

INVASION II

OWNER'S MANUAL

PACKING AND MAINTENANCE



MAIN CONTAINER

MILITARY PARACHUTE HARNESS

PERSONNEL TYPE

2024

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STATEMENT OF CONFORMANCE

This letter is to inform that all components of the **Invasion II Harness/Container System** by **TPDS, Inc.** are manufactured under Federal Aviation Administration (FAA) Technical Standard Order (TSO) requirements of the Federal Aviation Regulation 14, Code of Federal Regulations Part 21, Subpart O.

Furthermore: the Invasion II meets all Military Standards and Specifications.

Sincerely,

Henri Pohjolainen
President
Tactical Parachute Delivery Systems, Inc.



WARNING!

PARACHUTING IS A HIGH RISK ACTIVITY WHICH CAN CAUSE OR RESULT IN SERIOUS INJURY OR DEATH.

The following information must be read and understood before any use of this equipment:

USER KNOWS THE RISKS OF PARACHUTING AND ACCEPTS THAT:

Parachuting can cause **death** and/or **serious injuries**. Many of these deaths and injuries can be attributed to equipment problems or malfunctions.

Parachuting equipment can fail, even if all possible precautions are taken by the user, the equipment manufacturers and everyone else involved with the jump.

Failure to activate the main or reserve parachute (or follow emergency procedures) at a safe altitude, and/or equipment failure can result in **severe injury or death**.

IT IS THE USER'S RESPONSIBILITY TO:

Receive proper training before any use of all parachuting equipment.
Be extremely careful and cautious.

Read and Understand all owner's and operating manuals for all parachuting equipment.

Thoroughly check all parachuting equipment and replace any defective or worn component prior to use.

Review emergency procedures before each use of this and all parachuting equipment.

Check equipment warnings –

WARNING!

DO NOT EXCEED EQUIPMENT LIMITATIONS!

Never violate the training and experience requirements for the specific equipment use.

DISCLAIMER – STATEMENT OF WARRANTY

Because of the unavoidable dangers involved in the use of this and all parachute equipment – **Tactical Parachute Delivery Systems, Inc.**, (including but not limited to all owners, officers, staff, and employees), hereafter referred to as “**TPDS**” makes no warranties of any kind, expressed or implied. The liability of the seller is limited to replacing defective parts found upon examination by the manufacturer to be defective in material or workmanship within 7 days after purchase and found not to have been caused by an accident, improper use, alteration, tampering, abuse or lack of care on the part of the purchaser.

By using this equipment or allowing it to be used by others, owner/buyer waives any liability of **TPDS** for personal injuries or any other damages arising from such use. Any promise or representations inconsistent with or in addition to the **Statement of Warranty** are not authorized by **TPDS** and shall not be binding.

!WARNING!

Parachuting is a hazardous activity that can result in serious injury or death. Failure to follow all warnings, instructions, and required procedures may result in serious injury or **DEATH!** Parachutes sometimes malfunction even when they are properly designed, built, assembled, packed, maintained and used.

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Chapter 1

Product Information

1.1 Tactical Parachute Delivery Systems, Inc. (TPDS)

TPDS, Inc. is committed to providing you with the latest, most versatile and dependable parachuting system available on the market today.

TPDS can provide you with a Harness / Container System designed to suit or exceed the expectations of your demanding and changing environment with each assembly built.

If your operation requires a custom solution, please feel free to contact us.

This manual should provide you with the necessary information to assemble, pack and maintain the **INVASION II** Parachute Assembly.

1.2 Main Container Specifications

Materials:

Main Container: 1000 Denier Nylon Cordura

Deployment Bag: 10 oz. Army Duck Fabric

Webbing:

Main Lift Webbing-

1 23/32" (4.3 cm.) wide Type 7 Mil-W-4088

Tensile Strength 6000 lbs. / 2721 kg.

Main Risers-

1 23/32" (4.3 cm.) wide Type 7 Mil-W-4088

Tensile Strength 6000 lbs. / 2721 kg.

Leg Straps-

1 23/32" (4.3 cm.) wide Type 7 Mil-W-4088

Tensile Strength 6000 lbs. / 2721 kg.

Chest Strap-

1 23/32" (4.3 cm.) wide Type 8 Mil-W-4088

Tensile Strength 4000 lbs. / 1814 kg.

Laterals-

1 23/32" (4.3 cm.) wide Type 8 Mil-W-4088

Tensile Strength 4000 lbs. / 1814 kg.

Static Line-

3/4" (1.90 cm.) wide Tubular Mil-W-5625

Tensile Strength 2300 lbs. / 1043 kg.

Hardware:

Main Canopy Release System-

1 1/2 Shot Release System

Tensile Strength 5000 lbs. / 2270 kg.

Main Lift Webbing Adjusters-

Quick Fit Ring w/Friction Lock #555-2

Tensile Strength 2500 lbs. / 1130 kg.



Materials cond. :

Separable Connector Links-
MS22002-1

Tensile Strength **3000 lbs. / 1360 kg.**

Lateral Adjusters-

Locking Adapter PS 70124-1

Tensile Strength **2500 lbs. / 1130 kg.**

Chest Strap Hardware-

B-12 PS 22044-1 or PS 22017 Quick Ejector
with "V" Ring Quick Fit Bar PS 27765

Tensile Strength **2500 lbs. / 1130 kg.**

Tensile Strength **2500 lbs. / 1130 kg.**

Leg Strap Hardware-

B-12 PS 22044-1 or PS 22017 Quick Ejector
with "V" Ring Quick Fit Bar PS 27765

Tensile Strength **2500 lbs. / 1130 kg.**

Tensile Strength **2500 lbs. / 1130 kg.**

Reserve Container Top Connector Point-

"D" Ring PS 22046-1

Tensile Strength **5000 lbs. / 2270 kg.**

Static Line Snap

MS70120

Tensile Strength **1750 lbs. / 800 kg.**

Reserve Container Lower Connectors-

Alligator Snaps- FDC1575BO

Grommets

#2 Stainless Steel

Lines:

#525 Polyester Braid

Tensile Strength **525 lbs. / 238 kg.**

Size:

Main Container -

17" long x 13" wide x 11" deep
43.18 cm. x 33.02 cm. x 27.94 cm.

Weight:

Main Container -

13.9 lbs. (6.3 kg.)

with INV-400 Main Parachute-

30 lbs. (13.6 kg.)

Container Colors:

Black, Smoke, Desert Camouflage, Woodland Camouflage, Multi-Camouflage, Olive Drab Green and others upon request.

Harness Colors:

Black, Smoke, Silver, Olive Drab Green and others upon request.



INVASION II Main Parachutes

Main Parachute: 28 Gores

- INV-400** - 35 ft. Non-steerable Round
- INV-401** - 42 ft. Non-steerable Round
- INV-402** - 35 ft. Steerable Round
- INV-403** - 42 ft. Steerable Round

Main Parachute: 30 Gores

- INV-404** - 35 ft. Non-steerable Round
- INV-405** - 42 ft. Non-steerable Round
- INV-406** - 35 ft. Steerable Round
- INV-407** - 42 ft. Steerable Round

Capabilities and Features:

The Invasion II Main Parachute -

A Troop Back Parachute with anti-inversion netting. The Invasion II Main Parachutes are parabolic canopies with anti-inversion netting in the vent slots to optimize rate of descent and minimize oscillation. All Main canopies are block constructed using low porosity, high UV resistant rip-stop nylon fabric. Very little air passes through the material, resulting in slower-than-normal rate of descent and consequently softer landings, especially welcomed at higher field elevations or with heavy payloads.

The Steerable Main Parachutes have two control lines attached to the outside suspension lines of the modifications, to provide turning capability. The Invasion II Main Parachutes provide the capability to safely deliver airborne soldiers with individual equipment from an aircraft in-flight for vertical assault.

This system features a static line deployment of the main canopy.

The Main Parachutes are limited to use in winds not exceeding 35 knots at altitude and 16 knots at the surface.

Colors:

Standard - OD Green

Optional - Foliage Green



INVASION II

Main Parachute - Non-Steerable

28 Gores



Performance Data

	<u>INV-400</u>	<u>INV-401</u>
Suspended Weight Range:	100-360 lbs (45-163 kg.)	200-425 lbs (91-193 kg.)
Rate of Descent:	15 fps @ 210 lbs 4 mps @ 91 kg.	13 fps @ 225 lbs. to 15 fps @ 425 lbs. 4 mps @ 102 kg. to 4.6 mps @ 193 kg.
Forward Speed:	0 mph (0 km/h)	0 mph (0 km/h)
Stability Range:	<10 angle of oscillation	<10 angle of oscillation
360° Turn:	7-8 seconds	7-8 seconds
Opening Time:	2.6 seconds at 150 kts.	2.6 seconds at 150 kts.

Physical Specifications

	<u>INV-400</u>	<u>INV-401</u>
Canopy Weight:	16 lbs. (7.26 kg.)	19.2 lbs. (8.7 kg.)
Modification:	OCV (Oscillation Control Vent)	OCV (Oscillation Control Vent)
Anti-Inversion Netting:	Yes	Yes
Fabric:	PIA-C-44378 Type IV	PIA-C-44378 Type IV
Colors:	OD Green or Foliage Green	OD Green or Foliage Green
Shape:	Parabolic	Parabolic
Diameter:	35 feet (10 m)	42 feet (13 m)
Number of Gores:	28	28
Suspension Line:	525 lbs. Polyester Braid	525 lbs. Polyester Braid
Suspension Line Length:	574.0 cm. @ 2kg./5 lbs. Tension	672.0 cm. @ 2kg./5 lbs. Tension
Suspension Line Connector Links:	MS22002-1	MS22002-1
Connector Tensile Strength:	3000 lbs. / 1360 kg.	3000 lbs. / 1360 kg.



INVASION II

Main Parachute - Non-Steerable 30 Gores



Performance Data

INV-404
 Suspended Weight Range: 100-360 lbs (45-163 kg.)
 Rate of Descent: 15 fps @ 210 lbs
 4 mps @ 91 kg.
 Forward Speed: 0 mph (0 km/h)
 Stability Range: <10 angle of oscillation
 360° Turn: 7-8 seconds
 Opening Time: 2.6 seconds at 150 kts.

INV-405

Suspended Weight Range: 200-425 lbs (91-193 kg.)
 Rate of Descent: 13 fps @ 225 lbs. to 15 fps @ 425 lbs.
 4 mps @ 102 kg. to 4.6 mps @ 193 kg.
 Forward Speed: 0 mph (0 km/h)
 Stability Range: <10 angle of oscillation
 360° Turn: 7-8 seconds
 Opening Time: 2.6 seconds at 150 kts.

Physical Specifications

INV-404
 Canopy Weight: 16 lbs. (7.26 kg.)
 Modification: OCV (Oscillation Control Vent)
 Anti-Inversion Netting: Yes
 Fabric: PIA-C-44378 Type IV
 Colors: OD Green or Foliage Green
 Shape: Parabolic
 Diameter: 35 feet (10 m)
 Number of Gores: 30
 Suspension Line: 525 lbs. Polyester Braid
 Suspension Line Length: 574.0 cm. @ 2kg./5 lbs. Tension
 Suspension Line Connector Links: MS22002-1
 Connector Tensile Strength: 3000 lbs. / 1360 kg.

