be repeated until the spot is removed or there is no further transfer to the cloth.

[1]Detergent.....One teaspoon neutral powder detergent (e.g. Tide or All) in 1 pint warm water.

[2]Ammonia.....a 3% solution.

[3]Vinegar.....White vinegar or a 10% acetic acid solution

[4]Solvent..... Dry cleaning fluid - preferably 1.1.1 trichlorethane

[5]Paint remover.....Paint remover with no oil in it.

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.

*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

Rigger Information

4.1 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.	Pilot chute 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 Pilot chute**	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.	Pilot chute and handle	
13.	Deployment bag	
14.	Comments:	

C **Square Reserve Canopy and Pilot Chute**	Manufacturer:
	Model:
	Date of manufacture:
	Serial no:

	Initial After Each Item If No Discrepancies Are Found	**Initials**
1.	Risers	
2.	Connector Links	
3.	Slider and 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 at canopy	
11.	Deployment bag and safety stow	
12.	Bridle line	
13.	Pilot Chute	
14.	Packing card and Information	
15,	Comments:	

D **Assembly of Square Reserve Canopy**	Manufacturer:
	Model:
	Date of manufacture:
	Serial no.:

	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.	Fill out warning label	
11.	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 pilot chute 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 Rigger Number:	
Signature:	Date:
Print Name and Rigger Number:	

General Comments:

4.2 Ram-Air Reserve Packing Instructions

Prior to assembling and packing a square reserve into a TALON FS, 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 FS.

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

4.2.1 Assembling Reserve System

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

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

4.2.2 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 although, to a large degree, the reserve loop length in a Talon FS is determined by the compressed state of the reserve pilot chute which is constant throughout the size range.

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).

CONTAINER SIZE	A		B	
	Cm's	Inches	Cm's	Inches
FS0	12.5	4.75	8.25	3.25
FS1	12.5	4.75	8.25	3.25
FS2	12.5	4.75	8.25	3.25
FS5	12.5	4.75	8.25	3.25
FS6	12.7	5.00	8.90	3.50
FS7	12.7	5.00	8.90	3.50
FS8	12.7	5.00	8.90	3.50

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.

4.2.3 Cypres AAD Reserve Installation

Only modern, electronic "loop cutter" type AAD's have been tested and approved for use with the TALON FS 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 FS** prevent the use of older pin puller AAD's.

The TALON FS 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 FS. However, it is important that the rigger also have a current copy of the CYPRES Rigger's Guide to familiarise him or her 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 4.1).*

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 4.2).*

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.

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.*

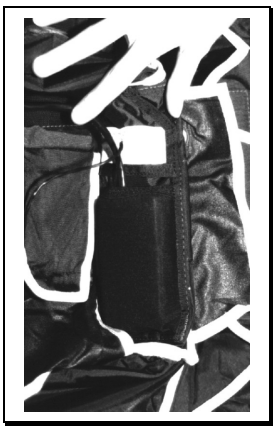

Figure 4.1

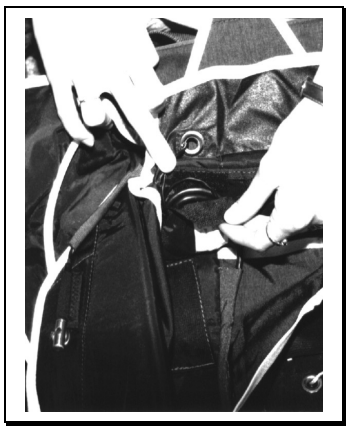

Figure 4.2

Step 8. Gently slide control unit out through the upper right corner of reserve pack tray and into the spandex pocket at the yoke area. Double check that control button, display and red light are visible in pocket window. (*Figure 4-3*)

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 adjacent to the spandex processor unit holder.

Figure 4.3