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. *(Fig 3-1)*

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

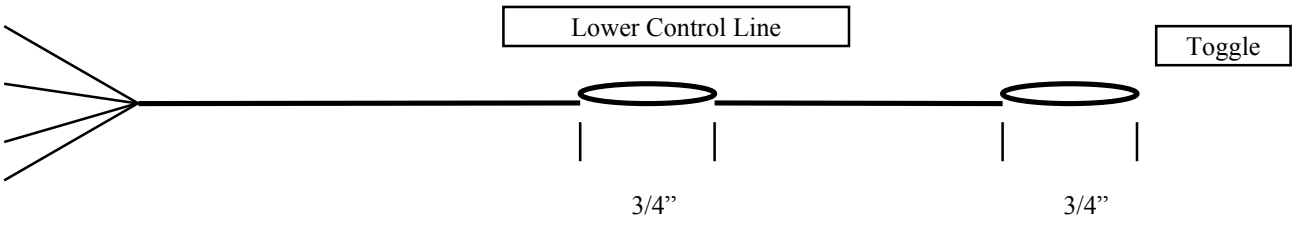

Fig 3-1

Main Deployment Bag attachment
KILL-LINE COLLAPSIBLE PILOT CHUTE AND 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.

Step 6. Remove the rapide link from bottom end of bridle. Route the bridle down through grommet in center of bag. Pull both key ring retainer loops through grommet. (*Fig 3-2)*


Fig 3-2


Fig 3-3


Fig 3-4

Thread the circular key ring over the end of the bridle and up to the retainer loops. Thread the ring thru the loops. *(Fig 3-3)* Attach the bottom end of bridle to canopy attachment point (loop or ring) with the rapide link. Ensure that you route the rapide link through white centerline as well as the Type 3 tape loop. (*Fig 3-4)* Tighten the rapide link.

To cock the kill-line pilot chute, elongate bridle by pulling the pilot chute handle while holding the bag down with one foot (*Fig 3-5)*. Check the window on bridle near the curved pin. A cocked pilot chute will show green kill-line in the window. (*Fig 3-6*)


Fig 3-5

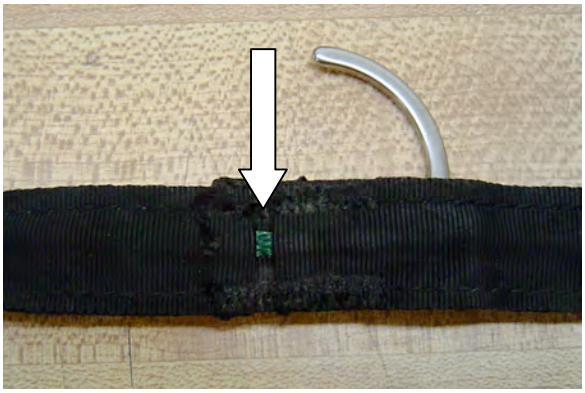
Fig 3-6

Step 7. Install rubber bands provided onto main deployment bag. The main parachute is now ready to pack according to canopy manufacturer's instructions.

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 sleeve 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 *(Fig 3-7 &3-8)* Stow excess steering line in the sleeve on the opposite side of the riser.

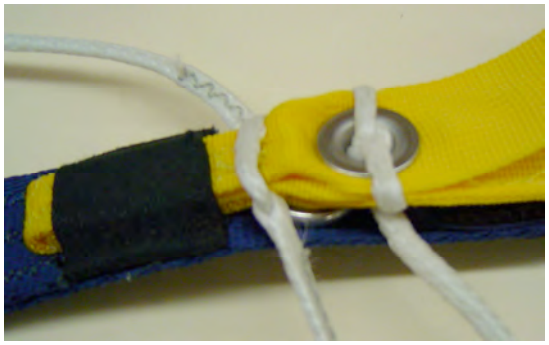

Fig 3-7

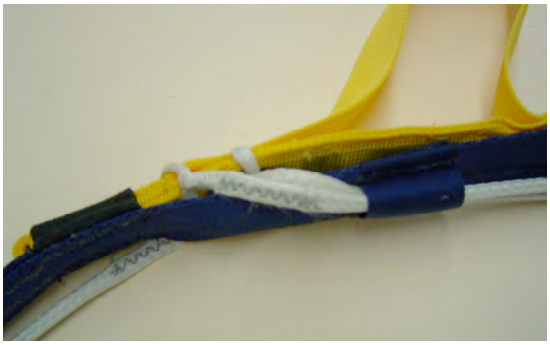

Fig 3-8

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 center. For best appearance, bulk must be distributed evenly in the bag. Route lines out center and lock the center locking stow. Lock the two outer locking stows and finish stowing lines to within 18" of the connector links.
Step 2. 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 inboard.
Step 4. Place the 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 center flap to seat the bag in the container
(Fig 3-9 & 3-10)

