

## **RIGGING INNOVATIONS, INC.**



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

\$8.00

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# 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 Telesis 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 or 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 or 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.



You can substantially reduce risk by assuring 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 correctly 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



## **Telesis 2** P/N 6113- (2) S/N \_\_\_\_\_

Manufactured by

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

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this manual designed and produced by RIGGING INNOVATIONS, INC.

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## Section 1.0 General Information

#### 1.1 Telesis 2 Certification

Several different 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 Telesis 2 is built to standards prescribed under TSO C-23c Category B.

The Telesis 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.

NORTHWEST MOUNTAIN REGION TRANSPORT AIRPLANE DIRECTORATE AIRCRAFT CERTIFICATION SERVICE

LOS ANGELES AIRCRAFT CERTIFICATION OFFICE

3229 E SPRING ST.

LONG BEACH, CA 90806-2425



U.S. Department of Transportation

Federal Aviation Administration AUG. 7, 1989

Rigging Innovations Inc. Mr. Sandy R. Reid, President 236-A E. Third St. Perris, CA 92370

Gentlemen:

Rigging Innovations Inc., Telesis Dual Parachute Harness & Container Assembly, Part Number 6113-(); Series; Technical Standard Order C23c

Your application of June 14, 1989, requesting the issuance of a Technical Standard Order (TSO) authorization in accordance with the procedural requirements of Federal Aviation Regulation (FAR) Part 21, Subpart O, has been reviewed. Based upon your data and statement of conformance certifying your article has met the requirements of FAR Part 21, Subpart O, and the minimum performance standards of TSO-C23c (Ref. FAR 21.305(b)) authorization is hereby granted.

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

- 1. Qualification Test Report SAE8015A Test Summary Per AS8015A
- 2. Marking Requirements dated May, 1989
- 3. Owners Manual P/N 6113-() dated May, 1989

The quality control procedures contained in your quality control manual currently on file at the Manufacturing Inspection District Office 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 is extended to include the subject Telesis Dual Parachute Harness and Container Assembly and you may identify this article with the applicable TSO markings as required by TSO-C23c.

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

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, Sincerely.

rederick See

Frederick Lee Manager, Los Angeles Aircraft Certification Office

#### 1.2 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 <u>these systems are certified</u> <u>only with square reserve parachutes</u> the rigger should be appropriately trained to pack ram-air parachutes prior to certifying the Telesis 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.

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

As the new owner of a Rigging Innovations, Inc. Telesis 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 **Telesis 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 an adjustable harness. These configurations along with options such as 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 our equipment. However, there are additional factors that may influence your decision and ability that do not relate to our product. 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. <u>Customer Service Policy and Limits</u>

#### Harness and Containers

RI will provide no charge repair service for repairs that RIGGING INNOVATIONS INC. has determined to result from defects in 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.

#### <u>Safety</u>

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.

#### <u>Improper Use</u>

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).

#### <u>Limits</u>

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.

January 1998

#### Table I - Parts List

QUANTITY	DESCRIPTION	Part Number
1	HARNESS/CONTAINER ASSEMBLY	6113-(2)
1	STEALTH RESERVE PILOT CHUTE	2237-( )
1	SQUARE RESERVE FREEBAG AND BRIDLE	2114-( )
1	RESERVE RIPCORD	2511-(5)
1	S.O.S. RESERVE RIPCORD	2513-(3)
2	RESERVE STEERING TOGGLES	2611-(1)
1	RESERVE CLOSING LOOP	2913-(4)
1	SAFETY STOW LOOP	2911-(2)
2	MAIN RISERS TY-8	2431-(2)
2	MAIN TOGGLES	2621-(1)
1	3-RING RELEASE HANDLE	2521-(2)
1	MAIN DEPLOYMENT BAG	2124-( )
1	MAIN STATIC LINE	2821-(1)
1	MAIN RIPCORD - PINLESS	2531-(1)
1	MAIN RIPCORD - FXC	2532-(2)
1	MANUAL OVERRIDE DEPLOYMENT (MOD) HANDLE	2532-(4)
1	MAIN PILOT CHUTE	
	357L	2239-(2)
	T.O.P 36"	2241-(2)
1	MAIN BRIDLE	
	RIPCORD	2321-(3)
	T.O.P. / ROL	2321-(13)
	T.O.P. / BOC	2321-(14)
1	RSL LANYARD - TAS	2811-(4)a
1	RSL LANYARD - SOS	2811-(9)
1	OWNER'S MANUAL AND REGISTRATION CARD	1313-(2)