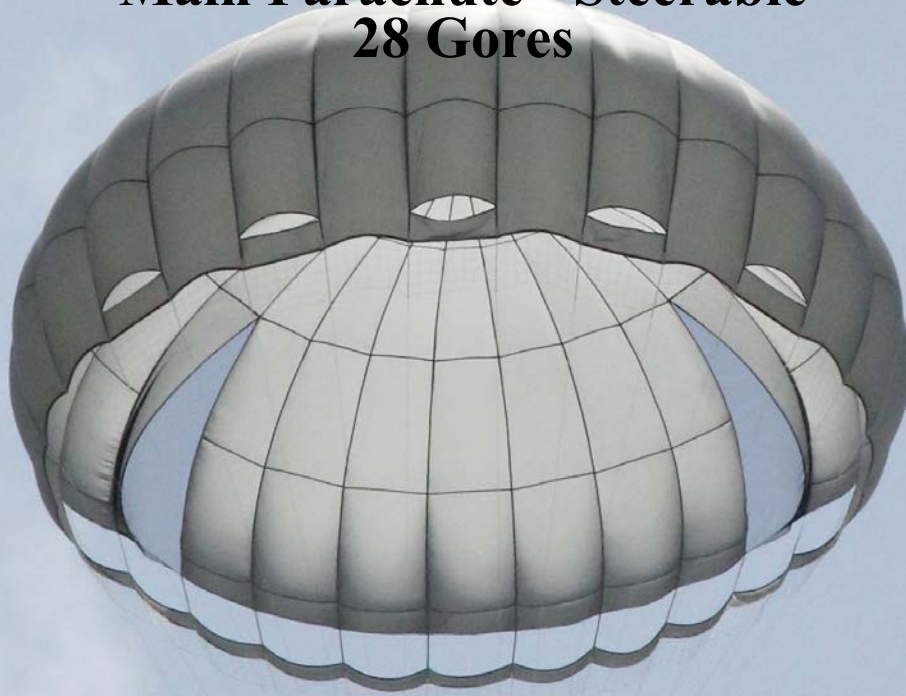
INV-405
 Canopy Weight: 19.2 lbs. (8.7 kg.)
 Modification: OCV (Oscillation Control Vent)
 Anti-Inversion Netting: Yes
 Fabric: PIA-C-44378 Type IV
 Colors: OD Green or Foliage Green
 Shape: Parabolic
 Diameter: 42 feet (13 m)
 Number of Gores: 30
 Suspension Line: 525 lbs. Polyester Braid
 Suspension Line Length: 672.0 cm. @ 2kg./5 lbs. Tension
 Suspension Line Connector Links: MS22002-1
 Connector Tensile Strength: 3000 lbs. / 1360 kg.



INVASION II

Main Parachute - Steerable

28 Gores



Performance Data

Suspended Weight Range: 100-360 lbs (45-163 kg.)
 Rate of Descent: 15 fps @ 210 lbs
 4 mps @ 91 kg.
 Forward Speed: 8-10 mph (13-16 km/h)
 Stability Range: <10° angle of oscillation
 360° Turn: 7-8 seconds
 Opening Time: 2.6 seconds at 150 kts.

INV-402

INV-403

200-425 lbs (91-193 kg.)
 13 fps @ 225 lbs. to 15 fps @ 425 lbs.
 4 mps @ 102 kg. to 4.6 mps @ 193 kg.
 8-10 mph (13-16 km/h)
 <10° angle of oscillation
 7-8 seconds
 2.6 seconds at 150 kts.

Physical Specifications

Canopy Weight: 16 lbs. (7.26 kg.)
 Modification: 7-TU
 Anti-Inversion Netting: Yes
 Fabric: PIA-C-44378 Type IV
 Colors: OD Green or Foliage Green
 Shape: Parabolic
 Diameter: 35 feet (10 m)
 Number of Gores: 28
 Suspension Line: 525 lbs. Polyester Braid
 Suspension Line Length: 574.0 cm. @ 2kg./5 lbs. Tension
 Suspension Line Connector Links: MS22002-1
 Connector Tensile Strength: 3000 lbs. / 1360 kg.

INV-402

INV-403

20.6 lbs. (9.34 kg.)
 7-TU
 Yes
 PIA-C-44378 Type IV
 OD Green or Foliage Green
 Parabolic
 42 feet (13 m)
 28
 525 lbs. Polyester Braid
 672.0 cm. @ 2kg./5 lbs. Tension
 MS22002-1
 3000 lbs. / 1360 kg.



INVASION II

Main Parachute - Steerable

30 Gores



Performance Data

Suspended Weight Range:	100-360 lbs (45-163 kg.)	200-425 lbs (91-193 kg.)
Rate of Descent:	15 fps @ 210 lbs 4 mps @ 91 kg.	13 fps @ 225 lbs. to 15 fps @ 425 lbs. 4 mps @ 102 kg. to 4.6 mps @ 193 kg.
Forward Speed:	8 –10 mph (13-16 km/h)	8 –10 mph (13-16 km/h)
Stability Range:	<10° angle of oscillation	<10° angle of oscillation
360° Turn:	7-8 seconds	7-8 seconds
Opening Time:	2.6 seconds at 150 kts.	2.6 seconds at 150 kts.

Physical Specifications

	<u>INV-406</u>	<u>INV-407</u>
Canopy Weight:	16 lbs. (7.26 kg.)	20.6 lbs. (9.34 kg.)
Modification:	7-TU	7-TU
Anti-Inversion Netting:	Yes	Yes
Fabric:	PIA-C-44378 Type IV	PIA-C-44378 Type IV
Colors:	OD Green or Foliage Green	OD Green or Foliage Green
Shape:	Parabolic	Parabolic
Diameter:	35 feet (10 m)	42 feet (13 m)
Number of Gores:	30	30
Suspension Line:	525 lbs. Polyester Braid	525 lbs. Polyester Braid
Suspension Line Length:	574.0 cm. @ 2kg./5 lbs. Tension	672.0 cm. @ 2kg./5 lbs. Tension
Suspension Line Connector Links:	MS22002-1	MS22002-1
Connector Tensile Strength:	3000 lbs. / 1360 kg.	3000 lbs. / 1360 kg.



Invasion II



**Main Container and Reserve Container
with Inv-400 Main Parachute
and Inv-300 Reserve Parachute.**

Total Weight: 44 lbs. (19.96 kg.)



Chapter 2

Tools

Use this page to record which tools are used during the packing of your **TPDS, Inc. Invasion II**. Mark which tools, and how many were used for packing and document all tools after work is complete.

2.1 Tool Check List

<u>Tool used:</u>	<u>Pre-packing</u>	<u>Post-packing</u>
Shot Bags	___ used	___ used
Line Separator	___ used	___ used
Packing Paddle	___ used	___ used
Temporary Pins	___ used	___ used
Packing Hook	___ used	___ used
Tension Plate	___ used	___ used
Tension Hook	___ used	___ used
Link Separator Tool	___ used	___ used
Scissors	___ used	___ used
Screw Driver	___ used	___ used
Additional Tools:		
_____	___ used	___ used
_____	___ used	___ used
_____	___ used	___ used
_____	___ used	___ used
_____	___ used	___ used
_____	___ used	___ used
_____	___ used	___ used



2.2 Recommended Packing Tools

- Shot Bags
- Line Separator
- Packing Paddle
- Temporary Pins
- Packing Hook
- Tension Plate
- Tension Hook
- Link Separator Tool
- Screw Driver
- Scissors





Chapter 3
Inspection Processes

3.1 Inspection Procedures Table

<u>Item to Inspect</u>	<u>Procedure</u>
Complete Assembly	Verify that the Assembly is complete. Verify proper assembly and that the system is clean and free from foreign materials.
Canopy	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Apex	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching on the radial seam and lateral band.
Upper Lateral Band	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Gore Sections	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Middle Lateral Band	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Vented Gores	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Lower Lateral Band	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.

Item to Inspect

Procedure

Radial Seams	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Information Panel	Inspect for legibility.
Line Attachment Tapes	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Anti-Inversion Netting	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching.
Lines	Inspect for continuity, cuts, snags, broken lines, burns and completeness of stitching.
Connector Links	Inspect for corrosion, burrs, rough spots, cracks, loose or missing screws or stripped threads.
Risers	Inspect for rips, holes, tears, burns, dampness, foreign materials, & completeness of stitching. Inspect 5 cord "box X" on end of riser for completeness of stitching.
Canopy Release	Inspect for corrosion, burrs, rough spots, cracks, loose or missing screws or stripped threads. Inspect to function properly.
Deployment Bag	Inspect for cuts, holes, tears, burns, and completeness of stitching. Inspect Velcro for wear and completeness of stitching. Inspect rubber bands and rubber band retainers.
Static Line	Inspect Snap and Safety Pin for corrosion and smooth operation. Inspect Static Line for completeness of stitching, burns and tears.



Chapter 4

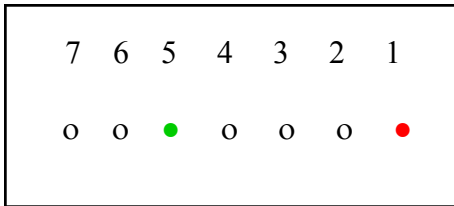
Assembly

4.1 Line Continuity- Main Parachute.

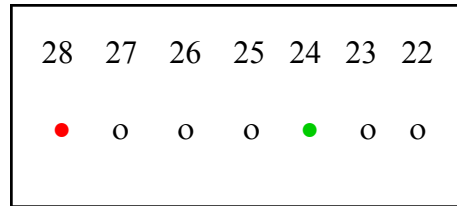
****BEFORE ASSEMBLY****

Inspect the canopy, be sure it is free of debris and the continuity of the lines is correct.

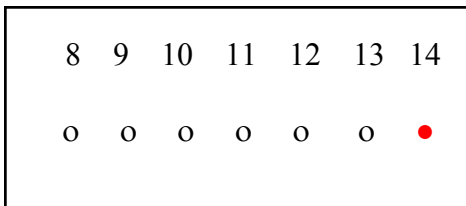
Line Continuity for the Invasion II Main Parachutes



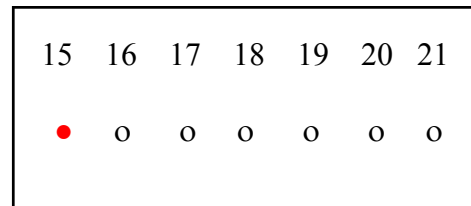
Left Rear Riser



Right Rear Riser



Left Front Riser



Right Front Riser

Steerable Parachutes

the Steering Lines are attached to Lines 5 & 24



4.2 Assemble the Main Parachute to the Main Risers.



Fig. 1

Begin by laying out the Main Parachute on the packing table or floor. (fig. # 1)



Fig. 2

With the Apex of the Canopy hooked to the table ring or hook, be sure that the line group 1-14 is on the left side and that the line group 15-28 is on the right side. (fig. # 2)

Line #1 and Line #28 should be on top.



Fig. 3

Remove the two (2) screws from the sides of the Separable Connector Link. (TPDS-INV-218) (fig. # 3)



Fig. 4

Use a link separator tool to open the connector link. (fig. # 4)

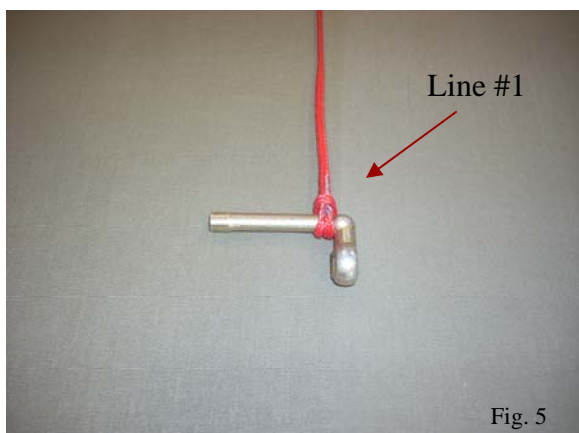


Fig. 5

Pick up line #1 at the skirt and follow it down to the end loop. Place it onto the separated connector link. (fig. # 5)

It is very important not to twist the line as you follow it to the loop. Every effort should be made to keep the lines straight from the skirt to the link.