Fig 3-9

Fig 3-10

Double check that KILL-LINE PILOT CHUTE 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. (*Fig 3-11)*
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 thru each grommet, push the previous flap with the left hand while the right hand pulls the closing loop thru the flap. *(Fig 3-12 & Fig 3-13)* This will keep any wrinkles out of the side panel.


Fig 3-11


Fig 3-12


Fig 3-13

Step 3. Make sure that the window of the kill-line bridle faces up and that the green centerline is visible. *(Fig 3-14)*
Step 4. 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. *(Fig 3-15 &3-16)*

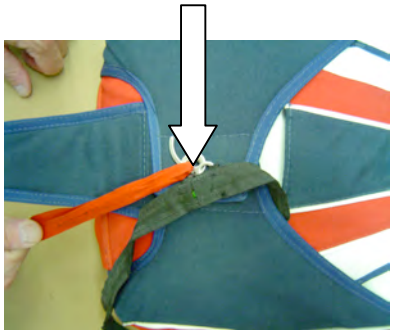
Fig 3-14


Fig 3-15


Fig 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. (*Fig 3-17)*
Step 2. Fold pilot chute in half. (*Fig 3-18)*
Step 3. Fold the bottom edge upward towards and even with the handle. (*Fig 3-19)* This should be approximately the length of the pocket.


Fig 3-17


Fig 3-18


Fig 3-19

Step 4. Fold pilot chute into thirds. *(Fig 3-20)* "S"-fold the bridle in the center 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 spandex pocket. (*Fig 3-21)*

Step 5. Slide pilot chute into spandex pocket *including the handle.* Pat the pocket flat with the hand from the closed end towards the mouth of the pocket until the handle is exposed. *(Fig 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. *(Fig 3-23)*


Fig 3-20


Fig 3-21


Fig 3-22


Fig 3-23

Pull-Out Pilot chute (P.O.P.)

Step 1. Double check that KILL-LINE BRIDLE is cocked. The green mark should be visible near bottom of bridle. *(Fig 3-24)* Lay pilot chute with mesh facing up. Pull center of pilot chute where the handle and bridle are attached outward to edge of the pilot chute. Fold fabric over so that the mesh is covered. (*Fig 3-25)*

Step 2. Fold the pilot chute in a long narrow configuration and place pilot chute under bottom main closing flap so that handle and lanyard exit bottom right corner of container. *(Fig 3-26)* "S" -fold bridle and place it under the pilot chute. Double check that lanyard is clear and free to move through grommet on bridle

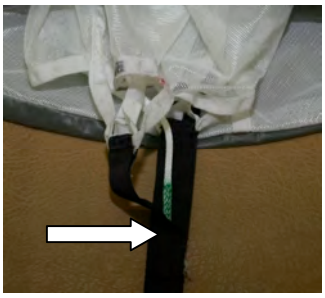
Fig 3-24


Fig 3-25


Fig 3-26

Step 3. Close container in the numbered sequence (#1 -Bottom, #2 -Top, #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. (*Fig 3-27)* Grommet tab should be exposed at bottom corner. Lanyard should be free from handle through grommet to pin.
Step 4. Mate handle loop Velcro with flap hook Velcro (*Fig 3-28)* and fold the Velcro flap back under the right main side flap. Be sure that lanyard is hidden by upper end of flap and that the Velcro is mated securely. (*Fig 3-29*)


Fig 3-27


Fig 3-28


Fig 3-29

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

3.2 3-RING™ RELEASE ASSEMBLY
Threading 3-Ring™ Release Housings

The **TALON FS** 3-Ring™ system utilizes 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. (*Fig 3-30)*
Step 2. Pass small riser ring through middle ring and fold small ring upward. (*Fig 3-31)*

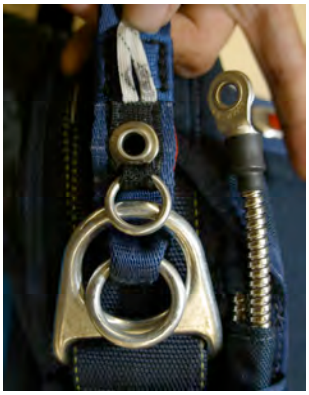
Fig 3-30


Fig 3-31

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. (*Fig 3-32)*
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. (*Fig 3-33)*
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. (*Fig 3-34)* Only 1 item through each ring, all rings lay parallel, and white loop routed through only small ring and then thru terminal end of housing.