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

## Section 2.0 Component Compatibility

#### 2.1 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 Telesis 2 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 Telesis 2 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 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 then 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 Telesis 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 the customer's 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.

#### 2.4 Reserve Deployment Bag and Bridle

Only a Rigging Innovations deployment bag and bridle assembly of the correct size and properly labeled with P/N 2114-() is compatible with the Telesis 2. No other deployment bag is approved for use with the Telesis 2 system.

Container size	Volume
TS1 Reserve/Main	400/500
TS2 Reserve/Main	500/600
TS3 Reserve/Main	550/700
TS4 Reserve/Main	600/750
TS5 Reserve/main	650/850

#### Table II. Telesis 2 Main/Reserve Container Volumes

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

#### 2.5 Deployment Type

There are 5 different canopy deployment methods in common use. Of these, only TYPE 5 (free bag) is approved for use in the Rigging Innovations, Inc. Telesis 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: Ram air reserve canopies.

#### 2.6 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 Telesis 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

**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.

**Step 4** Route steering line through toggle grommet from Velcro side and align mark on line with the grommet. Pass line around either side of toggle and through grommet two more times in same direction. (*Figure* 1) Secure with a Figure 8 knot locked with an overhand knot. Double check that toggle is secure and knot will not slip.

It is also acceptable to make a finger-trapped loop 1 inch long (*Figure* 3) and install as shown. (*Figure 4*) The finger-trap must be locked with a zigzag or bartack stitch.

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

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Figure 1



Figure 2



Figure 3



Figure 4

Step 6 Attach main deployment bag to canopy as follows:

**a**. Install the RED canopy attachment loop to the top of the main canopy by looping the large end through the ring or loop on the top of the canopy. (*Figure 5*)

**b.** Take the small end and place it through the grommet in the top of the main bag. (*Figure 6*)

**c.** Attach main pilotchute bridle, either T.O.P. or ripcord to the canopy attachment loop with the #5 Rapide link provided. (*Figure 6*) Trap the Ty-8 webbing yoke at the top of the bag inside the Rapide link. Note that the canopy attachment loop and the main bridle are the same color (normally red) while the yoke is yellow. By using color coordination, it reduces the possibility of assembling the system incorrectly. ALWAYS MATE COLOR TO COLOR.

**Step 7** Set brakes by pulling steering lines down until locking loops are just below guide rings on main risers. Insert main toggle upper end into brake set loop on steering line. Align and press toggle onto riser Velcro. Stow excess lower control line in Velcro keeper. (*Figure 7*)

**Step 8** Install rubber bands provided onto the bag. The main parachute is now ready to pack according to canopy manufacturer's instructions.

#### Packing

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 the center and lock the two center locking stows. Lock two outer locking stows and finish stowing lines to within 18" of connector links.

Work air out of the bag at this time to flatten the bag prior to placing it in container. Pick up bag and place it at bottom of the main container. Route main risers over shoulders and deep into riser cover channels on either side. Main toggles face inboard.

Place bag into main container with <u>lines to the bottom</u> 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 the side flaps.



Figure 5



Figure 6



Figure 7



Figure 8

#### Main Container Closing -

#### - Ripcord and M.O.D. Handles

**Step 1** "S" fold the main bridle and place on top of the main bag and place the base of the spring pilotchute on top of the bridle.

**Step 2** Collapse the pilotchute while stuffing the material in between the coils. (*Figure 9*) The arrow on pilot chute cap should point toward top of rig. Arrow indicates metal swage on pilotchute spring. Correct orientation prevents unsightly wear on container flaps.