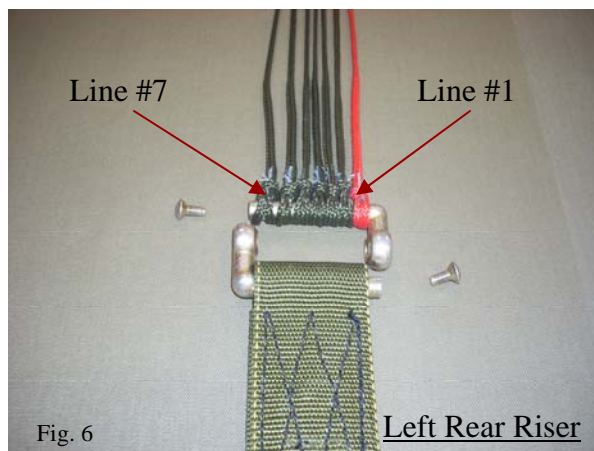
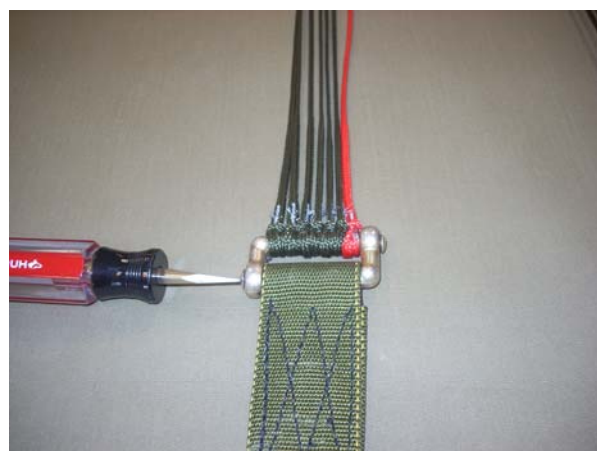
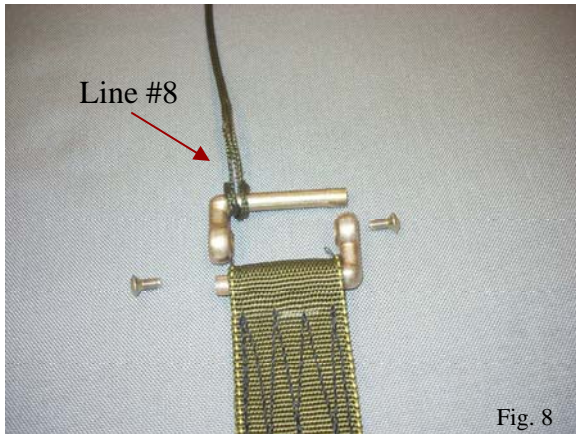


Fig. 6

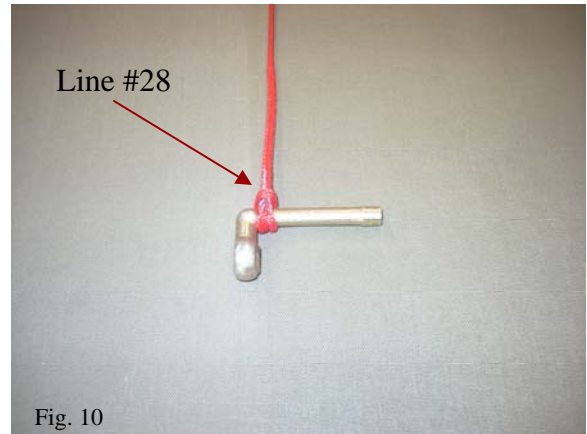
Continue to place lines #2 - #7 onto the link. (fig. # 6)



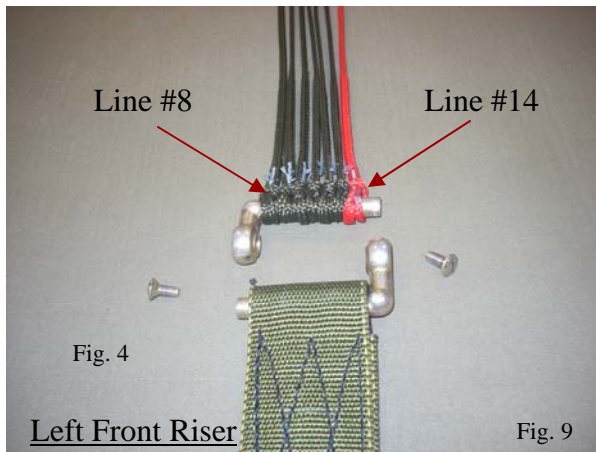
Pass the other half of the Separable Connector Link through the **Left Rear Riser** and the buffer, tighten the screws as shown. (fig. # 7)



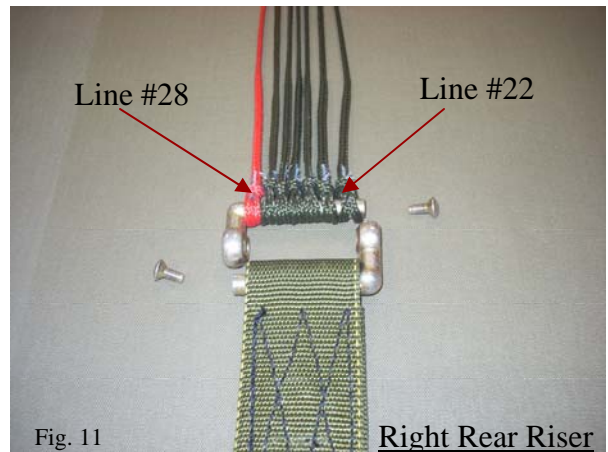
Open another connector link and begin by placing line # 8 onto the link.
Keep the lines straight to the link.
(fig. # 8)



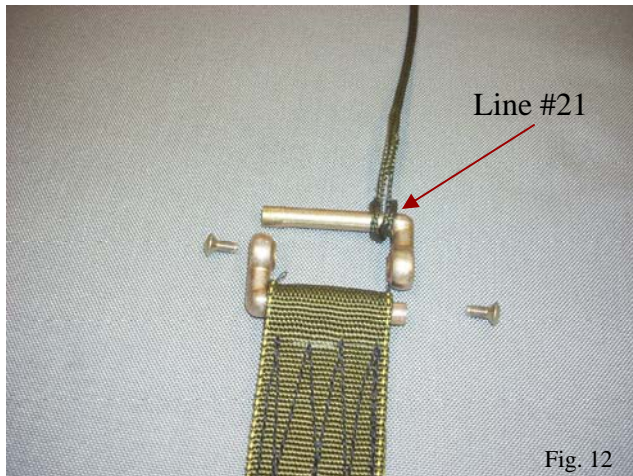
Open a 3rd connector link and begin by placing line # 28 onto the link.
Keep the lines straight to the link.
(fig. # 10)



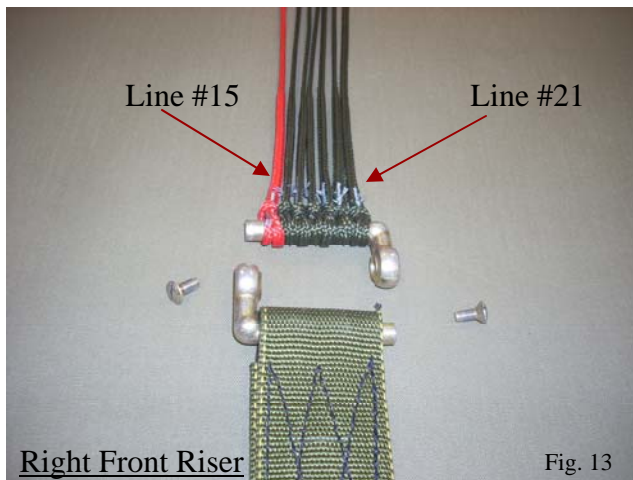
Continue to place lines #9 - #14 onto the link.
Pass the other half of the Separable Connector Link through the **Left Front Riser** and the buffer, tighten the screws as shown. (fig. # 9)



Continue to place lines #27 - #22 onto the link.
Pass the other half of the Separable Connector Link through the **Right Rear Riser** and the buffer, tighten the screws as shown. (fig. # 11)



Finally, open a 4th connector link and begin by placing line #21 onto the link. (fig. # 12)



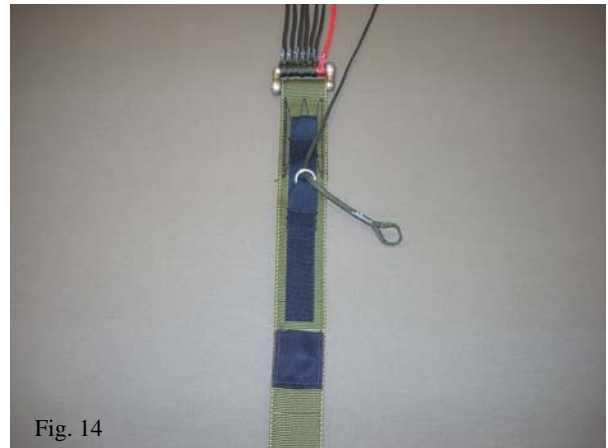
Continue to place lines #20 - #15 onto the link.

Pass the other half of the Separable Connector Link through the **Right Front Riser** and the buffer, tighten the screws as shown. (fig. # 13)

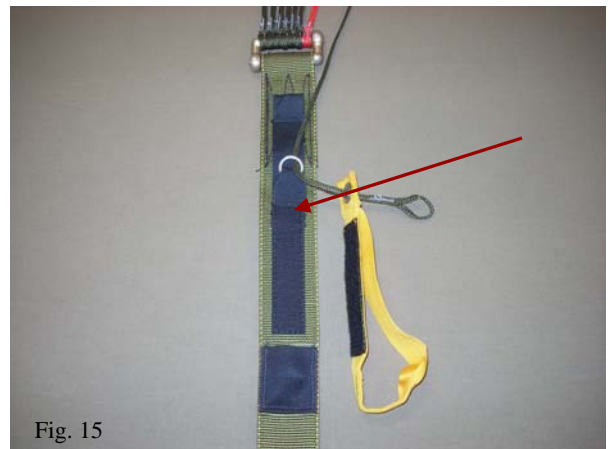
All the lines should now be on the Risers in the correct order.

See page 1 for the line continuity chart.

4.3 Assemble the Main Parachute Steering Line to the Main Risers.



Pass the **Left** Steering Line through the guide ring of the **Left Rear Riser**. (fig. # 14)



From the back-side of a Steering Toggle (TPDS-INV-202), pass the line through the grommet. (fig. # 15)



Fig. 16

Slip the loop of the line over the Steering Toggle. (fig. #16)



Fig. 17

Tighten the loop to the grommet.
Tuck the Toggle into the keeper.
(fig. #17)

Repeat for the Right Riser.

4.4 Assemble the Main Risers to the Harness / Container.



Fig. 1

Begin by making sure that the canopy and the harness are both oriented correctly, the left riser to the left Capewell and the right riser to the right Capewell. (fig. # 1)



Fig. 2

Assemble the male fitting into the female fitting, heel first. (fig.#2)



Fig. 3

Place the closing hasp on top.