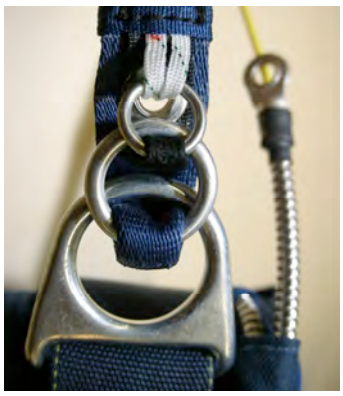
Fig 3-32


Fig 3-33

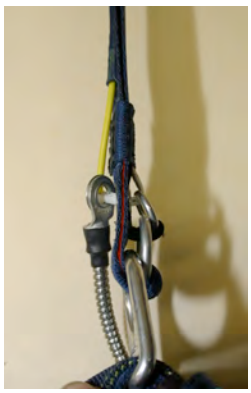
Fig 3-34

3.3 Reserve Static Line Lanyard (RSL)

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 jettisoning 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.

Assembly 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 yoke under the left rear reserve riser. The ring end goes towards the Reserve Canopy and the snap shackle goes towards the harness 3-ring *(Fig 3-35)*

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 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 *(Fig 3-36)* 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. *(Fig 3-37)*


Fig 3-35


Fig 3-36


Fig 3-37

It is important that lanyard is routed directly from the cable to left riser without passing under, around or through any housing's 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:
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.

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. *(Fig 3-38)* 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. *(Fig 3-39)* Tighten the leg straps so that they're tight but not uncomfortable or restrictive.

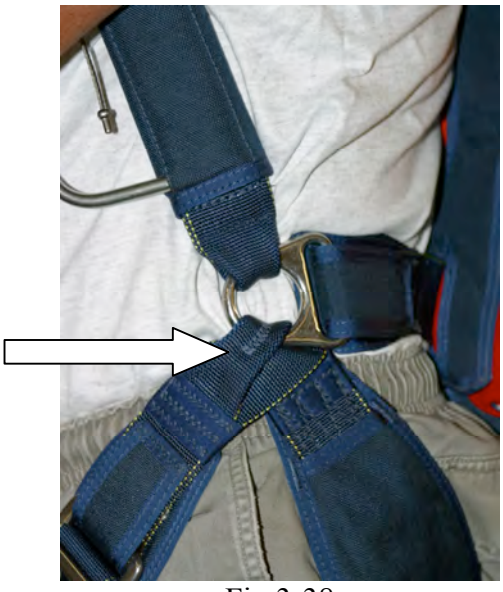

Fig 3-38

Fig 3-39

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 familiarize yourself with their visual and physical locations:

a) Main pilot chute handle. (BOC or POP)
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. For BOC, 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.

Step 6. For pull-out pilot chute, practice pulling the pilot chute while lying on your stomach. Make sure handle is accessible and that pull force is not too great.

Step 7. 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 *Rigging Innovations. Inc.* at 520-466-2655

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 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 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! 520.466.2655

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.

3-Ring™ Release Maintenance

The following procedure should be done weekly, or every 25 jumps, whichever comes first. If the 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 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. Re-assemble 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 or twisted.

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 FS** at every repack cycle to insure that all components are in airworthy condition. These areas should include the following:

1. Reserve pilot chute, bridle, deployment bag, housing, and ripcord.
2. Reserve canopy fabric and lines.
3. Reserve connector links.
4. Ripcord pocket.
5. Main bridle and pilot chute.
6. Harness and container in good airworthy condition.
7. Flex-Ring buffers. Inspect inside of buffers for excessive wear. (*Fig 3-40)*

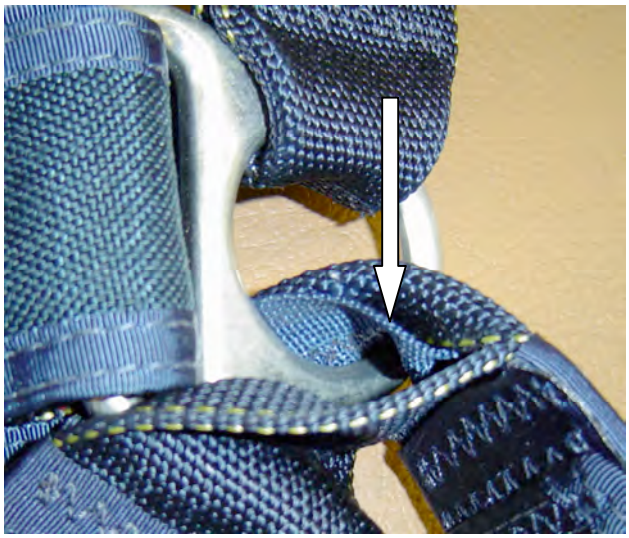

Fig 3-40

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 inspection and repair.