**Step 3** Close the container in the numbered sequence. #1 - Bottom; #2 - Top ; #3 - Right side ; #4 - Left side. Insert black plastic coated ripcord cable through M.O.D. ring, if so equipped, (*Figure 10*) then through the main closing loop. Stow the excess cable just under the top edge of the left main flap. (*Figure 11*)

**Note:** If the **Telesis 2** is set up for operation with an FXC AAD on the main, the closing sequence for the last two flaps will be reversed. That is, the right flap will close last.

#### - Throw-Out (T.O.P.)

**Step 4** Route main bridle across top of bag and out upper right corner of container See page 11 (*Figure 8*).

**Step 5** 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 the curved pin. Mate Velcro slack-tab and lay flat toward top. (*Figure 12*)



Figure 9



Figure 10



Figure 11



Figure 12

#### 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 13*)

**Step 2** Fold pilotchute in half and stow excess bridle near the outer edge of pilotchute. (*Figure 14*)

**Step 3** Fold outside edge toward handle keeping bridle inside. (*Figure 15*)

Step 4 Fold pilotchute into thirds as shown. (Figure 16)

**Step 5** Fold pilotchute into thirds again so the result is a flat package about the same length and width as spandex pocket. (*Figure 17*)

**Step 6** Slide pilotchute into spandex pocket so that only handle protrudes. (*Figure 18*) Stow excess bridle under right side main flap.



Figure 13



Figure 14



Figure 15







Figure 16



Figure 17

#### MANUAL OVERRIDE DEPLOYMENT (MOD) HANDLE

The Telesis 2 AFF M.O.D. or Manual Over-ride Deployment handle was first introduced on the Telesis system. The MOD is a backup main ripcord mounted on the lower left corner of the main container. This allows the reserve side jumpmaster on an AFF jump to easily deploy the main parachute. Because the AFF/M.O.D. handle is a completely separate component, it may be left off the assembly when the Telesis 2 is used in a normal freefall or static line mode.

To install the handle:

**Step 1** Mate the ring end of the handle lanyard with the small piece of Velcro located just below the grommet on the left main flap. (*Figure 19*)

**Step 2** Make a full twist in the lanyard between the two sections of Velcro and mate the long piece of hook to the corresponding piece of loop Velcro on the underside edge of the left main flap. (*Figure 20*)

**Step 3** Reach into the pocket on the left corner of the main container and pull out the handle mounting flap with the hook Velcro on it. (*Figure 21*) Mate the handle to the mounting flap and then tuck the handle into the pocket so it is held securely. (*Figure 22*)

**Step 4** Close the container in the numbered sequence. #1 - Bottom; #2 - Top; #3 - Right side; #4 - Left side. Insert black coated ripcord cable through M.O.D. ring, if so equipped, then through the main closing loop. Tuck the excess cable under the left side container flap.



Figure 19

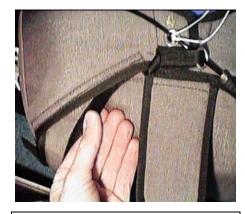


Figure 20



Figure 21



Figure 22

#### MAIN STATIC LINE INSTALLATION

The **Telesis 2** main static line activates a direct bag system. With ram-air canopies, the canopy is *free stowed* in the bag. That is, there is no assist device or connection between the canopy and the bag. Regulations requiring canopy assists are intended for round parachutes.

The Telesis 2 is designed to be easily converted from freefall to static line and back without having to unpack the canopy. We do this by using a canopy attachment loop you installed as in *Figure 5* on page 11. Whenever you pack the canopy, you always pack it with the canopy attachment loop exposed through the grommet at the top of the bag. In freefall mode, you attach the pilotchute and bridle to the canopy attachment loop. For static line, the static line is looped directly to the yoke on the top of the bag. To make it even simpler, we color coded the canopy attachment loop and the freefall pilotchute bridle the same color (normally RED). We made the mating loops the same size so that they can be attached with a #5 Rapide link. These loops for the Rapide link are too small for the static line and the yoke on the bag are also color coded (yellow) for proper mating.