Press down tight. (fig.#3)



Fig. 4

Place pull cable above the closing hasp. (fig.# 4)



Position the cable loop around the latch and fit the heel of the safety clip into the slot of the latch. (*fig. # 5*)



Close the safety cover. (*fig. #6*)

Repeat the other Riser.

4.5 Assemble the Static Line and Deployment Bag.

4.5.1 Assemble the Static Line for use with #80 Cotton Break-Tape.



Fig. 7

Begin by placing the Static-line cord through the loop at the bottom of the Deployment Bag. (fig. #7)



Fig. 9

Pull the Static Line cord through the loop. (fig. #9)

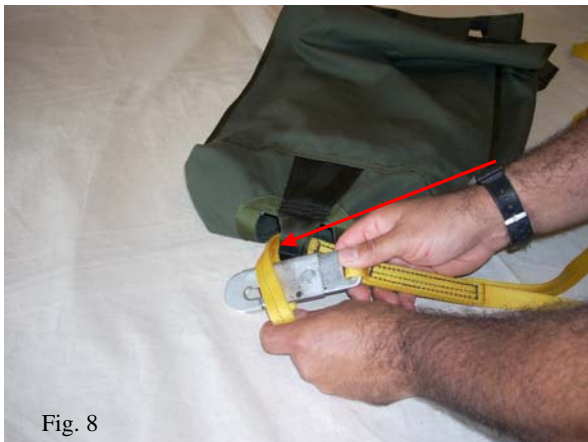


Fig. 8

Next, feed the Static Line snap through the end loop of the Static Line cord. (fig. #8)



Fig. 10

Tighten the knot formed. (fig. #10)

4.6 Attach the Rubber Bands to the Main Container.



Fig. 11

Attach rubber bands to the Type IV loops in the Static Line Pouches of the Main Container. (Both Sides) *(fig. #11)*



Fig. 12

Attach a rubber band to the Type IV loop on the Top Flap of the Main Container. *(fig. #12)*

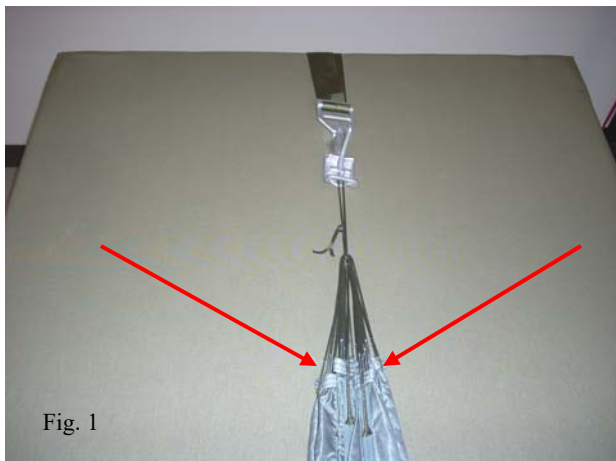
You are now ready to begin packing the Troop Back Main Parachute.



Chapter 5
Main Packing

5.1 Packing the Main Canopy.

5.1.1 Preparing and Line Check.



Hook up the apex of the parachute to the table ring or snap.

Even-up the material at the apex. (fig. # 1)



Lay the container and the canopy on the table with the container facing up. (fig. # 2)

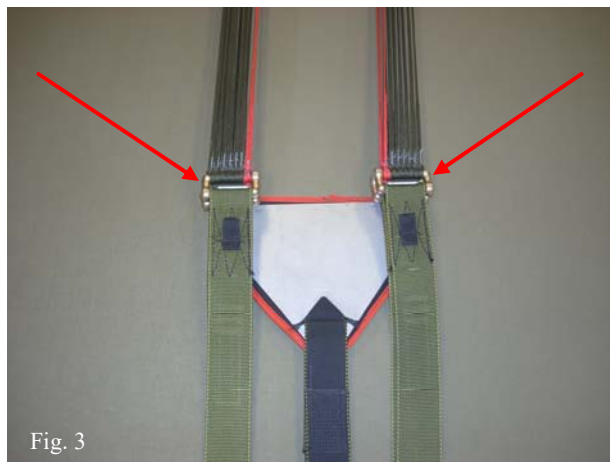


Fig. 3

Place the Connector Links onto the Tension Plate. (fig. # 3)

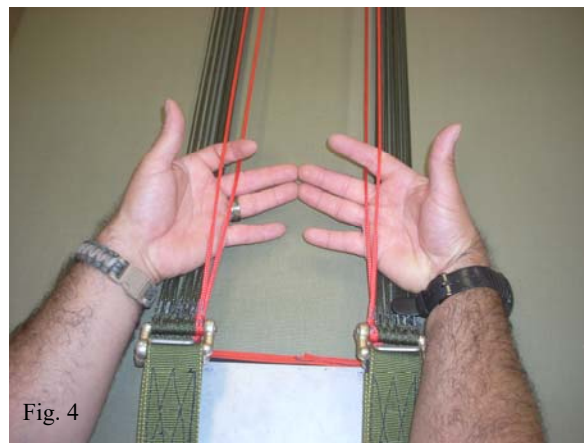


Fig. 4

Check suspension lines for proper layout using four-line check method. (fig. # 4)

Suspension lines **1-28** are divided into two groups, **1-14** in the left group and **15-28** in the right group.

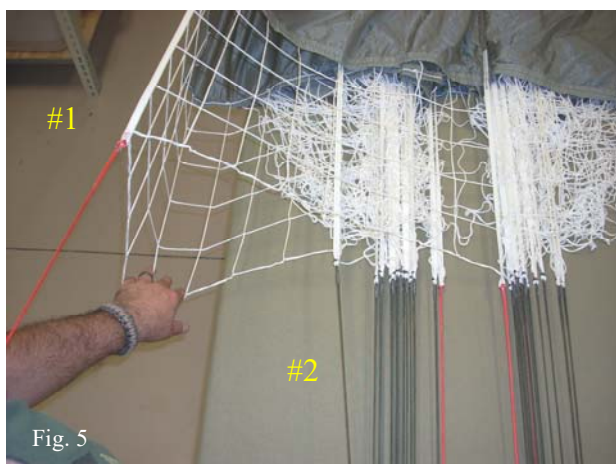
Remove any twists and tangles in the lines.

Secure the Toggles if packing a Steerable parachute.

5.1.2 Flaking the Main Parachute.



Pictured above is the top of the Main Parachute with data placard. (fig. #4)



Flake one side of the canopy. Be sure to clear the material from between the lines. (fig. #5)



Continue until all panels are flaked. (fig. #6)



Carefully lay the left side down on to the floor or table. (fig. #7)



Flake the right side of the canopy. Carefully lay the right side down on to the floor or table.

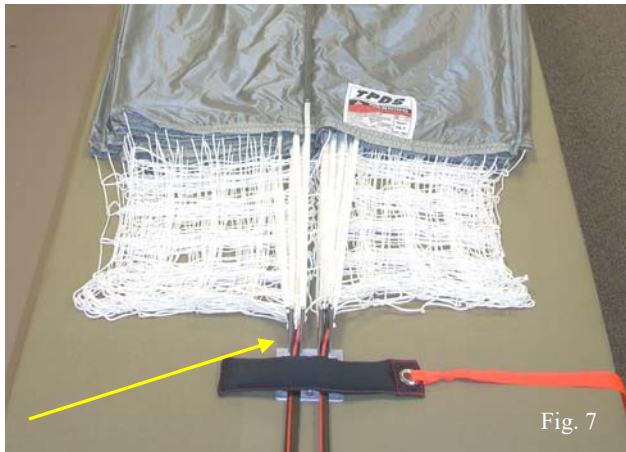


Fig. 7

Insert the two groups of lines into the line separator with the right line group in the right slot and the left line group in the left slot. (fig. #7)



Fig. 8

Dressing the Skirt

Neatly stack the left and right side of the lower lateral band and anti-inversion netting, making sure no material is in the center part of the folded canopy. (fig. # 8)

5.1.3 Long Folding the Main Parachute.



Fig. 9

Fold the Left Side of the canopy over the center and place shot bags over folded canopy. (fig. # 9)



Fig. 10

Fold the Right Side of the canopy over the left side and place shot bags over folded canopy. (fig. # 10)

You are now ready to attach the Canopy Apex to the Deployment Bag.

5.2 Attaching the Canopy Apex to the Static Line Cord Using # 80 Cotton Break-Tape.

Follow the Instructions in Chp. 4 for attaching the Static Line Cord to the Deployment Bag.



Turn the Deployment Bag inside-out so that the Static Line is showing as above. (fig.#11)

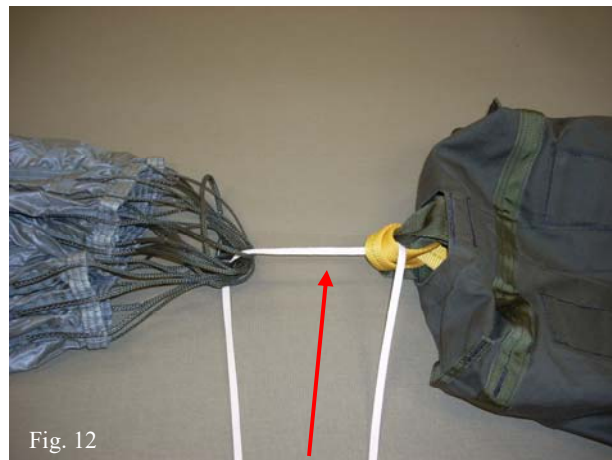


Fig. 12

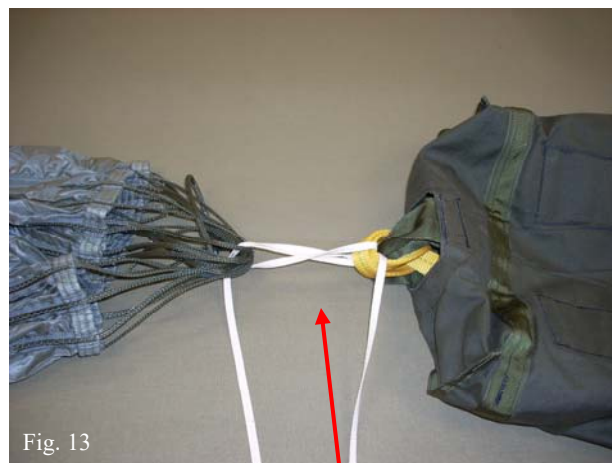
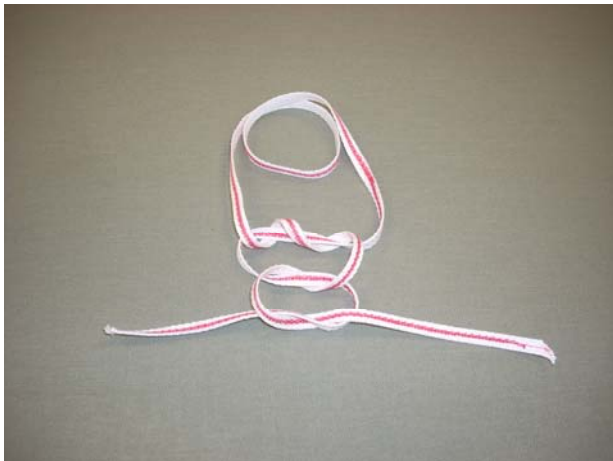


Fig. 13

Pass the #80 Cotton Break-tape through a second time (2x). (fig.#13)