Major Alterations / Repair

Rigging Innovations, Inc. does **NOT** authorize major alterations or repairs to the TALON FS harness and container systems. Any major alterations or repairs must be made by the manufacturer, a designated R.I. Service Center, or authorized master parachute rigger or foreign equivalent. 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[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 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.

[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.

Washing the harness and container

Regular care and cleaning of your **TALON FS** will prolong its life and enhance the resale value should you decide to sell it. It is recommended that you have your rigger wash your **TALON FS** at least once a year. The following techniques of washing Rigging Innovations harness and containers have been utilized successfully for many years.

CAUTION! Some colors, such as red, may bleed and contaminate lighter colors like white. Rigging Innovations therefore does not guarantee any results or accept any responsibility for color changes resulting from following these washing instructions.

Remove all canopies, AADs, and component parts such as toggles, RSL, ripcords, bags, and elastic keepers as well as the packing data card.

Hand Washing

Materials required:

1. Wash tub
2. Medium stiffness brush
3. Woolite™ or similar mild liquid soap.
4. LOTS of fresh water.

Step 1. Soak rig in lukewarm water. Apply straight Woolite™ or soap onto dirtiest areas and scrub with the brush. Soak in lukewarm water for 20 minutes.

Step 2. Scrub the entire rig vigorously all over. Soak for another 20 minutes

Step 3. Repeat step 2. For particularly dirty rigs, you may want to empty the first batch of soapy water and wash in a fresh batch of soapy water.

Step 4. Squeeze out as much soapy water as possible. Immerse in fresh, clean, cool water and rinse several times until no further soap comes out.

Step 5. Hang to dry out of direct sunlight. Use of a fan directly onto the rig greatly speeds up the drying process.

Machine Washing

Materials required:

1. Jumbo tumbler type commercial washing machine. It is not recommended to do this in your home washing machine.
2. Medium stiffness brush.
3. Woolite™ or similar mild liquid soap.
4. Large pillowcase or laundry bag.
5. Assortment of rags
6. Extra laundry.

Step 1. Wrap the hardware of the rig with the rags to pad them so they don't beat the inside of the washing machine.

Step 2. Soak the rig in lukewarm water and apply Woolite™ or other soap directly onto the dirtiest parts. Scrub these parts vigorously. Allow these parts to absorb the Woolite™ during the time you're traveling to the Laundromat.

Step 3. Place the rig into the pillowcase and add extra padding such as some of your regular laundry! Tie off the pillowcase to hold everything in. Place into the washing machine and wash in warm water.

Step 4. Run through at least two rinse cycles or hand rinse several times until no further soap comes out.

Step 5. Hang to dry out of direct sunlight. Use of a fan directly onto the rig greatly speeds up the drying process.

Scotchgard

The use of Scotchgard™ brand fabric protector has become commonplace in recent years. This fabric treatment seals the pores of the fabric against dirt and other stains. Scotchgard™ is not a magical "silver bullet" against dirt. However it has shown good results in keeping lighter color fabric cleaner longer under normal use. Grinding in on grass or asphalt or other heavy abuse will still stain and/or damage the rig materials.

Scotchgard™ is not harmful to today's container fabrics such as Para-pak and Cordura™. There are currently several Scotchgard™ formulas. The standard fabric and upholstery formula in the **RED CAN** has proven the most successful. Do not use the rug and carpet formula in the blue can.

After the rig is completely dry, hang it in a well ventilated location. **FOLLOWING THE DIRECTIONS ON THE CAN,** apply the protector to the entire **OUTER SURFACE** of the rig. For those areas such as the inside of the leg pads, backpad, and bottom of the main container, and light colored panels such as white, etc, apply a second coat after the first has dried. Do not intentionally spray the hardware, housings, and clear vinyl Cypres window. After the rig has dried, it may then be re-assembled and placed back into service.