#### To convert from freefall to static line:

**Step 1** Disconnect the freefall pilotchute and bridle from the canopy attachment loop.

**Step 2** Loop the end of the Main Static Line over the yoke on the top of the main bag and tighten securely. (*Figure 23*)

**Step 3** Place the main bag in the main container with the static line exiting the upper left (or right) hand corner of the container. (*Figure 24*)

Step 4 Close the container in the numbered sequence. #1 - Bottom;#2 - Top; #3 - Right side; #4 - Left side. Insert the static lineFlexpin through the main closing loop.

**Step 5** Fold the static line above the Flexpin attachment point and double stow it in a rubber band on the static line stow loop on the left or right side main flap. This is for shortest routing to the aircraft door and so that the Flexpin is not accidentally dislodged by the drag of the static line during use. (*Figure 25*)

**Step 6** Close the main protector flap and finish stowing the static line left to right in rubber bands attached to stow loops. (*Figure 26*)

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Figure 23



Figure 24



Figure 25



Figure 26

#### 3.2 3-RING<sup>™</sup> RELEASE ASSEMBLY

#### Assembling the 3-RING<sup>™</sup> Release with Type-8 Standard-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 27*)

**Step 2** Pass small riser ring through middle ring and fold small ring upward. (*Figure 28*)

**Step 3** Pass loop from top to bottom over small ring and through riser grommet. Double check that loop goes only over the small ring and not second ring also. Do not twist the loop. (*Figure 29*)

**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 30)* 

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. *See RSL instructions next section*. Double check risers for correct assembly. Inspect from side. (*Figure 30b*) Only 1 item through each ring, all rings lay parallel and white loop routed through only 1 ring.



Figure 27



Figure 28



Figure 29







Figure 30b

#### **3.2.1** SINGLE OPERATION SYSTEM HANDLE (S.O.S.)

The Telesis 2 S.O.S. (Single Operating System) utilizes one handle and one operation for both the breakaway and reserve ripcord pin pull. A yellow loop style handle is placed below the three ring on the wearers left hand side. Peeling outward and then pulling downward will cause a staged, breakaway then reserve pin extraction. The RSL operates normally with this system as it does the normal two handle system. The risers for the S.O.S. system are unique. The excess cable keeper is located closer to the grommet which the 3-Ring<sup>TM</sup> loop passes through. Be sure you use the correct risers.

#### **SOS Handle Installation:**

**Step 1** Insert ripcord cable into housing. Pull excess cable down between flaps. Turn the yellow handle Velcro side up and place stainless steel grommet on left hand loop of the ripcord cable. (*Figure 31*)

**Step 2** Rotate the handle counterclockwise (left) allowing the unstiffened fabric to turn the corner and fold down behind the handle and left hand flap. Mate Velcro between the handle and the left-hand flap. (*Figure 32*)

**Step 3** Route the breakaway cables in their appropriate housings and mate the right side handle Velcro to the flap. (*Figure 33*)



Figure 31



Figure 32



Figure 33

#### 3.3 Reserve Static Line Lanyard (RSL) System

#### 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 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 <u>In the event of a malfunction</u>, 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 - Telesis 2

The **Telesis 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 ring end of lanyard to Velcro on underside of reserve top flap. Route ripcord through metal housing and through ring on RSL lanyard. Route ripcord pin through opening in underside of reserve top flap (*Figure 34*) and out between inner and outer layers of top 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 35*)

**Step 3** Attach RSL snap shackle to ring on left riser. (*Figure 36*) 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 CAN RESULT IN POTENTIALLY FATAL CONSEQUENCES!