Fig. 14



Tie a Surgeon's Knot and two overhand knots. (fig.#14)



Fig. 15

Trim the #80 Cotton Break-tape leaving an inch to two inches (1-2") of tail. (fig.#15)



Fig. 16

Turn the bag right side out. Be certain that all of the apex lines are inside the bag. (fig.#16)



Fig. 17

From the inside of the Deployment Bag. (fig.#17)

5.3 Stowing the Canopy into the Deployment Bag.



Fig. 21

Hold the Deployment Bag open and grasp the canopy near the apex. Place the apex of the canopy into the bottom of the bag, move to one side. (fig. # 21)



Fig. 22

Grasp the canopy and make your next stow in the bag slightly longer than the width of the deployment bag and place inside the bag in the opposite corner. (fig. # 22)



Fig. 23

Continue to "S"-fold the canopy into the Deployment Bag. (fig. # 23)



Fig. 24

Continue folding until the entire canopy is “S” folded inside of the Deployment Bag. (fig. # 24)



Fig. 25

Remove shot bags as you go. (fig. # 25)

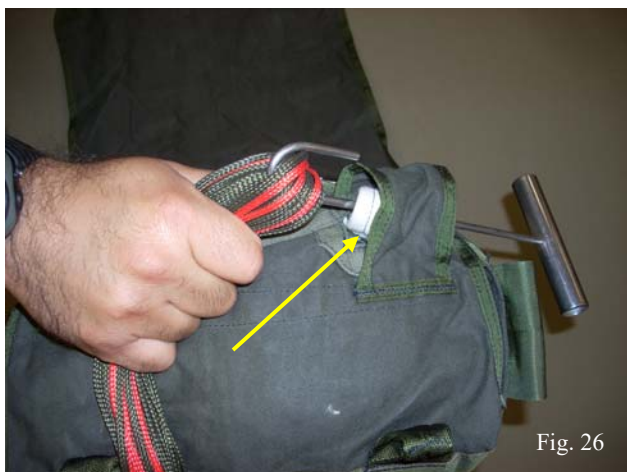
Stand the Deployment Bag with the folded canopy inside, upright to neatly dress the canopy and the bag.

Finish with the lines centered on top of the Deployment Bag.

5.4 Closing the Deployment Bag.



With the lines in the center of the Deployment Bag bring the cover over the parachute. (fig. 25)



Pass the cotton loop through the opening of the flap.
Using a Packing Hook pull a bight of line (about 2") through the cotton loop. (fig. 26)



Pass the other cotton loop through the opening of the flap.
Using a Packing Hook pull another bight (about 2") of line through the cotton loop. (fig. 27)



Use a Packing Hook to insert the Protecting Tabs under the Top Flap of the Deployment Bag.

The Deployment Bag closed and ready for the lines to be stowed. (fig. 28)

5.5 Stowing the Suspension Lines.

5.5.1 Stowing Suspension Lines on a D-Bag with Cotton Loops.



Fig. 27

Hold the last stow with one hand and with the other using a packing stow hook reach diagonally all the way up to the bottom of the bag and make the next stow. (fig. 27 & 28)

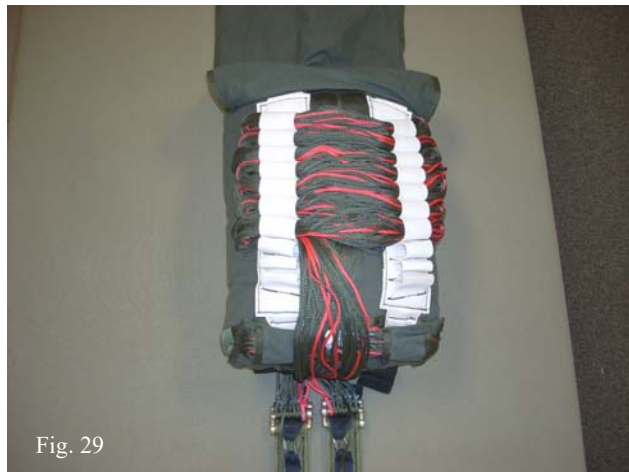


Fig. 29

Continue to stow the lines alternating between right and left until approximately 8"-20" of lines remain unstowed. (fig. # 29)



Fig. 28

These stows should stick out of the cotton loops a **maximum of 1"**, no more. (fig. #27 & fig. 28)



Fig. 30

Cover the stowed lines with the flap attached to the Deployment Bag. (fig. #30)

5.6 Securing the Risers / Deployment Bag.

5.6.1. Using 80# Cotton Break-tape.

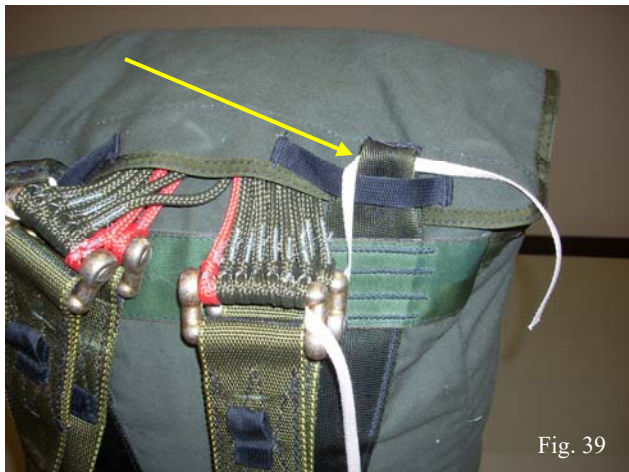


Fig. 39

Pass the heavy Type 8 loop of the Deployment Bag through the 1/2" Type IV square weave loop on the top of the flap covering the stowed lines. Pass a length of #80 break-tape between the riser connectors and the T-8 loop. (fig. #39)



Fig. 41

Repeat for the other Riser. (fig. #41)

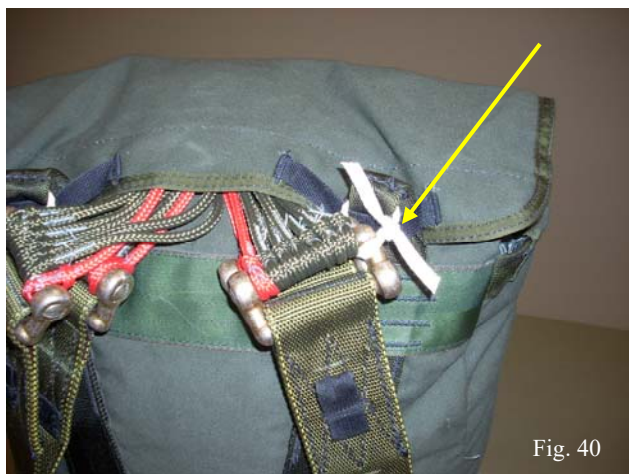


Fig. 40

Tie the riser connectors to the Type 8 loops using a Surgeon's Knot and an overhand knot. (fig. #40)



Fig. 42

Should look like this. (fig. #42)

5.7 Closing the Main Container (INV-200-1) with 80# Cotton Break-tape.



With the static-line attached to the Deployment Bag, place it into the Main Container so that the static-line attachment is at the top of the container and the parachute lines are face up.



Pass the 80# cotton break-tape through the Type 8 loops as shown. (fig. #54)
 The static-line should be coming from the top of the container, under the 80# break-tape and back out the top.
Be sure to include the loop on the static-line.



Tie the break-tape with a Surgeon's Knot and an over-hand knot. (fig. #55)



Trim the #80 Cotton Break-tape leaving an inch or two inches (1-2") of tail. (fig. #56)

5.8 Stowing the Static Line Cord.



Fig. 57

Pass the rubber band on the top of the Container through the two (2) grommets. (fig. #57)



Fig. 58

Bring the Static Line to the top of the container.

Stow a 2" bight in the rubber band. (fig. #58)



Fig. 59

Stow a 1"-2" bight in either of the rubber bands farthest from the top. (fig. #59)



Fig. 60

Begin alternating back and forth. (fig. #60)



Fig. 61

5.8 Stowing the Static Line Cord.



Fig. 62

Stow the Static Line Snap into the pocket on either side of the *INVASION II* container. (fig. #62)



Fig. 63

Tuck the Riser Cover into the pocket on the front of the Container. (fig. #63)

5.9 Using the Optional Apex Strap.

Follow these Instructions when using the Optional Apex Strap.



Fig. 1

Pictured above is the Static Line end of the Optional Apex Strap. (fig. 1)



Fig. 3

Tighten the knot formed. (fig. 3)



Fig. 2

Pass the Static Line end of the Strap through the Deployment Bag and out of the opening at the far end of the bag.

Pass the Static line loop through both the Deployment Bag loop and the Strap loop. Follow with the Snap through the Static Line end loop. (fig. 2)

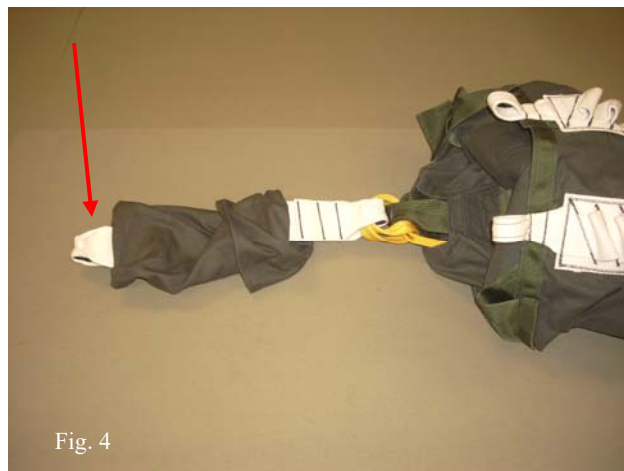


Fig. 4

Turn both the Deployment Bag and the Apex Strap Sleeve inside out to expose the connecting loop of the Apex Strap. (fig. 4)



Fig. 5

Bring the Parachute Apex up next to the Strap loop.

Double a length of #80 Break-tape through both the Parachute Apex and the Strap loop. Tie with a Surgeon's



Fig. 6

Trim the Break-tape to about 5 cm. (fig. 6)



Fig. 7

Bring the Sleeve over the Apex. (fig. 7)



Fig. 8

Place the Sleeve with the Apex on top of the Deployment Bag as shown. (fig. 8)



Fig. 9
Fold the Sleeve in half making sure to keep the canopy material (A) separated from the Apex lines (B). (fig. 9)



Fig. 10
Place the folded Apex Sleeve into the Deployment Bag and out of the far opening. (fig. 10)



Fig. 11
The folded Sleeve should be coming through the opening as shown. (fig. 11)

Continue to stow the parachute into the Deployment Bag and follow the Instructions for Closing the INV II Main Container.



The *INVASION II* Main Container ready for the mission.



Chapter 6

Gear-up

6.1 Main Container – INVASION II



Fig. 72

Loosen the Main Lift Webbing. (fig. # 72)



Fig. 73

Loosen the Lateral Straps. (fig. # 73)

Put the Main Container on with the Lateral Straps passing over the lower back.



Fig. 74

Close and Adjust the Leg Straps. (fig. # 74)



Fig. 75

Adjust the Lateral Straps snug. (fig. # 75)





Fig. 76

Adjust the Main Lift Webbing until the Container sets on the shoulders with light pressure. (fig. # 76)



Fig. 78



Fig. 77

Close and Adjust the Chest Strap. (fig. # 77)



Tuck all excess webbing into the elastic keepers and retainers. (fig. #78)

**6.2 Reserve Container -
INVASION II R**



Fig. 81

Hook up the Butterfly Snaps to the Main Lift "D" Rings and secure with the "safety pin". (fig. # 81)



Fig. 82

Hook up the Alligator Clips of the Reserve Side Connectors to the Reserve Container Rings and adjust snug. (fig. # 82)



Fig. 83

Tuck the excess into the stowing elastics. (fig. #83)



INVASION II ready for the mission.

6.3 Gear Bag - INVASION II



Fig. 85



Fig. 86

Use the **Gear Bag (INV-800)** (fig. #85) to transport both containers.

The Gear Bag tucks inside the pocket on the back of the Main Container. (fig. #86)



INVASION II, MAIN & RESERVE with GEAR BAG.



Chapter 7 Stowing the Gear

7.1 Main and Reserve Containers.

Follow these Instructions to stow the Main and Reserve Containers to be jump ready for the next mission.



Fig. 87

Place the Main Container into the Gear Bag. With the back pad facing up bring the Leg Pads up on top of the Back Pad. (fig. 87)



Fig. 89

Bring either 1" Reserve Connector Strap with Alligator Clip up and across to the opposite side Accessory Ring. Fasten the snap. (fig.89)



Fig. 88

Bring the Chest Straps up and fasten with the snap. (fig. 88)



Fig. 90

Bring the other 1" Reserve Connector Strap up and cross over to the other Accessory Ring. Fasten the snap. (fig.90)





Fig. 91

Place the Reserve Container on top of the Main Container. (fig. 91)



Fig. 92

Zip the Gear Bag closed. (fig. 92)



Fig. 93

The TPDS **Invasion II** Main and Reserve Containers stowed in the **INV-800 Gear Bag** and ready for the next mission. (fig.93)



Chapter 8
Care and Maintenance

8.1 General Storage Requirements

To ensure that serviceability standards of the **TPDS, Inc. INVASION II** are maintained, every effort will be exerted to adhere to the following general storage requirements:

1. When available, a climate controlled building should be used to store the TPDS **INVASION II**.
2. The TPDS **INVASION II** shall be stored in a dry, well ventilated location and protected from pilferage, dampness, fire, dirt, insects, rodents and direct sunlight.
3. The TPDS **INVASION II** will **NOT** be stored in a manner which would prevent ventilation or interfere with light fixtures, heating vents, fire fighting devices, cooling units, exits or fire doors.
4. The TPDS **INVASION II** will **NOT** be stored in a damaged, dirty or damp condition.
5. The TPDS **INVASION II** will **NOT** be stored in direct contact with any building, floor or wall. Storage will be accomplished using bins, shelves, pallets, racks or dunnage to provide airspace between the storage area floor and the equipment.
6. Proper housekeeping policies and strict adherence to all safety regulations will be practiced at all times.

8.2 Storage Specifics for Parachutes

In addition to the storage requirements stipulated in the **General Storage Requirements**, the following is a list of specifics that must be enforced when storing parachutes.

1. Except for those assemblies required for contingency operations, parachutes will **NOT** be stored in a packed configuration.
2. Stored parachute assemblies will be secured from access by unauthorized personnel.
3. A parachute that is in storage, and is administered a cyclic repack and inspection, will **NOT** be exposed to incandescent light or indirect sunlight for a period of more than 36 hours. In addition, exposure to direct sunlight will be avoided entirely.

8.3 In-Storage Inspection

General Information:

1. An in-storage inspection is a physical check conducted on a random sample of parachutes that are located in storage.
2. Parachutes in storage will be inspected at least once every **180 calendar days** and at more frequent intervals if prescribed by the local parachute maintenance officer.
3. Inspect the parachute to ensure that it is ready for use.
4. Check to be sure the parachute has the proper identification.
5. Check that no damage or deterioration has incurred.
6. Check the adequacy of the storage facilities, efforts have been taken to control pests and rodents, and protection against unfavorable climatic conditions.





8.4 Water Contamination Guide

If the **TPDS INVASION II** or any of its components have been **immersed in salt-water for more than 24 hours the equipment will be condemned.**

If the Harness / Container or any of its components have been immersed in water, be it fresh or salt-water, the Harness / Container and any of the components immersed shall be rinsed immediately or placed in a double plastic bag with the top securely closed to keep the contents in a wet state until they can be rinsed. **If they cannot be rinsed within 24 hours, they will be condemned.**

! CAUTION !

REMOVE ALL INSTRUMENTS BEFORE RINSING THE HARNESS / CONTAINER AND THE COMPONENTS.

FOLLOW THESE INSTRUCTIONS FOR RINSING AFTER WATER IMMERSION.

1. Place the equipment in a large container filled with enough fresh water to completely cover it.
2. Agitate the contents of the container by hand for **5** minutes.
3. Remove the equipment from the container and suspend or elevate it in a shaded area for a period of 5-10 minutes to allow it to drain. **Do NOT Wring** the fabric or suspension lines of a parachute canopy.
4. Repeat the procedures in steps 1, 2 & 3 above, twice, using fresh, clean water for each rinse.

5. After the 3rd rinse, allow the equipment to drain thoroughly. Upon completion of draining, dry the equipment by elevating or suspending the item in a well ventilated room or a heated drying room with the temperature not to exceed 130° Fahrenheit or 55° Celsius. When heat is used it shall not exceed 105° F. or 40° C. The preferred temperature is 90° F. / 32° C. The use of electric circulating fans will reduce the drying time.
6. When dried, perform a technical / rigger type inspection of the equipment. Corroded metal components or corrosion stained fabrics or suspension lines will be either repaired or replaced.
7. Record the immersion and rinsing and any repairs made to the equipment in the parachute log record.

8.5 Replacing Elastic Keepers.

Elastic Keepers (**TPDS-INV-222**) should be replaced whenever they begin to lose elasticity.

Remove the old Elastic Keeper and replace with a new one.





Chapter 9

Repairs

9.1 Repair Guidelines

Stitching and re-stitching on parachute items constructed from cloth, canvas, and webbing should be accomplished with thread, which matches the color of the original stitching, when possible.

All straight stitching should be 7-11 stitches per inch, and locked by over stitching the existing stitching by at least 2-inches. Zigzag stitching should extend at least 1/2-inch into undamaged stitching at each end. Re-stitching should be made directly over the original stitching, following the original stitch pattern as closely as possible.

All thread on the canopy should be VT-295E, Type II, Class A, Size E, VY, and sewn with a light or medium duty machine.

Canopy

<u>Type of Repair</u>	<u>Limitations</u>
Re-stitching:	No limit as to length or number.
Patch, single side:	Size Limit: Maximum 50% of panel area. Limit of 3 per panel, 15 per canopy.
Panel replacement:	Limit 9 per canopy
Radial Seams:	Size Limit: 12", no more than 4 per canopy.
Lateral bands:	Size Limit: 2", no more than 10 per canopy
Upper	Size Limit: 4", Limit 1 per canopy
Lower	Size Limit: 36", Limit 4 per canopy

Static Line

A Damaged Static Line should be replaced.

Container

Standard military single side patches or replacement of the damaged area is authorized.

Ripcords

Damaged ripcords should be replaced.



9.2 Keeping Track of Repairs and Packing

Data Card

Data cards should not be discarded or replaced. When filled, they should be attached to the new card so that a complete log of packing, repairs, and alterations is recorded. This is the history of the parachute.

Note!

Darning and Ripstop Tape are **NOT** authorized for Certified Canopies as they may weaken the fabric. Single side patches are recommended for even small damaged areas.

Chapter 10

Repack Cycle Authorization



All of the materials, purchased items and parts used in the fabrication process for **Tactical Parachute Delivery Systems (TPDS) INVASION II** are acquired from suppliers on our Approved Supplier list as part of our FAA approved Quality Control System for parachutes produced under the FAA TSO.

There are no component parts utilized in these parachutes that necessarily require re-certification at a specific repack cycle. Our experience indicates that a repack cycle of one year should not adversely affect the performance of the parachute or compromise safety based on the element of time alone.

Factors that might affect a parachute's airworthiness could come into play during any repack cycle and include:

1. Storage temperature, humidity, and ultraviolet radiation
 - a. When not in use, the parachute should be stored in an environment wherein the temperature is controlled between 60°- 85° F. (15°-30° C.) and within the relative humidity limits of 30% and 60%. Ultraviolet radiation (daylight) in the storage facility should be zero.
2. Damage from normal handling and use
 - a. The entire system should be inspected prior to each use as well as after each use to determine if any damage has occurred during normal use. If the parachute ever becomes damp, a thorough drying, inspection, and repack are strongly recommended, and the wetting agent should be analyzed for elements that may cause deterioration of nylon and other synthetic components that make up the parachute system.
3. Other components that make up the system
 - a. Other components like the container, or the reserve deployment free bag and pilot chute, or any other component that contains material unsuitable for an extended repack cycle could disqualify the system from the extension.
4. Chain of custody
 - a. Our approval of extending the repack cycle to one year is authorized only if a log-book is maintained describing a chain of custody and documenting storage and use as outlined in each of the previous items.

When in compliance with these four detailed elements, we approve a repack cycle of both our main and our TSO'd reserve parachute canopies to **1 year** for certain military and civilian applications, in countries that do not impose a more restrictive repack cycle for parachute products.





Chapter 11
Limitations

11.1 Invasion II Limitations

15 year Maximum Life Limitations for TPDS Invasion II.

Without further limitations, each *INVASION II Canopy* has a maximum life limitation of **15 years** from the date of manufacture.

Further limitations include:

	<u>Reserve</u>	<u>Main</u>	<u>Harness/Container</u>
Shelf Life Limitation	15 years	15 years	15 years
Service Life Limitation	12 years	12 years	12 years
Useful Life Limitation	20 deployments	100 deployments	100 deployments

WATER JUMPED CANOPIES:

Reserve- Non-Deployed - if the Reserve Parachute is used in a water jump but **NOT** deployed- it shall have 5 years or 20 jumps (**which ever comes first**) remaining for its Useful Life Limitation.

Reserve- Deployed- if the Reserve Parachute is used in a water jump and has been deployed- **It Shall be Condemned.**

Main Parachute- if the Main Parachute is used in a water jump- it shall have 5 years or 50 jumps (**which ever comes first**) remaining for its Useful Life Limitation.

HARNESS/CONTAINER:

If the Harness/Container is jumped into water, it shall have 5 years or 50 jumps (**which ever comes first**) remaining for its Useful Life Limitation.

If at any time the unit is discovered to be B.E.R. (beyond economical repair) it will be removed from service and disposed of by the equipment activity officer.