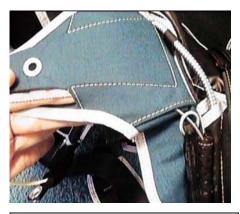


Figure 34



Figure 35



Figure 36

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

#### 3.4 Harness Adjustments and Fitting

The Telesis 2, as a training system, is designed with 5 points of adjustment. They are the chest strap, both leg straps, and the two main lift webs. The main lift webs normally have 3 positions of adjustments but may have more or less. The main lift web is designed with a positioning method called the *Adjust-A-Tongue* system. (*Figure 1*) This system allows easy adjustment of the main lift web with fixed locators that ensure harness symmetry and secure the harness ends. This concept is unique to the Telesis 2.

Your **Telesis 2** may have leg pad extensions to vary the length of the lower leg pad. This allows the leg pad to be tightened properly on those people with small thighs. Large individuals can use the same rig by

extending the pad for better comfort.

When adjusting the Telesis 2 main lift web for the individual who will use it, the adjustments are done BEFORE putting the rig on the jumper. Open the harness covers (*Figure 37*) and adjust the length of the main lift web using the preset adjustments. The main lift web adjustments on the Telesis 2 normally come in three positions - SMALL, MEDIUM, and LARGE. The first two positions are marked on the Adjust-A-Tongue pocket with a large S or M. The top position or Small pocket is color coded YELLOW and the middle or Medium pocket is color coded RED. The Large position for the main lift web is with the adjustment out as far as possible with the stop against the main lift web adjuster. (*Figure 38*) In this position the free end of the main lift web is stowed in the elastic keeper. Once the Telesis 2 is adjusted to fit the jumper, put it on them, fasten the chest strap, and tighten the leg straps to take the slack out, BUT NOT TIGHT. Slide the floating pad or leg pad extension into position and finish tightening the leg strap. Now check the fit of the Telesis 2 to ensure that



Figure 37



Figure 38

the jumper can reach all the operating handles and that the rig is not too slack and will not move around excessively.

#### 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 **Telesis 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<sup>™</sup> 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 Ripcord) for wear and placement. Also check routing of bridles for twists, etc.
- 4. Main risers routed smoothly over the shoulder and riser covers closed properly.
- 5. 3-Ring<sup>TM</sup> 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<sup>™</sup> 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 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 fabric 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<sup>TM</sup> release system, and help to insure 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 **Telesis 2** at every repack cycle to insure 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.
- 6. Harness and container in good airworthy condition.
- 7. Flex-Ring buffers. Inspect inside of buffers for excessive wear. (*Figure 39*)



Figure 39

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.

#### Major Alterations / Repair

**Rigging Innovations, Inc.** does NOT authorize major alterations or repairs to the **Telesis 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 Stall R		
STAIN		
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, Shoe 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	
	dampened with the recommended cleaning agent should be used in an inconspicuous place th and by turning it frequently to keep it clean. Rings can be avoided by working from the tis removed or there is no further transfer to the cloth.	
<sup>1</sup> DetergentOne teaspoon neutral powder detergent	(e.g. Tide or All) in 1 pint warm water.	
<sup>2</sup> AmmoniaA 3% solution.		
<sup>3</sup> VinegarWhite vinegar or a 10% acetic acid solution	on	
<sup>4</sup> SolventDry cleaning fluid - preferably 1.1.1 trichlorethane		
<sup>5</sup> Paint removerPaint remover with no oil in it.		
NOTE: Oily and greasy stains In addition to the recommended method, some stains ( "CAPTURE" (Milliken) and "K2R" (Texize). Carefully follow directions on the label.	e.g. perspiration/body oils) respond well to dry cleaners such as "HOST" (Racine Industries),	
* Recommendations based on fabrics finished with Du Pont Teflon® WBC Soil and Stair untreated overnight. Removal is usually easier when stains are cleaned immediately.	n Repellent for CORDURA®. The methods were effective on stains that were allowed to sit	

#### Table III - CORDURA® Recommended Stain Removal Methods \*

**Washing Your Rigs** It is acceptable to wash your Telesis 2 containers system carefully. Disconnect reserve canopy and remove all components such as ripcord, hook knife, packing data card, etc. Soak in warm soapy water overnight using a mild detergent such as Woolite intended for delicate fabrics. Use a soft plastic bristle brush to remove stubborn stains like those common on leg pads. Rinse <u>thoroughly</u> and hang to dry. Wipe metal components dry quickly to prevent rust.

## Section 4.0 Rigger Information

#### 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 Telesis 2. FAILURE COMPLETE ORANGE WARNING LABEL WILL RESULT IN THE TSO BEING NULL AND VOID!

		MAIN	RESERVE
MAXIMUM DEPLOYMENT SPEED:			
MAXIMUM GROSS WEIGHT (JUMPER + CLOTHING + EQUIPMENT):			
MANUFACTURER:			
MODEL:			
ATTENTION RIGGERS:	INFORMA • FILL IN D	TION AND COMPA ATA WITH WATER DATA ON LABEL	AL FOR PLACARD ATIBILITY LIMITATIONS. PROOF PEN. IF A DIFFERENT CANOPY

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 Befor	e Starting Assembly Qty:		
		manufacturer:		
Δ		model:		
Harnes	se and			
		date of manufacture:		
Contai	ner	serial no:		
Initial A	fter Each Item If No I	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 poo			
7.		t point, cable housing and channels		
8.	Container flaps and gromme			
9.	Closing loop length (main a	nd reserve)		
10.	Comments:			
		manufacturer:		
B				
D		model:		
Main C	anony and			
	anopy and	date of manufacture:		
Pilotch		serial no.:		
Initial A	fter Each Item If No I	Discrepancies Are Found	Initials	
1.	Risers and 3-Ring			
2.	Connector links and slider b	umpers		
3.	Slider grommets, tapes, fab	ric		
4.	A-lines and attachment poin	ts		
5.	B-lines and attachment poin	ts		
6.	C-lines and attachment poin	ts		
7.	D-lines and attachment poin	ts		
8.	Steering lines and toggles			
9.	Canopy cells and cross-port	S		
10.	Slider stops ( on canopy )			
11.	Bridle line, d-bag stop, pin			
12.		Pilotchute and handle or pud		
13.	Deployment bag			
14.	Comments:			

		manufacturer:	
C		model:	
auar	re Reserve Canopy	date of manufacture:	
-	liotchute		
		serial no:	
	After Each Item If No Disc	crepancies Are Found	Initials
1.	Risers		
2.	Connector links		
3.	Sliders & Grommets		
<u>4.</u> 5.	A-lines and attachment points B-lines and attachment points		
5. 6.			
7.	C-lines and attachment points D-lines and attachment points		
8.	D-lines and attachment points Steering lines and toggles		
9.	Canopy cells and cross ports		
<u>9.</u> 10.	Slider stops ( on canopy )		
11.	Deployment bag and safety stow	1	
12	Bridle line	-	
13.	Pilotchute		
14.	Packing card and information		
15.	Comments:		
D	mbly of		
quar	re Reserve Canopy		
quar	-	crepancies Are Found	Initials
quar	re Reserve Canopy	•	Initials
Squar nitial / 1. 2.	After Each Item If No Disc Inspection of canopy and Contai Continuity of all lines	•	
<b>itial</b> 1. 2. 3.	After Each Item If No Disc Inspection of canopy and Contai Continuity of all lines Slider on correctly	ner completed (parts A & C )	
<b>Equar</b> nitial <i>I</i> 1. 2. 3. 4.	After Each Item If No Disc Inspection of canopy and Contai Continuity of all lines Slider on correctly Rapide link barrels tightened pro	ner completed (parts A & C )	
Anitial         A           1.         2.           3.         4.           5.         5.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on	ner completed (parts A & C ) pperly mark	
Anitial         Anitial <t< td=""><td>Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eace</td><td>ner completed (parts A &amp; C ) pperly mark h other</td><td>Initials</td></t<>	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eace	ner completed (parts A & C ) pperly mark h other	Initials
Anitial         A           1.         2.           3.         4.           5.         6.           7.         7.	re Reserve Canopy After Each Item If No Disc Inspection of canopy and Contai Continuity of all lines Slider on correctly Rapide link barrels tightened pro Steering lines tied to toggles on Steering line length equal to eac Safety stow on deployment bag	ner completed (parts A & C ) pperly mark h other	
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.	re Reserve Canopy After Each Item If No Disc Inspection of canopy and Contai Continuity of all lines Slider on correctly Rapide link barrels tightened pro Steering lines tied to toggles on Steering line length equal to eac Safety stow on deployment bag Packing card filled out	ner completed (parts A & C ) pperly mark h other installed	Initials
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.	Reserve Canopy           After Each Item If No Disc           Inspection of canopy and Contai           Continuity of all lines           Slider on correctly           Rapide link barrels tightened pro           Steering lines tied to toggles on           Steering line length equal to eac           Safety stow on deployment bag           Packing card filled out           Packed according to manufacture	ner completed (parts A & C ) pperly mark h other installed	
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed	ner completed (parts A & C ) pperly mark h other installed	Initials
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed	ner completed (parts A & C ) pperly mark h other installed	
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	Initials
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	Initials
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	Initials
Squar           nitial           1.           2.           3.           4.           5.           6.           7.           8.           9.           10.           11.	Reserve Canopy         After Each Item If No Disc         Inspection of canopy and Contai         Continuity of all lines         Slider on correctly         Rapide link barrels tightened pro         Steering lines tied to toggles on         Steering line length equal to eac         Safety stow on deployment bag         Packing card filled out         Packed according to manufactur         Reserve pin sealed         Fill out warning label	ner completed (parts A & C ) pperly mark h other installed	Initial:

	Canopy to Container 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. Cutaway handle cables are proper lengths			
	5. Rapide link barrels tightened properly		
6.	Steering lines tied to toggles on mark		
7. 8.	Steering line length equal to each other		
<u> </u>	D-bag, bridle and pilotchute are attached properly Packing card filled out Fill out warning label		
10.	Comments:		
I NOto	<ul> <li>Cot a count of all tools used after assembly and</li> </ul>	Qty:	
: NOLE	: Get a count of all tools used after assembly and		
packin	g is completed to ensure that none were left in the		
packin			
packin	g is completed to ensure that none were left in the		
packin	g is completed to ensure that none were left in the / or container.		
packin	g is completed to ensure that none were left in the		
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packin canopy Signatu Print Na Signatu Print na	g is completed to ensure that none were left in the y or container. Signature of Rigger(s) Inspection are: ame and Seal Symbol: are:	Date:	

### 4.3 Ram-Air Reserve Packing Instructions

**Prior to assembling and packing a square reserve into a Telesis 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 Telesis 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 Parachute.

Rigging Innovations mandates PRO (Proper Ram-air Orientation) packing on the floor, the method used by Rigging Innovations, Inc. in packing Telesis 2 reserve containers. It 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 **Telesis 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. Tight is considered to be finger tight plus one quarter turn of the barrel. **WARNING:** If Maillon Rapide links are too tight, barrels will crack. Mark connector links with a "tell tale" dot of nail polish.
- 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 attached.
- g. Automatic Activation Device is correctly installed.

#### 4.3.2 Closing Loop Length

#### 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.).

CONTAINER SIZE	Α	В
TS1	4.75"	3.25"
TS2	4.75"	3.25"
TS3	5.0"	3.5"
TS4	5.0"	3.5"
TS5	5.0"	3.5

A = Loop length from knot to end. B = Loop length installed ( grommet to end ).

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 "loop cutter" type AADs have been tested and approved for use with the Telesis 2 system. The most popular brand of loop cutter AAD is the Cypres manufactured by Airtec GmbH, in Germany. The Telesis 2 was designed from the beginning to utilize a loop cutter AAD. The small container volumes and closing configuration of Telesis 2's prevent the use of older pin-extractor AADs.

The Telesis 2 comes "Cypres-ready" from the factory with all the pockets, channels and parts necessary for direct installation of the AAD without further modification. The following instructions tell the rigger how to install an AAD in the Telesis 2. However, it is important that the rigger also have a current copy of the CYPRES Rigger's Guide to familiarize 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 <u>MUST</u> 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 pocket provided on divider wall at bottom of reserve container. (*Figure 40*).

**Step 4** Thread cutter unit up through grommet and then through channel provided on inside of right reserve side flap. Push cutter through elastic keeper next to grommet and align hole in cutter with grommet. (*Figure 41*).

**Step 6** Carefully stow excess cutter cable under Velcro closure flap located on right end of Cypres installation pocket. Do this by coiling excess. DO NOT bend or kink excess cable. (*Figure* 42)

**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* 43).

**Step 8** Gently slide control unit through opening on under side of reserve top flap (*Figure* 44)and into slit opening for clear pocket. Double check that control button, display and red light are visible in pocket window. (*Figure* 45)

**Step 9** Pull slack in control cable back down into pack tray. Coil excess cable neatly without kinks or sharp folds into pocket on pack tray at bottom of stiffener.



Figure 43



Figure 44



Figure 40



Figure 41



Figure 42



Figure 45

#### 4.3.4 Recommended Tools List:

- 1- 1- Tie cord red or brightly colored (30" recommended.)
- 2- 1-packing weight, 22 Lb. (10 Kg.)
- 3- 5-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



Figure 46

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

#### 4.3.5 Canopy Folding 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 47*) 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 48*).

**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 48.*)

**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 49*)

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 50*) 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 47



Figure 48



Figure 49



Figure 50

#### Dress the Folded Parachute

**Step 1.** 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 51*) Repeat for both B-C and A-B folds.

**Step 2** Grasp suspension lines at base of stabilizers. Gently flake stabilizer fabric until it is all outboard of the lines. (*Figure 52*)

**Step 3** 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 53*)

**Step 4** Set deployment brakes. Pull toggles down until brake loop is through guide ring on riser. Insert steering toggle tip through brake loop and into keeper above guide ring. (*Figure 54*) Stow excess steering line in Velcro keeper. Mate toggle Velcro to riser. (*Figure 55*)

**Step 5** 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 56*)



Figure 51

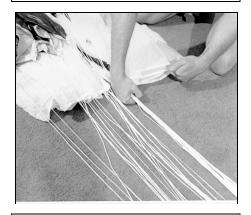


Figure 52



Figure 53



Figure 56



Figure 54



Figure 55

**Step 12** 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 57)* 

**Step 13** 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 58*)
- 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 59*)

**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.

**Step 16** Repeat steps 14 and 15 on left side. Using "B" clamp and "A" clamp. (*Figure 60*)



Figure 57



Figure 58



Figure 59



Figure 60

**NOTE**: Stacking folds may vary depending on canopy and container size combination. You might need to experiment to obtain best canopy bulk distribution.

#### 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 61*)

**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 62*)

**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 63*)

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 64*)

**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.

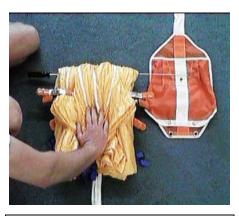


Figure 61



Figure 62



Figure 63



Figure 64

**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 65*)

**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 66*)

#### 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 67*)

**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.

**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 68*)



Figure 65

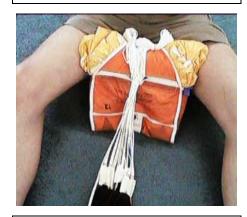


Figure 66



Figure 67



Figure 68

#### 4.3.6 Closing Reserve Container

**Step 31** Close inner top flap (rectangular flap with no grommet) so lower edge touches d-bag grommet and re-clamp.

**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 most of fabric and mesh under lower edge of pilotchute cap. Point yellow arrow on top of pilotchute toward top of container. Secure with temporary pin. (*Figure 69*)

**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 70*) 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 71*) Double check that d-bag is clear of pilotchute cap. At this point, you should be able to pull only 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 72)



Figure 69



Figure 70



Figure 71



Figure 72

**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.