Main Container

Part #	Manufactured Part
TPDS-INV- 200-1	MAIN CONTAINER - #80 BREAK-TAPE CLOSING
TPDS-INV- 200-2	MAIN CONTAINER - ELASTIC CLOSING LOOP Both Include: Main Risers, Toggles (optional), Deployment Bag, Static Line w/Snap, Closing Loops, Rubber Bands, Elastic Keepers, Owner's Manual
TPDS-INV- 201- 01	MAIN RISERS FOR NON-STEERABLE 35' MAIN PARACHUTE (PAIR)
TPDS-INV- 201- 02	MAIN RISERS FOR NON-STEERABLE 35' MAIN PARACHUTE- (BREAK-AWAY TABS) (PAIR)
TPDS-INV- 201- 03	MAIN RISERS FOR STEERABLE 35' MAIN PARACHUTE (PAIR)
TPDS-INV- 201- 04	MAIN RISERS FOR STEERABLE 35' MAIN PARACHUTE- (BREAK-AWAY TABS) (PAIR)
TPDS-INV- 201- 05	MAIN RISERS FOR NON-STEERABLE 42' MAIN PARACHUTE (PAIR)
TPDS-INV- 201- 06	MAIN RISERS FOR STEERABLE 42' MAIN PARACHUTE (PAIR)
TPDS-INV- 202	MAIN STEERING TOGGLES SOFT (PAIR)
TPDS-INV- 203	MAIN STEERING TOGGLES HARD (PAIR)
TPDS-INV- 204- 01	MAIN D-BAG for Break-tape with Cotton Loops
TPDS-INV- 204- 02	MAIN D-BAG for Velcro Option with Cotton Loops
TPDS-INV- 204- 03	MAIN D-BAG for Break-tape with Rubber Bands
TPDS-INV- 204- 04	MAIN D-BAG for Velcro Option with Rubber Bands
TPDS-INV- 204- 05	MAIN D-BAG for Break-tape with Rubber Bands and Velcro Sides
TPDS-INV- 205	REPLACEMENT LEG STRAPS with PADS and HARDWARE
TPDS-INV- 207- A	STATIC LINE APEX BREAK-AWAY LANYARD Part A
TPDS-INV- 207- B	STATIC LINE APEX BREAK-AWAY LANYARD Part B
TPDS-INV- 208	RISER / D-BAG BREAK-AWAY TABS (PAIR)
TPDS-INV- 209	MAIN PARACHUTE APEX STRAP
TPDS-INV- 210	MAIN CONTAINER CLOSING LOOP ELASTIC
TPDS-INV- 211	MAIN CONTAINER CLOSING LOOP TYPE II-A
TPDS-INV- 212	RUBBER BANDS
TPDS-INV- 214	MAIN STATIC LINE
TPDS-INV- 215	MAIN STATIC LINE FOR #80 BREAK-TAPE
TPDS-INV- 216	MAIN STATIC LINE w/BLACK CABLE PIN
TPDS-INV- 217	MAIN STATIC LINE w/MILITARY SNAP
TPDS-INV- 222	ELASTIC KEEPERS
TPDS-INV- 223	# 3.5 1/8" RAPIDE LINK
TPDS-INV- 224	SEPARABLE CONNECTOR LINK- MS22002-1
TPDS-INV- 225	ALLIGATOR SNAPS- FDC1575BO

Part #

Canopies

<u>Part #</u>	<u>Diameter</u>	<u># Gores</u>	<u>Steering Ability</u>
TPDS-INV- 400	35' INVASION II Main Canopy	28 Gores	Non-Steerable
TPDS-INV- 401	42' INVASION II XL Main Canopy	28 Gores	Non-Steerable
TPDS-INV- 402	35' INVASION II Main Canopy	28 Gores	Steerable
TPDS-INV- 403	42' INVASION II XL Main Canopy	28 Gores	Steerable
TPDS-INV- 404	35' INVASION II Main Canopy	30 Gores	Non-Steerable
TPDS-INV- 405	42' INVASION II Main Canopy	30 Gores	Non-Steerable
TPDS-INV- 406	35' INVASION II Main Canopy	30 Gores	Steerable
TPDS-INV- 407	42' INVASION II Main Canopy	30 Gores	Steerable

Lines

<u>Part #</u>	<u>Description</u>	<u>Canopy</u>	<u>Color</u>
TPDS-INV- 500	Main Parachute Suspension Line Set	INV- 400	Green/ Red Centers
TPDS-INV- 501	Main Parachute Suspension Line Set	INV- 401	Green/ Red Centers
TPDS-INV- 502	Main Parachute Suspension Line Set	INV- 402	Green/ Red Centers
TPDS-INV- 503	Main Parachute Suspension Line Set	INV- 403	Green/ Red Centers
TPDS-INV- 505	Main Parachute Suspension Line	INV- 400	Green
TPDS-INV- 506	Main Parachute Suspension Line	INV- 401	Green
TPDS-INV- 507	Main Parachute Suspension Line	INV- 402	Green
TPDS-INV- 508	Main Parachute Suspension Line	INV- 403	Green
TPDS-INV- 509	Main Parachute Steering Line	INV- 402	Green
TPDS-INV- 510	Main Parachute Steering Line	INV- 403	Green
TPDS-INV- 511	Main Parachute Center Line	INV- 400	Red
TPDS-INV- 512	Main Parachute Center Line	INV- 401	Red
TPDS-INV- 513	Main Parachute Center Line	INV- 402	Red
TPDS-INV- 514	Main Parachute Center Line	INV- 403	Red



Lines

<u>Part #</u>	<u>Description</u>	<u>Canopy</u>	<u>Color</u>
TPDS-INV- 515	Main Parachute Suspension Line Set	INV- 404	Green/ Red Centers
TPDS-INV- 516	Main Parachute Suspension Line Set	INV- 405	Green/ Red Centers
TPDS-INV- 517	Main Parachute Suspension Line Set	INV- 406	Green/ Red Centers
TPDS-INV- 518	Main Parachute Suspension Line Set	INV- 407	Green/ Red Centers
TPDS-INV- 519	Main Parachute Suspension Line	INV- 404	Green
TPDS-INV- 520	Main Parachute Suspension Line	INV- 405	Green
TPDS-INV- 521	Main Parachute Suspension Line	INV- 406	Green
TPDS-INV- 522	Main Parachute Suspension Line	INV- 407	Green
TPDS-INV- 523	Main Parachute Steering Line	INV- 406	Green
TPDS-INV- 524	Main Parachute Steering Line	INV- 407	Green
TPDS-INV- 525	Main Parachute Center Line	INV- 404	Red
TPDS-INV- 526	Main Parachute Center Line	INV- 405	Red
TPDS-INV- 527	Main Parachute Center Line	INV- 406	Red
TPDS-INV- 528	Main Parachute Center Line	INV- 407	Red

Materials

<u>Part #</u>	<u>Description</u>
TPDS-INV- 600	Parachute Suspension Line Roll - Green - Tensile Strength - 525 lbs.
TPDS-INV- 602	Parachute Suspension Line Roll - Red - Tensile Strength - 525 lbs.
TPDS-INV- 603	Type II-A Nylon Cord - Roll
TPDS-INV- 605	80 lbs. Break Tape - Type 1 - Mil-T-5661 - Roll
TPDS-INV- 606	3/16" Elastic - Roll
TPDS-INV- 607	Main Container Material - 1000 Denier Cordura Nylon
TPDS-INV- 609	Main Parachute Material - PIA-C-44378 Type IV
TPDS-INV- 611	Main Parachute Anti-Inversion Netting - PIA-C-43805C
TPDS-INV- 612	Main Parachute Panel Netting
TPDS-INV- 614	Deployment Bag Material- 10 oz. Army Duck Fabric
TPDS-INV- 615	
TPDS-INV- 616	
TPDS-INV- 617	
TPDS-INV- 618	
TPDS-INV- 619	



Part #

Accessories

<u>Part #</u>	<u>Description</u>
TPDS-INV- 700	Invasion II Main Container Owner's Manual
TPDS-INV- 800	Invasion II Gear Bag

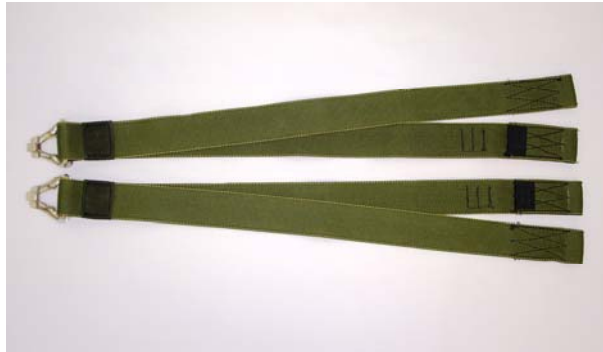
Packing Equipment

<u>Part #</u>	<u>Description</u>
TPDS-INV- 900	TPDS Tension Plate
TPDS-INV- 901	TPDS Tension Snap
TPDS-INV- 902	TPDS Connector Link Separator
TPDS-INV- 903	TPDS Packing Hook
TPDS-INV- 904	TPDS Packing Paddle
TPDS-INV- 905	TPDS Line Separator
TPDS-INV- 906	TPDS Temporary Pin
TPDS-INV- 907	TPDS Screwdriver
TPDS-INV- 908	TPDS Hammer
TPDS-INV- 909	TPDS Pull-up Cords
TPDS-INV- 912	TPDS Drying Tower Rope, Double Braid Nylon- Roll
TPDS-INV- 913	TPDS Goggles
TPDS-INV- 917	TPDS Gloves





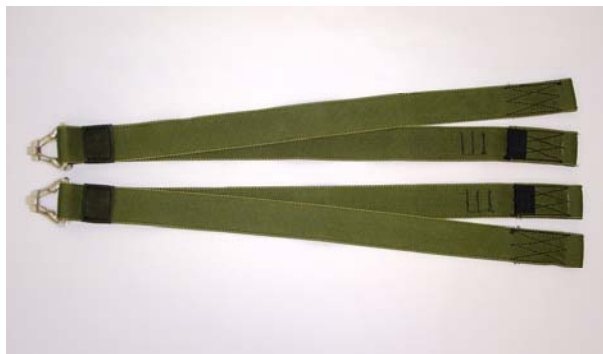
Chapter 13
Spare Parts



TPDS-INV-201-01 MAIN RISERS
for 35' NON-STEERABLE MAIN



TPDS-INV-201-02 MAIN RISERS
for 35' STEERABLE MAIN



TPDS-INV-201-05 MAIN RISERS
for 42' NON-STEERABLE MAIN



TPDS-INV-201-02 MAIN RISERS
for 42' STEERABLE MAIN



TPDS-INV-202 MAIN STEERING
SOFT TOGGLES (PAIR)



TPDS-INV-203 MAIN STEERING
HARD TOGGLES (PAIR)



TPDS-INV-204-01 MAIN D-BAG
FOR 80# BREAK-TAPE WITH
COTTON LOOPS



TPDS-INV-204-02 MAIN D-BAG
FOR VELCRO OPTION WITH
COTTON LOOPS



TPDS-INV-204-03 MAIN D-BAG
FOR 80# BREAK-TAPE WITH
RUBBER BANDS



TPDS-INV-204-04 MAIN D-BAG
FOR VELCRO OPTION WITH
RUBBER BANDS



TPDS-INV-204-05 MAIN D-BAG
RUBBER BANDS w/ VELCRO SIDES



TPDS-INV-205 REPLACEMENT
LEG STRAPS w/ PADS



TPDS-INV-207-A STATIC LINE APEX
BREAK-AWAY LANYARD- PART A



TPDS-INV-207-B STATIC LINE APEX
BREAK-AWAY LANYARD- PART B



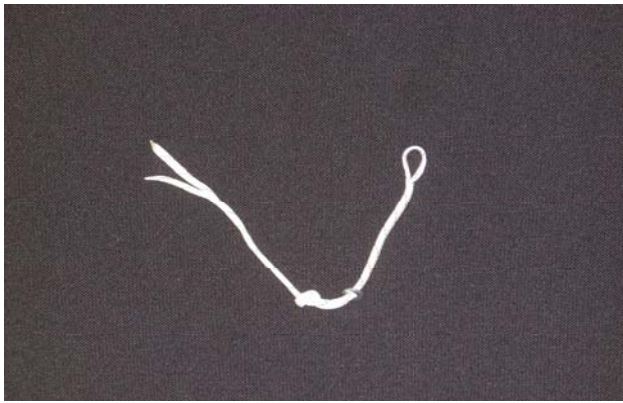
TPDS-INV-208 RISER/D-BAG
BREAK-AWAY TABS- (PAIR)



TPDS-INV-209 MAIN APEX STRAP



TPDS-INV-210 MAIN CONTAINER
CLOSING LOOP



TPDS-INV-211 MAIN CONTAINER
CLOSING LOOP FOR BLACK
CABLE PIN STATIC LINE



TPDS-INV-212 RUBBER BANDS



TPDS-INV-214 MAIN STATIC



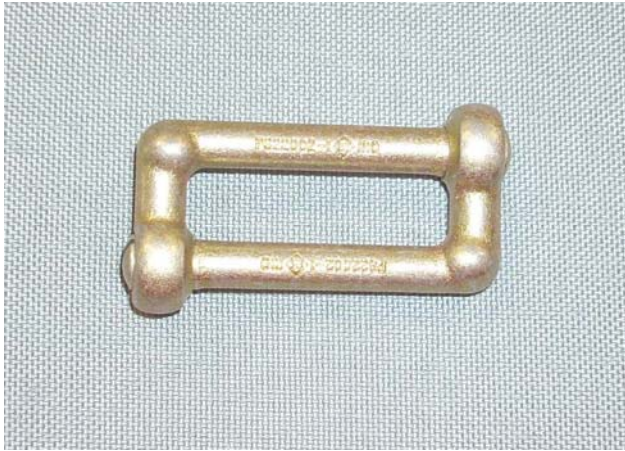
TPDS-INV-215 MAIN STATIC LINE
for #80 BREAK-TAPE



TPDS-INV-222 ELASTIC KEEPER



TPDS-INV-223 1/8" RAPIDE LINK



TPDS-INV-224 MS22002-1
SEPARABLE CONNECTOR LINK



TPDS-INV-225 ALLIGATOR SNAPS



TPDS-INV-500 MAIN LINE SET
INV-400 NON-STEERABLE



TPDS-INV-501 MAIN LINE SET
INV-401 NON-STEERABLE



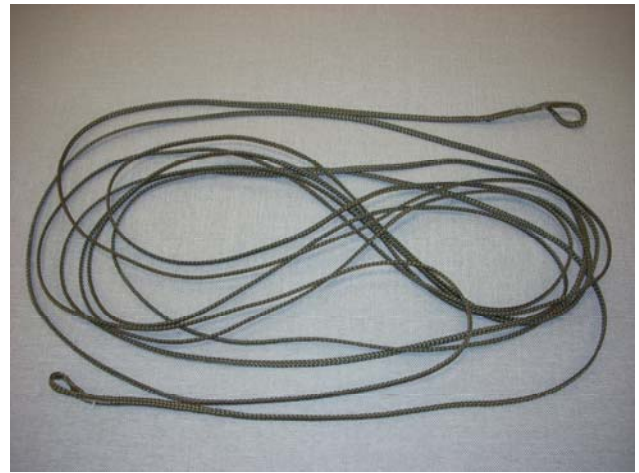
TPDS-INV-502 MAIN LINE SET
INV-402 STEERABLE



TPDS-INV-503 MAIN LINE SET
INV-403 STEERABLE



TPDS-INV-505/507 SUSPENSION LINE (INV-400 or INV-402)



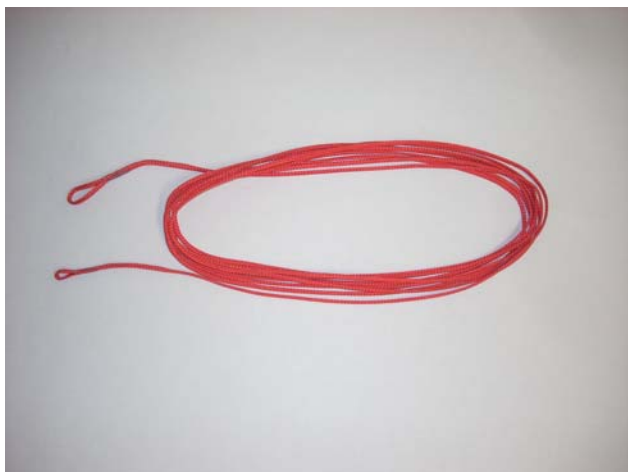
TPDS-INV-506/508 SUSPENSION LINE (INV-401 or INV-403)



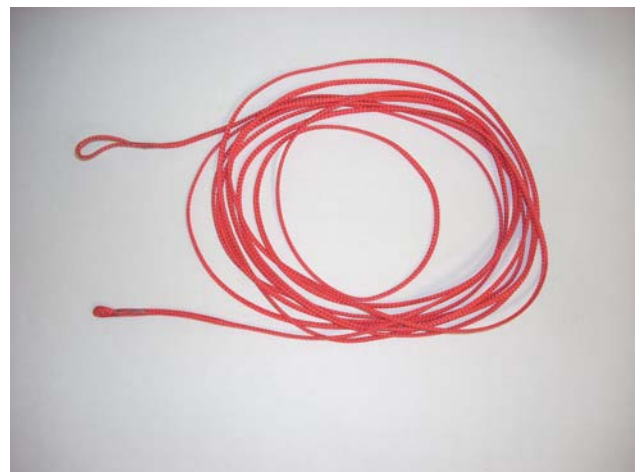
TPDS-INV-509 STEERING LINE INV-402



TPDS-INV-510 STEERING LINE INV-403



TPDS-INV-511/513 CENTER LINE (RED) (INV-400 or INV-402)



TPDS-INV-512/514 CENTER LINE (RED) (INV-401 or INV-403)



TPDS-INV-600 SUSPENSION LINE -
525 lbs. Tensile Strength- ROLL - GREEN



TPDS-INV-602 SUSPENSION LINE -
525 lbs. Tensile Strength- ROLL - RED



TPDS-INV-603 TYPE II-A LINE-
ROLL



TPDS-INV-605 80 LBS. BREAK-
TAPE - ROLL



TPDS-INV-606 3/16" ELASTIC- ROLL



TPDS-INV-400 INVASION II
35 ft. NON-STEERABLE
ROUND MAIN CANOPY





TPDS-INV-401 INVASION II
42 ft. NON-STEERABLE
ROUND MAIN CANOPY



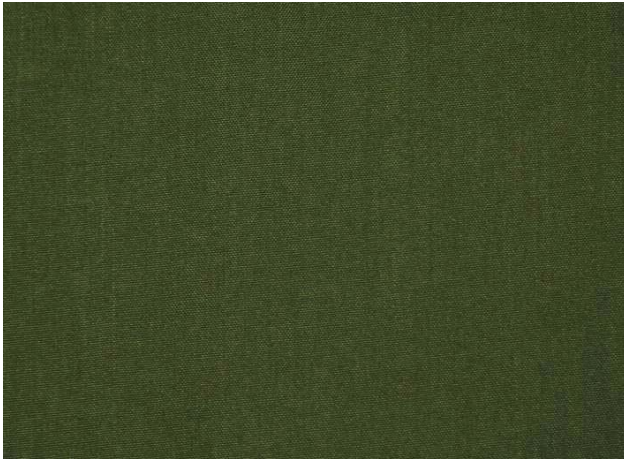


TPDS-INV-402 INVASION II
35 ft. STEERABLE
ROUND MAIN CANOPY





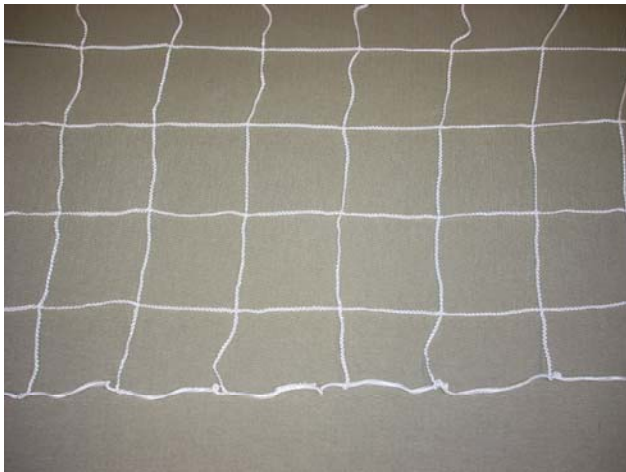
TPDS-INV-403 INVASION II
42 ft. STEERABLE
ROUND MAIN CANOPY



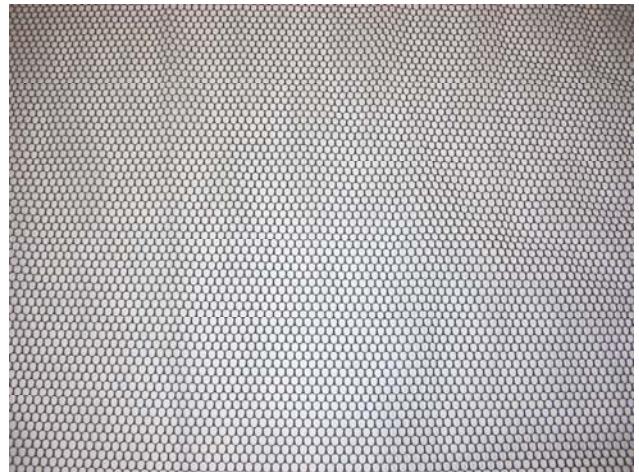
TPDS-INV-607 MAIN CONTAINER MATERIAL



TPDS-INV-609 MAIN CANOPY MATERIAL





TPDS-INV-611 MAIN CANOPY ANTI-INVERSION NETTING




TPDS-INV-612 MAIN CANOPY PANEL MESH

INVASION II
OWNER'S MANUAL
PACKING AND MAINTENANCE



MAIN CONTAINER
MILITARY PARACHUTE HARNESS
PERSONNEL TYPE
2019

Tactical Parachute Delivery Systems, Inc.
4035 Correia Drive
Zephyrhills, FL 33542
U.S.A.
Phone: +1.813.782.7482
Fax: +1.813.788.2799
Email: info@tpdsairborne.com
Website: www.tpdsairborne.com



P/N: TPDS-INV-700

TPDS-INV-700
INVASION II MAIN
CONTAINER MANUAL



TPDS-INV-800 INVASION II GEAR BAG



TPDS-INV-900
Tension Plate



TPDS-INV-901
Tension Snap



TPDS-INV-902
Connector Link Separator



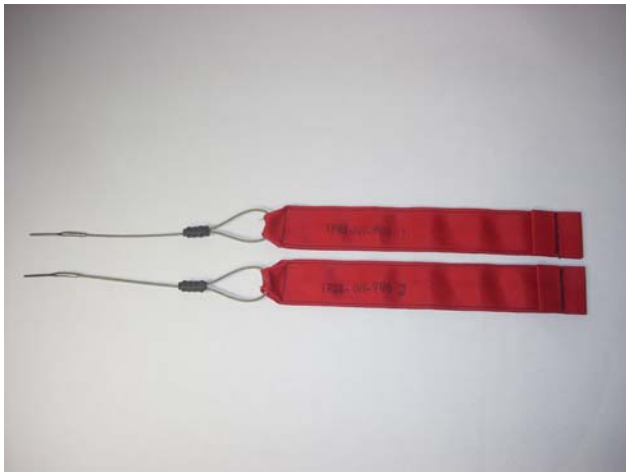
TPDS-INV-903
Packing Hooks



TPDS-INV-904
Packing Paddle



TPDS-INV-905
Line Separator



TPDS-INV-906
Temporary Pins



TPDS-INV-907
Screwdriver



TPDS-INV-908
Hammer



TPDS-INV-913
Goggles



TPDS-INV-910
Drying Tower Rope



TPDS-INV-917
Packing Gloves

NOTES: